Kentucky DUI Assessment Report for 2009

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July 2010

2009 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 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), Aleigha Colwell, Steve Cook, Jamieson Duvall, and Nesa Wasarhaley. 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 2009, 19,353 DUI Assessments were submitted to the Kentucky Division of Behavioral Health by 104 licensed and certified DUI Assessment Programs. These records include education and treatment information for persons convicted of DUI who were assessed and referred for an intervention. Once a person met or did not meet the requirements of the treatment and/or education intervention to which they were referred, that record was considered closed and then submitted. 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 each month and to maintain this information in a database. This report provides information on records completed from January 1, 2009 through December 31, 2009 and also provides trends from 2003 to 2009.

The typical person assessed for DUI in Kentucky in 2009 was a male in his 20's who was convicted of his first DUI. His blood alcohol level was between 0.08 and 0.15 g/dL and there was a 59.2% chance he met DSM-IV-TR diagnostic criteria for substance abuse or substance dependence in his lifetime. The typical offender was referred to either a 20-hour education intervention or an outpatient alcohol/drug treatment program. This finding is consistent with previous years.

- For 2009, the number of DUI Assessments submitted was 19,353
  Gender:
  - Males 79.2%
  - Females 20.8%

- Program referrals* were made to:
  - 20-Hour Education 48.1%
  - Outpatient 49.4%
  - IOP or Residential 2.4%

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

- Overall, 81.7% 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, 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, were referred to higher levels of care, and were more likely to have been convicted in a Dry county than compliant persons. 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 equivalent for males and females (59.2%).

- 1,346 (7.3%) assessments submitted were for persons under the legal drinking age and convicted of DUI under KRS 189A.010 (1) (a).

- DUI offenders assessed in the West-Central region of Kentucky had the highest scores on the AUDIT screening instrument, which measures alcohol problems.

- Drug problems, as measured by the DAST screening instrument, were most prevalent among DUI offenders in the Eastern region of Kentucky.

- The percentage of DUI assessments conducted for multiple DUI offenders has remained relatively stable.

BACKGROUND

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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 an assessment by a state certified DUI assessor in a state licensed and certified DUI assessment program[1]. 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." DUI Assessment programs are required (908 KAR 1:310) to send completed assessment records each month to the University of Kentucky Center on Drug and Alcohol Research (CDAR), which receives them for the Division of Behavioral Health.

CDAR serves as the repository for state DUI assessment records and receives a disk or CD every month from each DUI assessment program, which contains the completed records for that month. The data is entered into a database from which this report was developed.

Data Description

DUI assessment records provide demographic information about the person, results of the assessment, and education/treatment information. Demographic information includes age, gender, blood alcohol content, 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-TR[4] 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-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.

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 completed between January 1, 2009 and December 31, 2009 as well as trends detailing changes in assessment results over the past several years. In 2009, a total of 19,353 records were received from 104 licensed and certified DUI Assessment Programs. It should be noted that completed assessment records in 2009 are not the same as the number of DUI convictions in 2009 because persons can be convicted, assessed, and complete their intervention in separate years.

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.

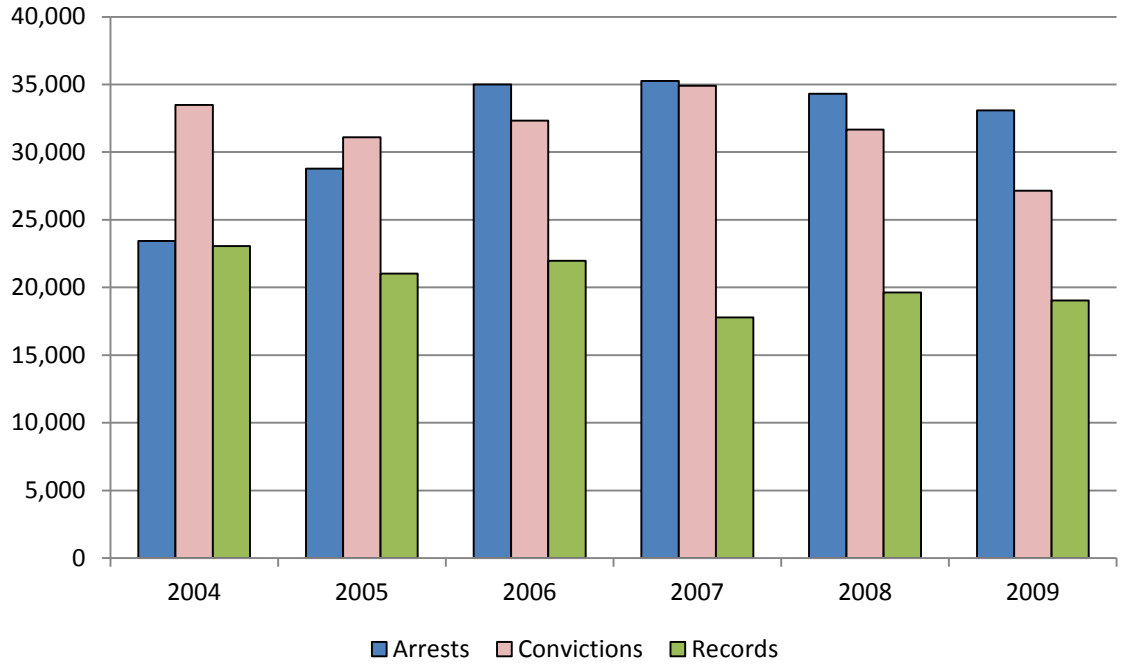
Table 1: Missing Data

	2009	
	Missing Assessments	Percentage of Cases
Age	870	4.5%
AUDIT Score	111	0.6%
County of Conviction	478	2.5%
Recommended Level of Care	77	0.4%
DAST Score	198	1.0%
Blood Alcohol Content	10,168	52.5%

Each update to the Kentucky DUI Assessment software 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 remember the level.

The second limitation is that these data represent a subset of a larger, unknown number of DUIs in Kentucky. For example, in 2009 there were 33,089 DUI arrests, 27,157 DUI convictions, and 19,353 completed assessments[5]. 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 2009.

Figure 1: DUI Arrests, DUI Convictions, and Completed Records, 2004 through 2009



This report presents assessments completed in 2009, 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.

A final limitation is that CDAR received a small number of data disks that were damaged. When CDAR receives an unreadable disk, those records cannot be added to the database. An unreadable disk does not affect information required by other government agencies (i.e., Administrative Office of the Courts and Transportation Cabinet), which receive paper copies. CDAR makes every effort to retrieve data when a damaged disk is received. Attempts to retrieve the data are made by phone and if needed followed by a site visit.

Summary

This report presents data that provides demographic information, screening results, and the type/frequency of referrals. Information on non-compliant persons who are at high risk for recidivism is also provided. Finally, data on Mental Health/Mental Retardation (MHMR) regions, Division of Behavioral Health (DBH) regions, and trends from 2003 to 2009 are described.

SECTION ONE

DEMOGRAPHICS

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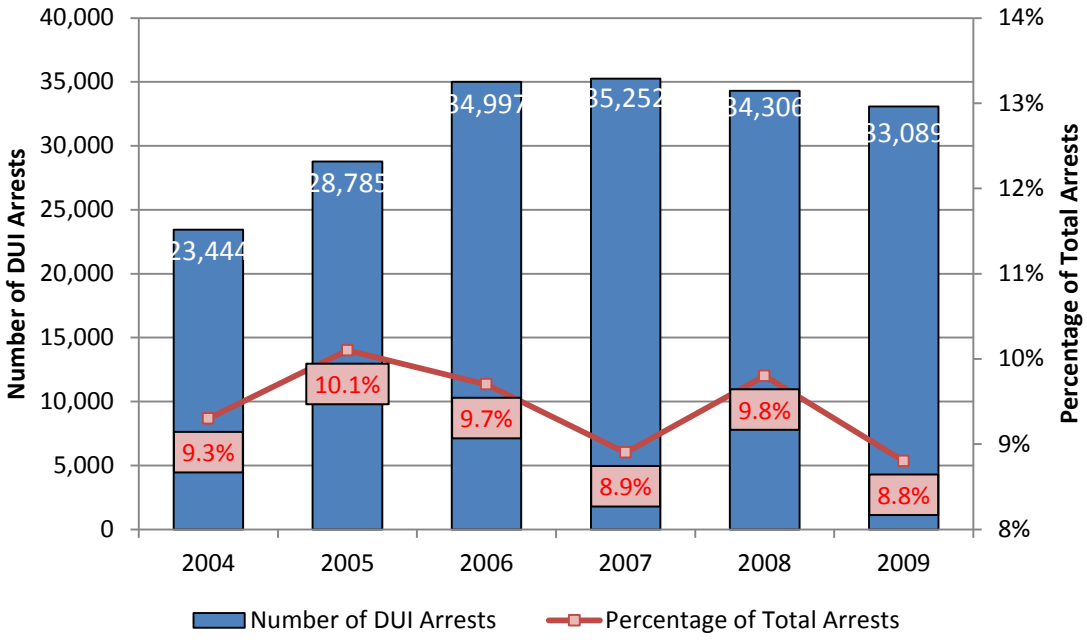
1.1 Number of DUI Assessments Submitted in 2009

The number of completed DUI assessments submitted in calendar year 2009 was 19,353. In 2009 there were 33,089 arrests for DUI which represented 8.8% of all arrests in Kentucky in that year. Figure 1.1 presents the number of DUI arrests from 2004 to 2009 and the percentage of total arrests in Kentucky those DUIs represent.

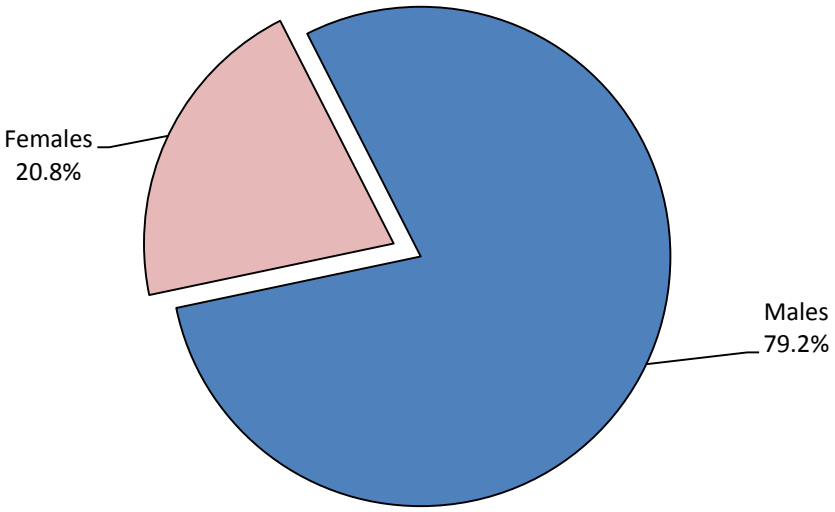
Figure 1.1: Number of DUI Arrests and Percentage of Total Arrests 2004 to 2009



1.2 DUI Assessments by Gender

Of the 19,353 assessments that reported gender, 15,328 (79.2%) were males and 4,025 (20.8%) were females.

Figure 1.2: Assessments by Gender*

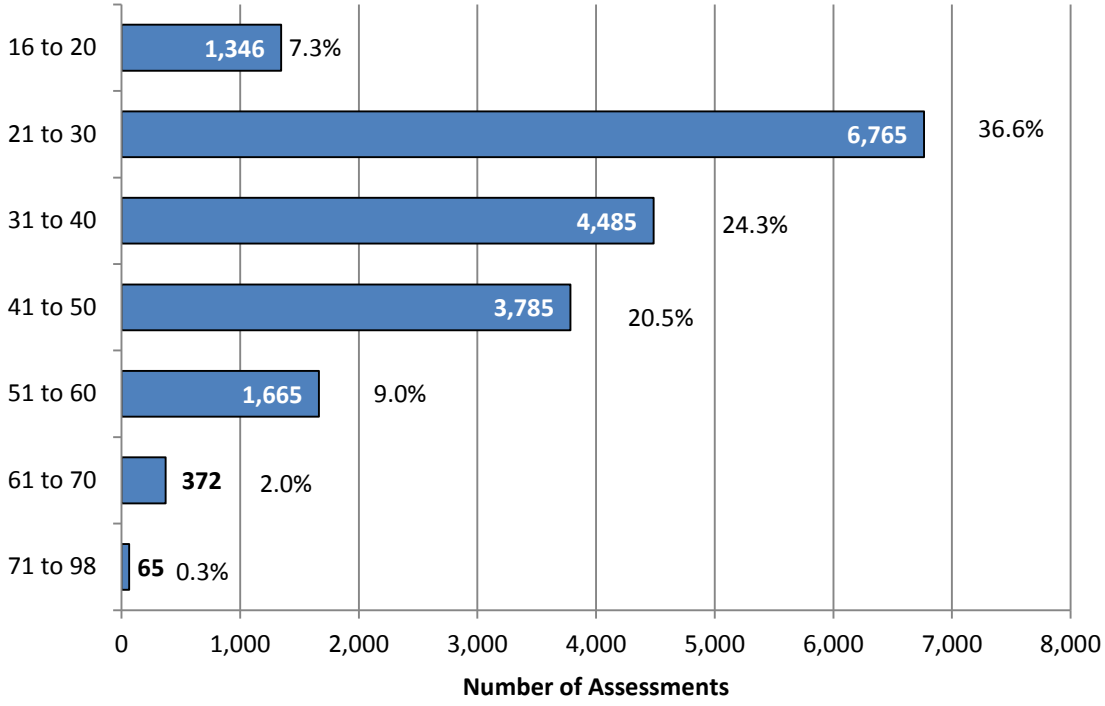


* Missing Data = 0 Assessments

1.3 Assessments by Age

The majority of assessments submitted in 2009 were for persons between 21 and 40 years of age (60.9%). The oldest person was 98 years old. There were 1,346 assessments (7.3%) submitted for persons who were between 16 and 20 years of age at the time they were convicted. Figure 1.3 presents the number of assessments by age at conviction.

Figure 1.3: Assessments by Age at Conviction*

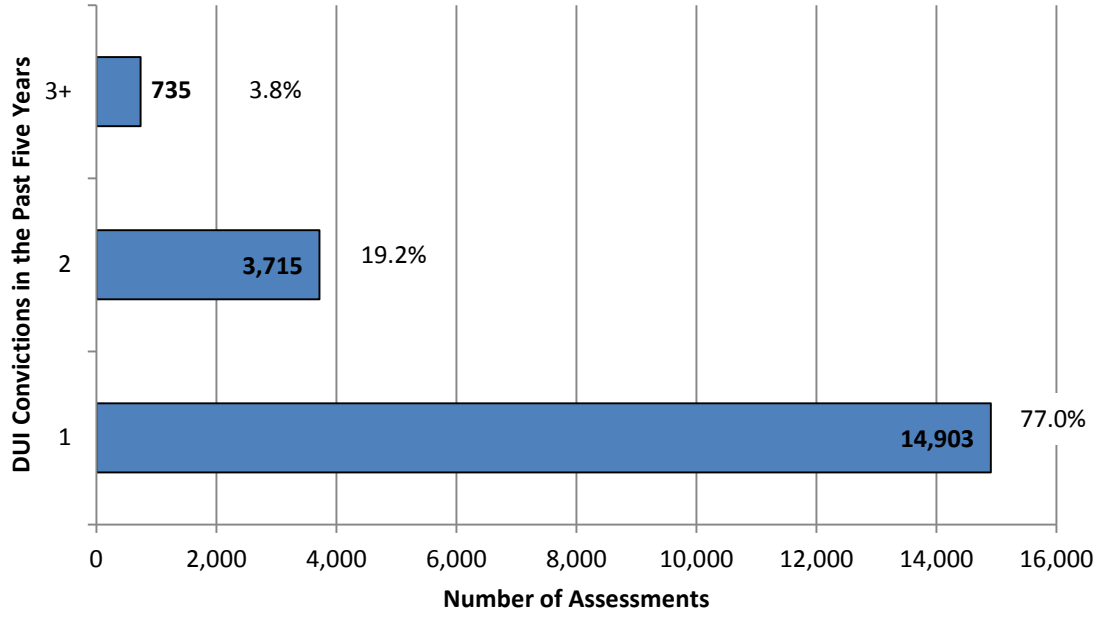


* Missing Data = 870 Assessments

1.4 DUI Convictions in the Previous Five Years

Figure 1.4 presents frequencies of multiple DUI convictions within the past five years. This number includes the DUI conviction that resulted in the current assessment.

Figure 1.4: DUI Convictions in the Previous Five Years*

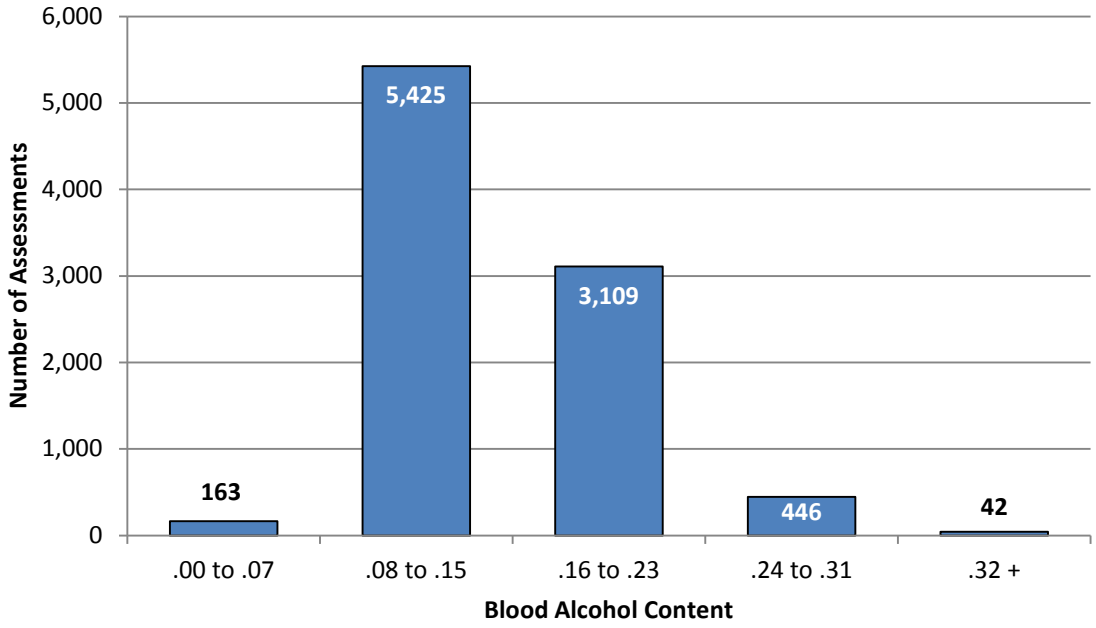


* Missing Data = 0 Assessments

1.5 Blood Alcohol Content

Figure 1.5 presents frequencies of Blood Alcohol Content (BAC) at the time of arrest, which are arranged by category. A large number of assessments were in the 0.08 to 0.15 g/dL range. There were very few cases above 0.24 g/dL (n = 488).

Figure 1.5: Blood Alcohol Content by Number of Assessments*

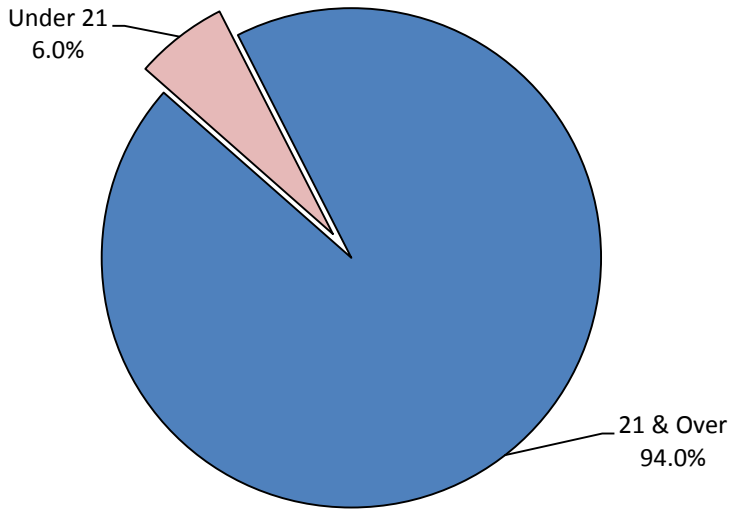


* Missing Data = 10,168 Assessments

1.6 Assessments by Under/Over 21 Years Old

Of the 18,195 assessments that reported age, 17,101 (94%) were 21 or older and 1,094 (6%) were persons ages 16 to 20.

Figure 1.6: Assessments by Under/Over 21 Years Old*



* Missing Data = 1,158 Assessments

Demographics Summary

Four out of five DUI assessments were for males and the majority were for persons between 21 and 40 years old. Of the assessment records containing BAC levels, approximately two-thirds reported BAC levels between 0.08 and 0.15 g/dl.

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SECTION TWO

SCREENING

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2.1 AUDIT

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 generally score higher than females (see Table 2.1). Appendix A contains average scores for each AUDIT question by gender.

Table 2.1: AUDIT Scores*

	Males	Females	Total
Positive (8+)	5,979 (39.2%)	1,038 (25.9%)	7,017 (36.5%)
Average Score	7.56	5.76	7.19
Number of Assessments	15,239	4003	19,242

* Missing Data = 111 Assessments

2.2 DAST

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 2.2).

Table 2.2: DAST Scores*

	Males	Females	Total
Positive (5+)	4,971 (32.8%)	1,372 (34.4%)	6,343 (33.1%)
Average Score	5.25	5.73	5.35
Number of Assessments	15,166	3,989	19,155

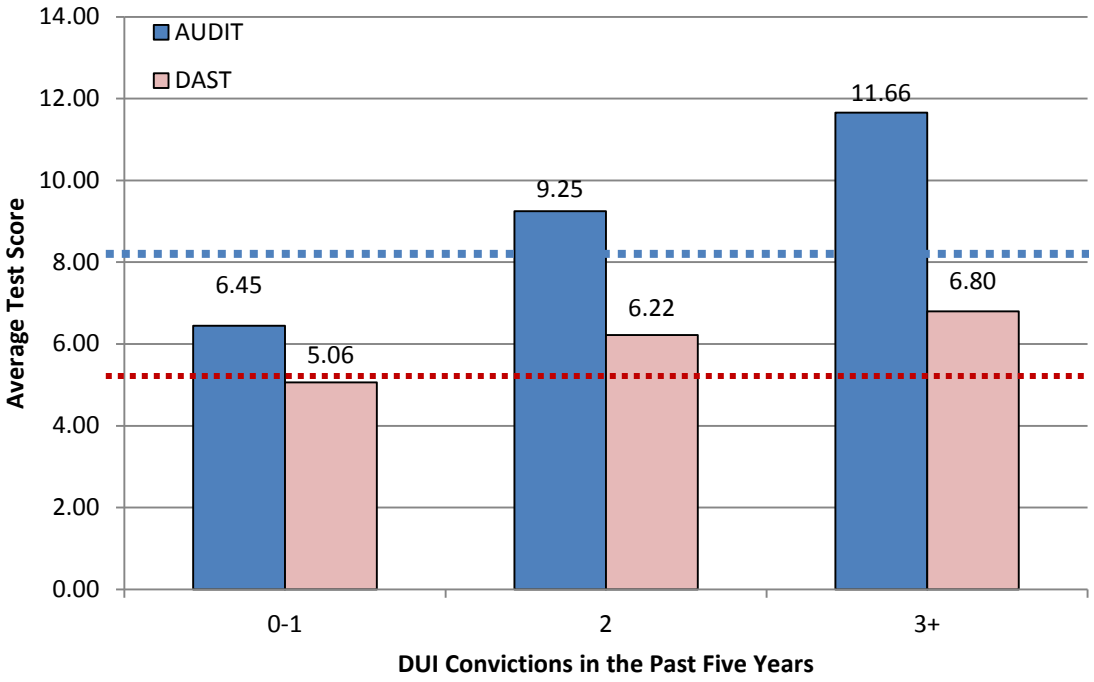
* Missing Data = 198 Assessments

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.

2.3 AUDIT and DAST by Number of Convictions

Figure 2.1 presents the relation between AUDIT and DAST scores and the number of DUI convictions in the past five years. The horizontal line for a test score of 8 differentiates between a positive and negative AUDIT score. The horizontal line at 5 differentiates between a positive and negative DAST score. Persons convicted of their first DUI had an average score of 6.45 on the AUDIT and 5.06 on the DAST. Offenders with two DUI convictions in the past five years had an average score of 9.25 on the AUDIT and 6.22 on the DAST. Those persons with three or more prior convictions scored 11.66 on the AUDIT and 6.80 on the DAST. The average AUDIT and DAST scores for persons with multiple convictions were positive on both tests suggesting a more severe alcohol and/or drug problem.

Figure 2.1: AUDIT and DAST by Number of DUI Convictions*

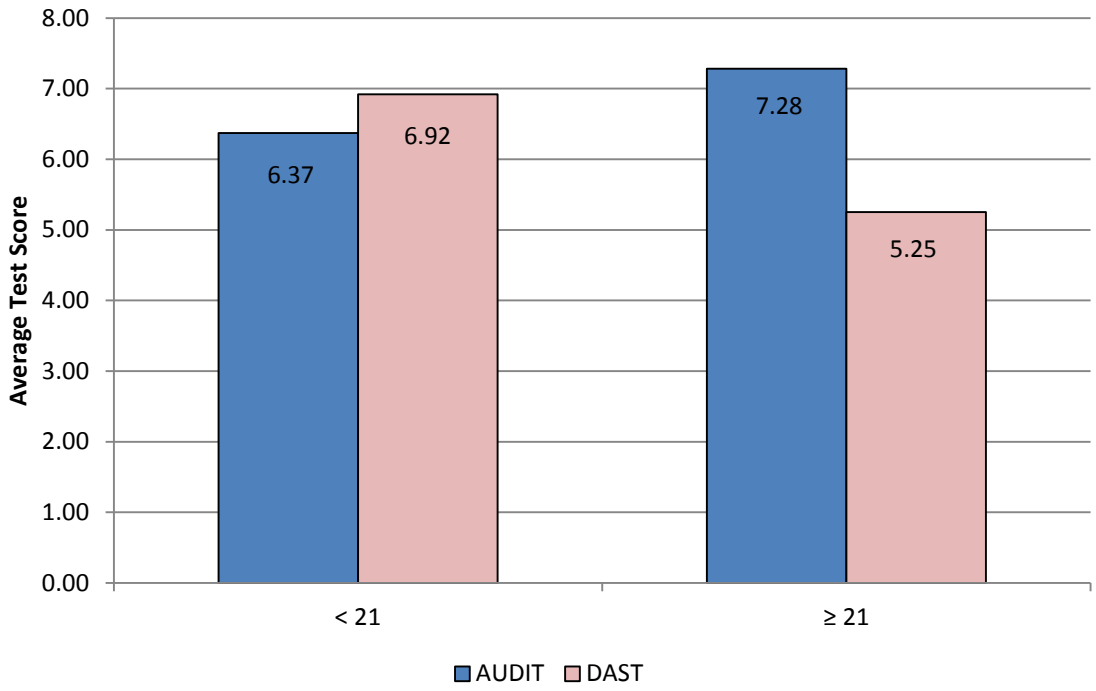


* Missing Data = 111 DUI Convictions for AUDIT and 198 for DAST

2.4 AUDIT and DAST by Under/Over 21 Years Old

Figure 2.2 presents AUDIT and DAST scores for individuals over and under 21 years old. AUDIT scores are higher for individuals who are at least 21 years old compared to those who have yet to reach the legal drinking age. Conversely, DAST scores were significantly higher for those individuals who were younger than 21 years old.

Figure 2.2: AUDIT and DAST by Under/Over 21 Years Old*

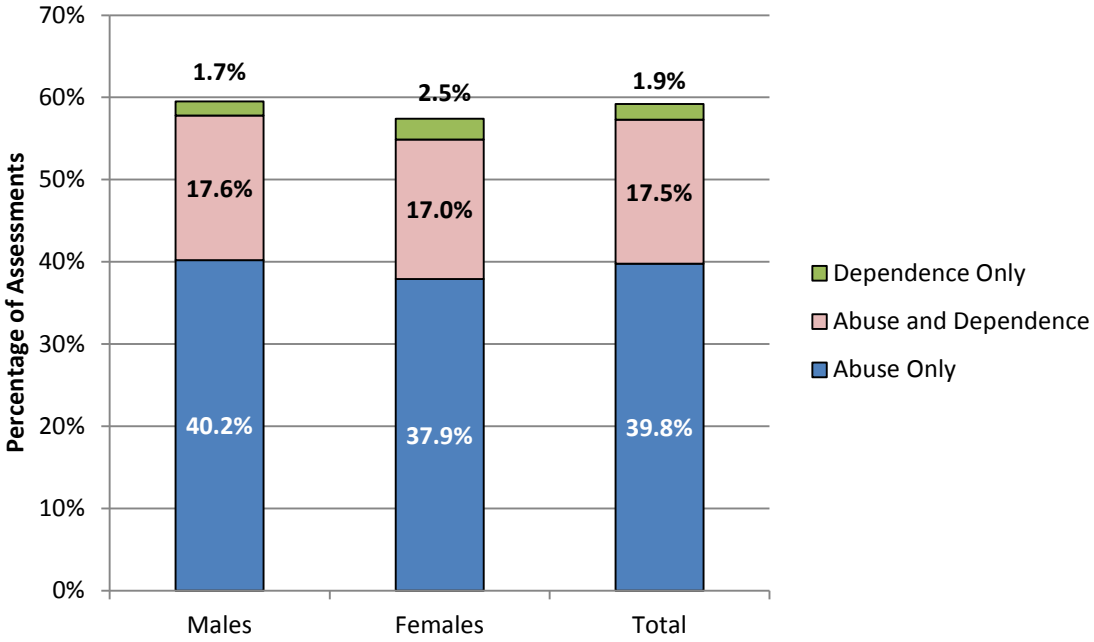


* Missing Data = 967 AUDIT/ 1,049 DAST Assessments

2.5 DSM-IV-TR Abuse and Dependence Criteria

In 2009, females convicted of DUI had a slightly higher rate of dependence (19.5%) than males convicted of DUI (19.3%). The top section of each bar in Figure 2.2 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. 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.

Figure 2.3: Percentage of Persons Meeting DSM-IV-TR Abuse and/or Dependence Criteria by Gender*

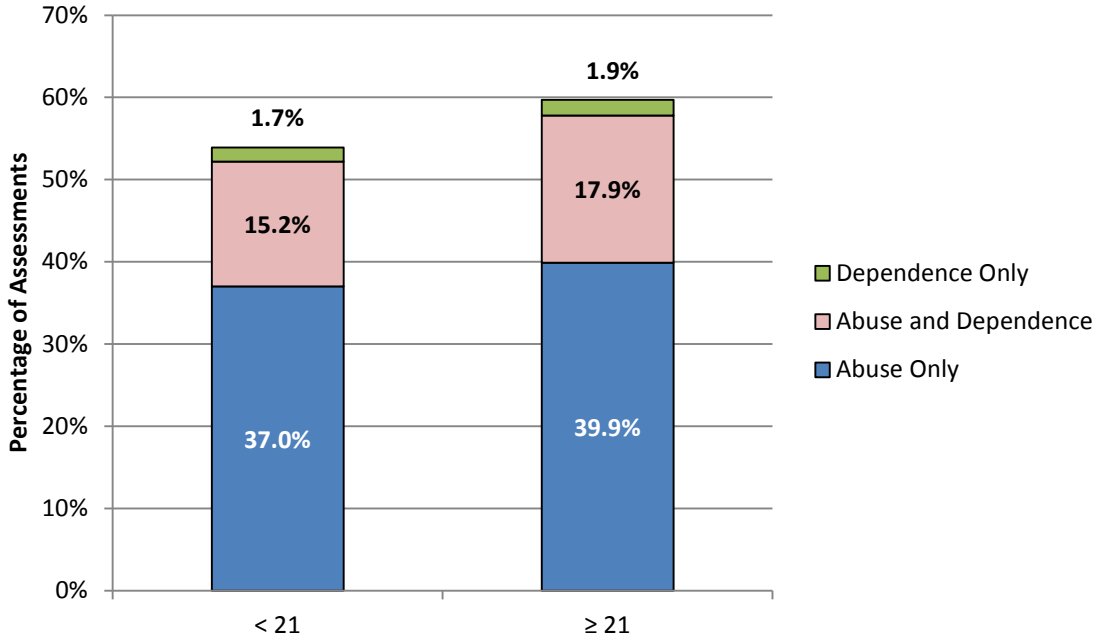


* Missing Data = 0 Assessments

2.6 DSM-IV-TR Criteria by Under/Over 21 Years Old

Figure 2.4 presents DSM-IV-TR criteria for individuals under 21 years old and over the legal drinking age. Individuals at least 21 years old were slightly more likely to meet abuse or dependence criteria. As previously discussed in Section 2.5, these data should not be interpreted as a clinical diagnosis.

Figure 2.4: DSM-IV-TR Criteria by Under/Over 21Years Old*

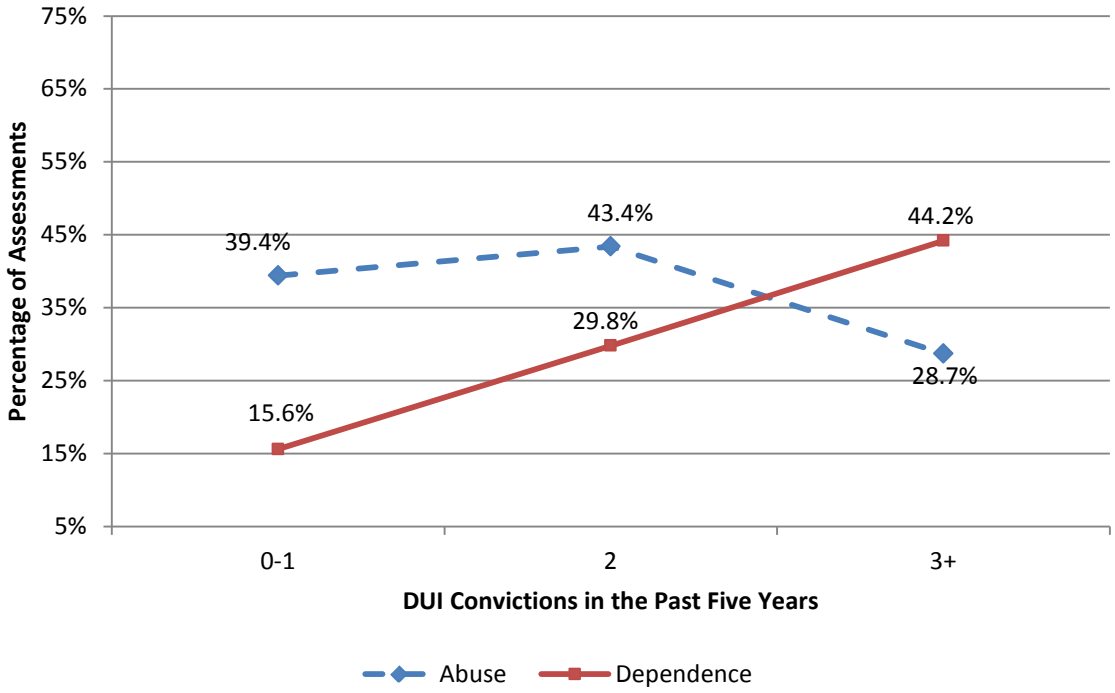


* Missing Data = 870 Assessments

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

Figure 2.5 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 between DUI convictions in the past five years. The percentage of persons reporting abuse, however, increased about 4 percentage points between 0-1 to 2 DUI convictions but then decreased about 15 percentage points between 2 to 3+ DUI convictions. This may be due to the increased number of persons reporting dependence criteria.

Figure 2.5: Percentage of Persons Meeting Dependence or Abuse Criteria by Number of DUI Convictions in the Past Five Years*

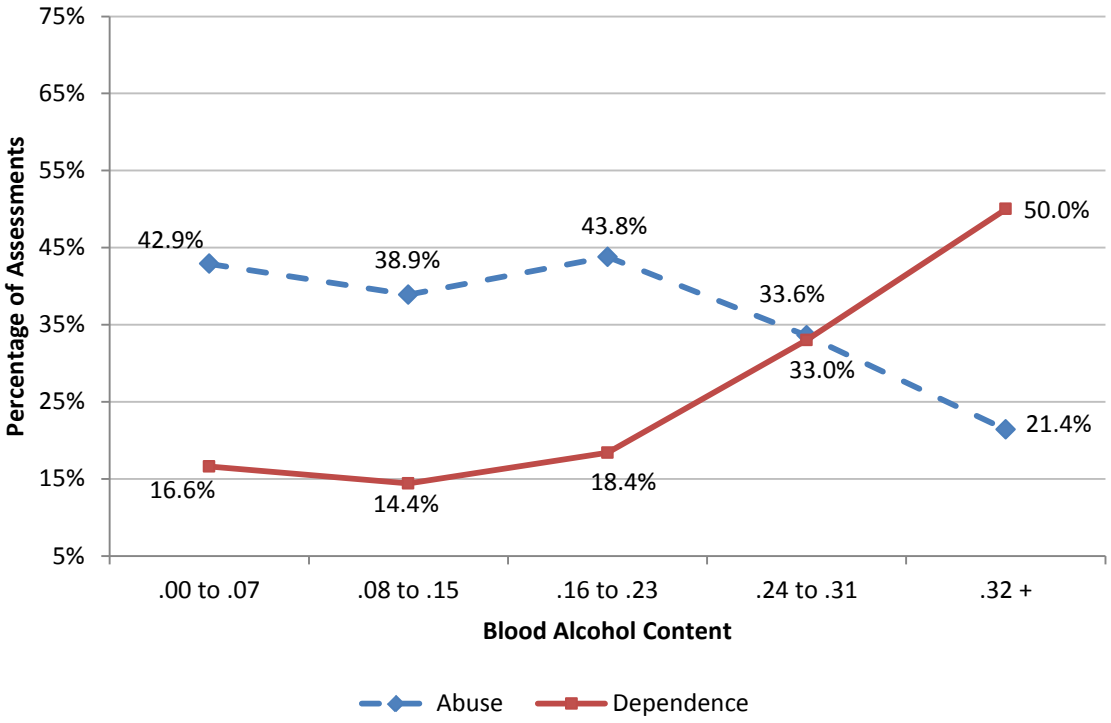


* Missing Data = 0 Assessments

2.8 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 2.6 presents trends for BAC and DSM-IV-TR dependence and abuse criteria. Persons who were convicted with a higher BAC were more likely to self-report DSM-IV-TR criteria for dependence. As mentioned in section 2.5, this decrease in persons reporting abuse may be due to the increased number of persons reporting dependence criteria.

Figure 2.6: Percentage of Persons Meeting Abuse or Dependence Criteria by Blood Alcohol Content*



* Missing Data = 10,168 Assessments

Screening Summary

AUDIT and DAST scores, DSM-IV-TR criteria, and blood alcohol content are all closely related. Interesting gender and age differences were found on the AUDIT and DAST. Women and persons under 21 years old had higher DAST scores but lower AUDIT scores than males and persons 21 years and older.

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SECTION THREE

TREATMENT REFERRALS

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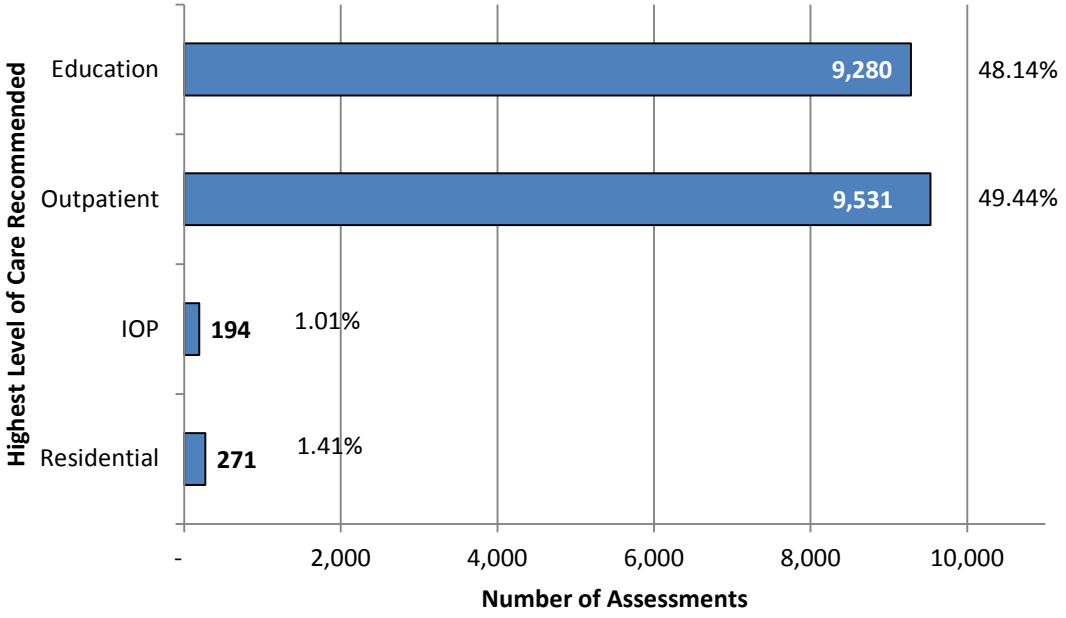
3.1 Level of Care Recommended

Figure 3.1 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 3.1 indicates that almost everyone assessed (97.6%) was referred for Education or Outpatient treatment as their highest level of care.

Figure 3.1: Highest Level of Care Recommended*

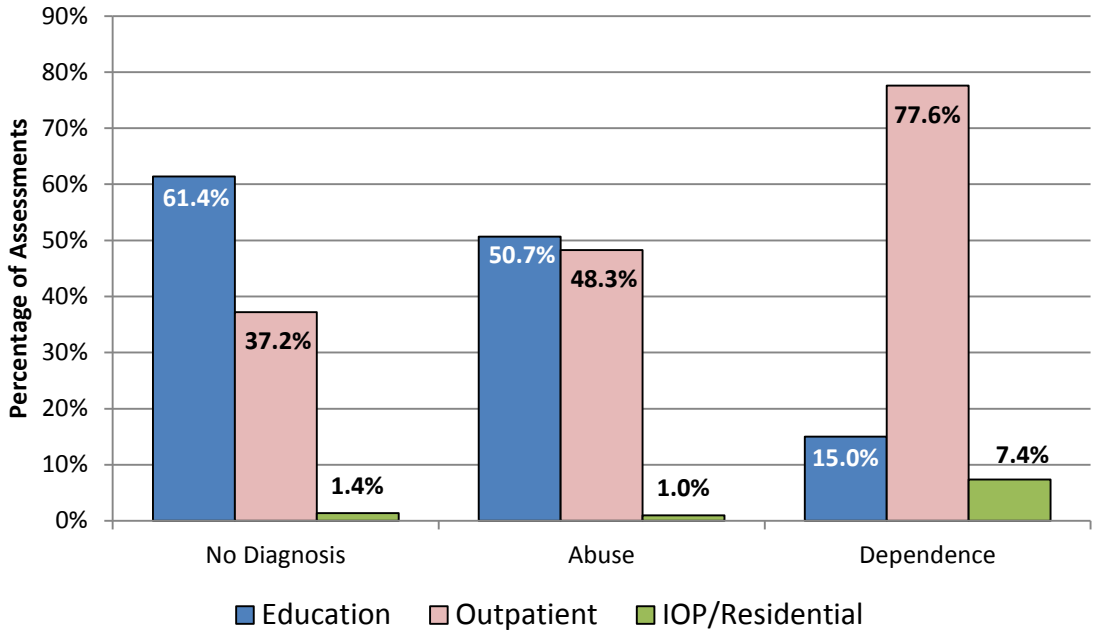


* Missing Data = 77 Assessments

3.2 Level of Care by DSM-IV-TR Criteria

Figure 3.2 presents the highest level of care recommended by DSM-IV-TR criteria. Treatment referrals are related to DSM-IV-TR criteria. Those persons who met three or more dependence criteria in their lifetime were more likely to have received an intensive outpatient 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 3.2: Highest Level of Care by DSM-IV-TR Criteria*



* Missing Data = 77 Assessments

3.3 Total Referrals

Table 3.1 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 3.1: Total Referrals*†

Education	10,269
Outpatient	9,741
Intensive Outpatient	208
Residential	272

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

Table 3.2 presents all intervention combinations. It is interesting to note that 51.5% of persons recommended for Residential services were also recommended for an additional level of care.

Table 3.2 Total Referrals by Combination*

Education	9,295
Outpatient	8,584
OP & Edu	947
Intensive Outpatient	142
IOP & Edu	5
IOP & OP	46
IOP & OP & Edu	1
Residential	132
Res & Edu	15
Res & OP	106
Res & OP & Edu	5
Res & IOP	8
Res & IOP & Edu	0
Res & IOP & OP	5
Res & IOP & OP & Edu	1

Key:

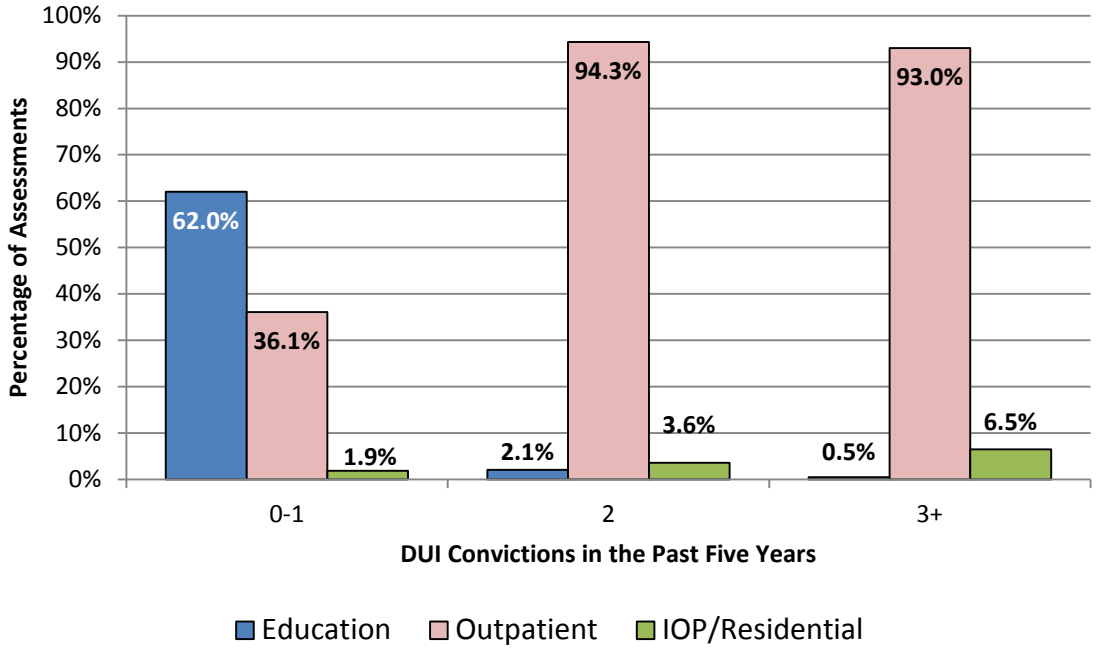
Education	Edu
Outpatient	OP
Intensive Outpatient	IOP
Residential	Res

* Missing Data = 61 Assessments

3.4 Highest Level of Care Recommended by the Number of DUI Convictions in the Previous Five Years

Figure 3.3 presents the type of referral an individual received compared to the total number of DUI convictions in the past five years. Only the highest level of care is presented. Persons convicted of their first DUI in five years typically received an education intervention or an outpatient treatment recommendation. Almost all persons convicted of two or more DUIs in the past five years received an outpatient treatment recommendation. It is unclear why a small percentage of persons with multiple DUI convictions (2.6%) received education as their highest level of care. This may be related to data limitations discussed in the background section of this report. There is a slight increase in the percentage of intensive outpatient and residential treatment recommendations, which coincides with an increase in previous DUI convictions.

Figure 3.3: Highest Level of Care Recommended Compared to the Number of DUI Convictions*

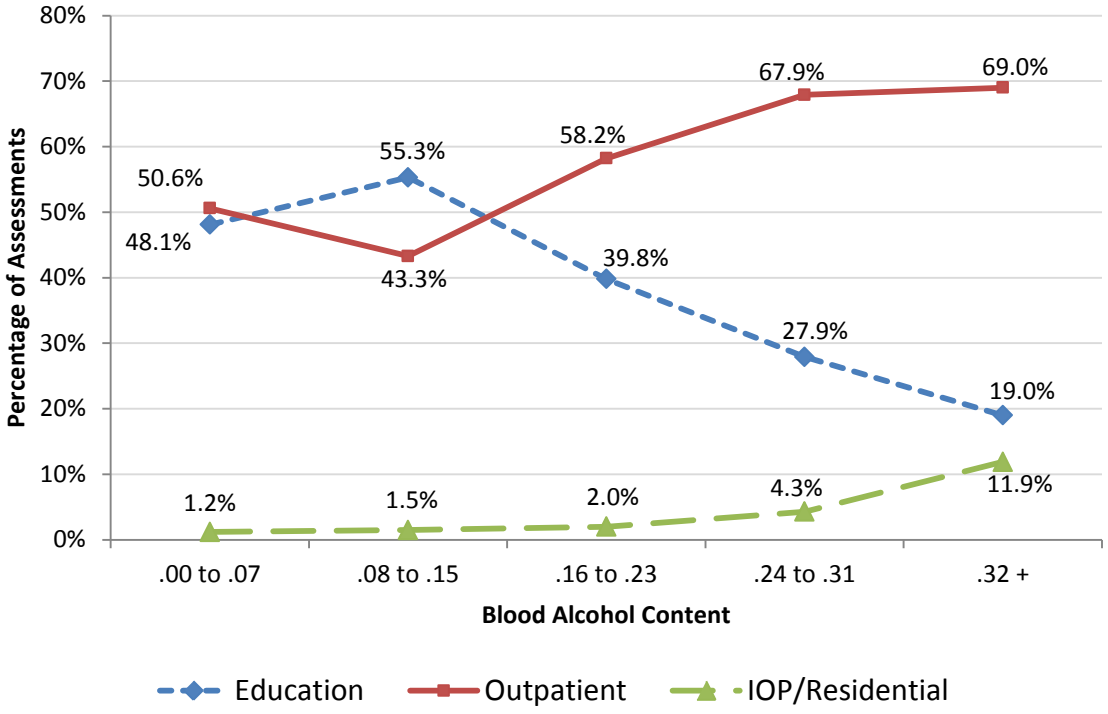


* Missing Data = 77 Assessments

3.5 Recommended Level of Care by Blood Alcohol Content

Figure 3.4 presents the highest level of care recommended and the Blood Alcohol Content of the most recent DUI. Persons who are under twice the legal limit (< 0.16 g/dL) were more likely to receive an education intervention. Persons above 0.16g/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 3.4: Highest Level of Care by Blood Alcohol Content*

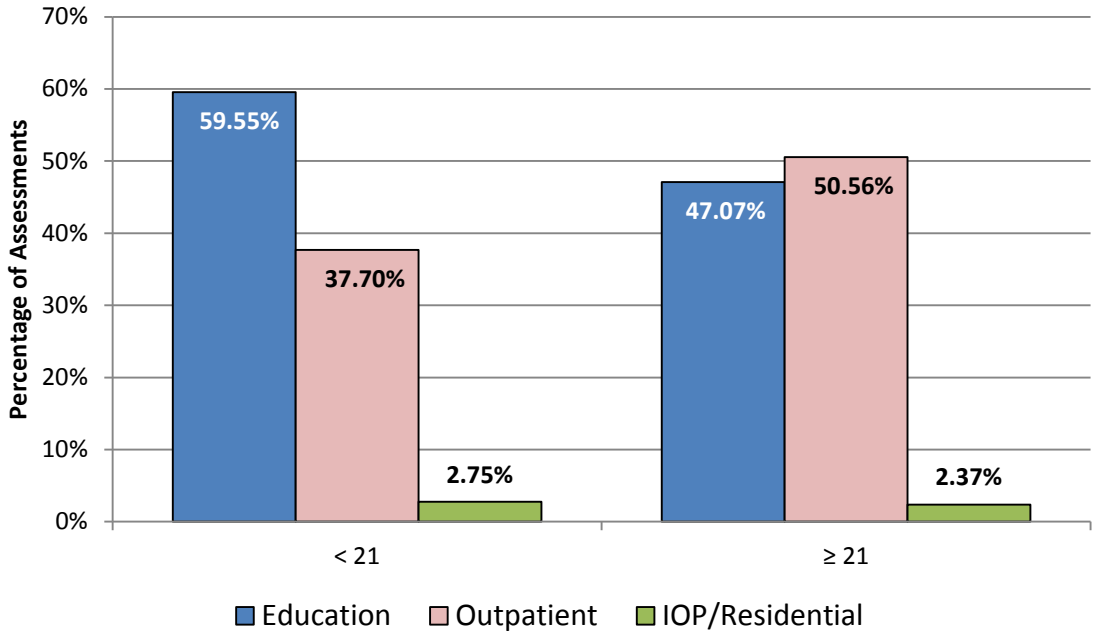


* Missing Data = 10,218 Assessments

3.6 Recommended Level of Care by Under/Over 21 Years Old

The majority (59.55%) of DUI offenders under 21 years old were referred to an education intervention as their highest level of care whereas less than half of individuals 21 years and older received an education only referral.

Figure 3.5: Highest Level of Care by Under/Over 21Years Old*



* Missing Data = 946 Assessments

Referral Summary

Most of the persons assessed are 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 such that the intensity of the treatment modality increases with increases in problem severity. The level of care recommended and blood alcohol content are also related in a similar manner with referrals to more intense treatment modalities as BAC increases.

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SECTION FOUR

COMPLIANCE

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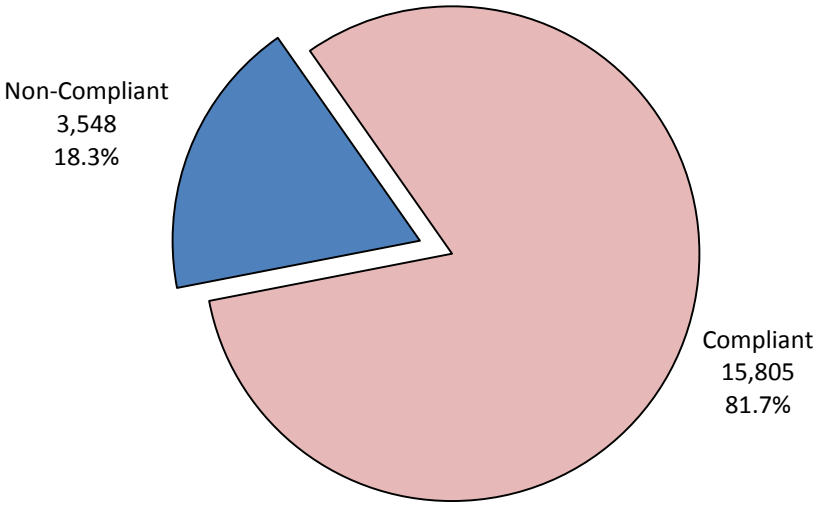
4.1 Compliant vs. Non-Compliant

Figure 4.1 presents compliance. Overall, more than three-fourths (81.7%) of persons convicted of DUI were compliant with their assigned intervention. If a person enrolled in an education or treatment intervention drops out of the program, does not maintain satisfactory program attendance, or fails to meet other program expectations they are considered to be non-compliant. Females were more likely to be compliant than males (84.1% and 81.0%, respectively).

Figure 4.1: Compliant vs. Non-Compliant*

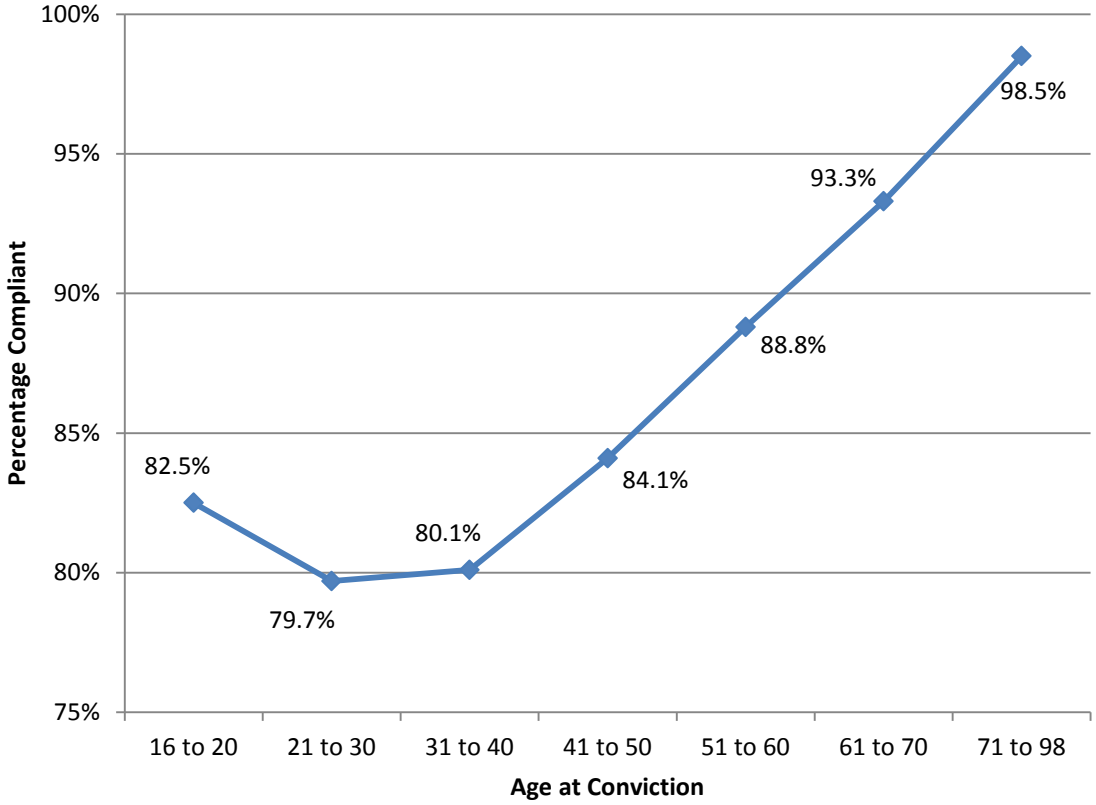


* Missing Data = 0 Assessments

4.2 Compliance by Age

Figure 4.2 presents compliance rates by age groups, which indicate that younger persons tended to be less compliant.

Figure 4.2: Compliance by Age*

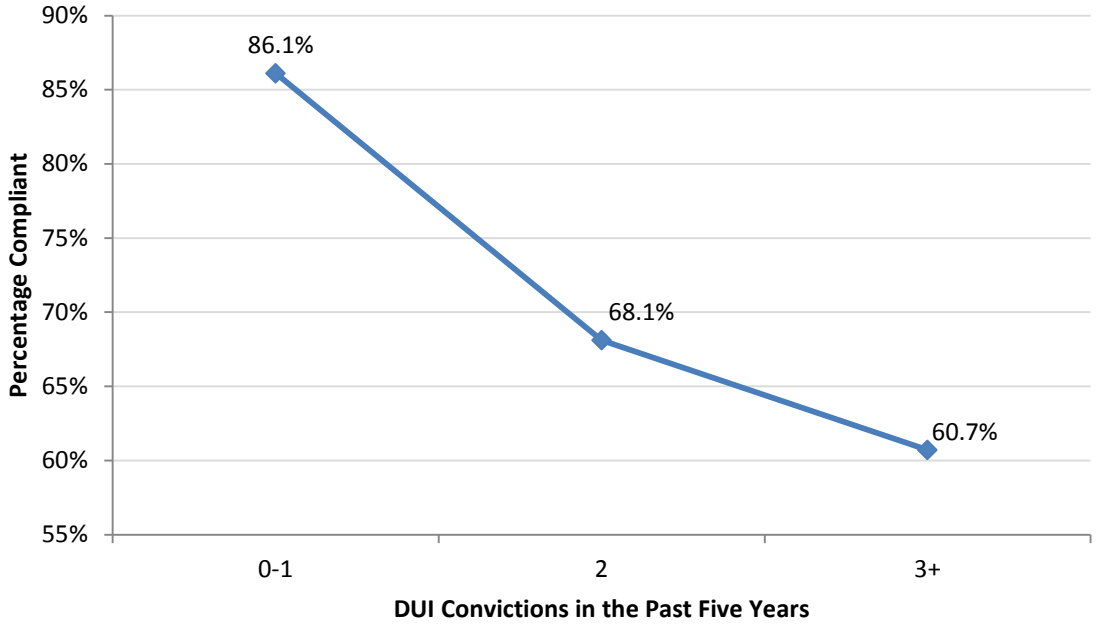


* Missing Data = 870 Assessments

4.3 Compliance by Previous DUI Convictions

Figure 4.3 presents compliance rates by DUI conviction in the past five years. Persons with multiple convictions were less likely to be compliant with their assigned intervention. Persons with two convictions were 20.9% less likely to be compliant than persons convicted of their first DUI. Persons with three or more convictions in the past five years were 29.5% less likely to be compliant than persons convicted of their first DUI.

Figure 4.3: Compliance by Number of DUI Convictions*

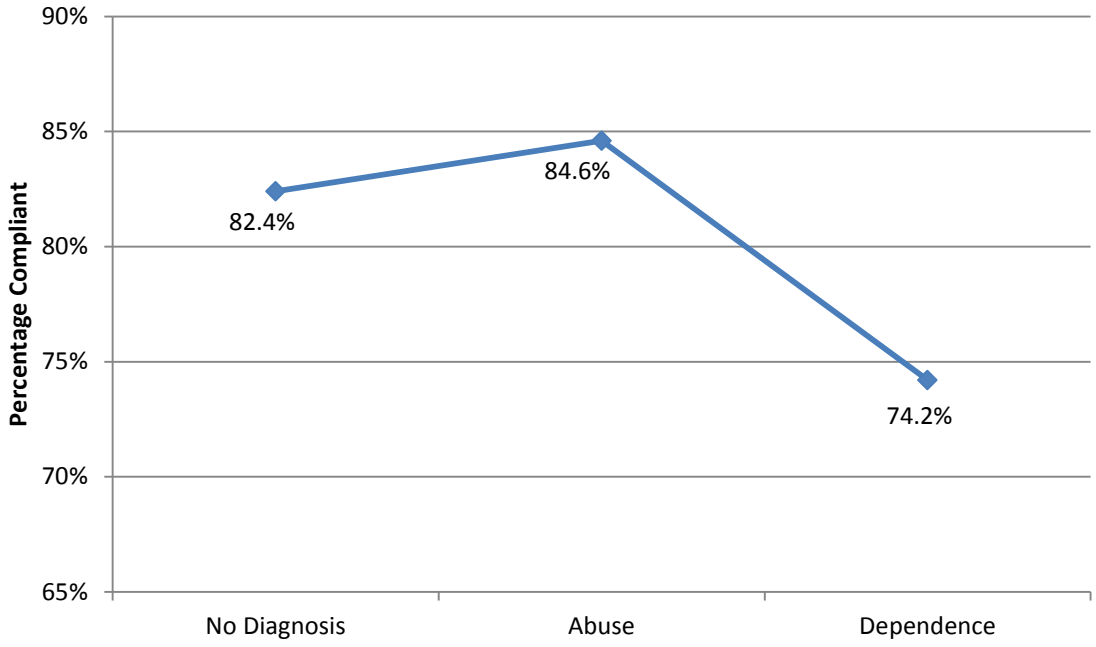


* Missing Data = 0 Assessments

4.4 Compliance by DSM-IV-TR Criteria

Figure 4.4 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 4.4: Compliance by DSM-IV-TR Criteria*



* Missing Data = 0 Assessments

4.5 Compliance by County of Conviction Status

Figure 4.5 presents compliance by the Wet/Dry/Moist status of the county of conviction. The three types of counties are[6]:

- **Wet** – Alcohol can be purchased or sold anywhere in the county with the proper license.
- **Moist** – A Dry county that contains a Wet city.
- **Dry** – No alcohol is sold or served.

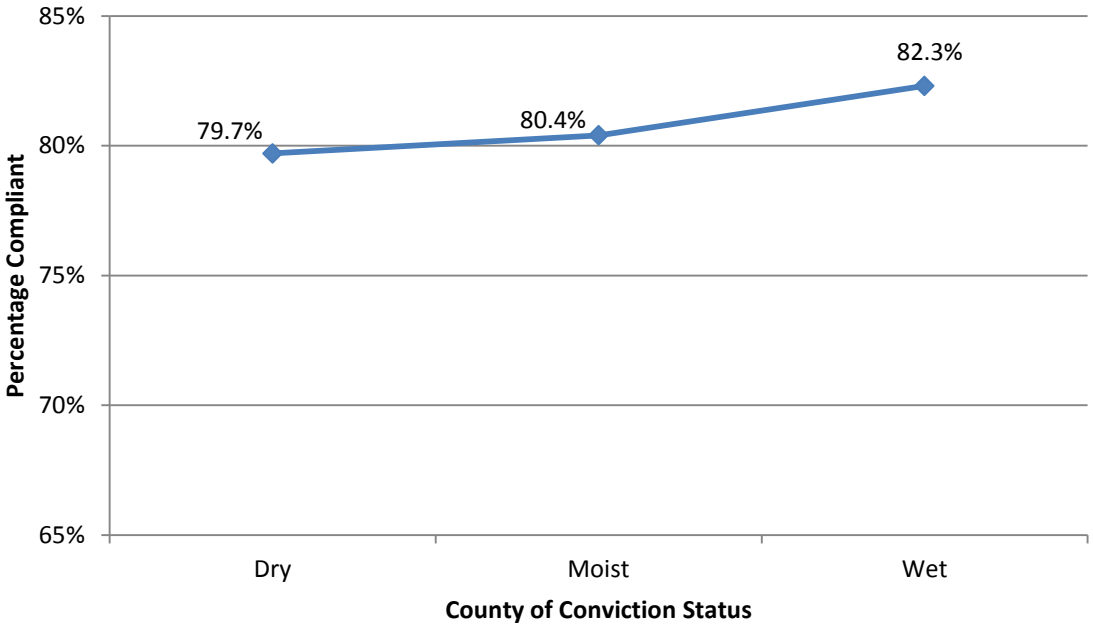
There are three exceptions to Moist and Dry counties:

- Limited – Where a dry county or city has elected to allow alcohol sales in restaurants only by the drink. Such a restaurant must be able to seat 100 diners and food sales must account for at least 70% of income.
- Golf – Where sales of alcohol by the drink are approved on golf courses only.
- Winery – Where a business may produce and serve wine in a dry county.

For this report, moist counties include dry counties with limited, winery, and/or golf exceptions.

Figure 4.5 shows that persons convicted in dry or moist counties are less likely to be compliant than those convicted in wet counties. Persons convicted in dry counties and moist counties have similar rates of compliance.

Figure 4.5: Compliance by County of Conviction Status*

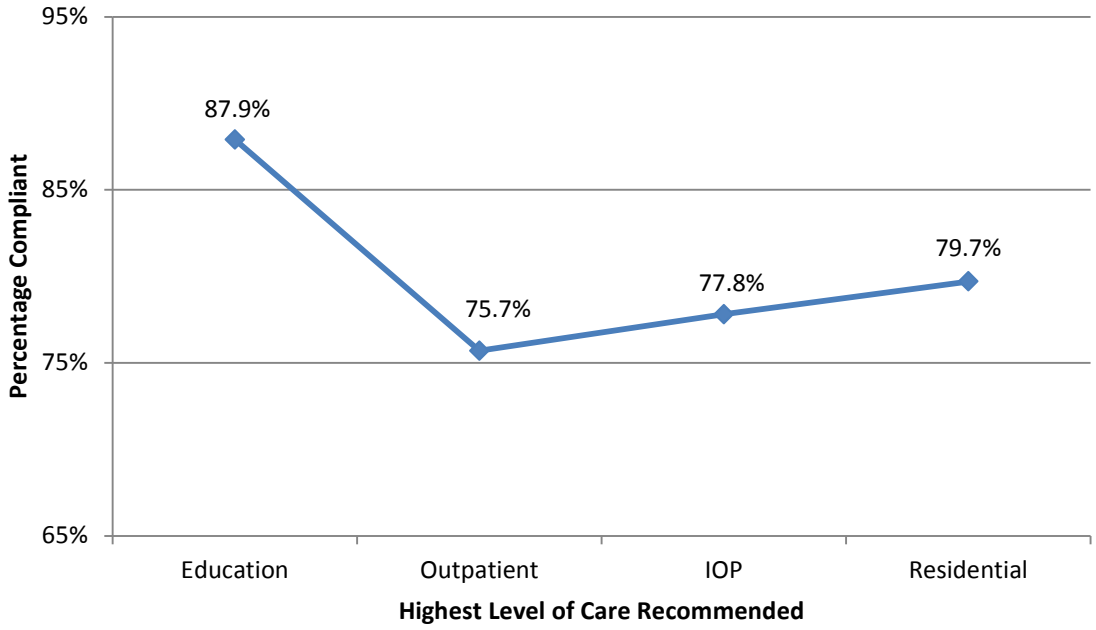


* Missing Data = 0 Assessments

4.6 Compliance by Highest Level of Care Recommended

Figure 4.6 presents compliance by the highest level of care recommended. Individuals referred for education were most likely to be compliant. Persons referred to outpatient or intensive outpatient were 13.9% (12.2 percentage points) and 11.5% (10.1 percentage points) less likely to be compliant with their intervention than persons referred to education. Persons referred for residential treatment were 9.3% (8.2 percentage points) less likely to be compliant than those referred for education. Individuals recommended for higher levels of care may have more severe drug/alcohol problems and therefore may be less likely to be compliant. Furthermore, since residential or IOP program is more rigorous and typically more costly, both can lead to decreased compliance.

Figure 4.6: Compliance by Highest Level of Care Recommended*

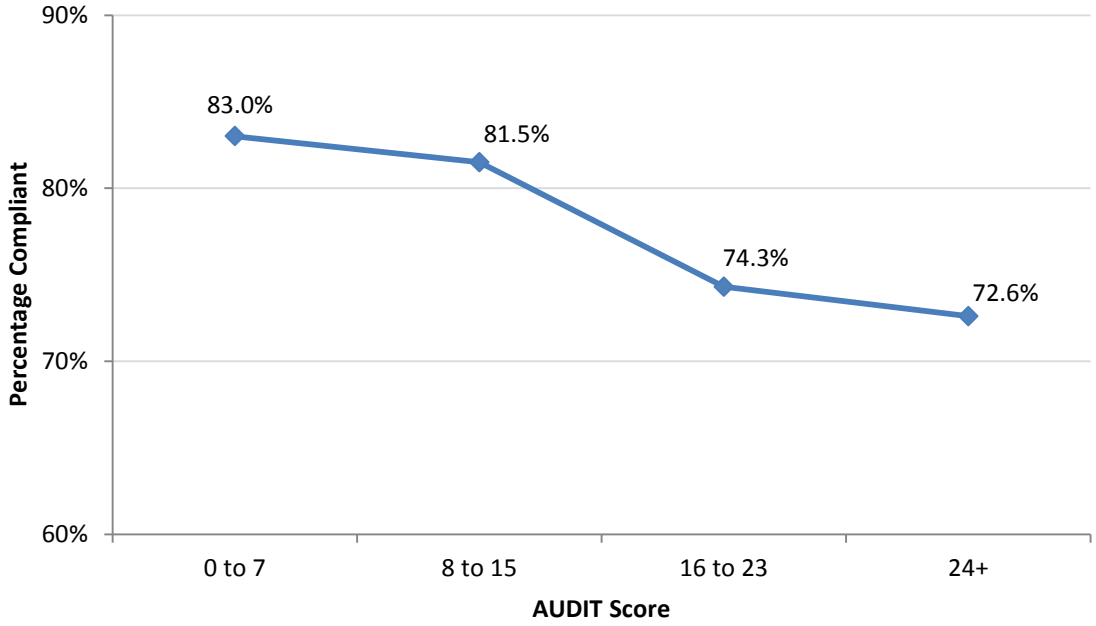


* Missing Data = 77 Assessments

4.7 Compliance by AUDIT and DAST Scores

Figure 4.7 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.

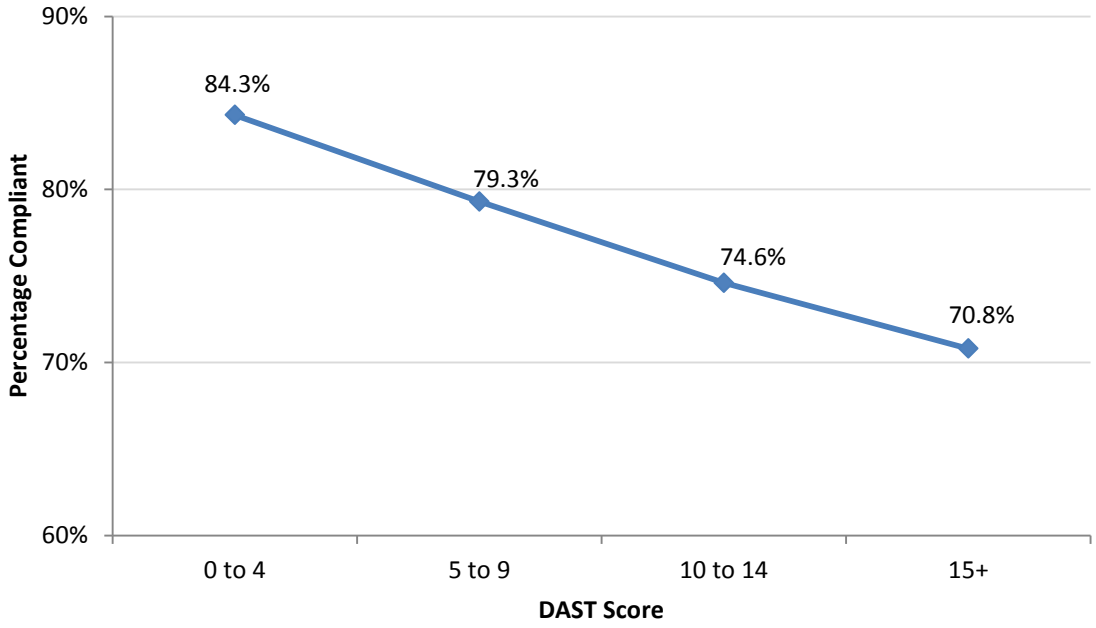
Figure 4.7: Compliance by AUDIT Score*



* Missing Data = 111 Assessments

Figure 4.8 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 4.8: Compliance by DAST Scores*

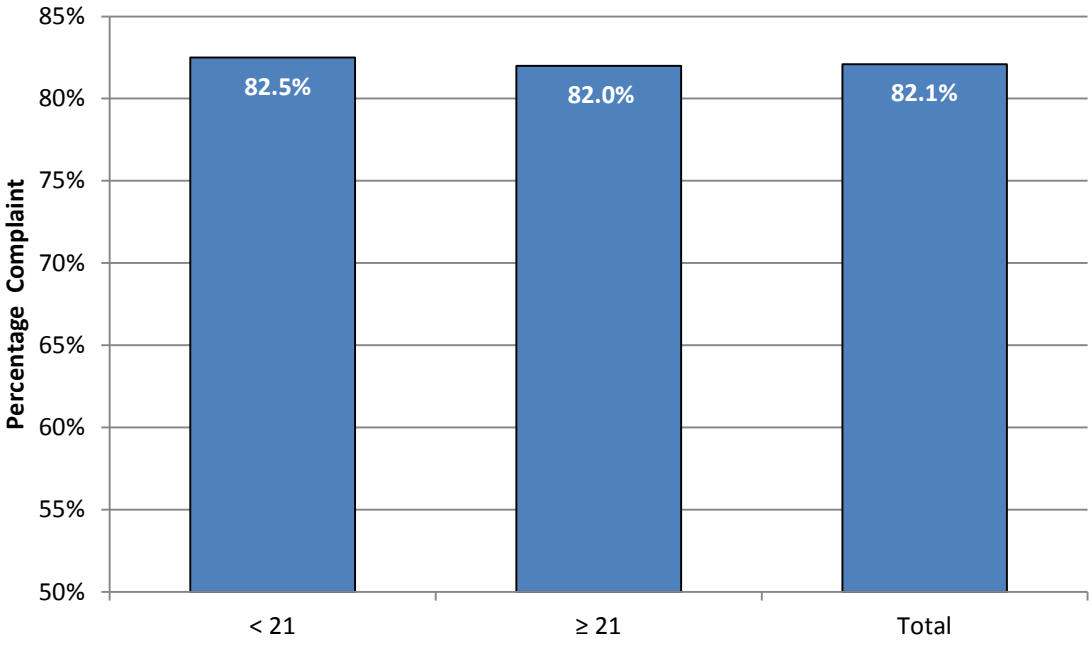


* Missing Data = 198 Assessments

4.8 Compliance by Under/Over 21 Years Old

Individuals younger than 21 years old were slightly more likely to be complaint with their education/treatment referral than those who were 21 years and older.

Figure 4.9: Compliance by Under/Over 21Years Old*



* Missing Data = 870 Assessments

Compliance Summary

Lower compliance is related to male gender, more DUI convictions, dry county of conviction, higher AUDIT scores, higher DAST scores, and more intensive recommended levels of care. Although younger age was also related to lower compliance in general, individuals younger than 21 years old had similar compliance rates to individuals at least 21 years old. This finding may stem from the fact that low compliance rates among persons between 21 and 40 years old are offset by the high compliance rates of older individuals (Section 4.2).

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SECTION FIVE

MHMR REGIONS

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5.1 Assessments

In calendar year 2009, 104 licensed and certified programs submitted at least one DUI assessment record. There were twelve programs that submitted fewer than ten assessments. Table 5.1 presents the number of programs and assessment records submitted by community mental health programs (publicly funded) and private assessment programs.

Table 5.1: Community and Privately Funded Program Assessments*

	Total	Community	Private
Assessments Completed	19,353	4,045	15,308
Number of Programs	104	11	93
Average Assessments per Program	186.1	367.7	164.6

* Missing Data = 0 Assessments

5.2 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 5.2 through 5.7, the highest and lowest values for a given field are in italics.

Table 5.2 presents demographic differences between records submitted from each region. There are very few differences between regions.

Table 5.2: MHMR Demographic Differences*

	Average Age	% Under 40 yo	% Male
Region 1 - Four Rivers	35.3	61.5%	79.9%
Region 2 - Pennyroyal	34.8	63.9%	***83.1%***
Region 3 - River Valley	35.5	63.7%	80.0%
Region 4 - Lifeskills	34.4	66.6%	80.8%
Region 5 - Communicare	34.4	67.7%	***83.1%***
Region 6 - Seven Counties	35.3	65.7%	81.2%
Region 7 - North Key	34.7	67.0%	75.9%
Region 8 - Comprehend	***37.0***	***59.1%***	79.4%
Region 10 - Pathways	35.3	66.0%	74.3%
Region 11 - Mountain	34.2	***70.1%***	***72.3%***
Region 12 - Kentucky River	34.6	67.8%	75.7%
Region 13 - Cumberland	35.5	63.6%	78.3%
Region 14 - Adanta	35.9	61.9%	83.0%
Region 15 - Bluegrass	***33.9***	69.0%	76.6%
All Regions	**34.9**	**65.9%**	**79.2%**

* Missing Records: Age = 746

5.3 DUI Convictions in the Past Five Years

Table 5.3 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 the previous five years. First offenders were a majority in all regions. River Valley had the highest level of persons with a second conviction (27.2%), and Comprehend had the highest level of persons convicted for three or more DUIs (5.9%).

Table 5.3: MHMR DUI Convictions in the Past Five Years

	Average	0-1	2	3+
Region 1 - Four Rivers	1.30	72.8%	24.4%	***2.7%***
Region 2 - Pennyroyal	1.30	74.4%	21.1%	4.5%
Region 3 - River Valley	***1.38***	***67.7%***	***27.2%***	5.1%
Region 4 - Lifeskills	1.29	74.8%	21.6%	3.7%
Region 5 - Communicare	1.30	75.0%	20.1%	4.9%
Region 6 - Seven Counties	1.27	77.2%	18.9%	4.0%
Region 7 - North Key	***1.21***	***81.9%***	***15.1%***	3.0%
Region 8 - Comprehend	1.32	73.5%	20.6%	***5.9%***
Region 10 - Pathways	1.25	78.9%	17.6%	3.5%
Region 11 - Mountain	1.26	78.3%	17.7%	4.0%
Region 12 - Kentucky River	1.26	78.2%	17.6%	4.2%
Region 13 - Cumberland	1.22	81.6%	15.5%	2.9%
Region 14 - Adanta	1.27	77.2%	18.7%	4.1%
Region 15 - Bluegrass	1.26	78.1%	18.0%	4.0%
All Regions	**1.27**	**76.8%**	**19.3%**	**3.9%**

* Missing Data = 1,080 Assessments

5.4 MHMR Regions and Blood Alcohol Content

Table 5.4 presents MHMR regions and blood alcohol content (BAC). The average BAC was fairly consistent across regions. Mountain had the lowest average BAC and Comprehend had the highest average BAC. Mountain had the highest percentage of assessment records for individuals with BACs in the 0.08 to 0.15 range. Pathways had the highest percentage of records reporting BACs in excess of 0.24.

Table 5.4: MHMR Regions and Blood Alcohol Content*

		BAC Ranges (g/dL)				
	Avg BAC	≤ .07	.08 - .15	.16 - .23	.24 - .31	≥ .32
Region 1 - Four Rivers	0.141	2.1%	62.4%	31.9%	3.6%	***0.0%***
Region 2 - Pennyroyal	0.129	***4.0%***	66.4%	26.1%	3.5%	***0.0%***
Region 3 - River Valley	0.148	0.6%	59.6%	34.0%	5.6%	0.3%
Region 4 - Lifeskills	0.146	2.1%	57.4%	34.2%	5.4%	1.0%
Region 5 - Communicare	0.144	1.8%	61.1%	31.1%	5.5%	0.4%
Region 6 - Seven Counties	0.153	1.7%	***51.8%***	40.5%	5.3%	0.7%
Region 7 - North Key	0.153	0.6%	53.5%	***41.4%***	3.8%	0.7%
Region 8 - Comprehend	***0.159***	***0.0%***	56.8%	35.1%	8.1%	***0.0%***
Region 10 - Pathways	0.142	0.7%	61.6%	28.0%	***8.6%***	***1.1%***
Region 11 - Mountain	***0.085***	***0.0%***	***91.5%***	***7.3%***	***1.2%***	***0.0%***
Region 12 - Kentucky River	0.136	3.1%	64.0%	27.1%	4.9%	0.9%
Region 13 - Cumberland	0.125	2.3%	73.5%	20.5%	3.5%	0.2%
Region 14 - Adanta	0.120	1.2%	74.7%	19.8%	4.1%	0.2%
Region 15 - Bluegrass	0.147	2.2%	55.9%	35.5%	5.9%	0.5%
All Regions	**0.143**	**1.7%**	**59.6%**	**33.4%**	**4.9%**	**0.4%**

* Missing Data = 10,749 Assessments

5.5 MHMR Regions and Screening Instruments

Table 5.5 presents the AUDIT and DAST average scores and percentage of assessments that were positive for each test by MHMR region. Table 5.6 presents the percentage of assessed persons who met DSM-IV-TR criteria by MHMR region.

Table 5.5: MHMR Regions and AUDIT/DAST Scores*

	AUDIT		DAST	
	Average	% Positive	Average	% Positive
Region 1 - Four Rivers	7.6	41.8%	5.0	31.5%
Region 2 - Pennyroyal	7.1	36.1%	5.3	36.0%
Region 3 - River Valley	6.8	32.9%	5.2	31.7%
Region 4 - Lifeskills	6.5	29.6%	5.3	35.0%
Region 5 - Communicare	8.4	47.3%	5.0	28.5%
Region 6 - Seven Counties	***8.6***	***47.5%***	4.5	27.2%
Region 7 - North Key	7.2	36.9%	***4.2***	***21.3%***
Region 8 - Comprehend	5.8	33.8%	6.2	33.8%
Region 10 - Pathways	6.0	26.5%	6.8	44.2%
Region 11 - Mountain	6.9	31.5%	7.6	52.3%
Region 12 - Kentucky River	7.3	36.9%	***7.8***	***56.4%***
Region 13 - Cumberland	***5.1***	***24.1%***	6.9	47.9%
Region 14 - Adanta	6.7	31.6%	6.5	42.5%
Region 15 - Bluegrass	6.8	32.4%	4.8	24.9%
All Regions	**7.2**	36.8%	**5.4**	33.6%

*Missing Data = 1,159 AUDIT/ 1,242 DAST Assessments

Table 5.6: MHMR Regions and DSM-IV-TR Criteria*

	No Criteria	Abuse Only	Dependence
Region 1 - Four Rivers	31.3%	***58.3%***	***10.4%***
Region 2 - Pennyroyal	39.8%	44.7%	15.5%
Region 3 - River Valley	33.0%	45.9%	21.1%
Region 4 - Lifeskills	45.4%	35.3%	19.3%
Region 5 - Communicare	***59.6%***	27.4%	13.0%
Region 6 - Seven Counties	47.2%	35.6%	17.2%
Region 7 - North Key	28.9%	49.7%	21.4%
Region 8 - Comprehend	45.6%	26.5%	27.9%
Region 10 - Pathways	34.4%	34.0%	31.6%
Region 11 - Mountain	***23.5%***	44.1%	32.4%
Region 12 - Kentucky River	34.7%	***24.4%***	***40.9%***
Region 13 - Cumberland	40.9%	29.8%	29.2%
Region 14 - Adanta	53.3%	30.5%	16.2%
Region 15 - Bluegrass	43.5%	45.7%	10.8%
All Regions	40.5%	39.7%	19.8%

* Missing Data = 1,080 Assessments

5.6 MHMR Regions and Level of Care

Table 5.7 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. There were variations between MHMR regions.

Table 5.7: MHMR Regions and Level of Care*

	Education	Outpatient	IOP	Residential	Compliance
Region 1 - Four Rivers	***64.2%***	***34.2%***	0.3%	1.3%	*77.9%*
Region 2 - Pennyroyal	63.7%	35.2%	0.5%	0.6%	78.3%
Region 3 - River Valley	52.2%	44.5%	1.1%	2.2%	79.5%
Region 4 - Lifeskills	41.4%	55.7%	1.2%	1.7%	83.8%
Region 5 - Communicare	55.9%	42.2%	1.0%	1.0%	81.3%
Region 6 - Seven Counties	42.2%	55.7%	1.1%	1.0%	80.1%
Region 7 - North Key	29.7%	67.7%	1.1%	1.5%	86.4%
Region 8 - Comprehend	***23.5%***	***72.1%***	***0.0%***	***4.4%***	***69.1%***
Region 10 - Pathways	33.8%	61.6%	1.9%	2.7%	80.0%
Region 11 - Mountain	63.2%	35.6%	***0.0%***	1.3%	74.0%
Region 12 - Kentucky River	29.4%	67.5%	1.1%	2.0%	79.2%
Region 13 - Cumberland	59.8%	37.4%	0.5%	2.2%	80.2%
Region 14 - Adanta	40.4%	55.7%	***3.5%***	***0.3%***	82.8%
Region 15 - Bluegrass	62.2%	35.4%	0.8%	1.7%	***87.4%***
All Regions	**48.9%**	**48.7%**	**1.0%**	**1.4%**	**81.3%**

* Missing Data = 1,149 level of care/1,080 compliance assessments

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.

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SECTION SIX

DIVISION OF BEHAVIORAL HEALTH REGIONS

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6.1 Number of Assessments and Demographics by DBH Region

In 2009 the Division of Behavioral Health (DBH) reduced the number of DUI regional coordinators from five to four. 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 6.1 presents the number of assessments, average age of persons assessed, and the percentage of assessments that were for males by Division of Behavioral Health (DBH) Regions. The West and West-Central regions had slightly older individuals receiving DUI assessments and they were slightly more likely to be male.

Table 6.1: Assessments by DBH Region

	CENTRAL	EAST	WEST	WEST-CENTRAL
Assessments	3,757	5,509	5,448	4,639
% Male**	76.2%	77.2%	81.6%	81.2%
Average Age***	34.42	34.98	35.02	35.18

** Missing Data = 0 Assessments
*** Missing Data = 870 Assessments

6.2 AUDIT and DAST Scores by DBH Region

Table 6.2 presents AUDIT and DAST scores by DBH region. The West-Central region had the highest percentage of persons with a positive AUDIT score. The East region had the highest percentage of persons with a positive DAST score. Persons from East and West regions had an average score that was positive for the DAST. Persons assessed in the West-Central region had an average score that was positive for the AUDIT.

Table 6.2: AUDIT and DAST Scores by DBH Region

	CENTRAL	EAST	WEST	WEST-CENTRAL
AUDIT*				
Positive	33.4%	31.2%	35.4%	46.6%
Average Score	6.83	6.50	7.02	8.49
DAST**				
Positive	20.5%	46.8%	32.6%	27.9%
Average Score	4.20	6.97	5.16	4.60

* Missing Data =111 Assessments
** Missing Data = 198 Assessments

6.3 Blood Alcohol Content by DBH Region

Table 6.3 presents the average Blood Alcohol Content and percentage of assessments that were 0.08 g/dL or higher.

Table 6.3: Blood Alcohol Content by DBH Region*

	CENTRAL	EAST	WEST	WEST-CENTRAL
Average BAC	0.150	0.129	0.141	0.153
% ≥ 0.08	98.7%	98.0%	97.8%	98.5%

* Missing Data = 10,168 Assessments

6.4 DSM-IV-TR Criteria by DBH Region

Table 6.4 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 life. Persons who met three or more dependence criteria were not included as abuse. The Central region had the highest percentage of individuals meeting abuse criteria, and the East region had significantly more individuals meeting dependence criteria than other regions.

Table 6.4: DSM-IV-TR Criteria by DBH Region*

	CENTRAL	EAST	WEST	WEST-CENTRAL
% Abuse	51.7%	31.7%	43.5%	35.1%
% Dependent	14.2%	28.3%	16.4%	16.6%

* Missing Data = 0 Assessments

6.5 Level of Care and Compliance by DBH Region

Table 6.5 presents the distribution of the highest level of care recommended by DBH region. The West region had the highest percentage of persons recommended for education and the Central and East regions had the highest percentage of persons recommended for residential. Table 6.5 also presents the percentage of persons who were compliant with their assigned recommendation. Compliance was highest in the Central region.

Table 6.5: Level of Care and Compliance by DBH Region

	CENTRAL	EAST	WEST	WEST-CENTRAL
Highest Level of Care*				
Education	45.7%	48.5%	55.9%	40.5%
Outpatient	51.5%	48.6%	41.9%	57.7%
IOP	1.0%	1.3%	0.8%	0.9%
Residential	1.7%	1.6%	1.4%	0.9%
Compliance**	87.8%	79.5%	79.9%	81.4%

* Missing Data = 77 Assessments
** Missing Data = 0 Assessments

Division of Behavioral Health Regions Summary

There was similarity across regions, but with four notable exceptions. First, the percentage of persons who met three or more DSM-IV-TR criteria for substance dependence ranged from a low of 14.2% for the Central region to almost double the rate (28.3%) in the East region. Second, a significantly smaller percentage of persons in the West-Central region (40.5%) were referred to education as their highest level of care than other areas of the state (50.0%). Third, AUDIT scores in the West-Central region (8.49) were noticeably higher than in other regions (6.78). Finally, the percentage of persons who scored 5 or higher on the DAST in the East region (46.8%) significantly exceeded the percentage for the rest of Kentucky (27.0%).

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SECTION SEVEN

TRENDS 2003 TO 2009

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7.1 Assessments Received 2003 to 2009

Table 7.1 presents the number of assessments CDAR received on behalf of the DBH from 2003 through 2009. The average number of assessments received has been 20,653 per year.

Table 7.1: Number of Assessments 2003 to 2009

2003	2004	2005	2006	2007	2008	2009
21,731	23,065	21,025	21,979	17,792	19,624	19,353

7.2 Gender and Age Trends 2003 to 2009

Figure 7.1 presents the percentage of assessments that were for males from 2003 through 2009. The percentage of males has slowly decreased over the past seven years. Figure 7.2 presents the number of assessments for underage persons, which has also decreased in recent years.

Figure 7.1: Percentage of Assessments that were for Males 2003 to 2009

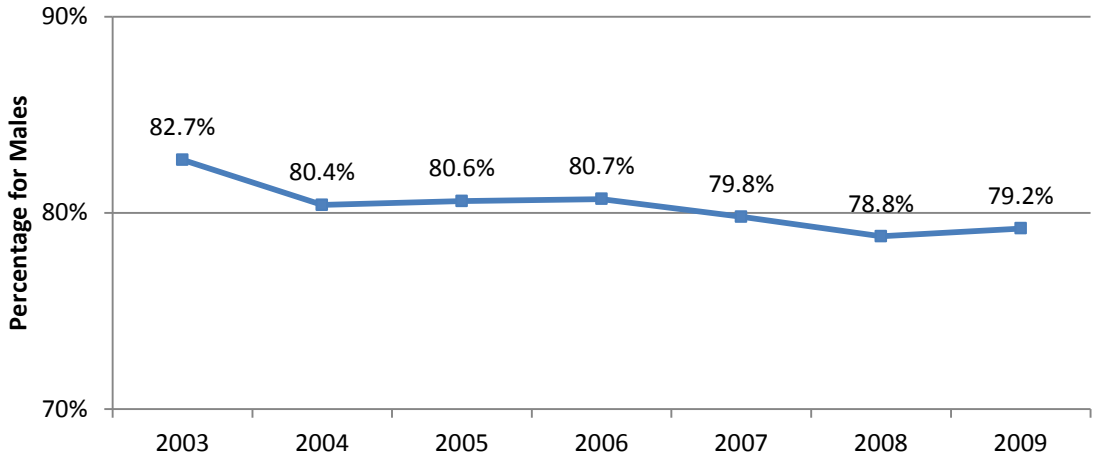
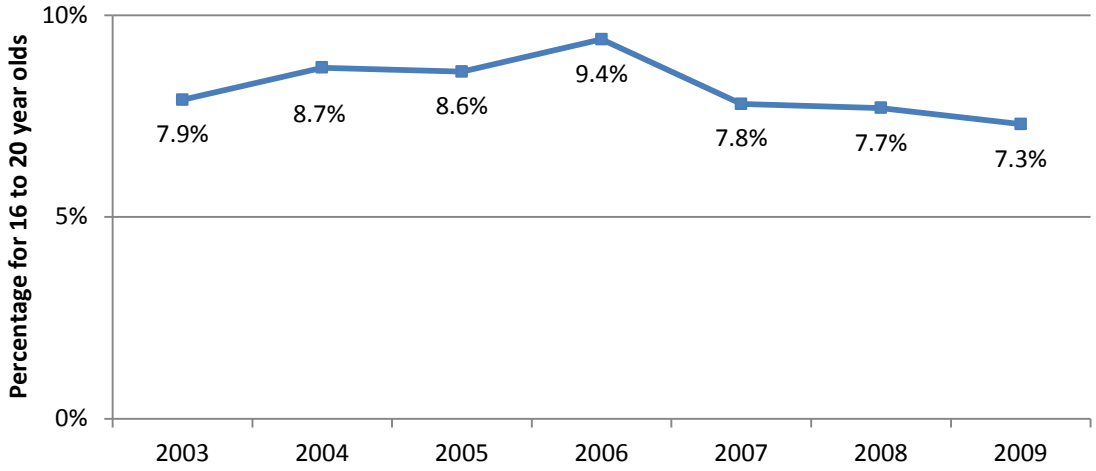


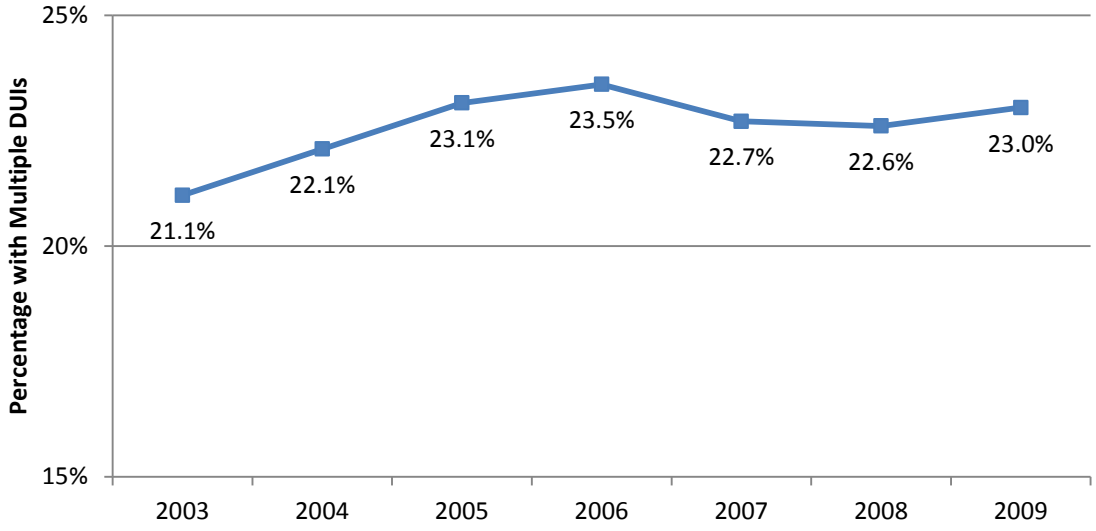
Figure 7.2: Percentage of Assessments that were for Underage Persons 2003 to 2009



7.3 Multiple DUI Convictions 2003 to 2009

Figure 7.3 presents the percentage of assessments that had multiple DUI convictions in the previous seven years. The percentage of persons convicted with multiple DUIs in the past seven years has remained relatively stable.

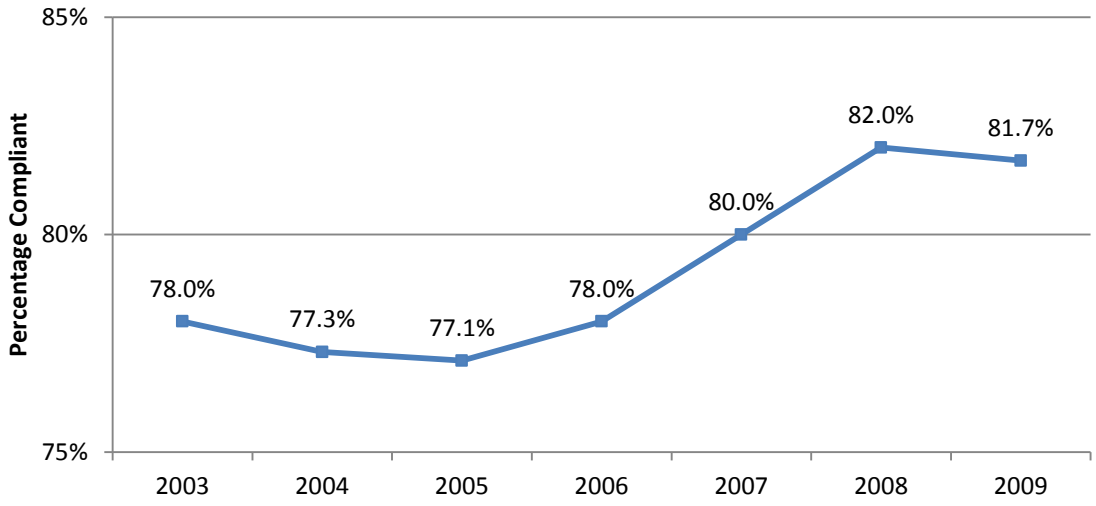
Figure 7.3: Percentage of Assessments for persons who had Multiple DUI Convictions in the Previous Five Years 2003 to 2009



7.4 Education/Treatment Compliance 2003 to 2009

Figure 7.4 presents the percentage of assessments that were compliant with their assigned education and/or treatment intervention. In general, the percentage of compliant persons has increased over the past several years.

Figure 7.4: Percentage of Assessments that were Compliant 2003 to 2009



7.5 AUDIT and DAST Results 2003 to 2009

Figure 7.5 presents the average AUDIT and DAST scores for 2003 through 2009. Figure 7.6 presents the percentage of assessments that were positive on the AUDIT and DAST.

Figure 7.5: Average AUDIT and DAST Scores 2003 to 2009

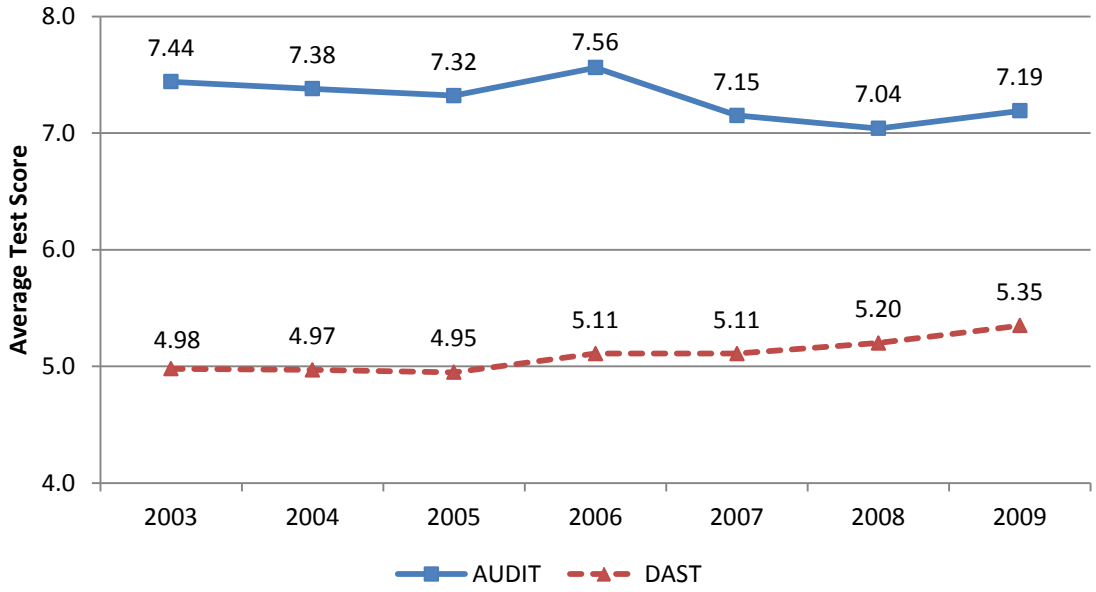
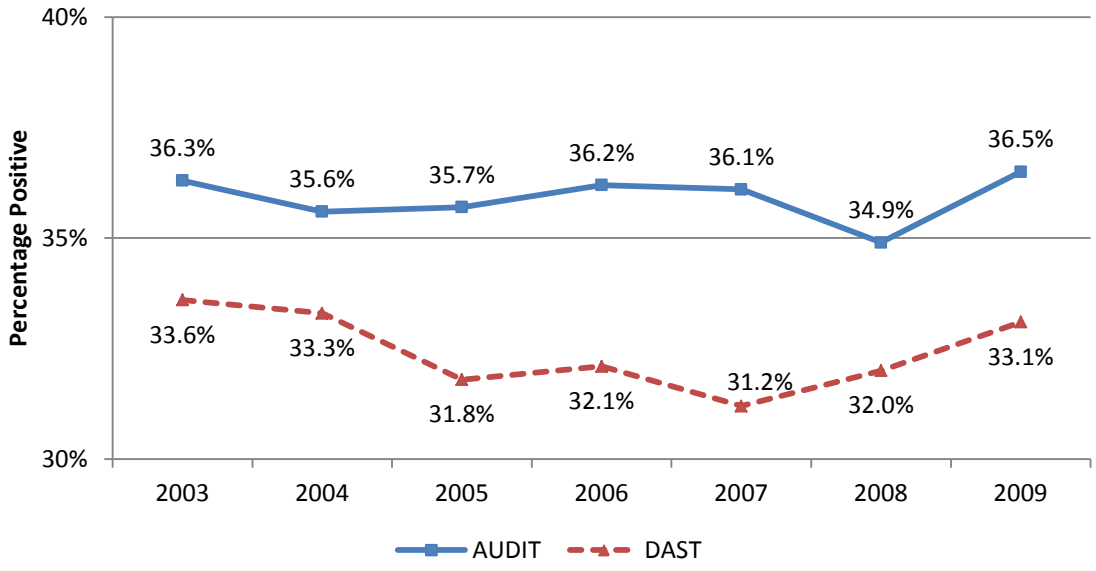


Figure 7.6: Percentage of Assessments with Positive Scores on the AUDIT and DAST 2003 to 2009



7.6 Education/Treatment Recommendations 2003 to 2009

Figure 7.7 presents the percentage of assessments that were referred for Education or Outpatient as the highest level of care from 2003 to 2009. The trend of increasing rates of outpatient referrals appears to be reversing as the percentage of outpatient versus education referrals are very similar. Figure 7.8 presents the percentage of assessments referred for IOP and/or residential treatment from 2003 to 2009. The percentage of assessments with an IOP or residential referral has decreased slightly over the past seven years.

Figure 7.7: Education and Outpatient Referrals 2003 to 2009

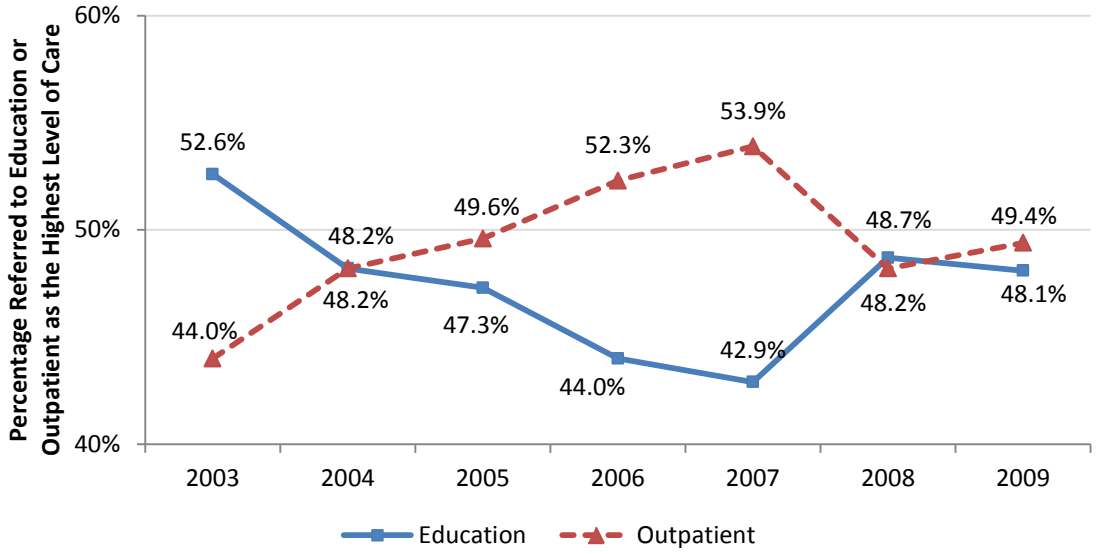
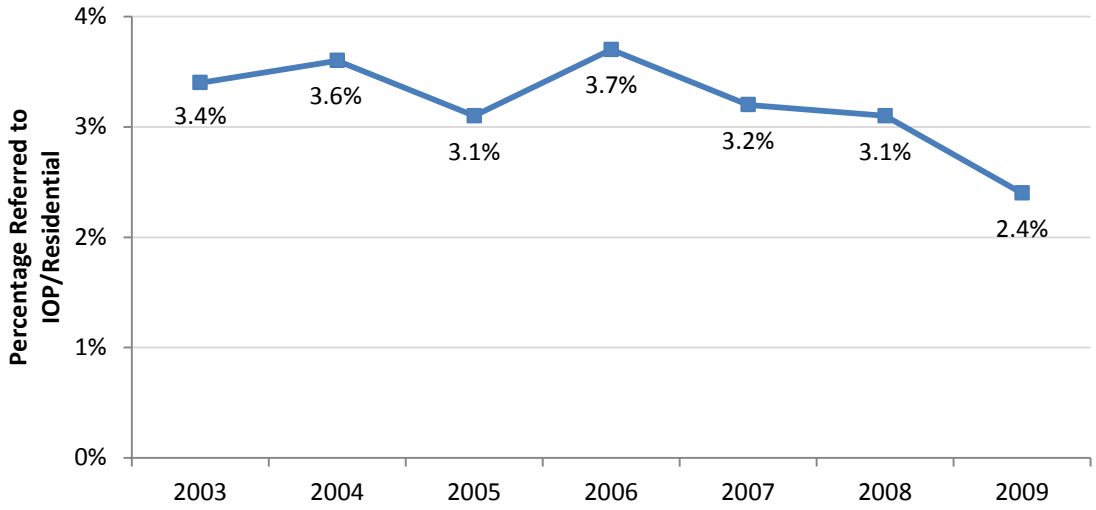


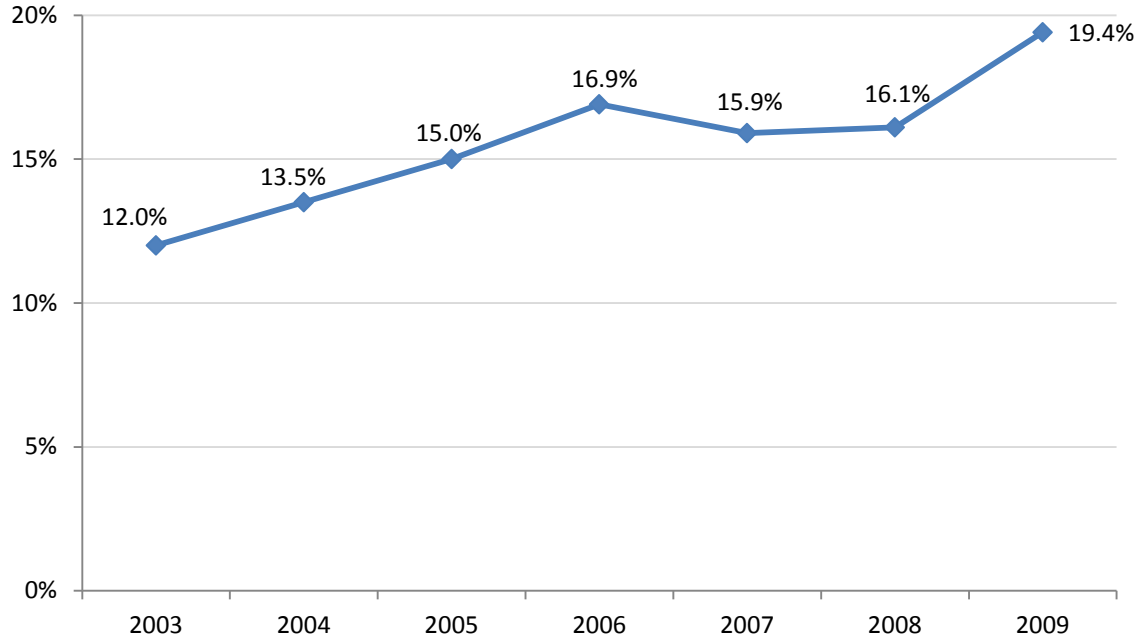
Figure 7.8: Intensive Outpatient and Residential Treatment Referrals 2003 to 2009



7.7 DSM-IV-TR Dependence 2003 to 2009

Figure 7.9 presents the percentage of assessed persons who met at least three lifetime DSM-IV-TR criteria for dependence from 2003 to 2009. In general, the percentage of assessed persons who met dependence criteria has increased over the past seven years.

Figure 7.9: DSM-IV-TR Dependence 2003 to 2009



Trends Summary

An examination of DUI assessment records from the past seven years reveals several changing patterns over time. In general, increases were found in the percentage of females who receive DUI assessments, compliance rates, DAST scores, and the percentage of individual meeting DSMIV-TR dependence criteria. Decreases were found in the percentage of individuals under 21 years old and the percentage of referrals to intensive outpatient and/or residential treatment.

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SUMMARY

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Summary

In 2009, the DUI offenders assessed in Kentucky were primarily males 21 to 30 years old. They were typically first time offenders with a blood alcohol content between .08 g/dL and .15 g/dL, and were most often referred to a 20-hour education intervention or an outpatient alcohol/drug treatment program. This profile has remained consistent over the past several years.

Factors associated with non-compliance included: male gender, younger age, more DUI convictions, meeting 3 or more DSM-IV-TR dependence criteria, conviction in a dry county, more intensive level of care recommendation, and higher problem severity as indicated by elevated AUDIT and DAST scores.

DUI offenders under age 21 were slightly less likely to meet abuse or dependence criteria compared to those over 21 years old and were more likely to be referred to an education intervention rather than treatment. While younger age overall contributed to lower compliance, those in the under 21 age group were slightly more compliant than older offenders.

The percentage of referrals to intensive outpatient or residential treatment facilities continues to be low (< 2.5%) despite 19.4% meeting clinical criteria for substance dependence and 23% of DUI assessments for multiple DUI convictions in the past five years; however, there was a general pattern of referring to more intensive treatment modalities as indicators of problem severity increased.

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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	14.31%	20.65%	15.63%
(1) Monthly or less	25.71%	31.60%	26.94%
(2) 2 to 4 times a month	32.35%	30.38%	31.94%
(3) 2 to 3 times a week	19.85%	12.65%	18.35%
(4) 4 or more times a week	7.78%	4.72%	7.14%
Average Score	1.81	1.49	1.74

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

	Males	Females	Total
(0) 1 or 2	28.70%	43.16%	31.72%
(1) 3 or 4	27.79%	31.45%	28.55%
(2) 5 or 6	23.47%	16.07%	21.93%
(3) 7, 8, or 9	9.58%	4.55%	8.53%
(4) 10 or more	10.46%	4.77%	9.27%
Average Score	1.45	0.96	1.35

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

	Males	Females	Total
(0) Never	27.54%	45.54%	31.29%
(1) Less than monthly	35.03%	35.43%	35.11%
(2) Monthly	17.84 %	9.39%	16.08%
(3) Weekly	15.82%	7.70%	14.13%
(4) Daily or almost daily	3.77%	1.94%	3.39%
Average Score	1.33	0.85	1.23

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	75.56%	80.32%	76.55%
(1) Less than monthly	14.92%	12.72%	14.46%
(2) Monthly	4.47%	3.13%	4.20%
(3) Weekly	3.13%	2.46%	2.99%
(4) Daily or almost daily	1.92%	1.37%	1.80%
Average Score	0.41	0.32	0.39

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	76.51%	79.50%	77.14%
(1) Less than monthly	17.58%	15.35%	17.12%
(2) Monthly	3.26%	2.79%	3.16%
(3) Weekly	1.91%	1.64%	1.85%
(4) Daily or almost daily	0.74%	0.72%	0.73%
Average Score	0.33	0.29	0.32

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	91.53%	93.54%	91.95%
(1) Less than monthly	4.87%	4.05%	4.70%
(2) Monthly	1.29%	0.94%	1.21%
(3) Weekly	1.30%	0.92%	1.22%
(4) Daily or almost daily	1.01%	0.55%	0.92%
Average Score	0.15	0.11	0.14

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	62.74%	63.60%	62.92%
(1) Less than monthly	27.41%	27.80%	27.49%
(2) Monthly	4.67%	3.90%	4.51%
(3) Weekly	2.94%	2.86%	2.92%
(4) Daily or almost daily	2.24%	1.84%	2.16%
Average Score	0.55	0.52	0.54

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

	Males	Females	Total
(0) Never	77.22%	78.73%	77.53%
(1) Less than monthly	16.73%	16.70%	16.73%
(2) Monthly	3.56%	2.61%	3.36%
(3) Weekly	1.80%	1.54%	1.74%
(4) Daily or almost daily	0.69%	0.42%	0.64%
Average Score	0.32	0.28	0.31

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

	Males	Females	Total
(0) No	89.37%	90.04%	89.51%
(2) Yes, but not in the last year	6.63%	5.24%	6.34%
(4) Yes, during the last year	4.00%	4.72%	4.15%
Average Score	0.29	0.29	0.29

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	72.32%	80.72%	74.07%
(2) Yes, but not in the last year	11.29%	7.60%	10.52%
(4) Yes, during the last year	16.39%	11.68%	15.41%
Average Score	0.88	0.62	0.83

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
42.5%	41.7%	42.3%

2. Have you abused prescription drugs?

Males	Females	Total
13.5%	19.9%	14.9%

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

Males	Females	Total
9.8%	12.2%	10.3%

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

Males	Females	Total
10.5%	9.5%	9.7%

Percentage of persons who responded "no"

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

Males	Females	Total
13.1%	16.4%	13.8%

Percentage of persons who responded "no"

6. Do you abuse drugs on a continuous basis?

Males	Females	Total
6.1%	8.0%	6.5%

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

Males	Females	Total
35.2%	35.7%	35.3%

Percentage of persons who responded "no"

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

Males	Females	Total
6.1%	9.3%	6.7%

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

Males	Females	Total
17.5%	21.8%	18.4%

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

Males	Females	Total
13.5%	14.3%	13.7%

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

Males	Females	Total
16.6%	17.8%	16.9%

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

Males	Females	Total
9.4%	12.5%	10.1%

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

Males	Females	Total
5.1%	7.3%	5.5%

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

Males	Females	Total
8.1%	10.3%	8.6%

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

Males	Females	Total
9.2%	12.4%	9.9%

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

Males	Females	Total
5.0%	6.0%	5.2%

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

Males	Females	Total
4.9%	5.6%	5.1%

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

Males	Females	Total
8.0%	9.2%	8.3%

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

Males	Females	Total
12.5%	15.3%	13.1%

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

Males	Females	Total
19.9%	25.2%	21.0%

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

Males	Females	Total
12.1%	12.7%	12.2%

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

Males	Females	Total
18.3%	15.1%	17.6%

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

Males	Females	Total
8.0%	12.7%	8.9%

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

Males	Females	Total
2.7%	4.4%	3.1%

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

Males	Females	Total
6.0%	13.2%	9.9%

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

Males	Females	Total
3.1%	5.0%	3.5%

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

Males	Females	Total
10.6%	13.0%	11.1%

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

Males	Females	Total
7.7%	10.5%	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
11.3%	11.4%	11.3%

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

Males	Females	Total
49.5%	46.1%	48.8%

(3) Recurrent substance-related legal problems

Males	Females	Total
31.2%	27.0%	30.3%

(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
14.8%	14.5%	14.7%

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
40.2%	37.0%	39.5%

(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
13.9%	15.8%	14.3%

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

Males	Females	Total
25.4%	24.1%	25.1%

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

Males	Females	Total
16.0%	14.9%	15.8%

(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
9.6%	10.9%	9.9%

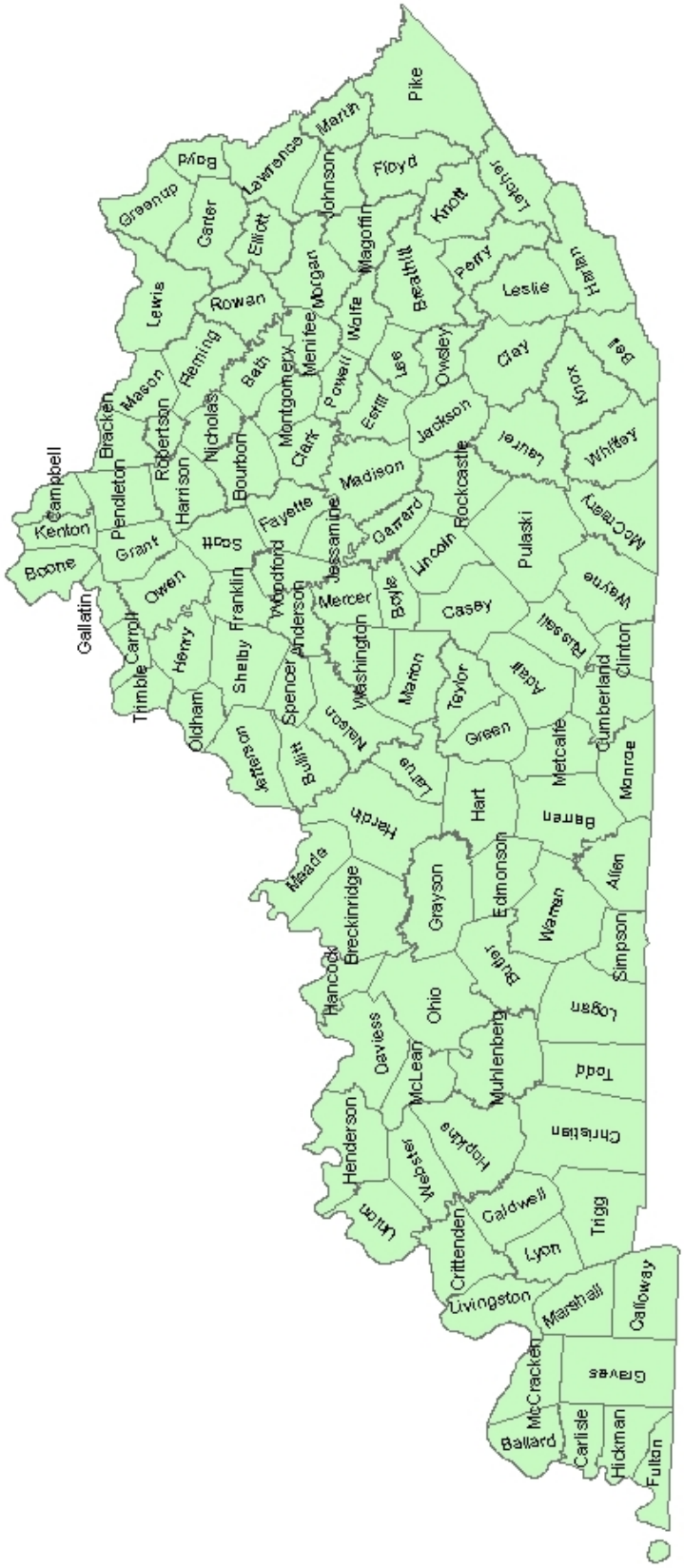
(6) Important social, occupational, or recreational activities are given up or reduced because of substance use

Males	Females	Total
11.0%	11.8%	11.2%

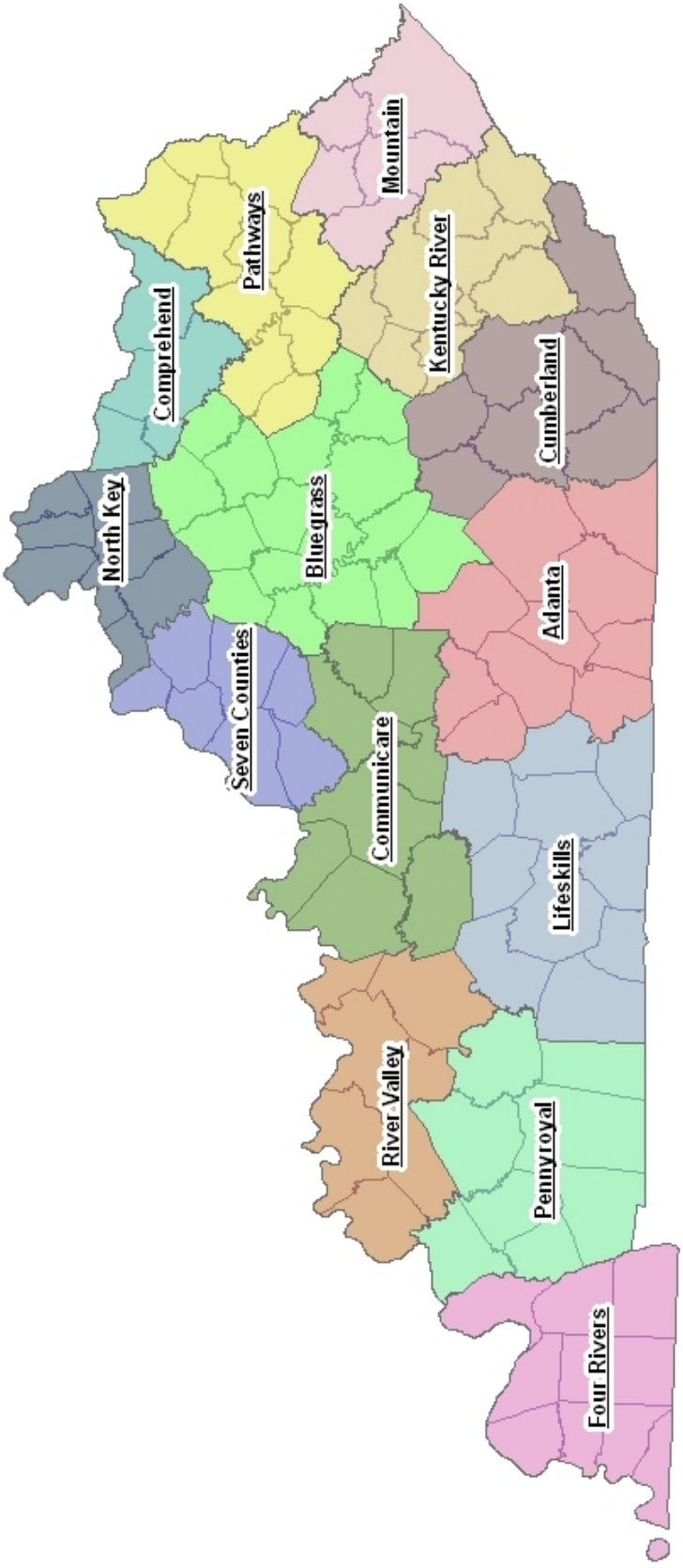
(7) The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance

Males	Females	Total
12.9%	16.8%	13.7%

Appendix D: Map of Kentucky by County



Appendix E: Map of Kentucky by MHMR Region



Appendix F: Map of Kentucky by DBH Region