Kentucky DUI Assessment Report for 2005

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Executive Summary

In calendar year 2005, 21,025 DUI Assessments were submitted to the Kentucky Division of Mental Health and Substance Abuse by 100 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 submitted. The University of Kentucky Center on Drug and Alcohol Research is contracted by the Division of Mental Health and Substance Abuse 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, 2005 through December 31, 2005.

The typical person assessed for DUI in Kentucky in 2005 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 40% 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 2005, the number of DUI Assessments submitted was 21,025
  Gender:
  - Males 81%
  - Females 19%

- Program referrals* were made to:
  - 20-Hour Education 47%
  - Outpatient 50%
  - IOP or Residential 3%

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

- Overall, 77% 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. Combinations of risk factors appear to increase the risk of non-compliance.

- The number of females who met DSM-IV-TR criteria for substance abuse or three or more criteria for substance dependence in their lifetime was lower than that for males (47.5% for males and 42.6% for females).

- Assessment programs referred individuals to themselves for education and/or treatment services 96.8% of the time.

- 1,798 (9.0%) of assessments submitted were for persons under the legal drinking age.

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 appropriate level of care to address the person's drug and/or alcohol problem. 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 Kentucky Division of Mental Health and Substance Abuse.

CDAR serves as the repository for state DUI assessment records. CDAR receives a disk every month from each DUI assessment program containing 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 four 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 has 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 has 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. 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, 2005 and December 31, 2005. A total of 21,025 records were received from 100 licensed and certified DUI Assessment Programs. It should be noted that completed assessment records in 2005 are not the same as the number of DUI convictions in 2005 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

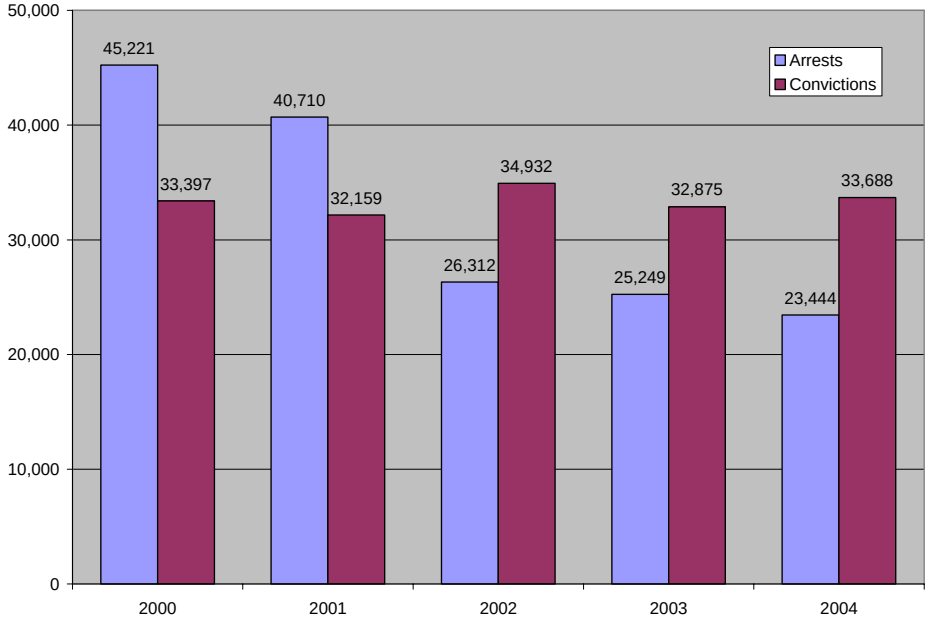
	2005		2004	
	Missing Assessments	Percent of Cases	Missing Assessments	Percent of Cases
Gender	68	0.3%	181	0.8%
Assessment Program	254	1.2%	0	0.0%
Age	996	4.7%	1,105	4.8%
County of Conviction	1,368	6.5%	944	4.1%
Recommended Level of Care	1,408	7.0%	2,101	9.1%
AUDIT Score	1,534	7.3%	1,898	8.2%
Treatment Program	1,832	8.7%	598	2.6%
Time to Completion	2,494*	11.9%	4,369*	18.9%
DAST Score	2,906	13.8%	4,965	21.5%
Blood Alcohol Content	10,132	48.2%	10,348	44.9%

* Cases where time to completion was 0 days (n = 462) were considered as missing data since persons cannot be convicted, assessed, and complete treatment in the same day.

Blood Alcohol Content has the highest percent of missing cases which is largely due to individuals who either refused the test or did not remember the level. Each update to the Kentucky DUI Assessment software has successfully reduced the amount of missing data, but certain fields remain problematic.

The second limitation is that these data represent a subset of a larger, unknown number of DUI's in Kentucky. For example, in 2004 there were 23,444 DUI arrests, 33,688 DUI convictions, and 23,065 completed assessments[5]. This difference emphasizes the dangers in comparing these data since there are different requirements and timelines for records. Figure 1 presents the number of arrests and convictions for 2000 through 2004.

Figure 1: DUI Arrests and Convictions 2000 through 2004



This report presents assessments completed in 2005, which is 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 which 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 (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. In 2005, 43 damaged disks were received with an estimated loss of 258 records. This is a decrease from 2004 when 72 damaged disks were received with an estimated loss of 1,956 records.

Summary

This report presents data which 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 Mental Health & Substance Abuse (DMHSA) regions, and trends from 2003 through 2005 are described.

SECTION ONE

DEMOGRAPHICS

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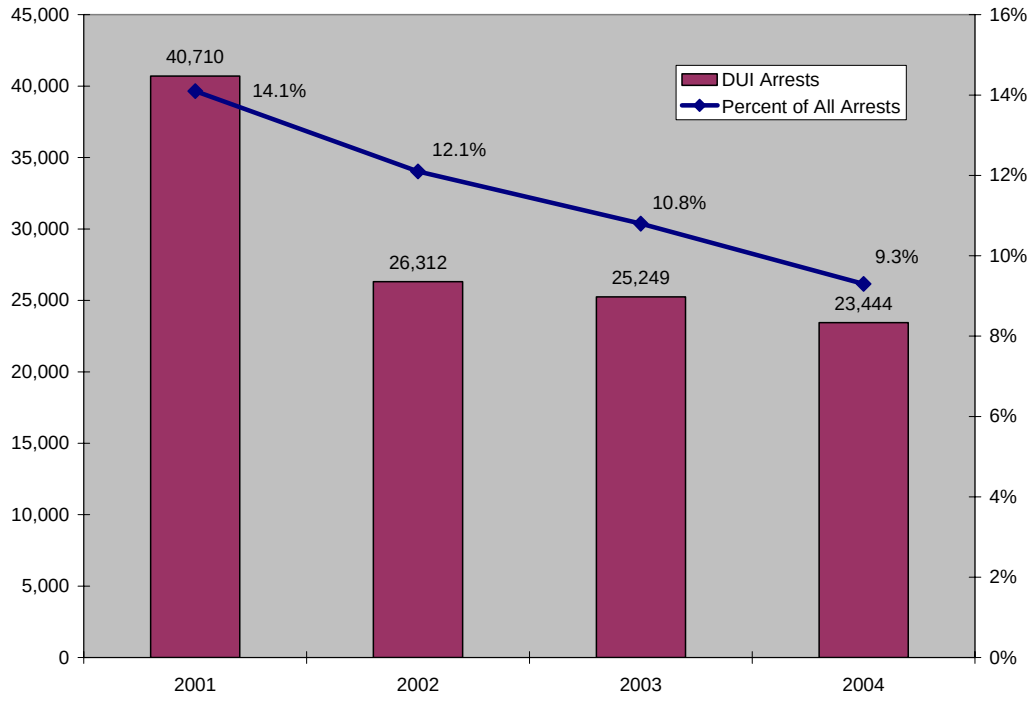
1.1 Number of DUI Assessments Submitted in 2005

The number of completed DUI assessments submitted in calendar year 2005 was 21,025. In 2004 there were 23,444 arrests for DUI which represented 9.3% of all arrests in Kentucky in 2004[5]. DUI arrests have continued to decline since 2001. Figure 1.1 presents the number of DUI arrests from 2001 to 2004. Figure 1.1 includes the percent of total arrests in Kentucky that DUIs represent.

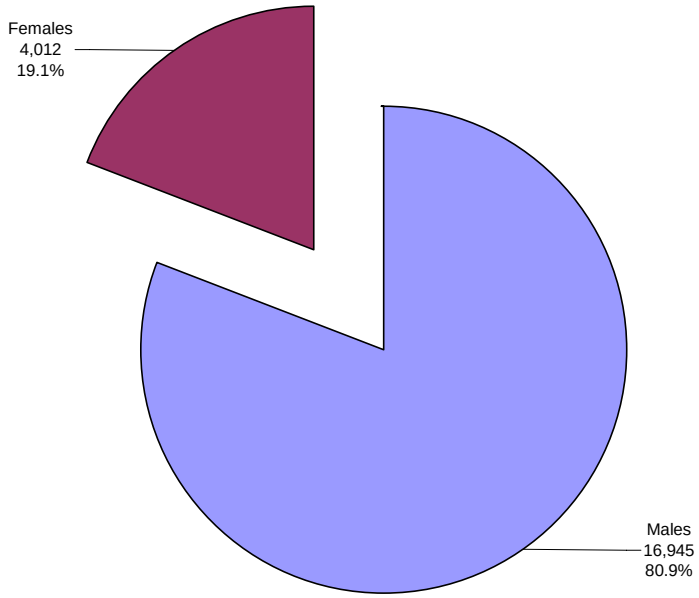
Figure 1.1: Number of DUI Arrests and Percent of Total Arrests 2001 to 2004



1.2 DUI Assessments by Gender

Of the 20,957 assessments that reported gender, 80.9% percent were males, 19.1% females

Figure 1.2: Assessments by Gender*

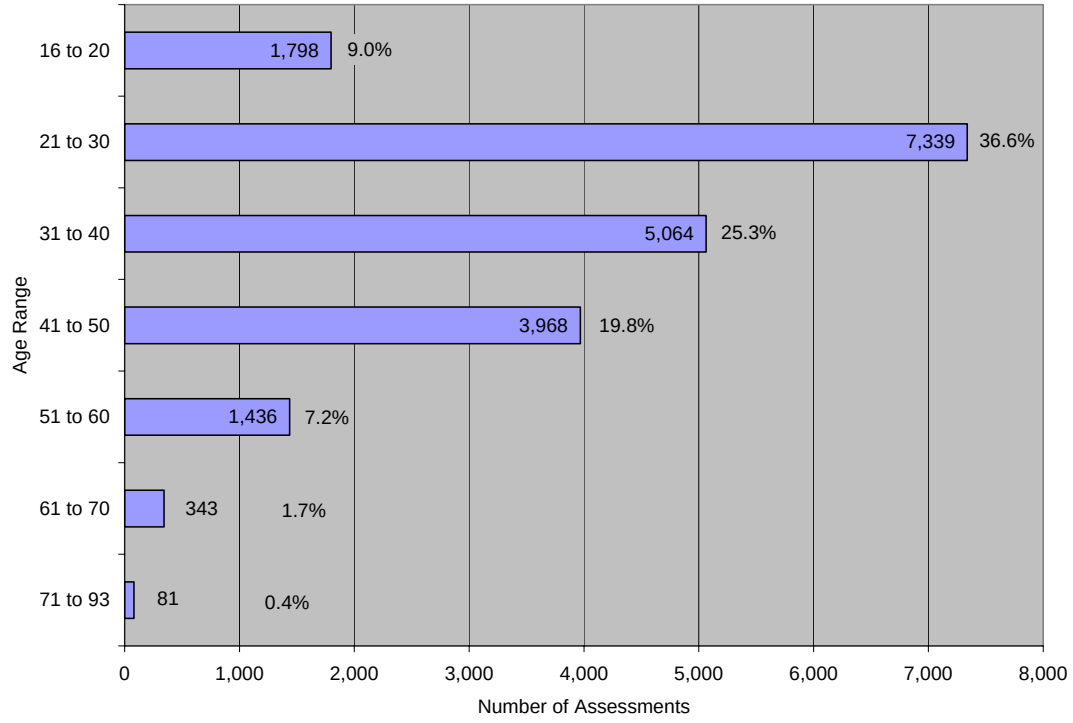


* Missing Data = 68 Assessments

1.3 Assessments by Age

The majority of assessments submitted in 2005 were for persons between 21 and 40 years of age (61.9%). The oldest person was 93 years old. There were 1,798 assessments (9.0%) submitted for persons who were between 16 through 20 years of age at the time they were convicted. Persons who are under the legal drinking age are typically referred to an Early Intervention Program (EIP) for an assessment. In 2004 there were 3,222 DUI arrests for persons under 21 which represent 13.7% of all DUI arrests[5]. The limited availability of EIP programs and judicial discretion account for most of these under aged assessments being completed by standard DUI assessment programs. Figure 1.3 presents the number of assessments by age.

Figure 1.3: Assessments by Age*

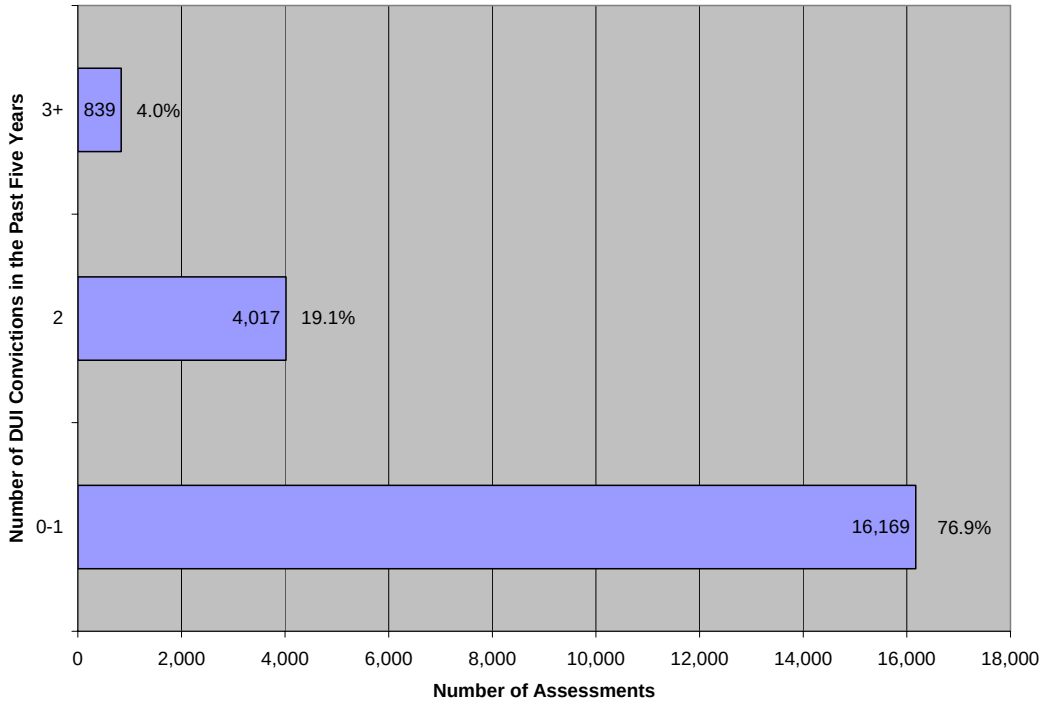


* Missing Data = 996 Assessments

1.4 DUI Convictions in the Previous Five Years

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

Figure 1.4: DUI Convictions in the Previous Five Years*

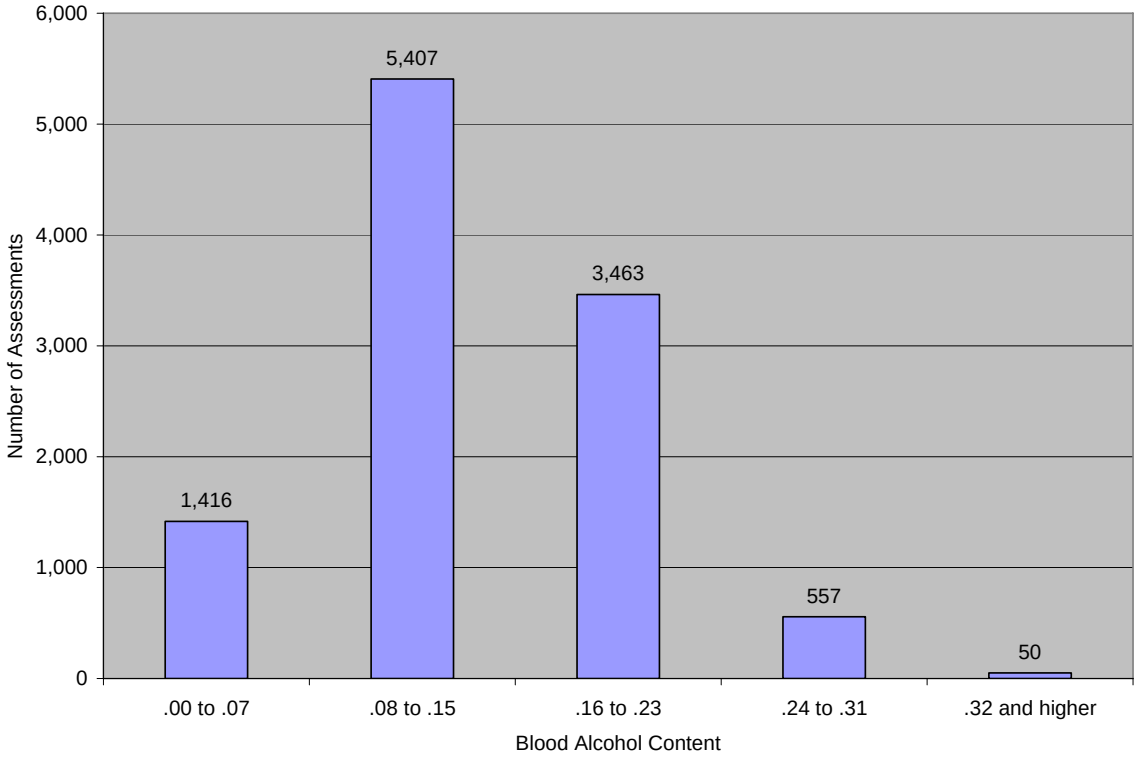


* Missing Data = None

1.5 Blood Alcohol Content

Figure 1.5 presents the Blood Alcohol Content (BAC) for the assessments. A large number of assessments were in the 0.08 to 0.15 g/dL range. There were very few cases above 0.24 (n = 607).

Figure 1.5: Blood Alcohol Content by Number of Assessments*



* Missing Data = 10,132 Assessments

Demographics Summary

Persons assessed in 2005 were most likely to be a male between 21 and 40 years old who was arrested for his first DUI in five years and had a BAC between 0.08 and 0.15g/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 excessive drinking. The test consists of 10 questions each scored from 0 to 4. The final score is the combination of the 10 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 AUDIT scores for each question by gender.

Table 2.1: AUDIT Scores*

	Males	Females	Total
Positive (8+)	5,965 (38.0%)	979 (26.1%)	6,944 (35.7%)
Average Score	7.59	6.17	7.32
Number of Assessments	15,692	3,745	19,437

* Missing Data = 1,588 Assessments

2.2 DAST

The Drug Abuse Screening Test (DAST) assesses drug use problems. The test consists of 28 true/false questions with a score of 1 or 0. A combined score of 5 or more identifies a person with a potential drug problem. Females had a higher average score and a higher percentage of females tested positive than males (see Table 2.2).

Table 2.2: DAST Scores*

	Males	Females	Total
Positive (5+)	4,620 (31.7%)	1,134 (32.3%)	5,754 (31.8%)
Average Score	4.88	5.25	4.95
Number of Assessments	14,560	3,508	18,068

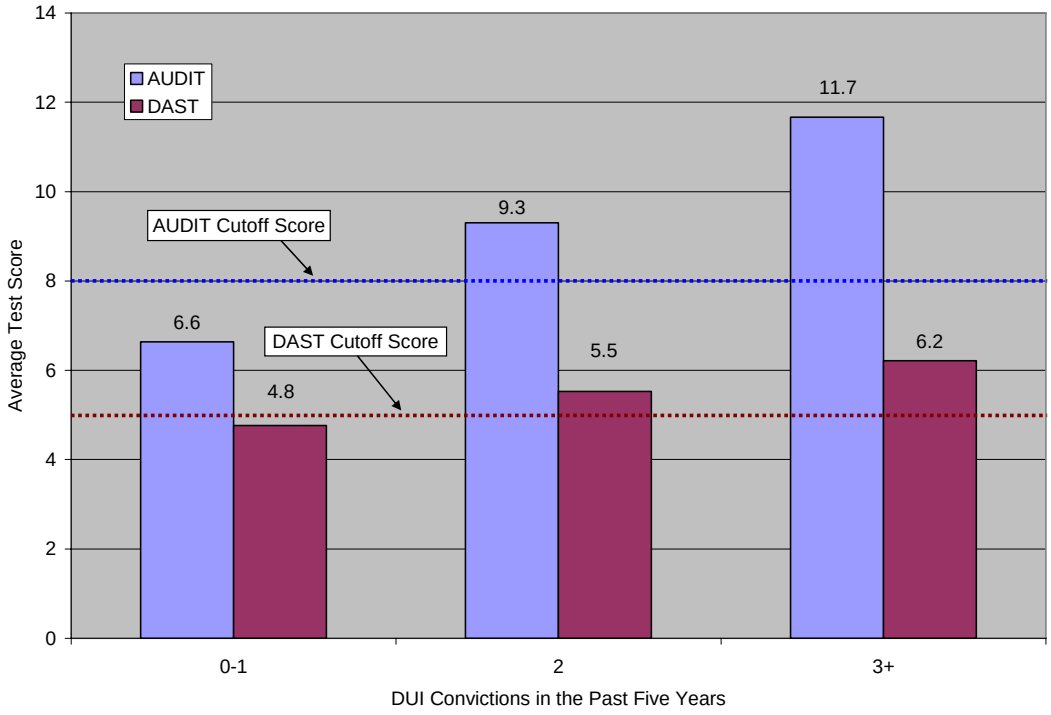
* Missing Data = 2,957 Assessments

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 6.6 on the AUDIT and 4.8 on the DAST. Both scores are considered negative for alcohol or drug problems. Offenders with two or more DUI convictions in the past five years had an average score of 9.3 on the AUDIT and 5.5 on the DAST. Those persons with three or more prior convictions scored 11.7 on the AUDIT and 6.2 on the DAST. The average AUDIT and DAST scores for persons with multiple convictions were positive on both tests, indicating a more severe alcohol and/or drug problem.

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

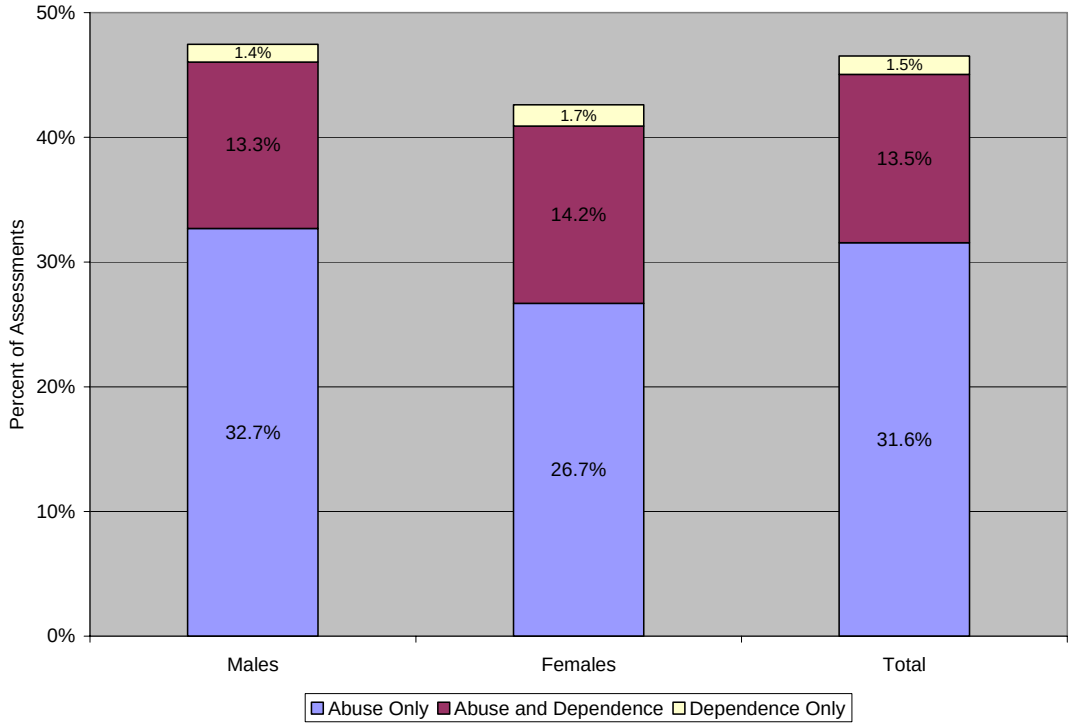


* Missing Data = 1,534 Assessments for AUDIT and 2,906 for DAST

2.4 DSM-IV-TR Abuse and Dependence Criteria

According to the Kentucky Needs Assessment Project 2004 Adult Household Survey, the percent of Kentuckians 18 years and older who reported criteria for a substance use disorder was 17.2% for males and 5.2% for females[6] and adult males were 3.6 times as likely to meet dependence than females (6.2% for males and 1.7% for females). In 2005 females convicted of DUI (15.9%) had a higher rate of dependence than males convicted of DUI (14.7%). 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 the lifetime. Appendix C and Appendix D present 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.

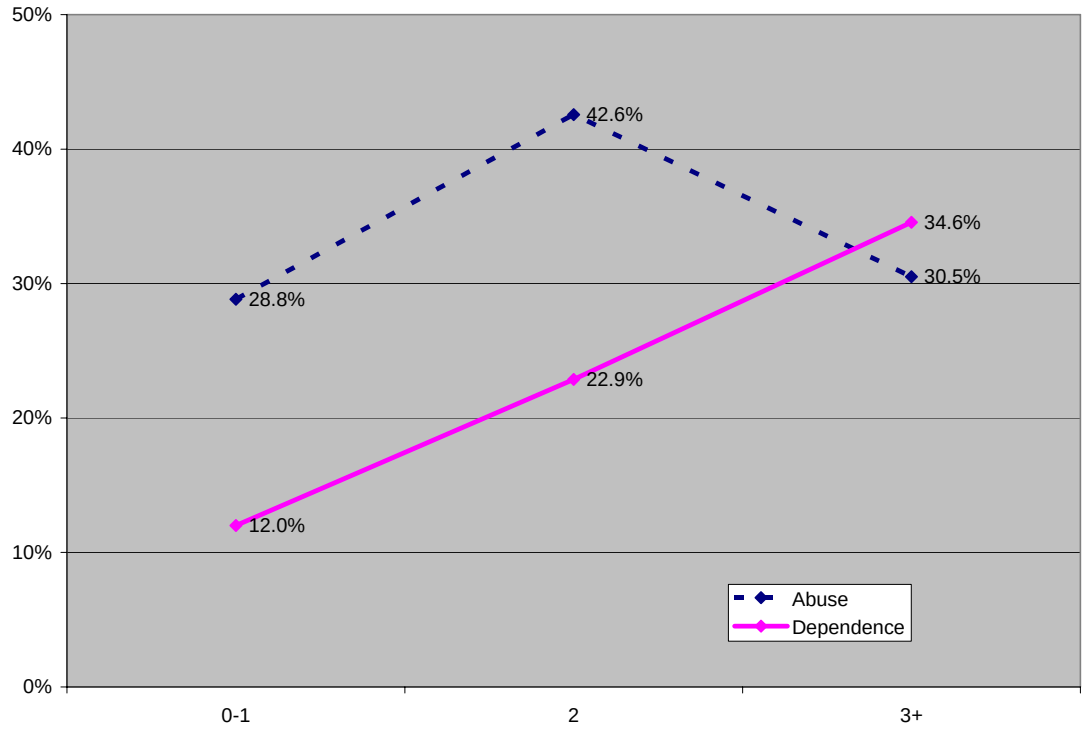
Figure 2.2: Percent of Persons Meeting DSM-IV-TR Abuse and/or Dependence Criteria by Gender*



* Missing Data = 68 Assessments

Figure 2.3 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 percent of persons who reported three or more dependence criteria in their lifetime increases about 11 percentage points between 0-1 to 2 and 2 to 3+ DUI convictions in the past five years. The percent of persons reporting abuse, however, increased about 13 percentage points between 0-1 to 2 DUI convictions but then decreased about 12 percentage points between 2 to 3+ DUI convictions. This may be due to the increased number of persons reporting dependence criteria.

Figure 2.3: Percent of Persons meeting Dependence or Abuse Criteria by Number of DUI Convictions in the Past Five Years*

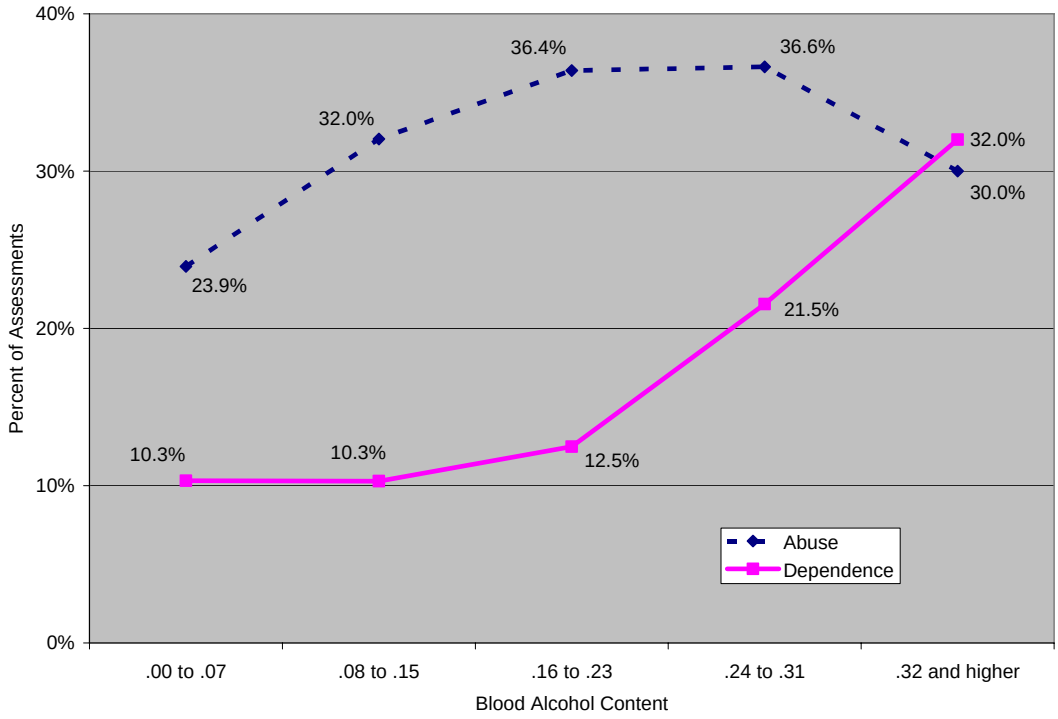


* Missing Data = none

2.5 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 2.4 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 2.4, this decrease in persons reporting abuse may be due to the increased number of persons reporting dependence criteria

Figure 2.4: Percent of Persons Meeting Abuse or Dependence Criteria by Blood Alcohol Content*



* Missing Data = 10,894 Assessments

Screening Summary

AUDIT and DAST scores, DSM-IV-TR criteria, and blood alcohol content are all closely related. Persons with multiple DUI convictions and a high BAC are more likely to meet at least three DSM-IV-TR criteria for substance dependence in their lifetime.

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SECTION THREE

TREATMENT REFERRALS

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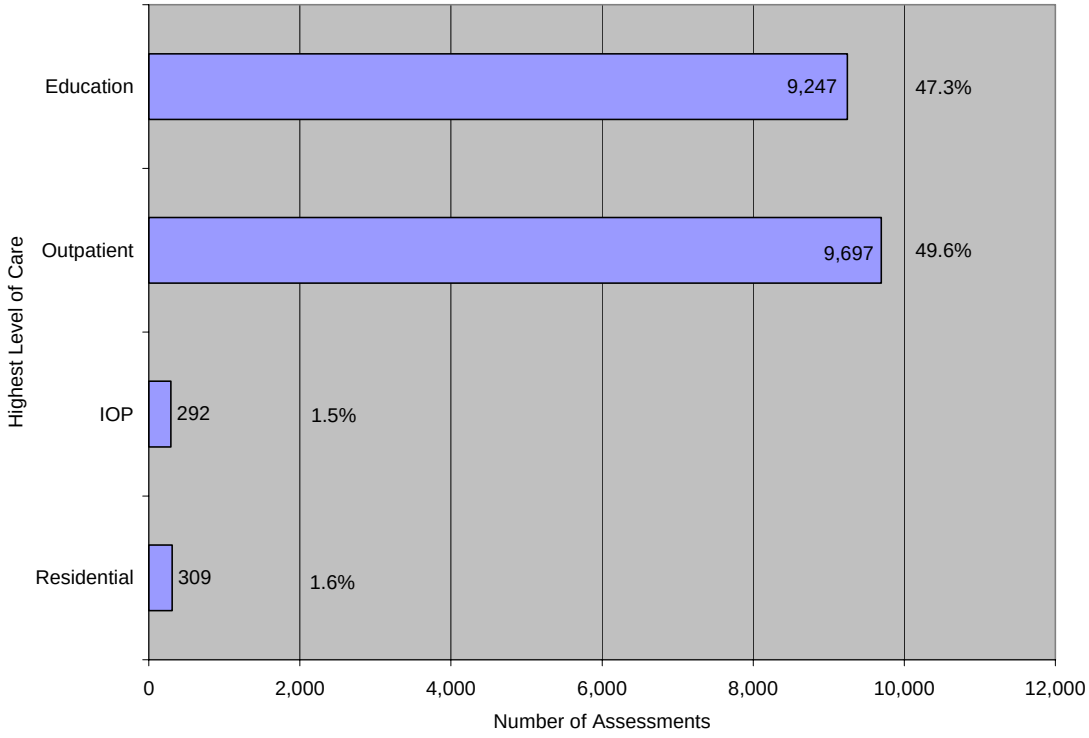
3.1 Level of Care Recommended

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 (96.4%) was referred for Education or Outpatient treatment as their highest level of care.

Figure 3.1: Highest Level of Care Recommended*

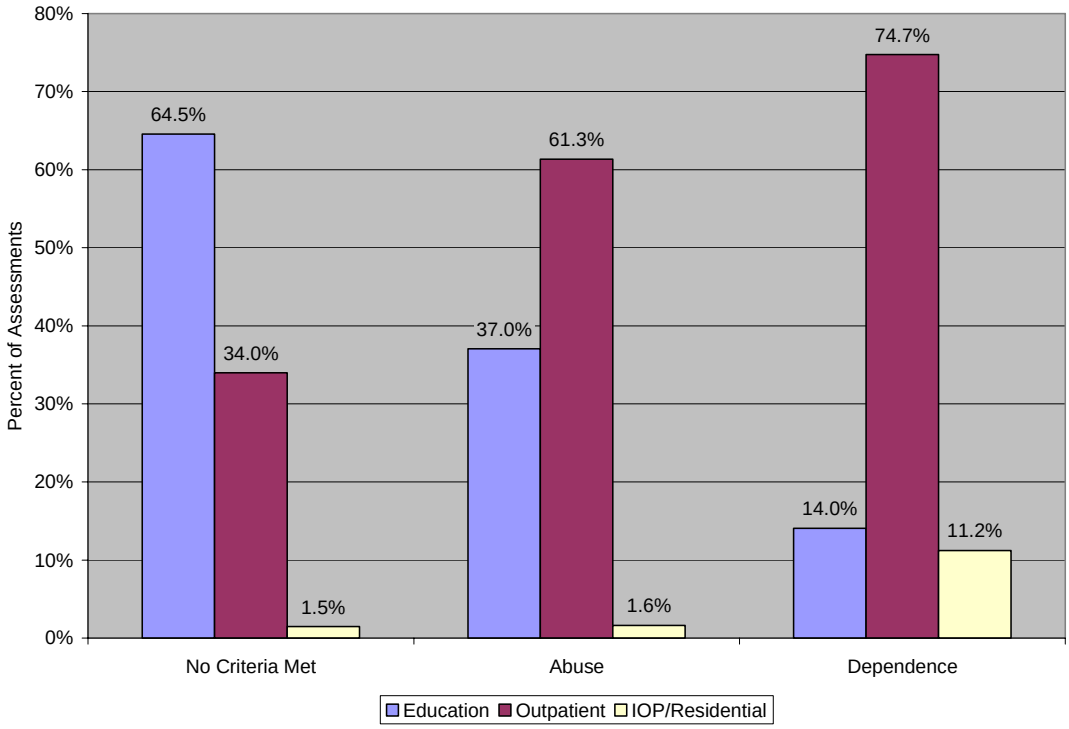


* Missing Data = 1,480 Assessments

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 = 1,480 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	10,032
Outpatient	9,927
Intensive Outpatient	330
Residential	309

* Missing Data = 1,480 Assessments

† 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 over half (53.4%) of persons recommended for Residential services were also recommended for an additional level of care.

Table 3.2 Total Referrals by Combination*

Education	9,247
Outpatient	8,939
OP & Edu	758
Intensive Outpatient	196
IOP & Edu	9
IOP & OP	80
IOP & OP & Edu	7
Residential	144
Res & Edu	6
Res & OP	116
Res & OP & Edu	5
Res & IOP	16
Res & IOP & Edu	0
Res & IOP & OP	22
Res & IOP & OP & Edu	0

Key:

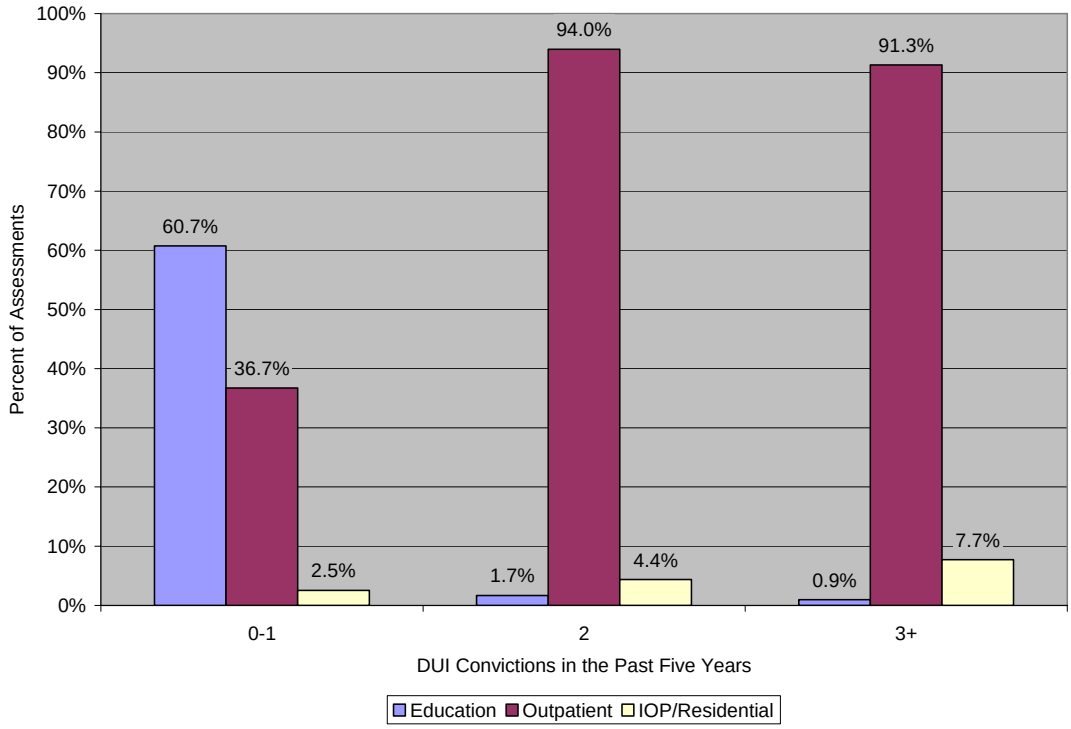
Education	Edu
Outpatient	OP
Intensive Outpatient	IOP
Residential	Res

* Missing Data = 1,480 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. 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*

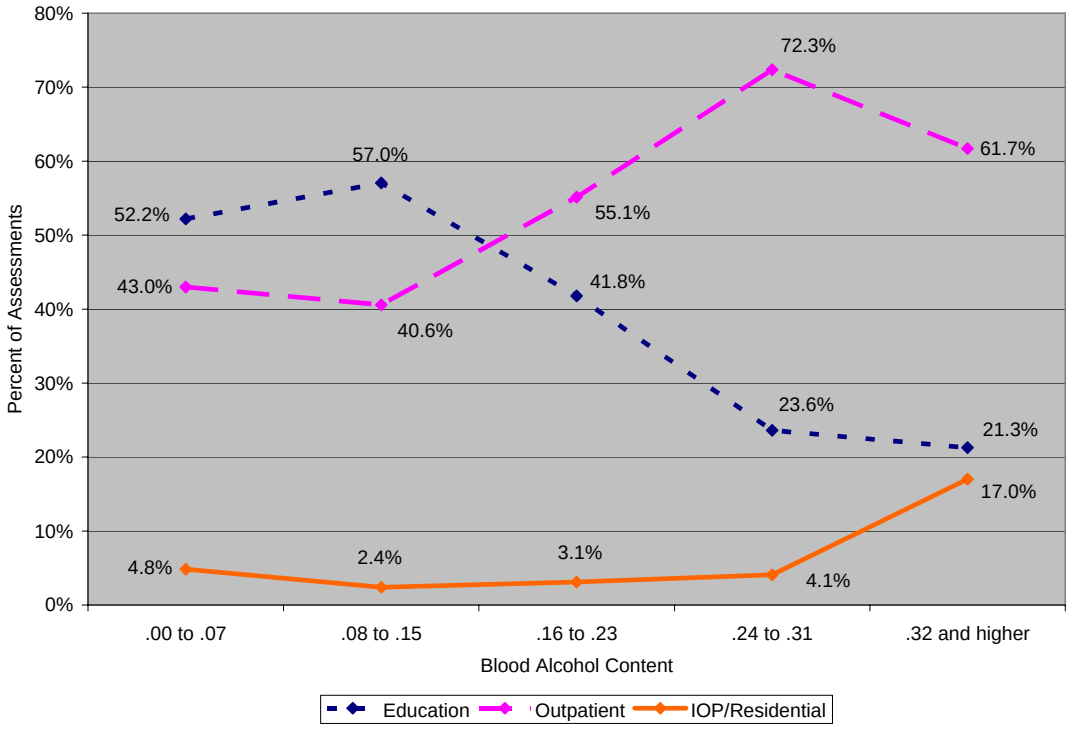


* Missing Data = 1,480 Assessments

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 (< 0.16g/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 = 10,928 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. The level of care recommended and blood alcohol content are also related. The majority of persons who are compliant with their recommended level of care completed their intervention within the time mandated by law.

SECTION FOUR

COMPLIANCE

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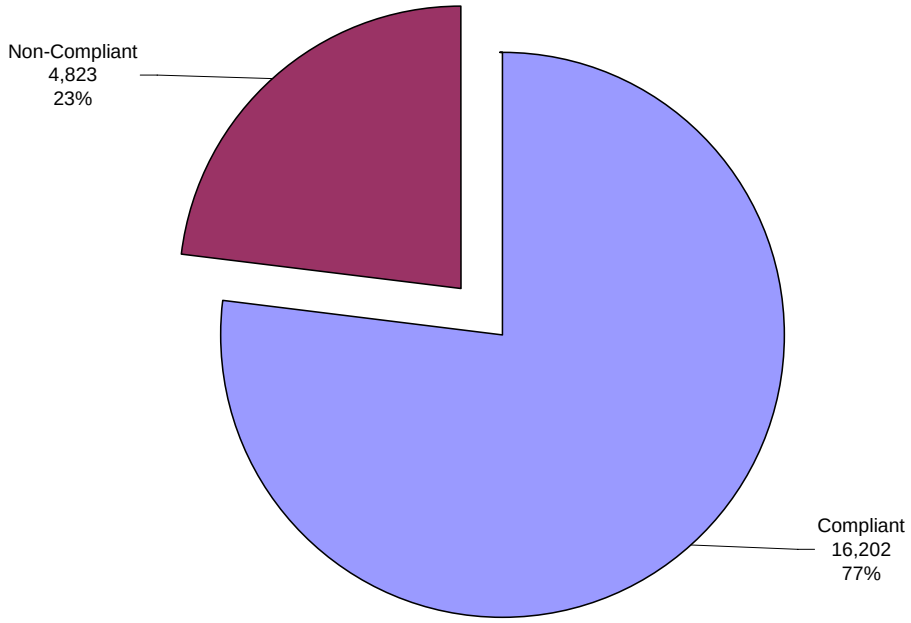
4.1 Compliant vs. Non-Compliant

Figure 4.1 presents compliance. Overall, about three-fourths (77%) 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 or does not maintain satisfactory program attendance they are considered to be non-compliant.

Figure 4.1: Compliant vs. Non-Compliant*

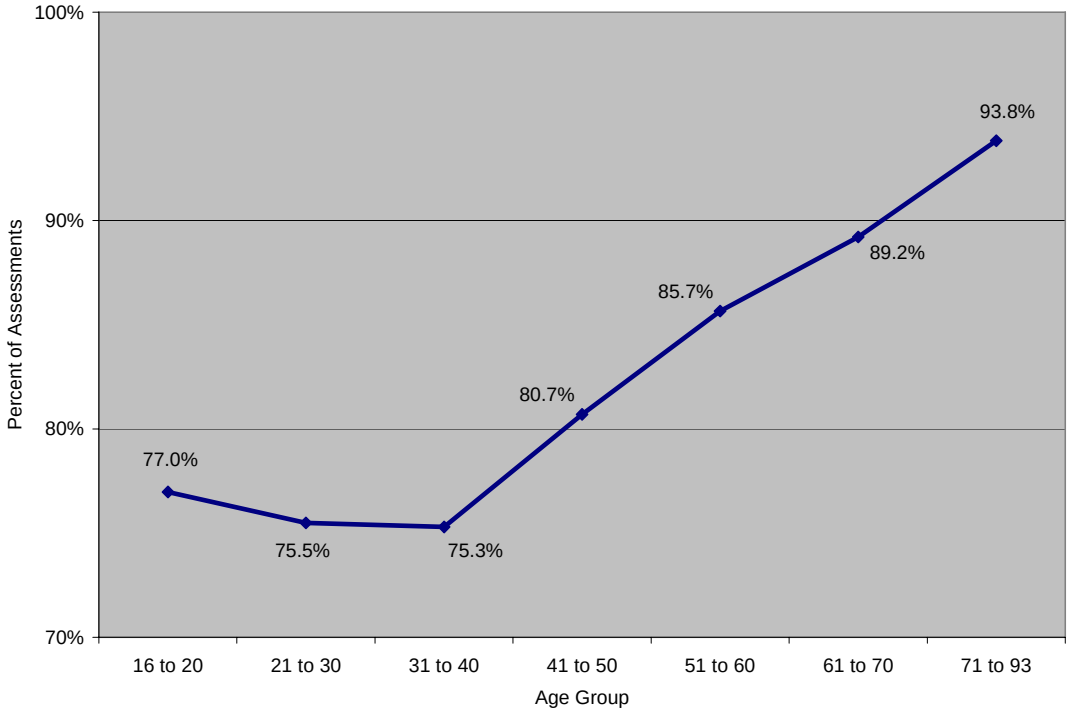


* Missing Data = none

4.2 Compliance by Age

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

Figure 4.2: Compliance by Age*

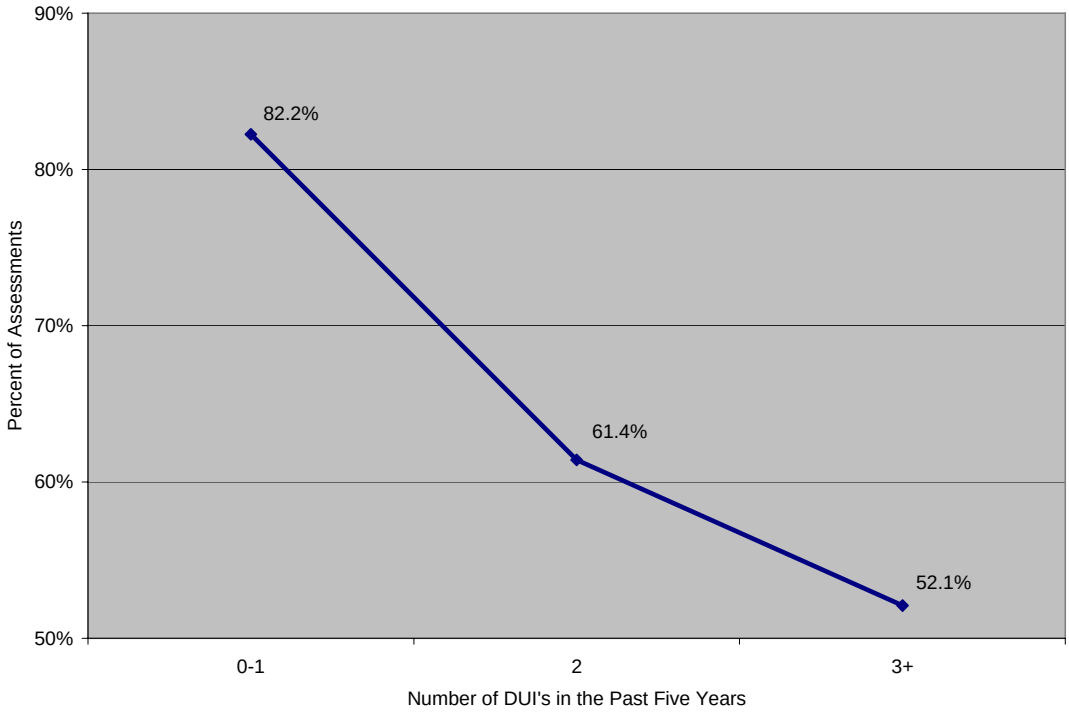


* Missing Data = 996 Assessments

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 25.3% less likely to be compliant than persons convicted of their first DUI. Persons with three or more convictions in the past five years were 36.6% less likely to be compliant than persons convicted of their first DUI.

Figure 4.3: Compliance by Number of DUI Convictions*

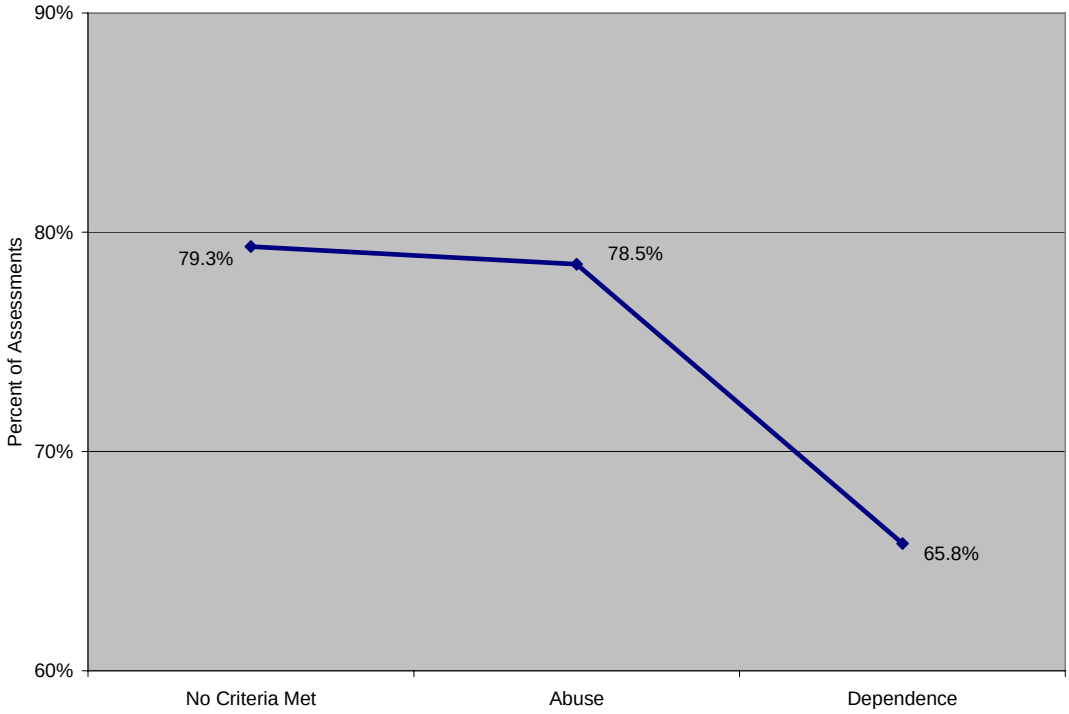


* Missing Data = none

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 = none

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[7]:

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

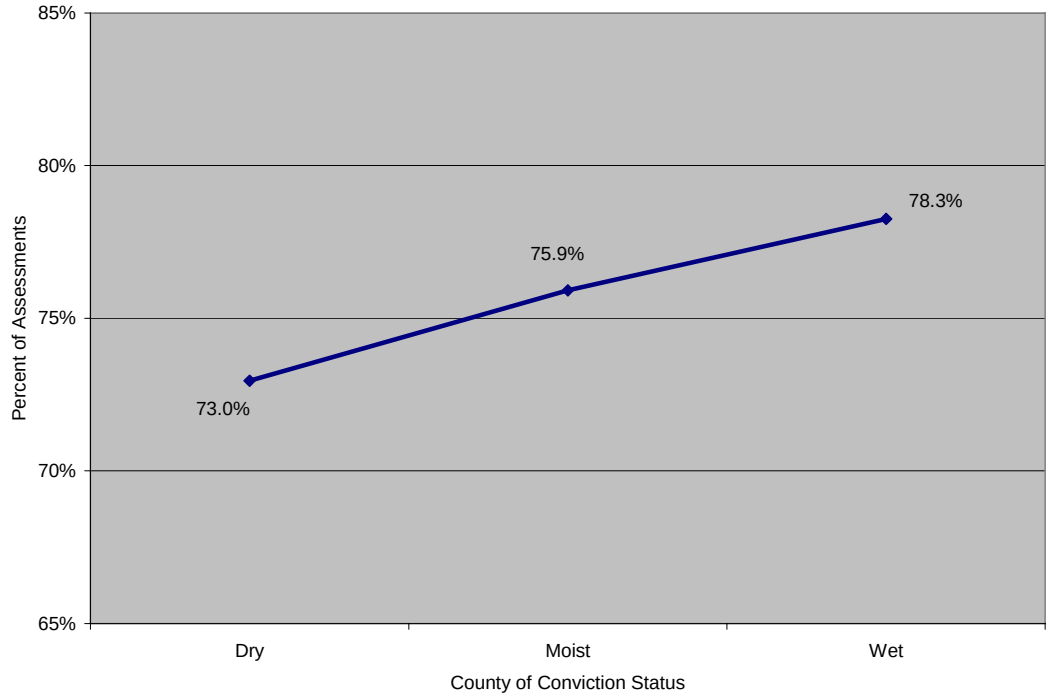
There are three exceptions to Moist and Dry counties:

- 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 presentation, moist counties include dry counties with limited, winery, and/or golf exceptions.

Figure 4.5 shows that persons convicted in dry counties are less likely to be compliant than those convicted in wet or moist counties. Similarly, persons convicted in wet counties are more likely to be compliant than persons convicted in moist counties.

Figure 4.5: Compliance by County of Conviction Status*



* Missing Data = 944 Assessments

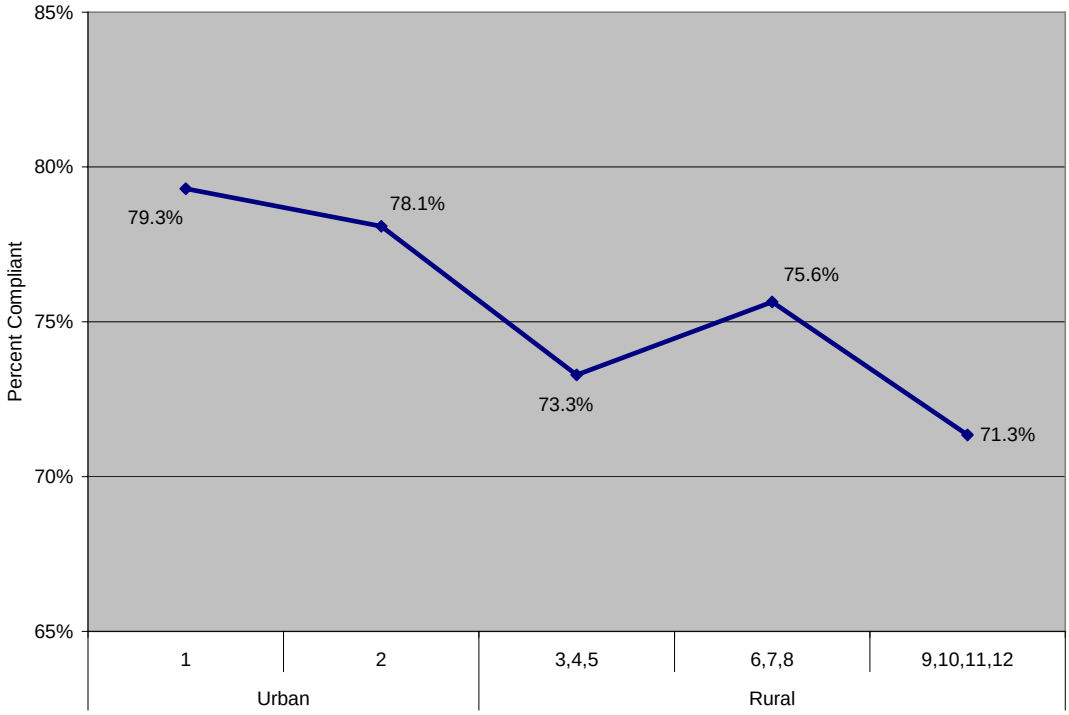
In Kentucky, wet counties tend to have a higher population density compared to moist or dry counties. DUI services are typically more accessible in urban centers compared to rural areas. This disparity may account for the lower compliance rates in dry and moist counties as presented in Figure 4.5. The United States Department of Agriculture Economic Research Service uses Beale Codes[8] to classify the urban influence of individual US counties. Codes 1 and 2 designate an urban area. The higher the number, the more rural a county is considered. Table 4.1 presents the Beale Code classification system and the number of Kentucky counties that fall under each category.

Table 4.1: USDA-ERS Beale Codes

	Beale Code		Number of KY Counties
Urban	1	Large-in a metro area with at least 1 million residents or more	16
	2	Small-in a metro area with fewer than 1 million residents	19
Rural	3	Micropolitan adjacent to a large metro area	1
	4	Noncore adjacent to a large metro area	5
	5	Micropolitan adjacent to a small metro area	9
	6	Noncore adjacent to a small metro with town of at least 2,500 residents	15
	7	Noncore adjacent to a small metro and does not contain a town of at least 2,500 residents	8
	8	Micropolitan not adjacent to a metro area	16
	9	Noncore adjacent to micro area and contains a town of 2,500-9,999 residents	9
	10	Noncore adjacent to micro area and does not contain a town of at least 2,500 residents	8
	11	Noncore not adjacent to a metro/micro area and contains a town of 2,500 or more residents	4
	12	Noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents	10

Overall there were only minor differences between urban/rural classifications. Persons who were assessed in urban areas were more likely to be compliant than persons assessed in rural counties. Figure 4.6 presents compliance by Beale Code.

Figure 4.6: Compliance by Beale Code*

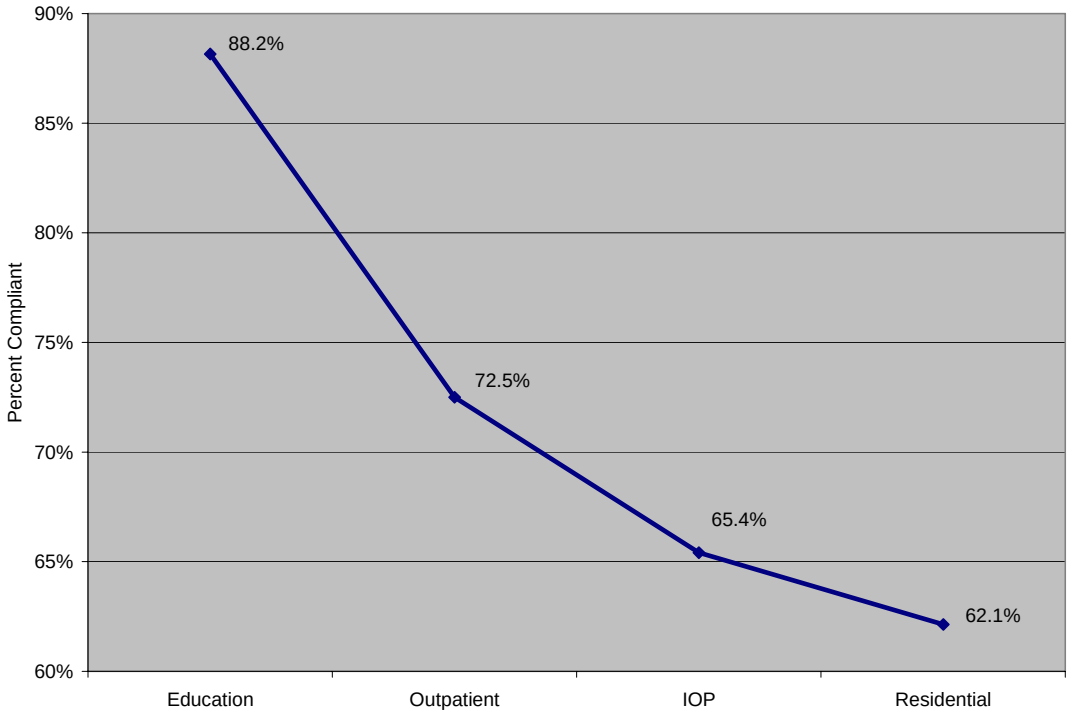


* Missing Data = 1,929 Assessments

4.6 Compliance by Highest Level of Care Recommended

Figure 4.7 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 17.8% and 25.9% less likely to be compliant with their intervention than persons referred to education. Persons referred for residential treatment were 29.6% 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 4.7: Compliance by Highest Level of Care Recommended*

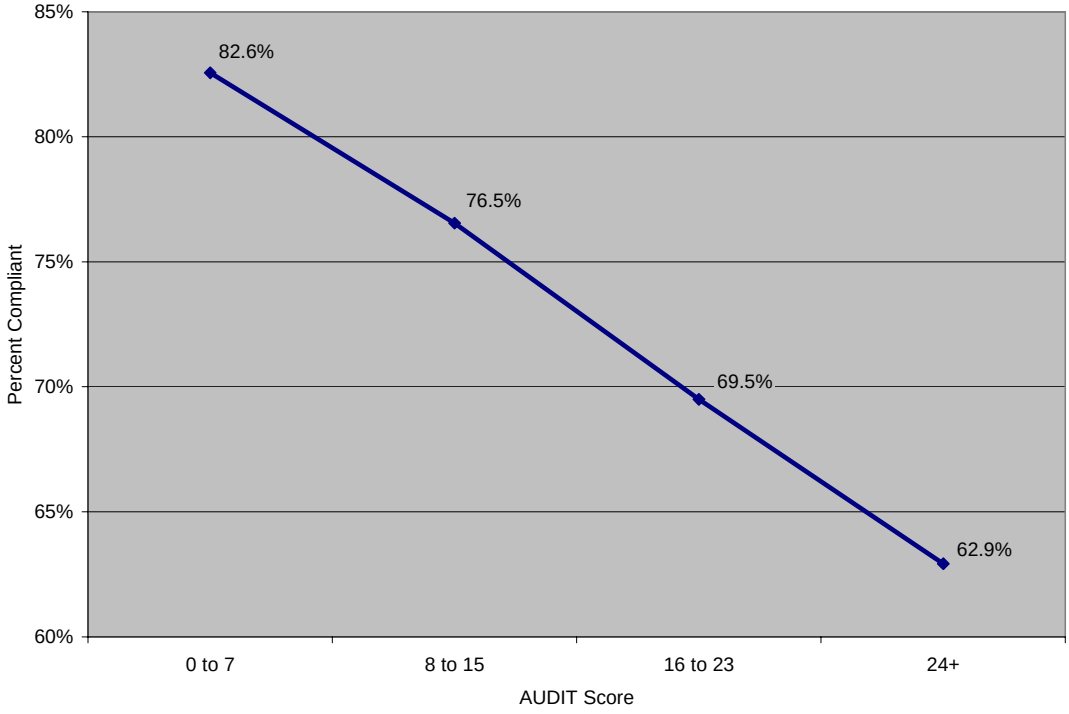


* Missing Data = 1,480 Assessments

4.7 Compliance by AUDIT and DAST Scores

Figure 4.8 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.

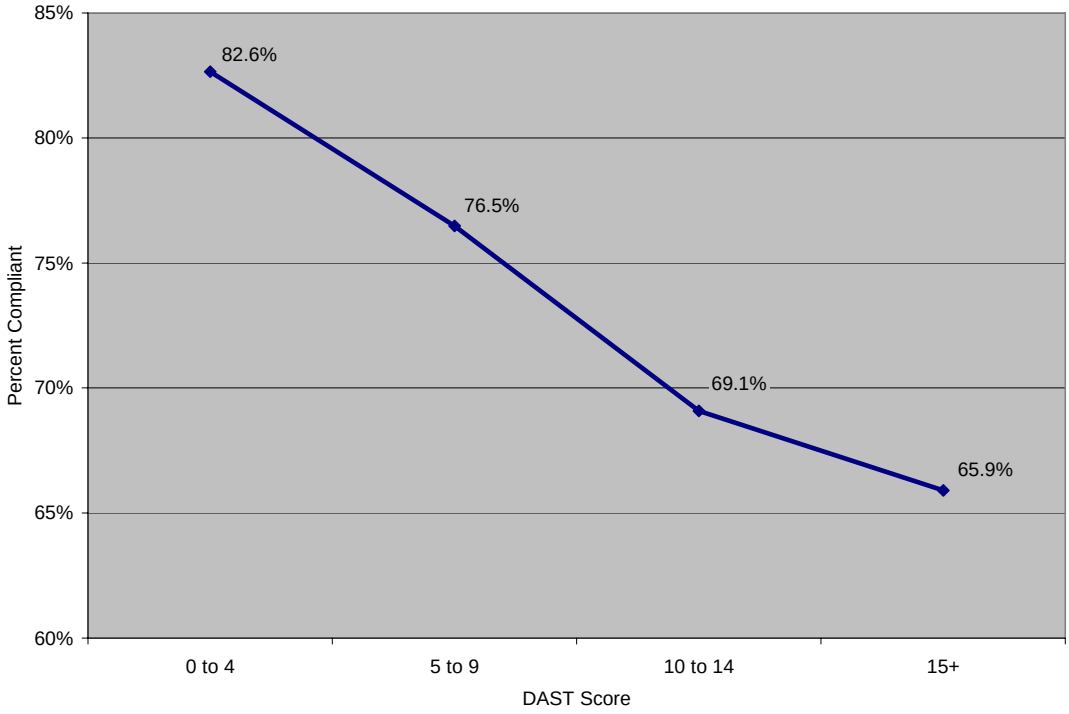
Figure 4.8: Compliance by AUDIT Score*



* Missing Data = 1,534 Assessments

Figure 4.9 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 4.9: Compliance by DAST Scores*



* Missing Data = 2,906 Assessments

Compliance Summary

Lower compliance is related to younger age, male gender, more DUI convictions, dry county of conviction alcohol sales restrictions, higher AUDIT scores, higher DAST scores, and more intensive recommended levels of care. Consequently, multiple risk factors decrease the likelihood of compliance.

SECTION FIVE

MHMR REGIONS

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5.1 Assessments

In calendar year 2005, 100 licensed and certified programs submitted at least one DUI assessment record. There were eight 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	21,025	5,554	15,171
Number of Programs	100	13	87
Average Assessments per Program	210	427	174

* Missing Data = 300 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 within that region, not just the 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. Please also note that figures 5.1 through 5.6 refer to the county of conviction rather than the county of assessment or county of residence.

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	Assessments
Region 1 - Four Rivers	34.6	64.3%	81.1%	903
Region 2 - Pennyroyal	34.8	66.3%	81.4%	642
Region 3 - River Valley	34.3	66.2%	82.6%	2,086
Region 4 - Lifeskills	33.2	70.8%	81.3%	1,369
Region 5 - Communicare	*35.4*	*63.6%*	*85.2%*	1,246
Region 6 - Seven Counties	34.8	65.7%	83.5%	*3,319*
Region 7 - North Key	34.4	67.4%	79.4%	1,294
Region 8 - Comprehend	33.3	70.1%	80.9%	*350*
Region 10 - Pathways	33.0	71.8%	79.4%	1,707
Region 11 - Mountain	*32.8*	73.0%	79.4%	753
Region 12 - Kentucky River	33.6	69.4%	84.3%	652
Region 13 - Cumberland	34.0	68.6%	*77.4%*	1,015
Region 14 - Adanta	34.7	66.0%	83.8%	824
Region 15 - Bluegrass	*32.8*	*73.1%*	80.9%	2,936
All Regions	34.0	68.4%	80.9%	20,957

* Missing Records: Age = 2,260, Gender = 1,977, Assessments = 68

5.3 DUI Convictions in the Past Five Years

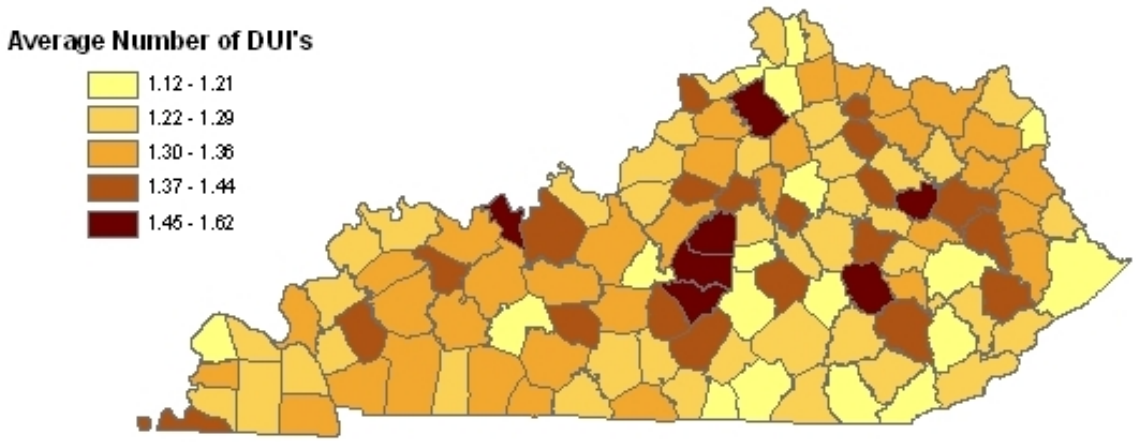
Table 5.3 presents the average number of convictions by region and the percentage of persons presenting for their first (0-1), second (2), or third or more (3+) DUI conviction in the previous five years. First offenders were a majority in all regions. River Valley had the highest level of second conviction persons (23.3%), and Pennyroyal had the highest level of persons convicted for three or more DUIs (6.1%). Figure 5.1 presents the average number of DUI convictions in the past five years for assessed DUI offenders by county.

Table 5.3: MHMR DUI Convictions in the Past Five Years

	Average	0-1	2	3+
Region 1 - Four Rivers	1.26	78.0%	18.1%	4.0%
Region 2 - Pennyroyal	1.30	75.7%	18.2%	***6.1%***
Region 3 - River Valley	1.30	73.3%	***23.3%***	3.5%
Region 4 - Lifeskills	1.29	75.3%	20.5%	4.2%
Region 5 - Communicare	***1.33***	72.6%	22.2%	5.1%
Region 6 - Seven Counties	1.26	77.1%	19.6%	3.3%
Region 7 - North Key	***1.23***	***79.8%***	17.5%	***2.7%***
Region 8 - Comprehend	***1.33***	***72.0%***	23.1%	4.9%
Region 10 - Pathways	1.29	76.2%	19.2%	4.7%
Region 11 - Mountain	1.29	75.2%	20.3%	4.5%
Region 12 - Kentucky River	1.28	76.8%	18.4%	4.8%
Region 13 - Cumberland	1.28	77.9%	***16.1%***	6.0%
Region 14 - Adanta	1.30	74.8%	20.9%	4.4%
Region 15 - Bluegrass	1.25	78.5%	18.0%	3.5%
All Regions	1.27	76.9%	19.1%	4.0%

* Missing Data = 1,929 Assessments

Figure 5.1: Average Number of DUI Convictions in the Past Five Years by County



5.4 MHMR Regions and Blood Alcohol Content

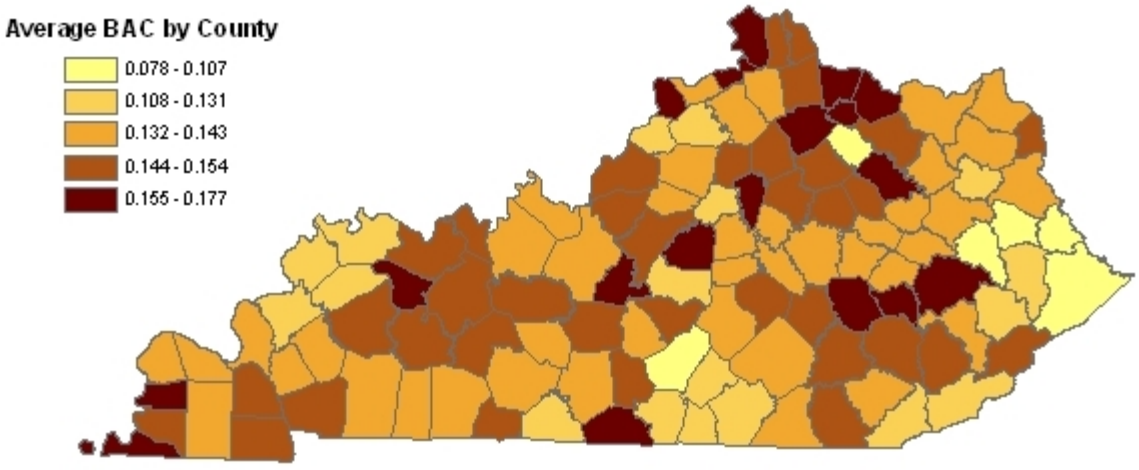
Table 5.4 presents MHMR regions and blood alcohol content. The average BAC was fairly consistent across regions. Region 11 had the lowest average BAC and regions 7 and 8 had the highest average BAC's. Figure 5.2 presents the average BAC by county.

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	0.145	8.5%	52.1%	33.4%	5.8%	0.2%
Region 2 - Pennyroyal	0.143	12.5%	50.0%	29.9%	6.7%	***0.9%***
Region 3 - River Valley	0.135	17.8%	45.7%	30.7%	5.3%	0.4%
Region 4 - Lifeskills	0.141	13.1%	53.6%	28.3%	4.4%	0.7%
Region 5 - Communicare	0.141	12.7%	49.5%	31.9%	5.2%	0.8%
Region 6 - Seven Counties	0.146	12.9%	46.5%	34.0%	6.1%	0.5%
Region 7 - North Key	***0.151***	6.3%	51.2%	36.6%	5.4%	0.5%
Region 8 - Comprehend	***0.151***	11.9%	43.8%	35.2%	***9.0%***	***< 0.1%***
Region 10 - Pathways	0.143	8.9%	52.8%	34.6%	3.6%	0.2%
Region 11 - Mountain	***0.108***	***3.9%***	***87.7%***	***7.0%***	***1.3%***	***< 0.1%***
Region 12 - Kentucky River	0.141	16.5%	46.8%	32.4%	3.7%	0.5%
Region 13 - Cumberland	0.142	16.3%	43.4%	***36.9%***	3.4%	***< 0.1%***
Region 14 - Adanta	0.125	***28.2%***	***42.1%***	26.6%	3.1%	***< 0.1%***
Region 15 - Bluegrass	0.144	10.5%	53.3%	30.9%	4.8%	0.5%
All Regions	0.141	13.0%	49.6%	31.8%	5.1%	0.5%

* Missing Data = 11,038 Assessments

Figure 5.2: Average BAC by County



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 assessments that met DSM-IV-TR criteria by MHMR region. There were differences between MHMR regions which were consistent with the differences in the 2003 and 2004 data.

Table 5.5: MHMR Regions and AUDIT/DAST Scores*

	AUDIT		DAST	
	Average	% Positive	Average	% Positive
Region 1 - Four Rivers	6.7	31.8%	4.7	28.2%
Region 2 - Pennyroyal	8.1	35.1%	4.4	26.7%
Region 3 - River Valley	***8.7***	40.2%	5.4	36.9%
Region 4 - Lifeskills	6.9	33.9%	5.1	33.4%
Region 5 - Communicare	8.6	***45.8%***	4.2	26.4%
Region 6 - Seven Counties	8.1	41.2%	4.5	29.4%
Region 7 - North Key	7.2	36.6%	***3.5***	***17.6%***
Region 8 - Comprehend	6.8	***31.1%***	5.3	39.5%
Region 10 - Pathways	6.9	34.3%	5.5	32.9%
Region 11 - Mountain	6.8	34.6%	6.3	48.4%
Region 12 - Kentucky River	7.0	37.1%	***7.0***	***53.4%***
Region 13 - Cumberland	***6.5***	32.0%	6.3	46.9%
Region 14 - Adanta	6.9	35.4%	6.2	42.8%
Region 15 - Bluegrass	6.8	31.8%	4.5	26.9%
All Regions	7.3	35.7%	5.0	31.8%

*Missing Data = 2,059 AUDIT/3,404 DAST Assessments

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

	No Criteria	Abuse Only	Dependence
Region 1 - Four Rivers	57.6%	32.0%	10.4%
Region 2 - Pennyroyal	***75.4%***	***17.9%***	***6.7%***
Region 3 - River Valley	64.0%	26.5%	9.5%
Region 4 - Lifeskills	54.8%	29.2%	16.0%
Region 5 - Communicare	64.6%	23.9%	11.5%
Region 6 - Seven Counties	61.4%	27.2%	11.4%
Region 7 - North Key	47.7%	***41.0%***	11.3%
Region 8 - Comprehend	51.4%	28.6%	20.0%
Region 10 - Pathways	41.4%	38.9%	19.7%
Region 11 - Mountain	***30.8%***	30.1%	***39.0%***
Region 12 - Kentucky River	34.8%	37.7%	27.5%
Region 13 - Cumberland	49.5%	28.4%	22.2%
Region 14 - Adanta	47.1%	31.9%	21.0%
Region 15 - Bluegrass	49.5%	35.6%	14.9%
All Regions	53.5%	31.5%	15.0%

* Missing Data = 1,368 Assessments

Figures 5.3 through 5.5 present the percent of assessments that were positive on the AUDIT, DAST, and DSM-IV-TR criteria by county. For DSM-IV-TR, any person who met at least one abuse criteria or three dependence criteria in their lifetime was counted. Please note the difference in scale between maps.

Figure 5.3: Percent of Assessments Positive for the AUDIT by County

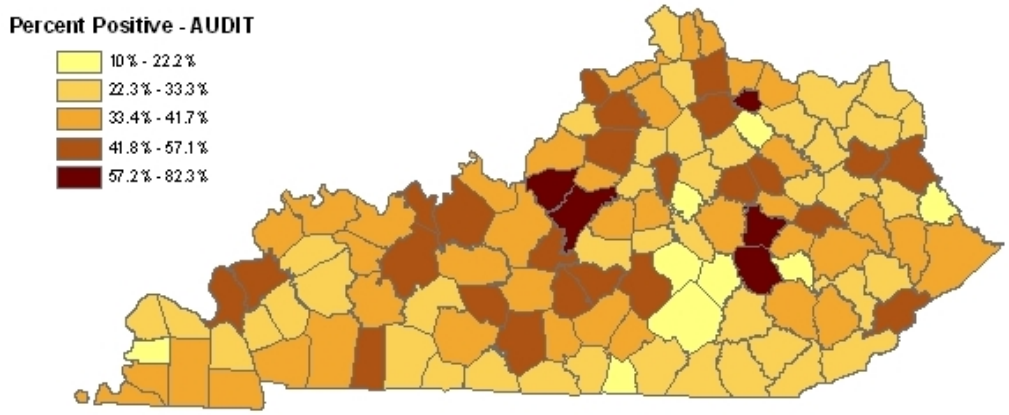


Figure 5.4: Percent of Assessments Positive for the DAST by County

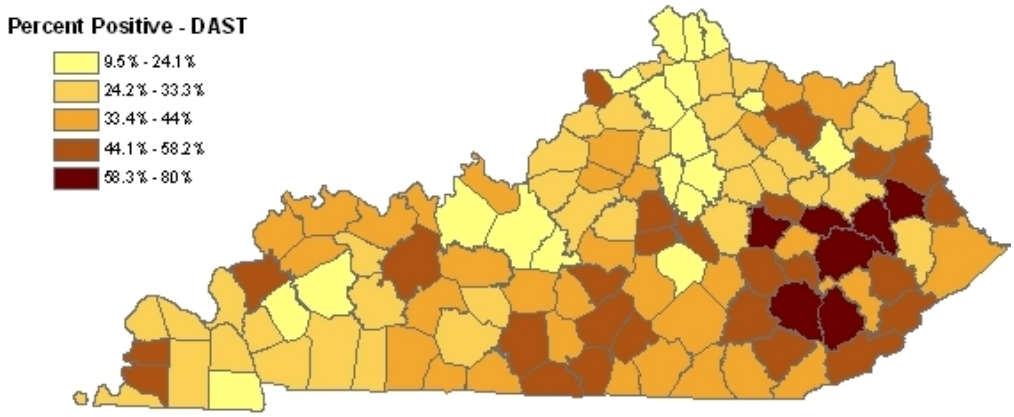
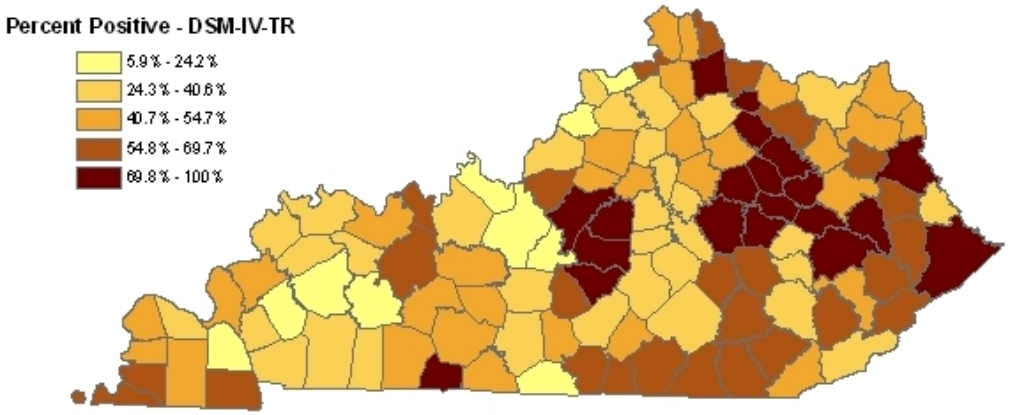


Figure 5.5: Percent of Assessments Positive for Abuse and/or Dependence by County



5.6 MHMR Regions and Level of Care

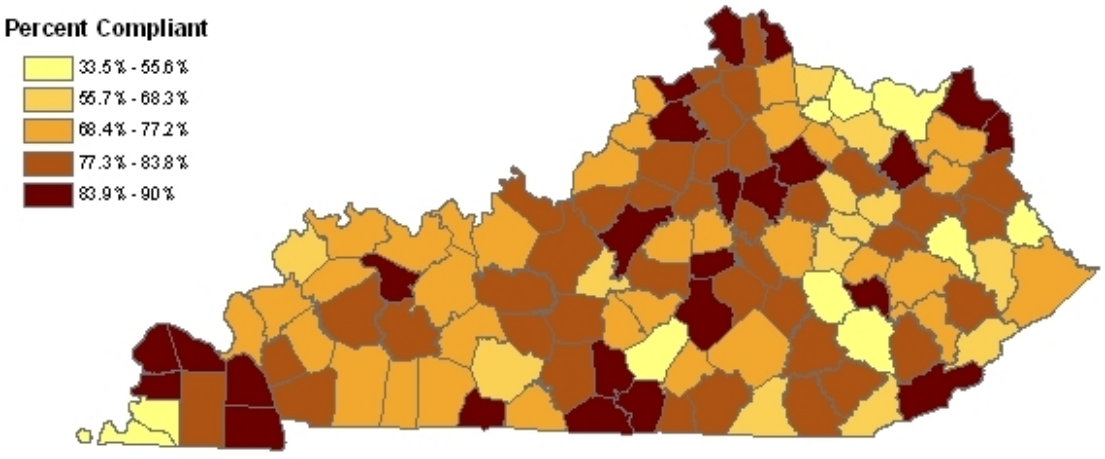
Table 5.7 presents the highest level of care assigned and overall compliance level by MHMR region. Level of care refers only to the highest level assigned for each assessment. When two or more levels of care were assigned, only the highest level is presented here. Compliance refers to the percentage of assessments that were considered compliant on completion. There were variations between MHMR regions. Figure 5.6 presents the percent of compliant assessments by county.

Table 5.7: MHMR Regions and Level of Care*

	Education	Outpatient	IOP	Residential	Compliance
Region 1 - Four Rivers	***63.3%***	***33.4%***	***0.0%***	***3.3%***	83.4%
Region 2 - Pennyroyal	60.3%	37.4%	1.1%	1.1%	77.3%
Region 3 - River Valley	56.8%	39.3%	1.5%	2.4%	73.9%
Region 4 - Lifeskills	50.0%	47.2%	0.8%	1.9%	69.8%
Region 5 - Communicare	61.2%	36.7%	1.5%	0.6%	79.6%
Region 6 - Seven Counties	36.8%	59.2%	2.2%	1.8%	77.3%
Region 7 - North Key	43.6%	54.1%	0.6%	1.6%	***84.5%***
Region 8 - Comprehend	***18.4%***	***77.4%***	3.8%	***0.4%***	***51.7%***
Region 10 - Pathways	32.4%	65.6%	0.9%	1.1%	80.0%
Region 11 - Mountain	58.9%	40.1%	0.1%	0.8%	64.8%
Region 12 - Kentucky River	28.1%	69.7%	0.2%	2.0%	77.1%
Region 13 - Cumberland	54.0%	42.8%	0.2%	3.0%	67.9%
Region 14 - Adanta	41.6%	48.3%	***8.3%***	1.8%	70.8%
Region 15 - Bluegrass	50.5%	48.3%	0.7%	0.5%	81.2%
All Regions	47.3%	49.6%	1.5%	1.6%	77.1%

* Missing Data = 2,766 level of care/1,368 compliance assessments

Figure 5.6: Compliance Percentages by County



Region Summary

There were variations between MHMR regions. These variations were consistent with the 2004 data. There were also variations between counties. This is not surprising considering the small number of cases in some counties.

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SECTION SIX

DIVISION OF MENTAL HEALTH AND SUBSTANCE ABUSE REGIONS

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6.1 Number of Assessments and Demographics by DMHSA Region

The Division of Mental Health and Substance Abuse (DMHSA) has five coordinators, each representing a single region of Kentucky. For a map of these regions, please see Appendix G (page 93). Table 6.1 presents the number of assessments, average age of persons assessed, and the percent of assessments that were for males by Division of Mental Health & Substance Abuse (DMHSA) Regions. Gender distribution and age were even across regions.

Table 6.1: Assessments by DMHSA Region

	CENTRAL	EAST	NORTH-EAST/MID-WEST	WEST	WEST-CENTRAL
Assessments*	2,936	3,244	4,597	5,000	3,319
% Male**	77.4%	80.6%	81.5%	82.4%	81.1%
Average Age***	32.8	33.8	34.1	34.1	34.8

* Missing Data = 1,929 Assessments
** Missing Data = 1,977 Assessments
*** Missing Data = 2,724 Assessments

6.2 AUDIT and DAST Scores by DMHSA Region

Table 6.2 presents AUDIT and DAST scores by DMHSA region. The East and West regions had the highest percent of persons with a positive DAST score. Persons from these two regions also had an average score that was positive for the DAST. The West-Central region had the highest percent of persons with a positive AUDIT score.

Table 6.2: AUDIT and DAST Scores by DMHSA Region

	CENTRAL	EAST	NORTH-EAST/MID-WEST	WEST	WEST-CENTRAL
AUDIT*					
Positive	31.8%	34.6%	37.8%	36.2%	41.2%
Average Score	6.76	6.79	7.41	7.76	8.12
DAST**					
Positive	26.9%	47.6%	27.4%	32.6%	29.4%
Average Score	4.55	6.43	4.61	5.02	4.52

* Missing Data = 2,791 Assessments
** Missing Data = 4,124 Assessments

6.3 Blood Alcohol Content by DMHSA Region

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

Table 6.3: Blood Alcohol Content by DMHSA Region*

	CENTRAL	EAST	NORTH-EAST/MID-WEST	WEST	WEST-CENTRAL
Average BAC	0.144	0.129	0.145	0.139	0.146
% 0.08 or Higher	89.5%	82.1%	90.4%	85.6%	87.1%

* Missing Data = 10,822 Assessments

6.4 DSM-IV-TR Criteria by DMHSA Region

Table 6.4 presents the percent of persons who met DSM-IV-TR criteria for substance abuse and the percent 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.

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

	CENTRAL	EAST	NORTH-EAST/MID-WEST	WEST	WEST-CENTRAL
% Abuse	35.6%	31.6%	34.7%	27.1%	27.2%
% Dependent	14.9%	26.8%	15.1%	11.1%	11.4%

* Missing Data = 1,368 Assessments

6.5 Level of Care and Compliance by DMHSA Region

Table 6.5 presents the distribution of the highest level of care recommended by DMHSA region. The West region had the highest percent of persons recommended for education and the highest percent of persons recommended for residential. Table 6.5 also presents the percent of persons who were compliant with their assigned recommendation.

Table 6.5: Level of Care and Compliance by DMHSA Region

	CENTRAL	EAST	NORTH-EAST/MID-WEST	WEST	WEST-CENTRAL
Highest Level of Care*					
Education	50.5%	46.6%	41.5%	56.7%	36.8%
Out-Patient	48.3%	49.2%	56.3%	40.0%	59.2%
IOP	0.7%	2.2%	1.1%	1.0%	2.2%
Residential	0.5%	2.0%	1.1%	2.3%	1.8%
Compliance**	81.2%	69.8%	79.0%	74.9%	77.3%

* Missing Data = 2,766 Assessments

** Missing Data = 1,368 Assessments

DMHSA Summary

There was similarity across regions. There were two notable distinctions. The first difference was the percent of persons who met three or more DSM-IV-TR criteria for substance dependence, which had a low of 11.1% for the West region and a high of 26.8% in the East region. The second was the high percent of persons who scored 5 or higher on the DAST in the East region (47.6%) compared to the rest of Kentucky (29.2%).

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SECTION SEVEN

TRENDS 2003 TO 2005

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7.1 Gender and Age Trends 2003 to 2005

Table 7.1 presents the total number of DUI assessments for calendar years 2003 through 2005. Gender and age are presented with missing cases. The percent of missing data decreased for gender from 2004 to 2005.

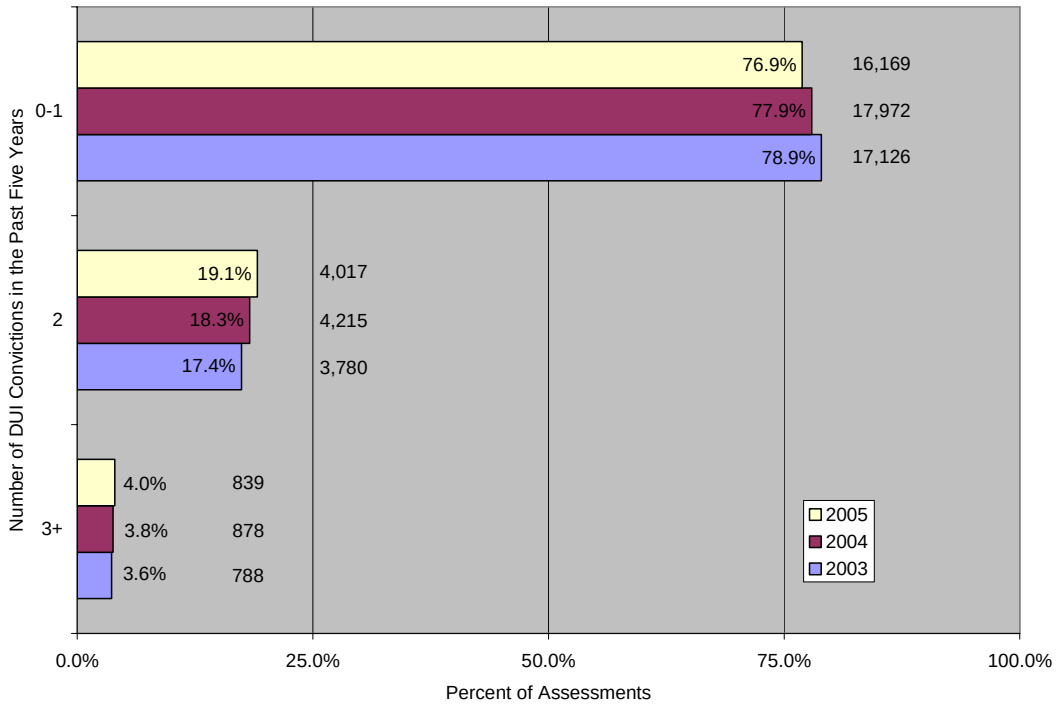
Table 7.1: Comparison of 2003, 2004, and 2005 Gender and Age

Gender	**2003**	**2004**	**2005**
Male	17,962 (82.7%)	18,557 (80.4%)	16,945 (80.6%)
Female	3,767 (17.3%)	4,327 (18.8%)	4,012 (19.1%)
Missing	2 (<0.1%)	181 (0.8%)	68 (0.3%)
Total	21,731	23,065	21,025
Age			
16 to 20	1,541 (7.9%)	2,011 (8.7%)	1,798 (8.6%)
21 to 30	7,026 (36.2%)	7,972 (34.6%)	7,339 (34.9%)
31 to 40	5,269 (27.1%)	5,655 (24.5%)	5,064 (24.1%)
41 to 50	3,874 (19.9%)	4,293 (18.6%)	3,968 (18.9%)
51 and older	1,718 (7.9%)	2,029 (8.8%)	1,860 (8.8%)
Missing	2,303 (10.6%)	1,105 (4.8%)	996 (4.7%)

7.2 Number of DUI Convictions 2003 to 2005

Figure 7.1 presents the distribution of the number of DUI convictions for the previous five years for each assessment. The percent of persons convicted of their first DUI has decreased.

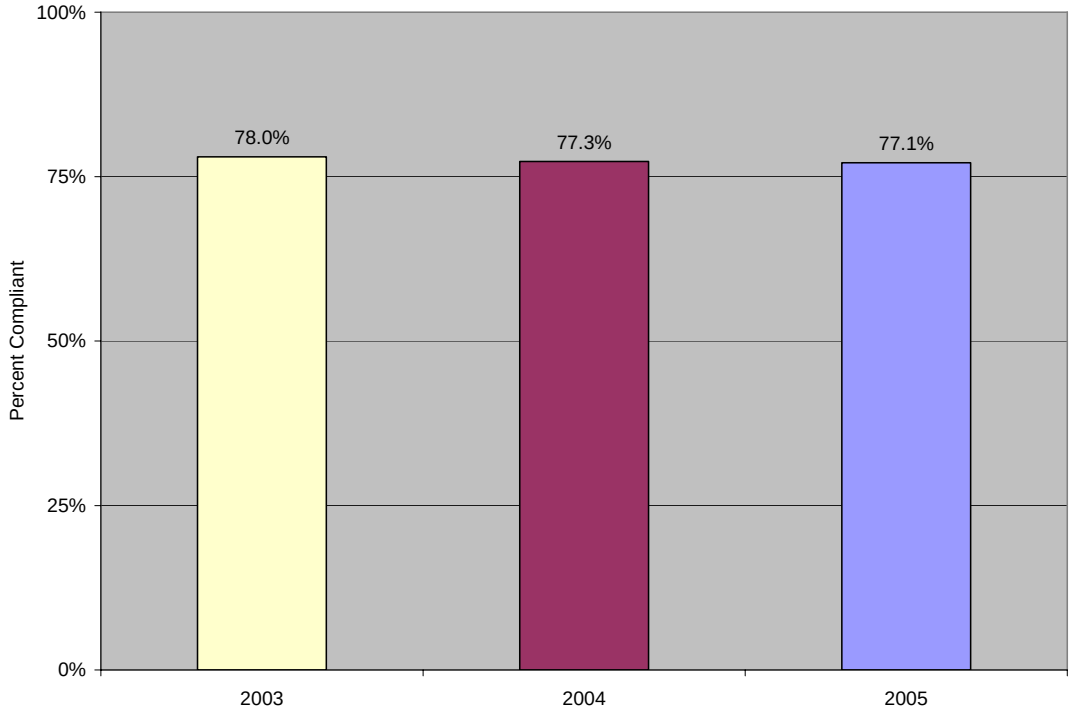
Figure 7.1: Number of DUI Convictions 2003 to 2005



7.3 Compliance 2003 to 2005

Figure 7.2 presents the overall levels of compliance for 2003, 2004, and 2005. There is a very slight decrease in compliance from 2003 through 2005.

Figure 7.2: Compliance Levels 2003 to 2005



Compliance rates by ages are consistent across years. Figure 7.3 presents compliance by age groups across years.

Figure 7.3: Compliance by Age Groups 2003 to 2005

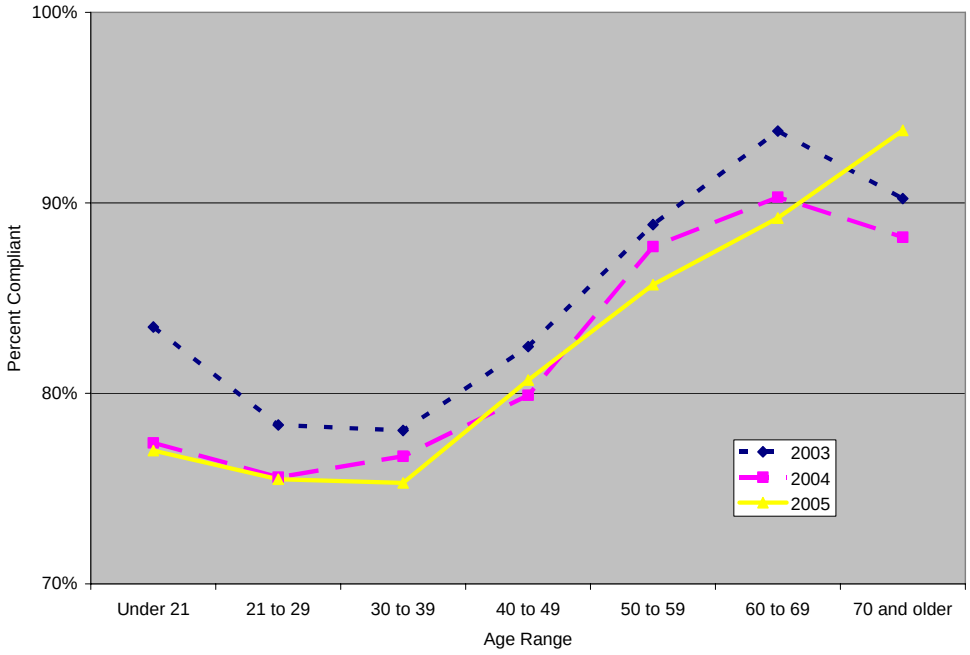


Figure 7.4 presents compliance by DUI convictions in the previous five years. The rates are almost identical.

Figure 7.4: Compliance by Previous DUI Convictions 2003 to 2005

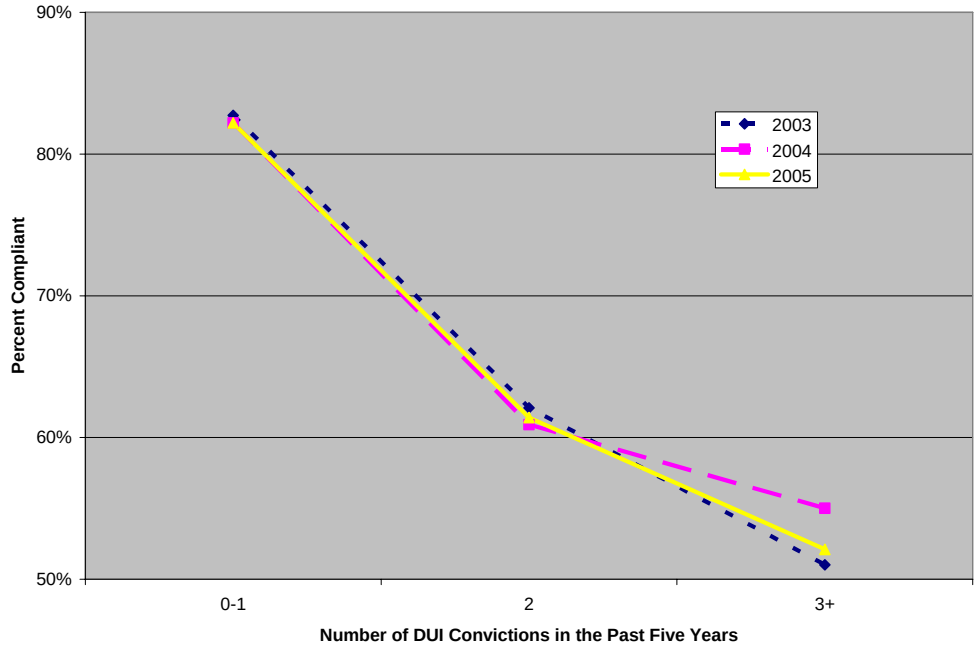
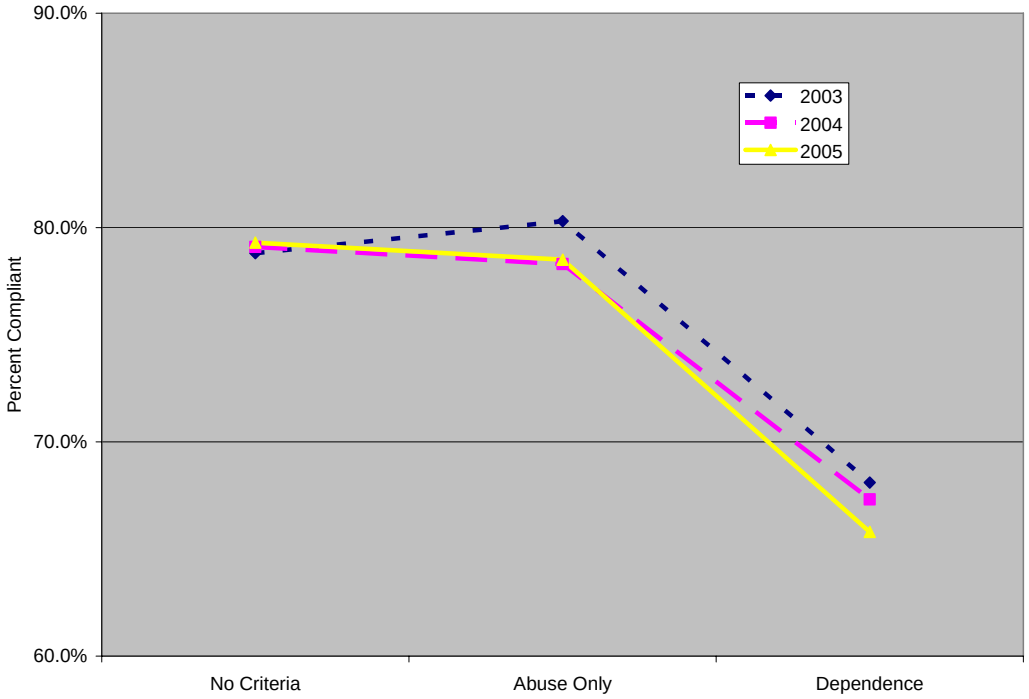


Figure 7.5 presents compliance by DSM-IV-TR criteria. There is a slight decrease in compliance for persons who met three or more dependence criteria (within their lifetime) over the three years.

Figure 7.5: Compliance by DSM-IV-TR Criteria 2003 to 2005



7.4 Screening Instruments 2003 to 2005

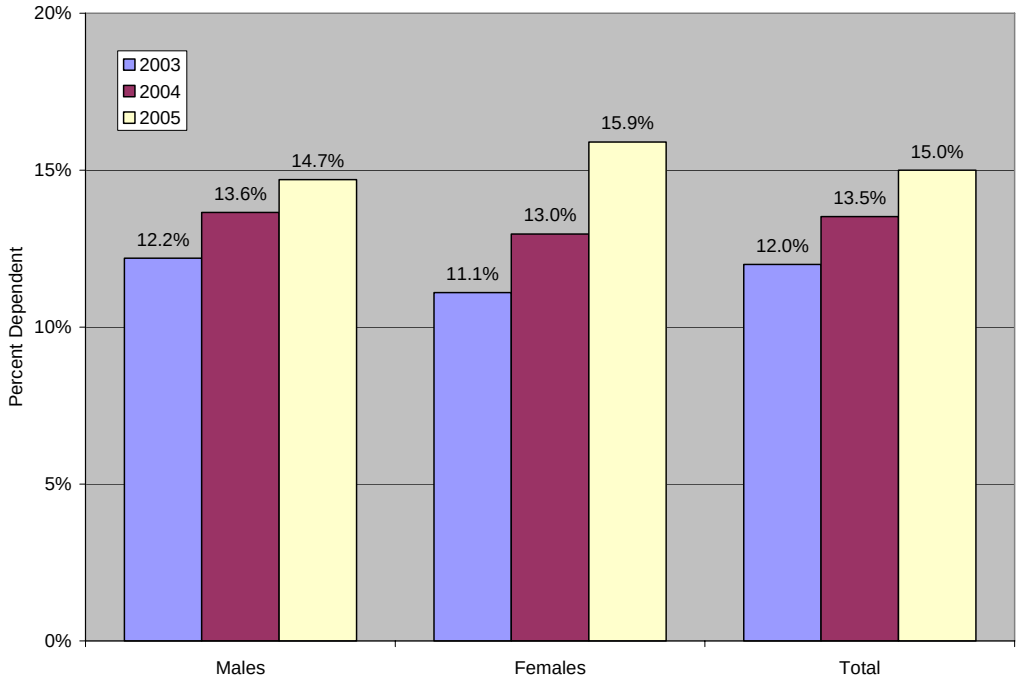
Table 7.2 presents AUDIT and DAST scores from 2003 through 2005. There is very little change over the three years.

Table 7.2: AUDIT and DAST Scores 2003 to 2005

	2003	2004	2005
AUDIT			
Positive (8+)	6,835 (36.3%)	7,538 (35.6%)	6,944 (35.7%)
Average Score	7.44	7.38	7.32
DAST			
Positive (5+)	4,908 (33.6%)	6,033 (33.3%)	5,754 (31.8%)
Average Score	4.98	4.97	4.95

Figure 7.6 presents the percent of persons who met at least three DSM-IV-TR dependence criteria in their lifetime. There is an increase for persons meeting three or more dependence criteria over the three years.

Figure 7.6: DSM-IV-TR Dependence Criteria by Gender 2003 to 2005



7.5 Intervention Referrals

Table 7.3 presents the total number of referrals to each level of care. Only the highest level of care was included for persons referred to multiple levels. Outpatient referrals were greater than the number of Education referrals in 2004 and 2005. The percent of persons recommended for IOP decreased from 2004 to 2005. There continues to be a large disparity between Education/Outpatient referrals compared to IOP/Residential referrals.

Table 7.3: Highest Level Of Care Recommended 2003 to 2005

	2003	2004	2005
Education	11,121 (52.6%)	10,089 (48.2%)	9,247 (47.3%)
Outpatient	9,291 (44.0%)	10,115 (48.2%)	9,697 (49.6%)
IOP	426 (2.0%)	448 (2.1%)	292 (1.5%)
Residential	289 (1.4%)	312 (1.5%)	309 (1.6%)

Trends Summary

Overall, assessment findings for 2003, 2004, and 2005 are similar. There are trends which suggest that compliance rates are decreasing over time. This finding may relate to the increases in dependence found over the three years. Meeting three or more dependence criteria in their lifetime was associated with lower rates of compliance.

SUMMARY

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Summary

In 2005, the typical Kentuckian assessed for Driving Under the Influence was a male in his 20's who was convicted of his first DUI, his blood alcohol content was about 0.10, and there was a 40% chance he met lifetime DSM-IV-TR diagnostic criteria for substance abuse or substance dependence. The typical person assessed was referred to either a 20-hour education intervention or an outpatient alcohol/drug treatment program.

Factors related to non-compliance included: younger age, male gender, more DUI convictions, dry county of conviction, higher AUDIT scores, higher DAST scores, meeting three or more DSM-IV-TR dependence criteria, and more intensive recommended levels of care.

Screening instruments were consistent. AUDIT scores, DAST scores, DSM-IV-TR criteria for abuse and dependence, and blood alcohol content were closely related. These screening instruments, in combination with face-to-face interviews, are used by assessors to make level of care referrals. Persons convicted of multiple DUIs and those arrested with elevated BACs are at most risk for meeting criteria for significant alcohol or drug problems. Persons with higher BACs also tended to be recommended for higher levels of care.

Generally, there were no differences between assessments from the four DMHSA regions. Data received in 2005 was similar to the 2002, 2003, and 2004 data. However, the number of assessments received in 2005 decreased by 9.1% from 2004.

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APPENDICIES

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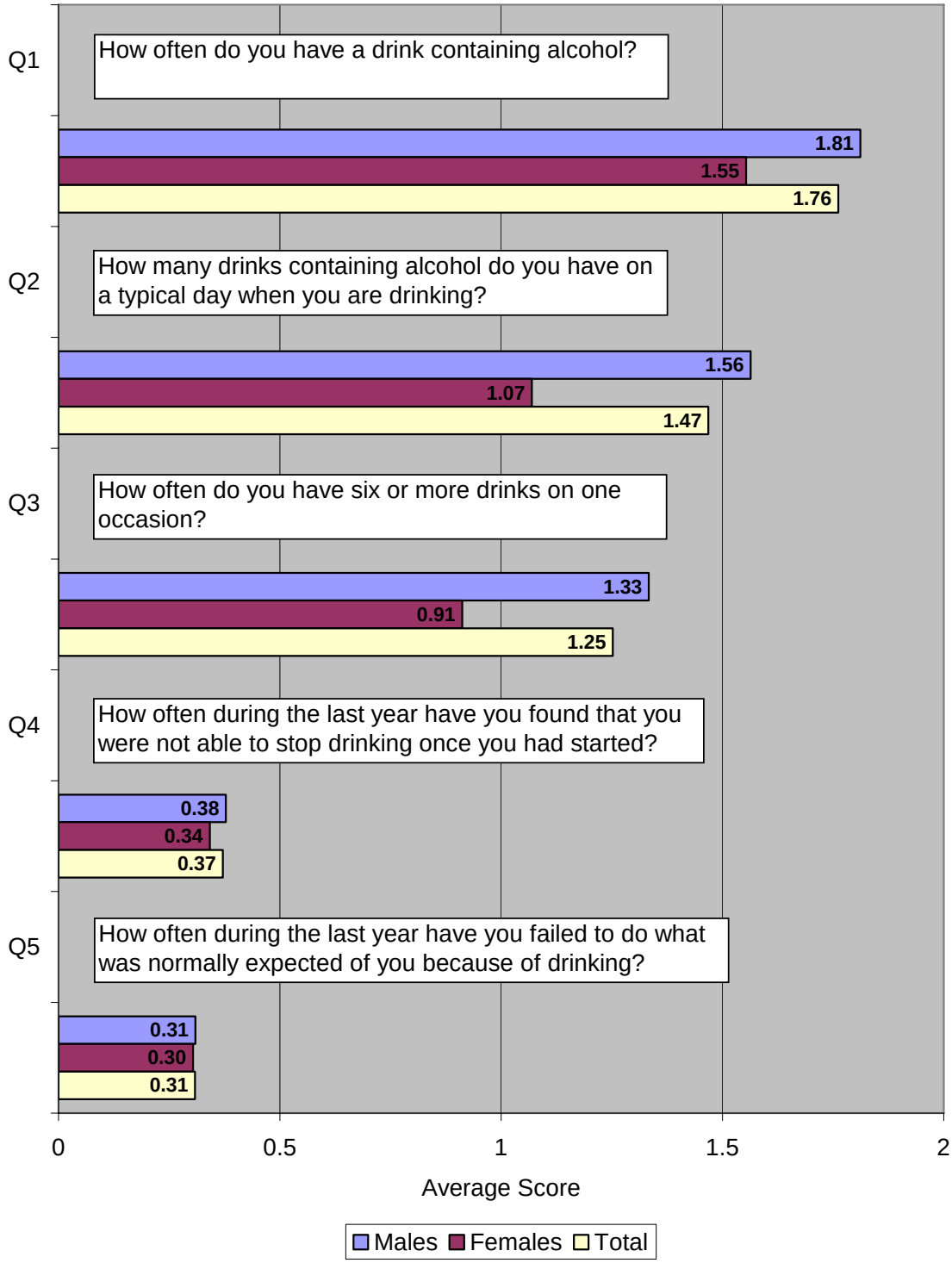
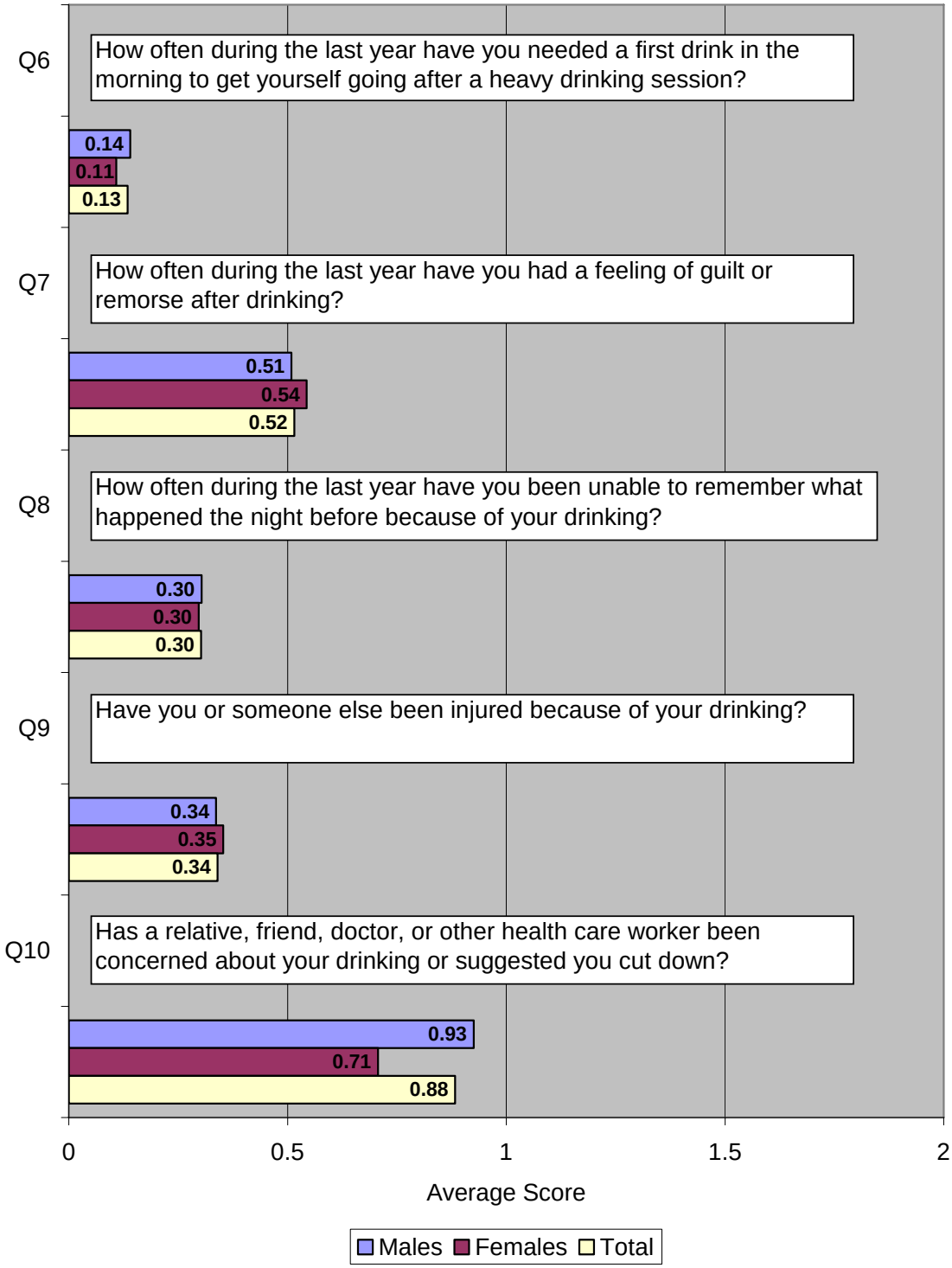
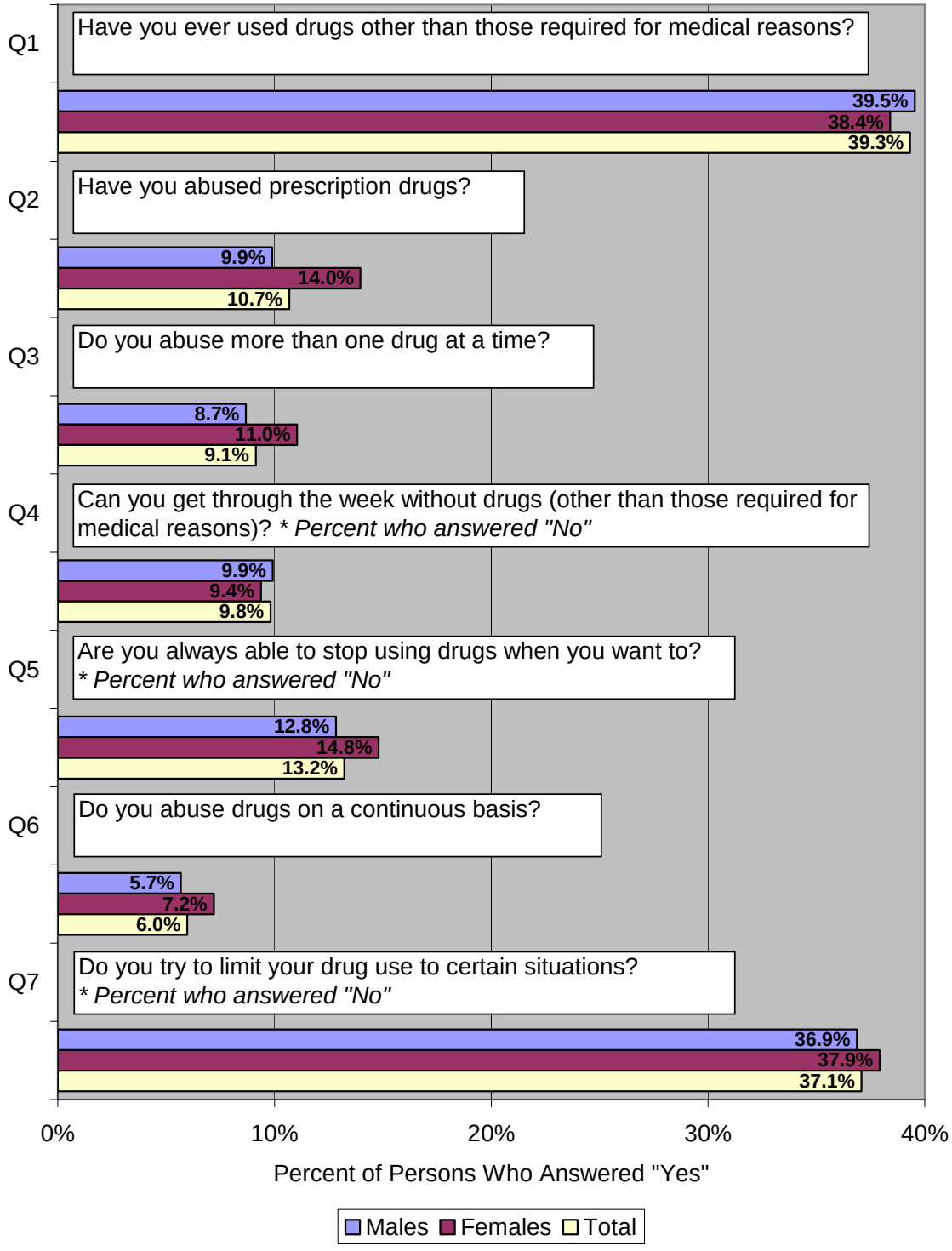
Appendix A: AUDIT Responses by Gender



Appendix A Continued



Appendix B: DAST Responses by Gender



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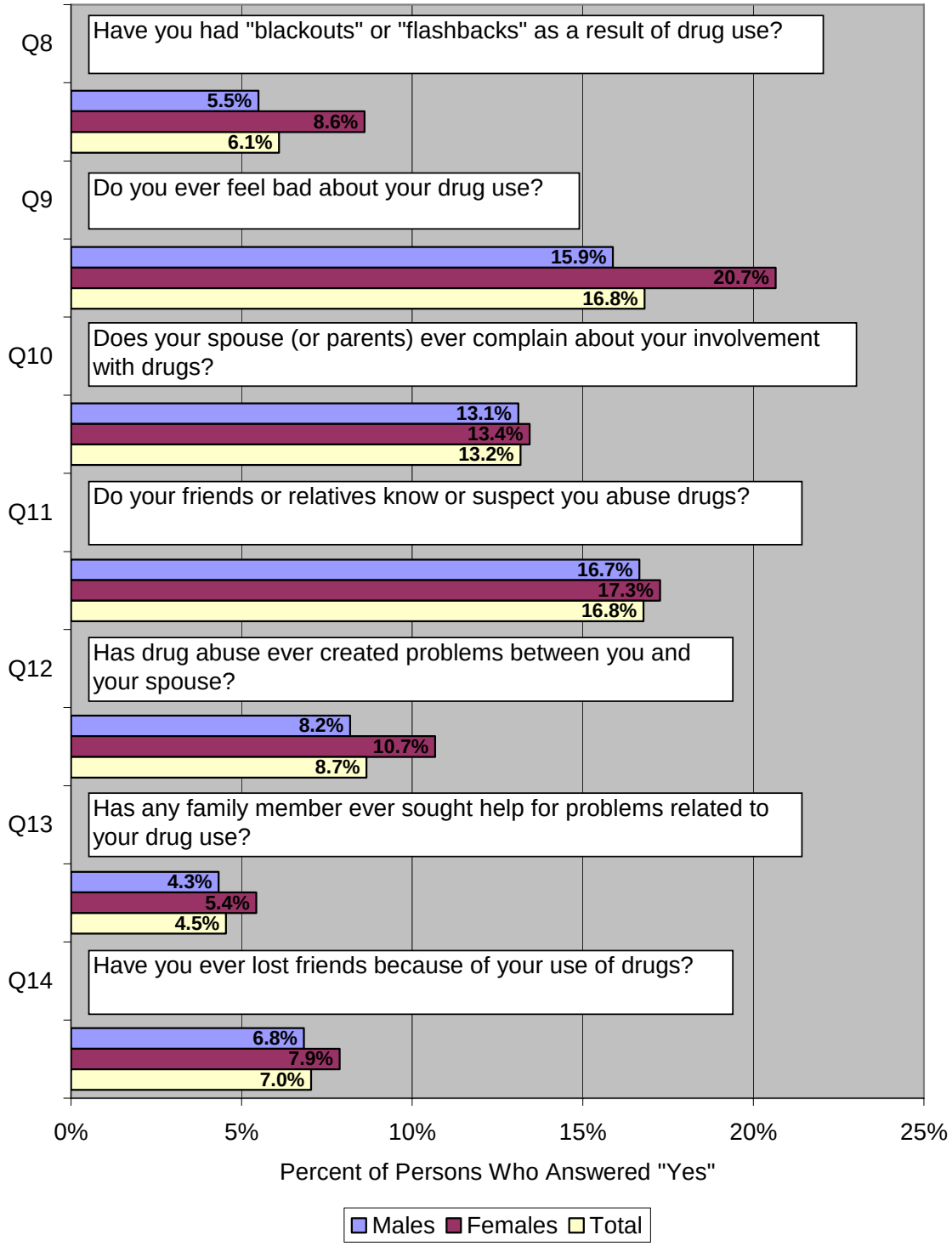

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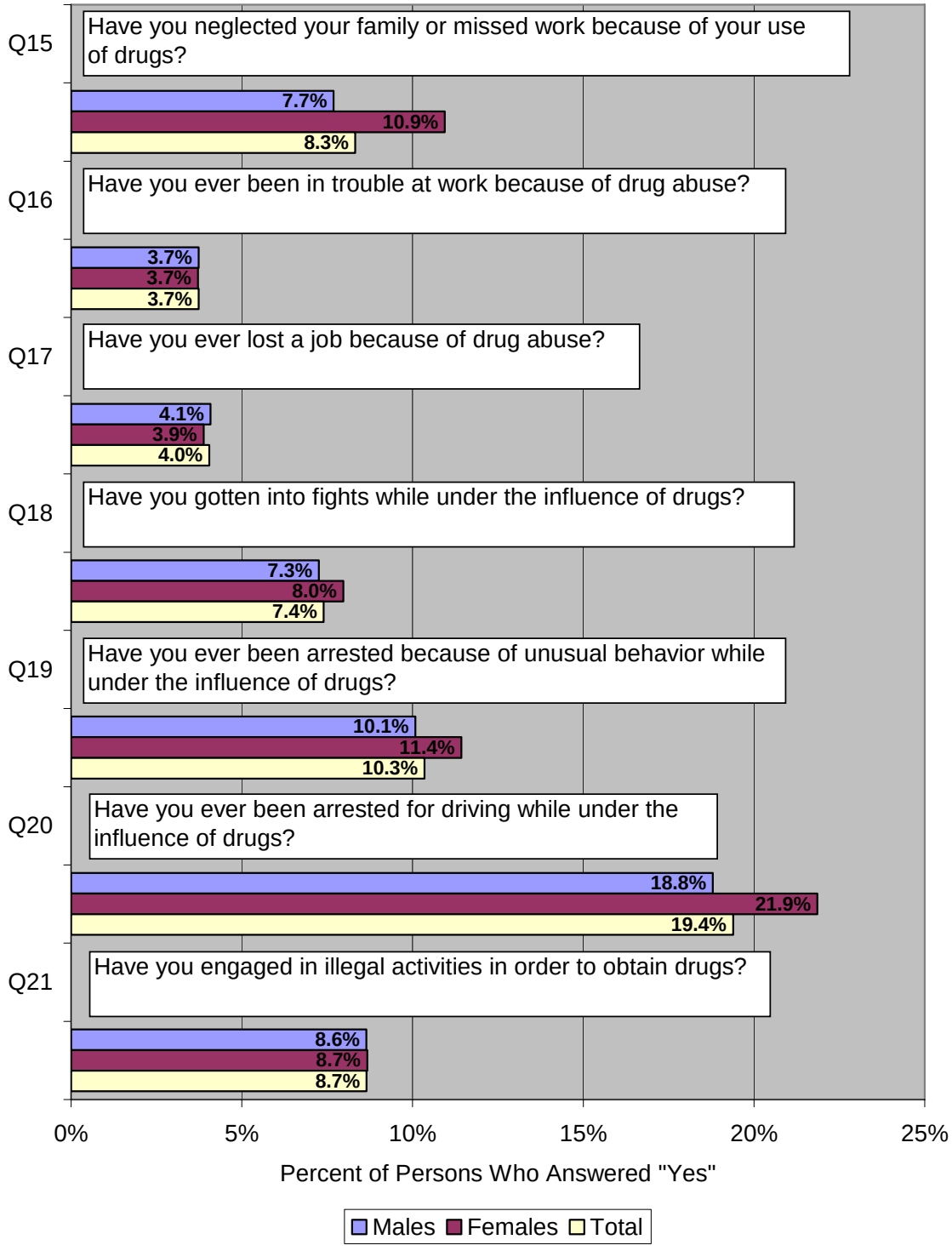

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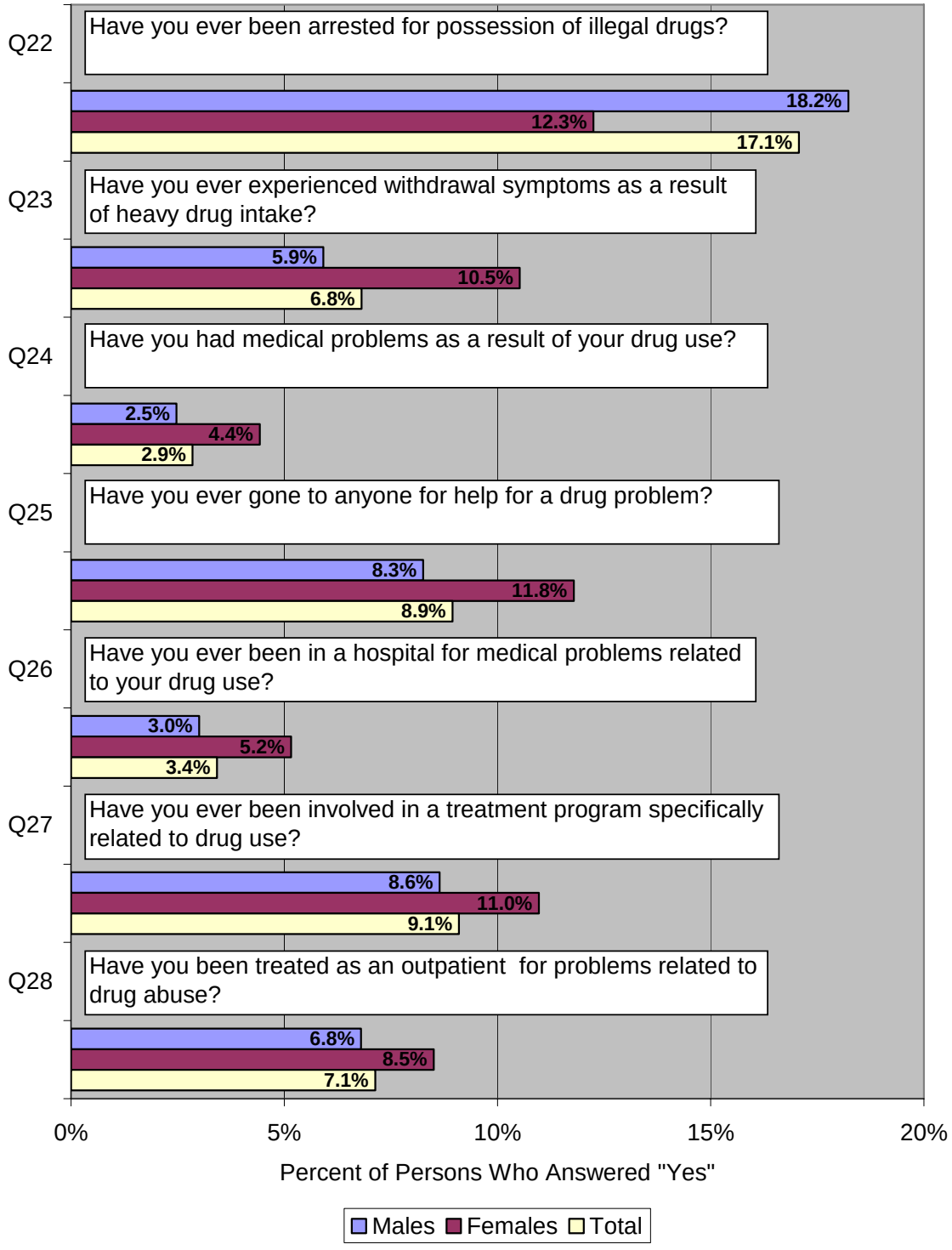
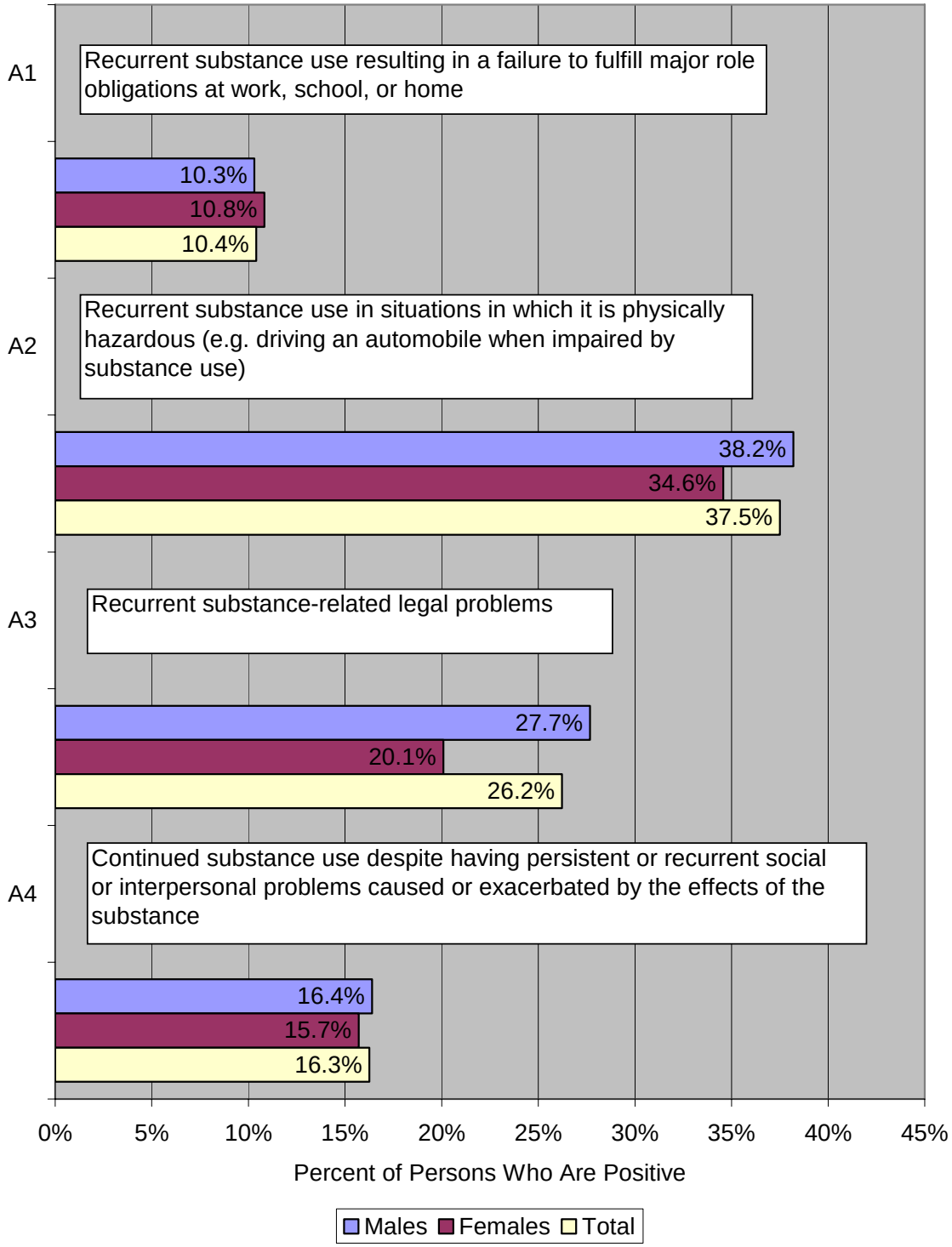
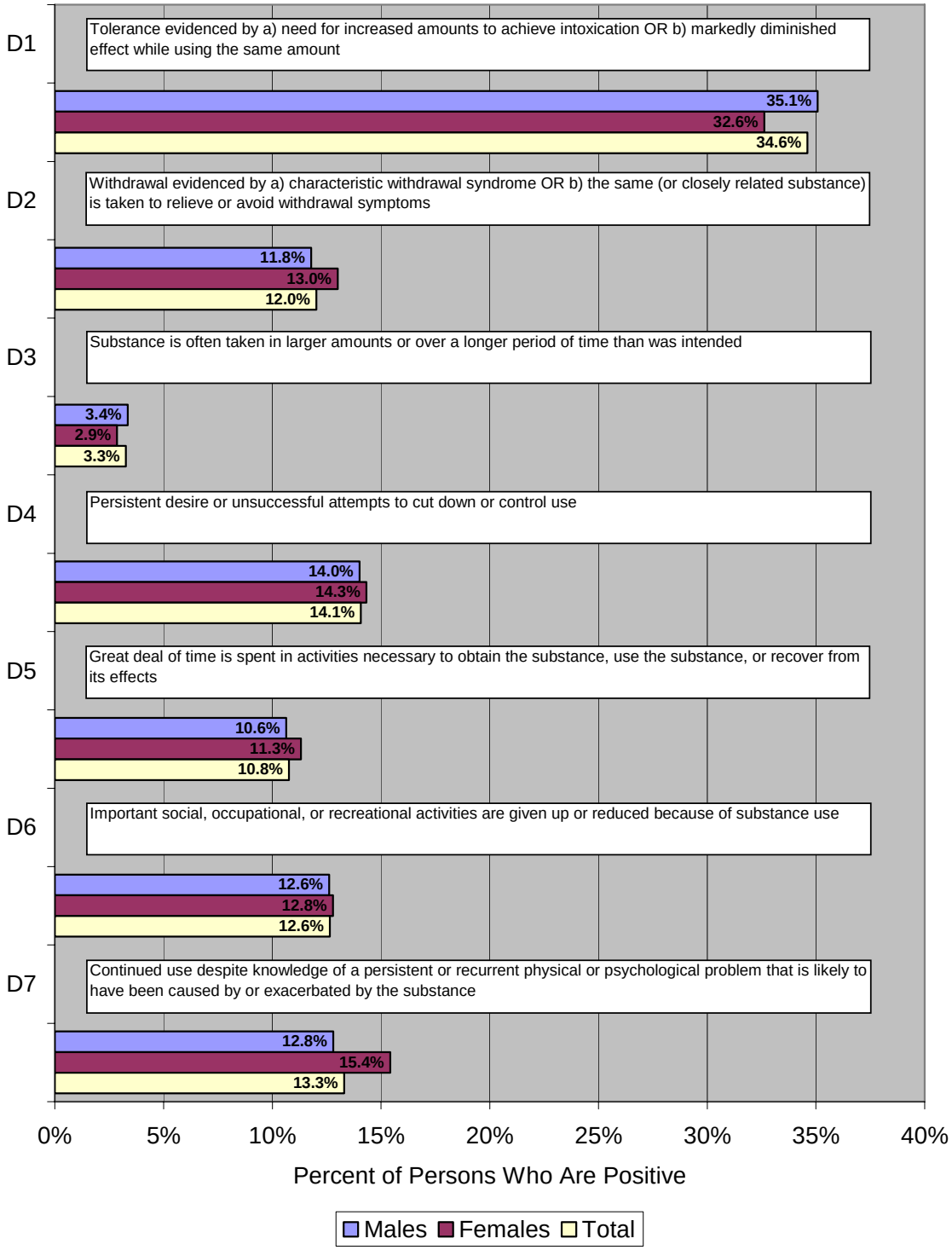


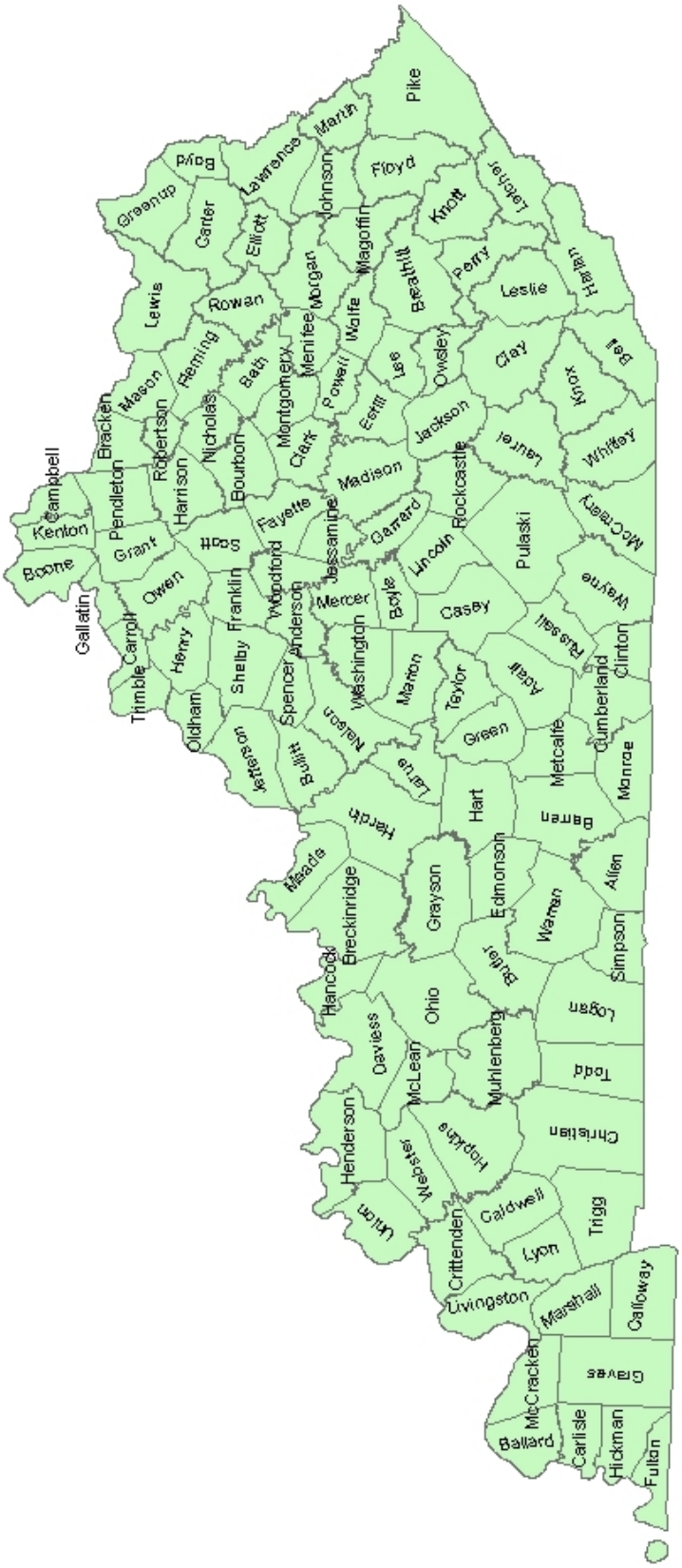
Appendix C: DSM-IV-TR Abuse Criteria by Gender



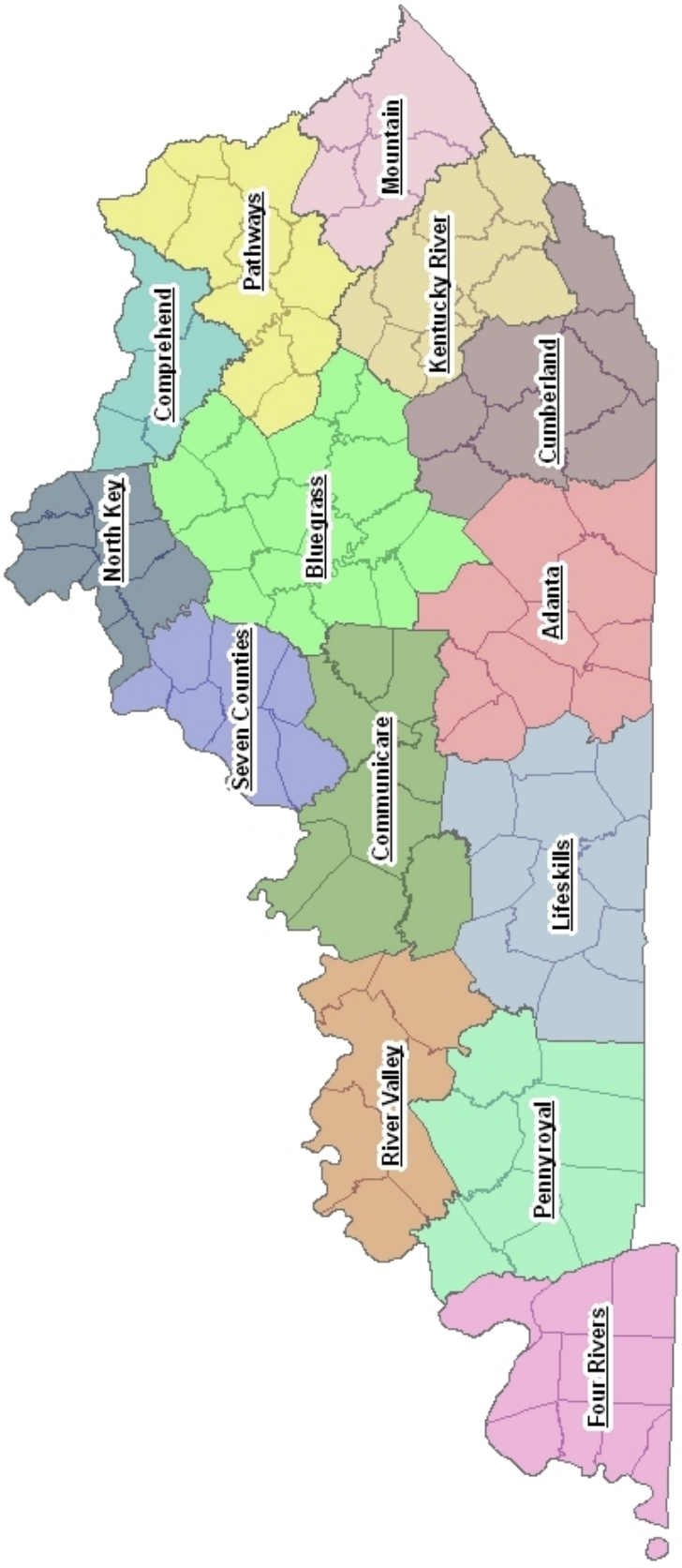
Appendix D: DSM-IV-TR Dependence Criteria by Gender



Appendix E: Map of Kentucky by County



Appendix F: Kentucky by MHMR Region



Appendix G: Kentucky by DMHSA Region