




2017

**KENTUCKY
DUI
ASSESSMENT
REPORT**

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EXECUTIVE SUMMARY

In calendar year 2017, there were approximately 129 licensed and certified DUI Assessment Programs and 17,197 DUI assessment records were submitted to the Kentucky Division of Behavioral Health, a decrease from the 17,859 submitted in 2016. These records include education and treatment information for persons convicted of DUI who were assessed and referred for an intervention. Using the web-based Kentucky DUI Assessment Instrument, records are submitted by certified DUI assessors once the initial substance use assessment is performed. The University of Kentucky Center on Drug and Alcohol Research is contracted by the Division of Behavioral Health, Department for Behavioral Health, Developmental and Intellectual Disabilities to receive these records from DUI assessment programs and to maintain this information in a database. This report provides information on assessments conducted from January 1, 2017 through December 31, 2017 and also provides trends from 2008 to 2017.

The typical person receiving a substance use assessment as a result of a DUI conviction in Kentucky in 2017 was a low-income white male in his 20's or 30's who was convicted of a first offense DUI with a blood alcohol level between 0.08 and 0.15 g/dL, met DSM-5 diagnostic criteria for a substance use disorder in the past 12 months, and was referred to either a 20-hour education intervention or to outpatient substance use treatment.

DEMOGRAPHICS

Three out of four DUI assessments were for males, and more than 80.0% were for White persons (of those who reported race). The

majority of DUI assessments were also for persons between 21 and 39 years old, with 6.2% of assessments being for persons younger than 21. Of DUI clients reporting income, more than 60% reported a yearly household income less than \$20,000.

SUBSTANCES INVOLVED IN DUI ARREST

Nearly 3 out of 4 DUI assessments (73.6%) were for DUIs that involved alcohol – a decrease from previous years. Females and White DUI clients were more likely to have driven under the influence of drugs in relation to males and non-Whites. Age was also related to drug involvement. Drug-involved DUI clients were more likely to be younger than 21 and were more likely to have been convicted of a first offense DUI. A majority (55.9%) of individuals reported that they were alcohol tested with their current DUI while only 20.7% were drug tested. Marijuana was the most commonly involved non-alcohol drug (13.1%).

SCREENING

On the alcohol (AUDIT) and drug use (DAST) screening instruments, a slightly higher percentage of clients had a positive DAST score (5 or more) than a positive AUDIT score (8 or more; 28.9% vs. 27.2%). Females had higher DAST scores but lower AUDIT scores than males while persons younger than 40 years old had higher DAST scores but lower AUDIT scores than those clients 40 years old and older. More than half (54.8%) of the submitted assessments were for DUI clients who met DSM-5 criteria for a substance use disorder. Demographic differences in the DSM-5 indicated, similar to the

DAST, that females were more drug-involved with females being more likely to report a drug use disorder (27.7% vs. 21.5%). Females were also more likely to meet criteria for a severe substance use disorder. Lastly, individuals whose current DUI involved drugs were more likely to report two or more substance use disorder criteria in the past 12 months than those involved in alcohol-only DUIs (60.6% vs. 52.1%).

TREATMENT REFERRALS

Most of the persons assessed during 2017 were referred to 20-hour education (43.8%) or an outpatient treatment (52.9%) intervention as their highest level of care. Underage (< 21 years old) clients were more likely to be referred to an education intervention than their older counterparts. Clients whose current DUI was drug-involved (including those involving both drugs and alcohol) were more likely to be referred to a treatment intervention. There is also a relationship between the level of care recommended and DSM-5 criteria, with the intensity of the treatment modality increasing as problem severity increases. Further, persons assessed with both an alcohol and drug use disorder were most likely to be referred to either IOP or residential treatment as their highest level of care (9.3%).

COMPLIANCE

A majority of assessment records completed in 2017 were for individuals who were compliant with their recommended intervention (82.8%). This is similar to previous years. Lower compliance is related to having a drug-involved DUI, more DUI convictions, higher AUDIT and DAST scores, more severe substance use disorders, and referrals to outpatient/intensive outpatient treatment. Non-compliant offenders

were also more likely to be younger and African American. The most frequently cited reason for non-compliance was failure to comply with attendance requirements.

COMMUNITY MENTAL HEALTH CENTER REGIONS

Although there are fewer community mental health centers, these programs submitted a higher average number of assessments per year compared to privately-owned programs (278.6 vs. 121.1). There was variability between regions in demographics, past DUI offenses, screening instrument results, intervention referrals, and education/treatment outcomes. Specifically, a higher percentage of assessments from the Mountain region and regions in the eastern part of the state (e.g., Adanta and Kentucky River) were for males. The North Key region had the lowest average number of lifetime DUIs (1.36). Clients in the Seven Counties region were the least likely to report their current DUI involved drugs (16.3%). Clients from regions in the western part of the state (e.g., Four Rivers and Pennyroyal) were more likely to report being under the influence of both drugs and alcohol at the time of their current DUI. Compared to other CMHC regions in Kentucky, the Cumberland region had the highest rate of referral to education (60.3%) and the Mountain region had the highest rate of referral to residential treatment (4.3%).

DIVISION OF BEHAVIORAL HEALTH REGIONS

There was similarity across regions, but with a few notable exceptions. First, clients in the Central region were younger (35.6) and more likely to be female (26.9%) than those in the other regions. Second, clients in the Western Central region were most likely to report meeting DSM

criteria for a substance use disorder overall (59.8%) while the Eastern region had the highest percentage (22.1%) of clients meeting criteria for a severe substance use disorder compared to other regions. Next, the percentage of assessments for individuals who met DSM-5 criteria for an alcohol use disorder ranged from a low of 21.8% for the Eastern region to a high of 51.2% in the Western-Central region. Further, AUDIT scores in the Eastern region (4.20) were noticeably lower than in other regions, whereas the percentage of persons who scored 5 or higher on the DAST was highest in the Eastern region (41.3%). Lastly, the Eastern region also had the highest rate of drug-involved DUIs (50.6%), with most drug-involved clients in that region reporting being under the influence of opiates (20.1%) and marijuana (16.4%).



BACKGROUND

STUDY OVERVIEW

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

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

DATA DESCRIPTION

DUI assessment records provide demographic information about the person, information about their DUI offense, results of the assessment, and education/treatment information. Demographic information includes age, gender, race/ethnicity, and household income. In addition, source of payment (e.g., self-payment) for DUI services is recorded. DUI offense information includes current DUI information, DUI conviction history, and county of conviction. Records include three instruments:

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

indicates a mild disorder; 4-5 criteria, a moderate disorder; and 6 criteria or more, a severe substance use disorder.

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

SAMPLE

This report presents DUI assessment records for assessments conducted between January 1, 2017 and December 31, 2017 as well as trends detailing changes in assessment results over the past several years. In 2017, a total of 17,197 assessment records were entered by licensed and certified DUI assessors. It should be noted that the number of submitted assessment records in 2017 is not the same as the number of completed assessment records or the number of DUI convictions in 2017 because persons can be convicted, be assessed, and complete their intervention in separate years. Of the 17,197 assessments conducted in 2017, only 12,726 assessment records were also "completed" before December 31, 2017. Additionally, the number of assessment records is not equal to the number of unique individuals. A single person can have multiple DUI assessment records in a single calendar year either because of multiple DUI convictions or because they had to be reassessed due to non-compliance.

LIMITATIONS

There are several limitations to these data. First, there is the issue of incomplete, erroneous, and/or missing data. Although KDAI has successfully reduced the amount of missing data when compared to the previous DUI assessment record

system, certain fields remain problematic. Blood Alcohol Content has the highest percentage of missing cases, which is largely due to individuals who were not tested, refused the test, or did not remember the level. Other variables, such as race and household income, have a significant amount of missing cases because they are optional fields. Table 1 presents the level of missing data, including fields that are optional (*).

Table 1: Missing Data (2017)

	Missing Assessments	Percentage of Cases
Age	4	0.02%
Race*	2,937	17.1%
Household Income*	4,676	27.2%
BAC	9,352	54.4%

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

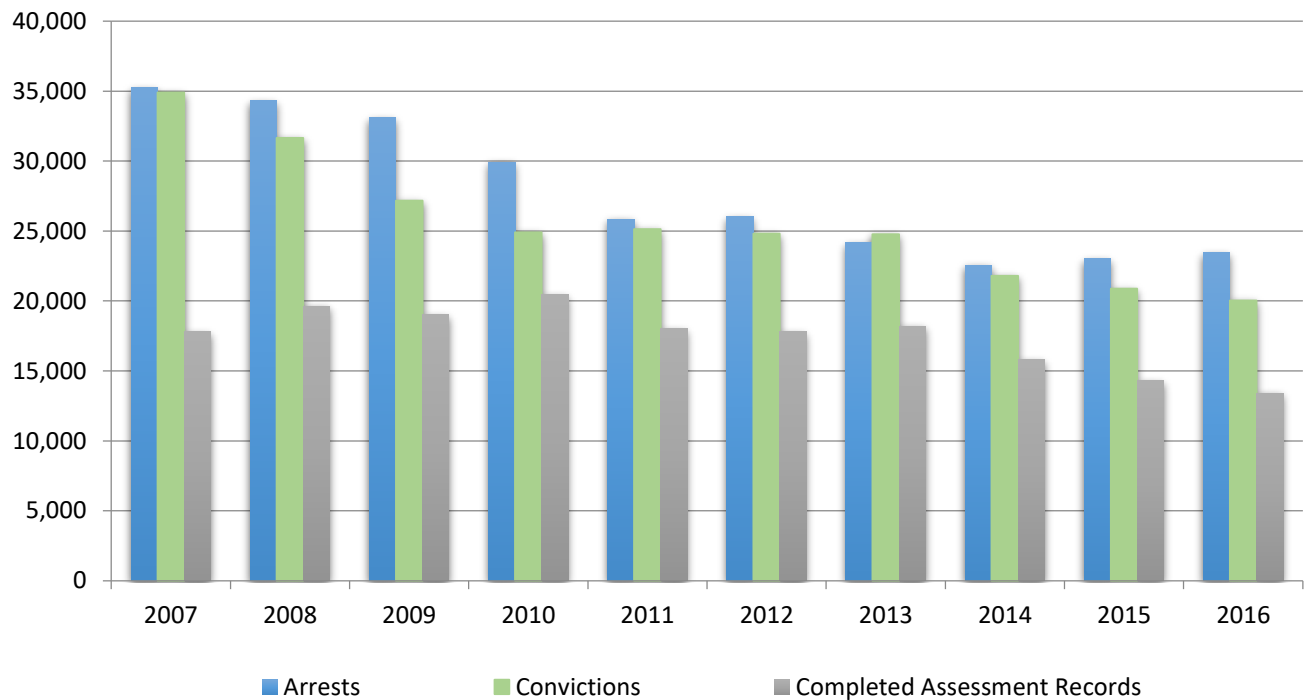
Lastly, an additional limitation is that these data represent a subset of a larger, unknown number of DUIs in Kentucky. For example, in 2016 there were 23,443 DUI arrests and 13,413 submitted assessments⁵. This difference emphasizes the dangers in comparing frequencies of arrests, convictions, and assessments as there are different requirements and timelines for compiling each of these types of records.

This report presents DUI assessment records submitted in 2017, which are independent of violation date and conviction date. 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 an assessment in Kentucky. Assessments would also not be completed or submitted for persons who are incarcerated for an extensive period of time

following their DUI arrest. In addition, persons who are arrested for DUI may plea bargain to a lesser charge.

To demonstrate the differences that often exist across the frequency of arrests, convictions, and assessments and the dangers of comparing across data sources, Figure 1 presents the number of DUI arrests and convictions submitted to the Kentucky State Police (KSP), and completed DUI assessment records for 2007 through 2016. Arrest and conviction data from KSP were only available through 2016 at the time this report was developed.

Figure 1: DUI Arrests, DUI Convictions, and Completed Records, 2007 through 2016



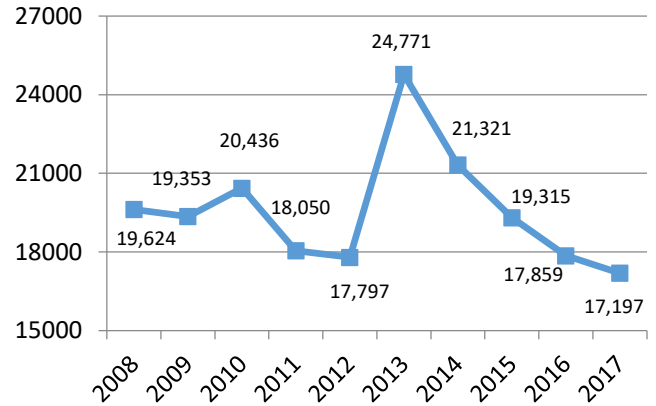


SECTION 1: INTRODUCTION

ASSESSMENTS

Between January 1, 2017 and December 31, 2017, licensed and certified DUI assessors submitted 17,197 assessment records to CDAR on behalf of the Kentucky Division of Behavioral Health. This represents a 3.7% decrease from the number of assessment records submitted in 2016. Figure 2 presents the number of DUI assessment records submitted to CDAR from 2008 to 2017. The average number of assessments received has been 19,572 per year. The increase in assessments in 2013 was related to the transition to a new DUI assessment system.

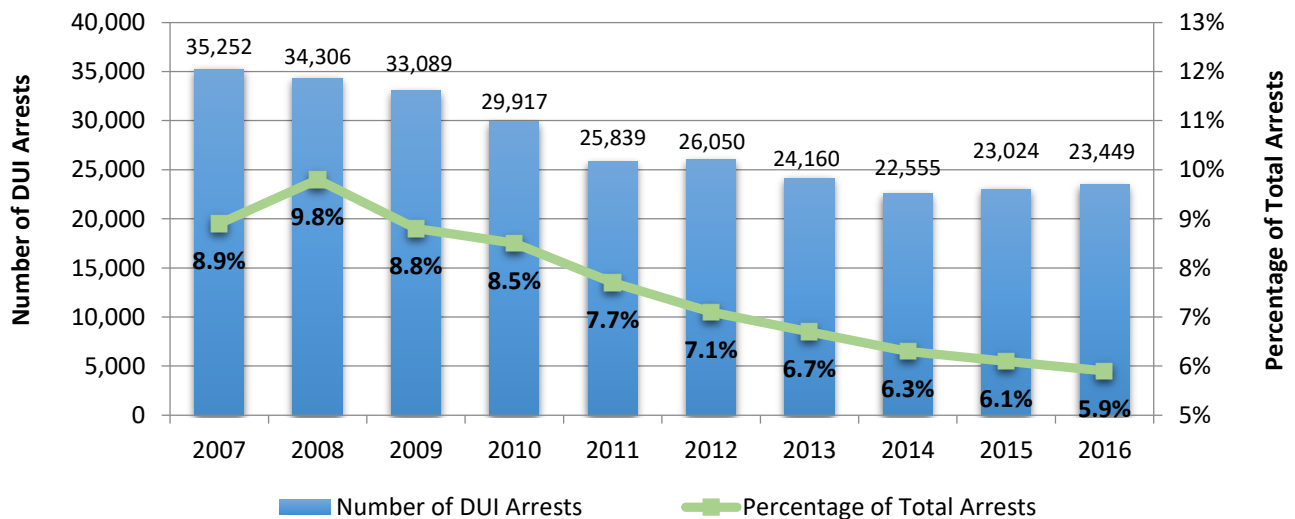
Figure 2: Number of Assessments 2008 to 2017



ARRESTS

The recent decrease in assessment records corresponds to a decrease in arrest rates. As shown in Figure 3, the percentage of DUI arrests in Kentucky has been steadily decreasing since 2008. In 2016, there were 23,449 arrests for DUI, which represented 5.9% of all arrests in Kentucky in that year.

Figure 3: Number of DUI Arrests and Percentage of Total Arrests 2007 to 2016

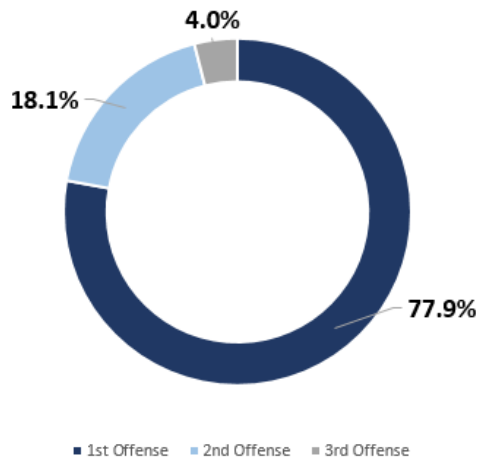


* Arrest data from Kentucky State Police were only available through 2016 at the time this report was developed.

CONVICTIONS

The majority of DUI assessment records submitted in 2017 were for individuals who reported only one lifetime DUI conviction (65.5%) while the remaining 34.5% of the assessments were for individuals who reported having two or more lifetime DUI convictions. Similarly, more than three-fourths of the assessment records in 2017 were for individuals convicted of a first offense DUI (77.9%) in the past 10 years. Figure 4 presents the frequencies for each DUI offense type (e.g., convicted of a first offense in the past 10 years) for assessments conducted in 2017. These percentages have remained relatively stable for the past ten years (see Appendix A, Figure A.1 on page 40).

Figure 4: DUI Assessments by Offense Type*

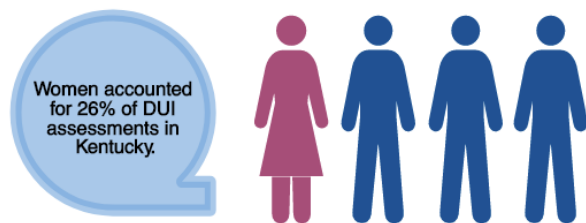


SECTION 2: DEMOGRAPHICS

GENDER

As illustrated in Figure 1, 12,693 (73.8%) of the 17,197 assessments submitted in 2017 were for males and 4,504 (26.2%) were for females. Over the past 10 years, the percentage of assessments that are for females has been steadily increasing – from 21.2% in 2008 to a high of 26.2% in 2017.

Figure 5: DUI Assessments by Gender



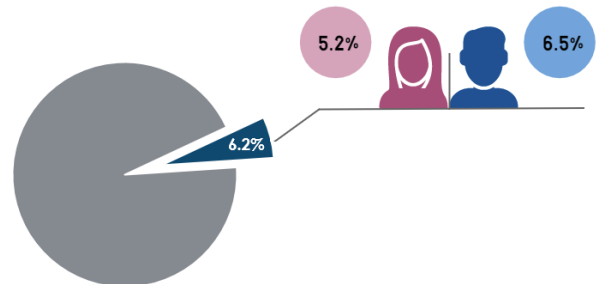
RACE/ETHNICITY

In 2017, 14,260 assessments contained client race information (race/ethnicity is an optional field in KDAI). Of those assessments, the majority were for White DUI clients (85.1%), while 1,447 assessments (10.1%) were submitted for African Americans and 682 (4.8%) for Hispanics or those of another racial/ethnic background.

AGE

The average age of DUI clients was 36.3. The majority of assessments were for clients between the age of 21 and 39 at the time of conviction (57.7%), while less than 5% were for clients between 60 and 84 years old. There were 1,059 assessments (6.2%) submitted for DUI clients who were between 16 and 20 years old, which has declined slightly over the past 10 years (from 7.7% in 2008). Figure 6 presents the number of underage DUI assessment by gender, showing a higher percentage of males were underage clients.

Figure 6: Underage Assessments by Gender



INCOME

Table 2 presents the number of DUI assessments by yearly household income range. The majority of assessments were conducted for individuals who had a yearly household income level less than \$20,000 (61.9%), while only 6.7% had a household income of \$50,000 or more.

Table 2: Assessments by Yearly Household Income*

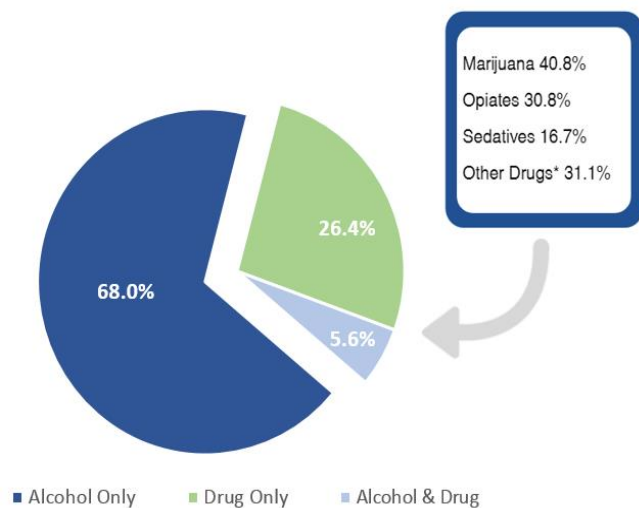
Household Income	Number of Assessments
Affidavit of Indigence	11
\$0 to 9,999	4,404
\$10,000 to 19,999	3,256
\$20,000 to 29,999	2,153
\$30,000 to 39,999	1,236
\$40,000 to 49,999	593
\$50,000 to 59,999	350
\$60,000 to 69,999	203
\$70,000 to 79,999	94
\$80,000 to 89,999	58
\$90,000 to 99,999	37
\$100,000 or higher	126

* Missing Data = 4,676 Assessments

SECTION 3: SUBSTANCES INVOLVED IN DUI ARREST

The majority of assessments submitted in 2017 were for DUI arrests that involved only alcohol (68.0%), while slightly less than one-third (32.0%) of assessments were drug-involved DUI arrests - either drug-only DUIs or DUIs that involved both drugs and alcohol. This represents an increase in drug-involved DUIs from previous years, with only 22.2% of DUIs involving drugs in 2013 and, more recently, only 28.0% in 2016. Of the DUIs that involved drugs, the most commonly-involved drug was marijuana, which was involved in 40.8% of drug-involved DUIs (13.1% of DUIs overall), followed by “other drugs” (31.1% of drug-involved DUIs; 10.0% of DUIs overall), opiates (30.8% of drug-involved DUIs; 9.8% of DUIs overall), and lastly, sedatives (16.7% of drug-involved DUIs; 5.4% of DUIs overall). Figure 7 presents the number of DUI assessments by the substance(s) involved.

Figure 7: DUI Assessments by Substance(s) Involved



* “Other drugs” includes cocaine, amphetamines, inhalants, hallucinogens, PCP, and an “other drug” category.

SUBSTANCES INVOLVED BY GENDER

Both male (70.9%) and female (59.9%) DUI clients were most often involved in an alcohol-only DUI. Female clients, however, were more likely (40.1%) to have a drug-involved DUI than male clients (29.1%). Of those drug-involved DUIs, the frequency of DUIs that involved both alcohol and drugs were similar across males and females (5.4% vs. 6.1%).

SUBSTANCES INVOLVED BY RACE/ETHNICITY*

*Race/Ethnicity is an optional field in KDAI.

In 2017, White DUI clients were the most likely to report that their current DUI involved drugs (36.1%) – compared to African American DUI offenders (21.4%), Hispanic DUI offenders (9.7%), and those DUI offenders of any other racial or ethnic background (17.8%). African American DUI offenders were more likely to have driven under the influence of both alcohol and drugs (6.7%). Hispanic DUI clients were the most likely to be involved in alcohol-only DUIs (90.3%), followed by DUI offenders of any other racial/ethnic background (82.2%), African American DUI offenders (78.6%), and then White DUI offenders (63.9%).

SUBSTANCES INVOLVED BY AGE

In 2017, there was a relationship between the DUI client’s age at conviction and the type of substance(s) involved in the current DUI. Older persons were more likely to be involved in an alcohol-only DUI compared to younger DUI clients. Specifically, more than 80% of DUI clients over the age of 60 have an alcohol-only DUI. On the other hand, clients between the ages

of 16 and 39 were more likely (35.1%) to have a drug-involved DUI, with underage (< 21 years old) DUI clients being the most likely to have a drug-involved offense (49.9%).

SUBSTANCES INVOLVED BY OFFENSE TYPE

DUI clients convicted of a first offense DUI were more likely to have a drug-only DUI (27.4%), while DUI clients with a third offense DUI or higher were more likely to have an alcohol-only DUI (72.4%). Individuals with a second offense DUI were slightly more likely to have a DUI that involved both alcohol and drugs (6.3%) – compared to 5.5% of those with a first offense DUI and 4.4% of those with a third offense DUI or higher.

BIOLOGICAL TESTING FOR THE PRESENCE OF ALCOHOL AND DRUGS

A majority of DUI clients reported that they were tested for alcohol during their current DUI arrest (55.9%). Of the 9,612 clients who were tested for alcohol, 87.3% had their breath tested (48.8% of the total assessments).

While 9,612 clients were tested for alcohol, only 7,835 (45.6% of the total assessments) were able to provide their blood alcohol content (BAC) from their current DUI arrest. The majority of those 7,835 clients had a BAC that was between .08 (the legal limit) and .16 (58.7%). Approximately 7.2% had a BAC that was at least 3 times the legal limit (.24 or higher).

A significantly smaller percentage of DUI clients were drug tested as part of their current DUI (20.7%). Of the 3,563 who were drug tested, nearly all had their blood tested (97.6%).

Urine was the least frequently used test method for both alcohol and drug use.

SECTION 4: SCREENING

AUDIT

The Alcohol Use Disorders Identification Test (AUDIT) is designed to identify problem drinking. This screening instrument consists of 10 questions, each scored from 0 to 4. The final score is computed as the sum of the 10 individual question scores. A final score of 8 or more suggests a likely drinking problem. Of the 17,197 submitted assessments, 4,675 (27.2%) had a positive AUDIT score. The average AUDIT score was 5.79. Appendix B (page 41) contains the frequency of each response option and the average scores for each of the AUDIT questions.

DAST

The Drug Abuse Screening Test (DAST) assesses drug use problems. This screening instrument 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. Approximately 1 of every 4 assessments had a positive DAST score (28.9%). The average DAST score was 4.06. Appendix C (page 44) contains the frequency of “yes” responses and the average scores for each of the DAST questions.

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

AUDIT/DAST BY GENDER

As shown in Figure 8, male DUI clients had a higher average score than females, with 29.4% of male clients having a positive AUDIT score (see Appendix B for AUDIT questions by gender).

Figure 8: AUDIT by Gender

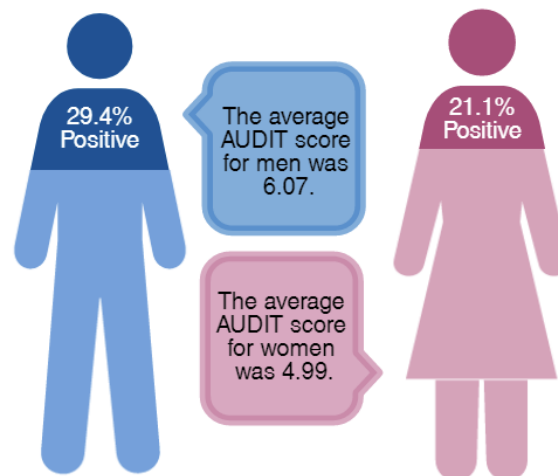
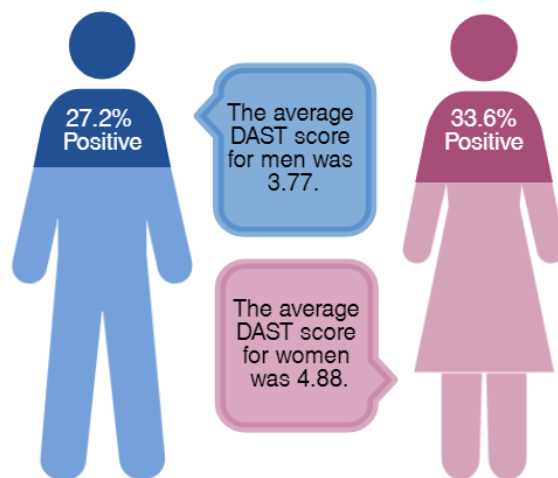


Figure 9 presents DAST results by gender. Females had a higher average DAST score than males (see Appendix C for DAST questions by gender).

Figure 9: Screening Instruments by Gender



AUDIT/DAST BY RACE/ETHNICITY

*Race/Ethnicity is an optional field in KDAI.

Hispanic DUI clients had the highest average AUDIT scores (7.49) yet the lowest average

DAST scores (1.08). White DUI clients had the highest average DAST scores (4.49), but had the lowest AUDIT scores (5.70).

AUDIT/DAST BY AGE

AUDIT scores increase overall with the age of DUI clients, while DAST scores are lower for older clients. More specifically, underage (< 21 years old) DUI clients have the lowest average AUDIT score (4.22) and clients between the ages of 30 and 39 have the highest DAST scores (5.11). On the other hand, individuals between the ages of 50 and 59 have the highest average AUDIT score (6.51) and those between 70 and 84 years old have the lowest DAST scores (0.47).

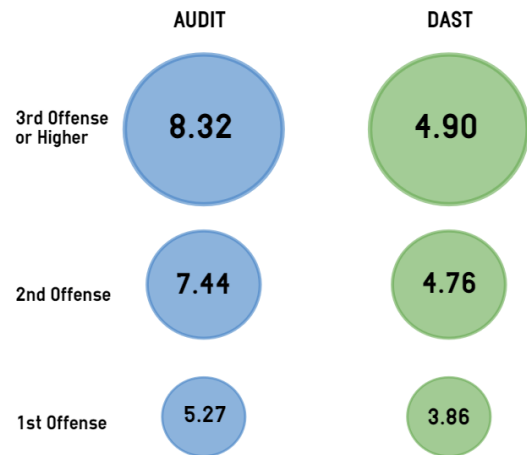
AUDIT/DAST BY SUBSTANCE(S) INVOLVED

As expected, AUDIT scores are highest for DUI clients with alcohol-involved DUIs – 7.17 for individuals with a DUI that involved only alcohol and 6.87 for those with a DUI that involved both alcohol and drugs. DAST scores, however, were significantly higher for those clients who had drug-involved DUIs – 9.36 for those with drug-only DUIs and 7.58 clients who had a DUI involving both alcohol and drugs.

AUDIT/DAST BY DUI OFFENSE TYPE

Figure 10 presents the relationship between AUDIT and DAST scores and clients’ DUI offense type. Clients convicted of a third or higher DUI offense had a higher average score on both the AUDIT (8.32) and DAST (4.90). Conversely, assessments for DUI clients convicted of a first DUI offense had lower average scores, with an average score of 5.27 on the AUDIT and 3.86 on the DAST.

Figure 10: AUDIT/DAST Scores by Offense Type



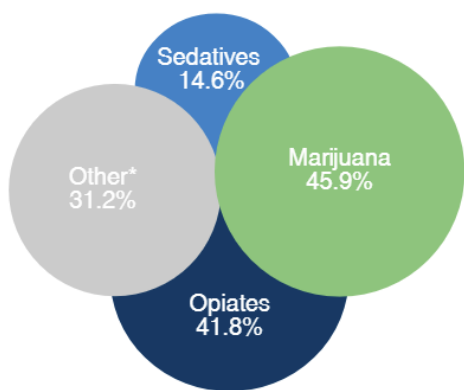
DSM-5 SUBSTANCE USE DISORDERS

According to the DSM-5, individuals who meet two or more DSM criteria for a given substance within a 12-month period have a substance use disorder. Meeting 2-3 criteria within a 12-month period indicates a mild disorder; 4-5 criteria, a moderate disorder; and 6 criteria or more, a severe substance use disorder. In 2017, 54.8% of DUI clients who were assessed met criteria for a substance use disorder. Most met criteria for an alcohol use disorder (37.9%) compared to only 23.1% for a drug use disorder. Most of the individuals who met criteria for a substance use disorder had a mild disorder (23.9%). For a list of the DSM criteria and the frequency that each of the criteria were identified as “present”, refer to Appendix D (page 48).

When focusing on substance use disorder information across individual substances, as mentioned, DUI clients were more likely to meet criteria for an alcohol use disorder (39.6%) than any non-alcohol drug. However, as shown in Figure 11, out of the 3,970 assessments submitted for clients who met criteria for a drug use disorder, marijuana use disorders were the most

common, followed by opiate use disorders. Individuals with an opiate use disorder were more likely to meet criteria for a severe substance use disorder (28.6%) compared to individuals with other drug use disorders, while those who met criteria for a marijuana use disorder were more likely to meet criteria for a mild substance use disorder (22.2%).

Figure 11: DSM-5 Drug Use Disorders



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

DSM-5 SUBSTANCE USE DISORDERS BY GENDER

In 2017, males were more likely to meet criteria for a substance use disorder (55.1%) compared to females (54.0%). Females convicted of DUI had a higher rate of drug use disorders (27.7%) compared to males convicted of DUI (21.5%). However, assessment records for males had a higher rate of alcohol use disorders (39.9% vs. 32.1%). Males were also slightly more likely to have both a drug and alcohol use disorder (6.3% vs. 5.8%).

Table 3 presents the percentage of assessment records for DUI clients with substance use disorders by severity separated by gender.

Assessments for females convicted of DUI had a higher rate of severe substance use disorders (22.8%) than assessments for males (18.0%), while assessments for males had a higher rate of both mild and moderate substance use disorders.

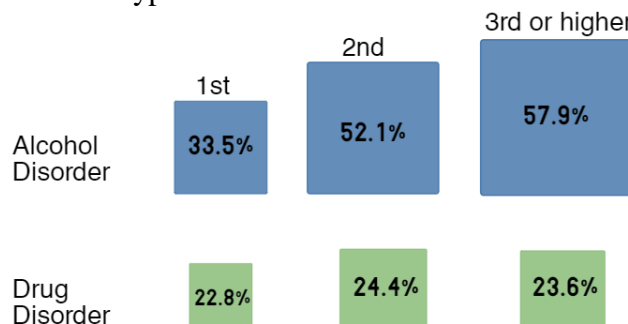
Table 3: DSM-5 Substance Use Disorder Severity by Gender

	Males	Females	Total
No Disorder	5,703 (44.9%)	2,073 (46.0%)	7,776 (45.2%)
Mild	3,155 (24.9%)	952 (21.1%)	4,107 (23.9%)
Moderate	1,548 (12.2%)	456 (10.1%)	2,004 (11.7%)
Severe	2,287 (18.0%)	1,023 (22.8%)	3,310 (19.2%)

DSM-5 SUBSTANCE USE DISORDERS BY OFFENSE TYPE

As shown in Figure 12, the percentage of assessments for DUI clients reporting DSM criteria for an alcohol use disorder increases with subsequent DUI convictions, with a high of 57.9% of individuals with a 3rd or higher DUI offense having an alcohol use disorder. On the other hand, the percentage of assessments for DUI clients reporting a drug use disorder remains fairly stable across offense categories.

Figure 12: DSM-5 Substance Use Disorders by Offense Type



The percentage of assessments for DUI clients who met criteria for a moderate or severe substance use disorder increases as clients are convicted of subsequent offenses. Specifically, 15.9% of DUI clients with a first offense DUI met criteria for a severe substance use disorder compared to 38.3% of clients convicted of a third or higher DUI offense. Similarly, 10.0% of DUI clients with a first offense DUI met criteria for a moderate substance use disorder while 18.8% of clients convicted of at least a third offense DUI met criteria for a moderate substance use disorder. Clients with a first offense DUI were most likely to meet criteria for a mild substance use disorder (24.9%) compared to those convicted of a second offense (21.5%) or a third offense or higher (14.7%).

DSM-5 SUBSTANCE USE DISORDERS BY SUBSTANCE(S) INVOLVED

Clients whose current DUI involved both alcohol and drugs were more likely to meet criteria for a substance use disorder (63.2%) compared to those with alcohol-only (52.1%) or drug-only DUIs (60.0%). Clients whose current DUI involved only drugs were more likely to meet criteria (58.6%) for a drug use disorder while those involved in alcohol-only DUIs were more likely to meet criteria for an alcohol use disorder (49.6%). The prevalence of alcohol use disorders among clients whose current DUI involved both alcohol and drugs was slightly less than the prevalence of drug use disorders (42.5% vs. 46.8%).

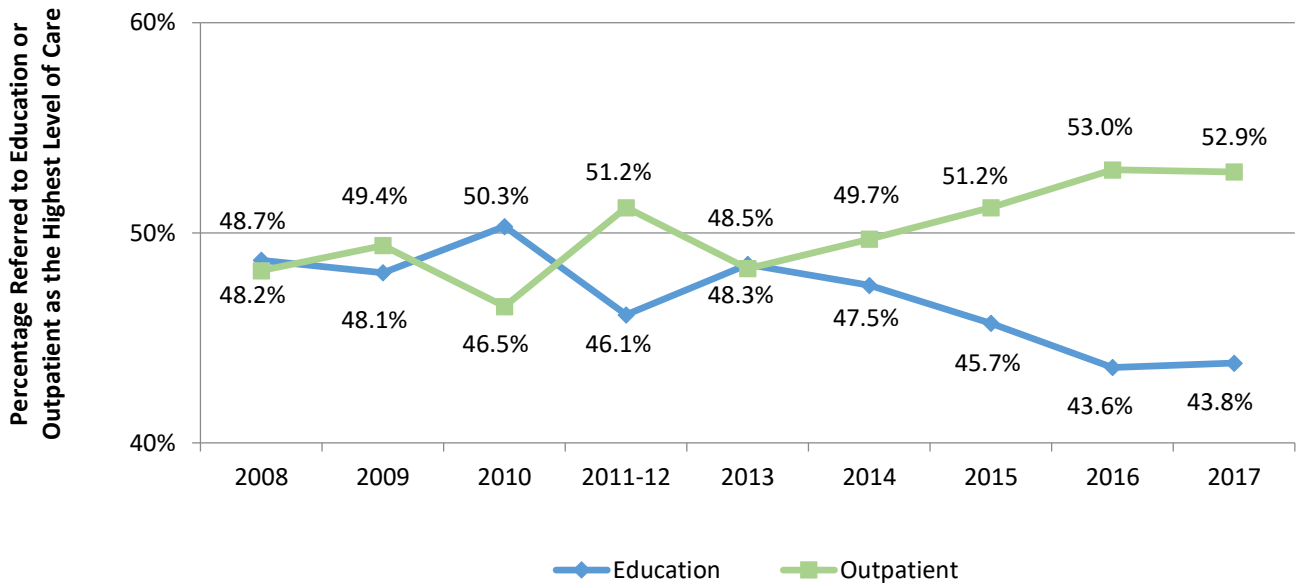
Individuals whose current DUI involved only drugs were more likely to meet criteria for a severe substance use disorder (30.6%) compared to those whose current DUI involved both alcohol and drugs (26.1%) and only alcohol (14.3%). Clients whose current DUI involved only alcohol

were more likely to meet criteria for a mild substance use disorder (26.0%) than either individuals whose current DUI involved both alcohol and drugs (24.3%) and only drugs (18.2%).

SECTION 5: TREATMENT REFERRALS

This section presents the assessors' education and treatment intervention referrals. In 2017, a majority of submitted assessments were for DUI clients recommended for outpatient treatment as their highest level of care (52.9%) – followed by education referrals (43.8%), residential referrals (2.1%), and IOP referrals (1.2%). Figure 13 presents the percentage of assessments that resulted in a referral for education or outpatient as the highest level of care from 2008 to 2017. As shown, the percentage of education versus outpatient referrals has varied over the years, with an increase in the number of outpatient referrals since 2013. The percentage of assessments with an IOP or residential referral has remained relatively stable over the past ten years (see Appendix A, Figure A.2 on page 40).

Figure 13: Education and Outpatient Referrals 2008 to 2017*



* Only the highest level of care recommended is provided. For example, if an individual was recommended for education and outpatient, only the outpatient recommendation is presented.

Table 4 presents the number of referrals to each level of care, including multiple referrals. This represents the total number of referrals to a specific intervention regardless of how many other levels of care were recommended. More than 95% of recommended referrals were for outpatient and/or education. It is interesting to note that approximately 5.2% of assessments had a referral to multiple levels of care, with 29.2% of those with

a residential referral having a recommendation for an additional level of care.

Table 4: Total Referrals*

Education	8,304
Outpatient	9,197
Intensive Outpatient	228
Residential	367

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

LEVEL OF CARE BY GENDER

Both male (53.6%) and female (50.9%) DUI clients were most often referred to an outpatient intervention as their highest level of care. However, a higher percentage of female DUI clients (45.6%) were referred to education as their highest level of care compared to males (43.1%). Intensive outpatient and residential treatment referral rates for were comparable for males (3.3%) and females (3.5%).

LEVEL OF CARE BY RACE/ETHNICITY

*Race/Ethnicity is an optional field in KDAI.

**Participants who could not be classified as White, African American, or Hispanic were categorized as “other.”

Compared to other racial/ethnic groups, Hispanic DUI clients were slightly more often referred to outpatient treatment (53.3%) while DUI clients of “other” racial/ethnic backgrounds were the least likely to be referred to outpatient treatment (41.1%). However, DUI clients of “other” racial/ethnic backgrounds were more likely to be referred to an education intervention (55.7%) compared to White (44.7%), African American (46.2%), and Hispanic (46.4%) DUI clients. Further, those individuals of “other” racial/ethnic backgrounds were the only group more likely to be referred to education than to outpatient treatment (42.6%). White clients were more often referred to intensive outpatient and residential treatment (3.6%) than other racial/ethnic groups.

LEVEL OF CARE BY AGE

Underage (< 21 years old) DUI clients were more likely to be referred to an education intervention (55.2%) as their highest level of care compared to older age groups. However, the majority of clients age 70 and older (50.9%) were also referred to an education intervention as their highest level of

care. Persons who were between the ages of 40 and 49 were slightly more likely to be referred to outpatient treatment (55.6%) as their highest level of care compared to other age groups, while those between the ages of 30 and 39 were more likely to be referred to intensive outpatient or residential treatment (3.8%) than individuals in other age groups.

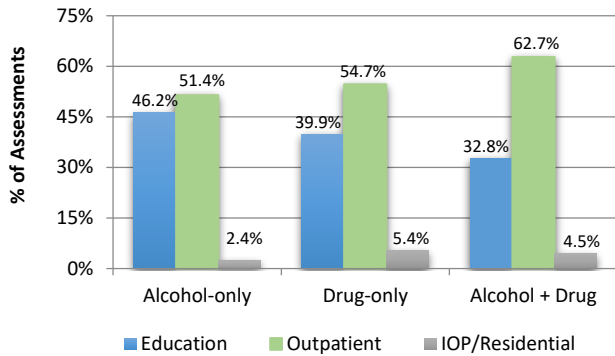
LEVEL OF CARE BY OFFENSE TYPE

In 2017, clients who were convicted of a first offense DUI were more likely to be referred to an education intervention (54.8%) as their highest level of care compared to those convicted of a second offense (5.0%) or a third or higher offense (4.1%). Individuals convicted of a second offense or a third or higher offense were most likely to be referred to outpatient treatment as their highest level of care (91.5% and 91.1%, respectively).

LEVEL OF CARE BY SUBSTANCE(S) INVOLVED

On the following page, Figure 14 presents the highest level of care recommended by the type of substance(s) involved in the current DUI offense. DUI clients across all categories were most likely to be referred to outpatient treatment as their highest level of care. Clients with an alcohol-only DUI were referred to education (46.2%) as their highest level of care more often than clients with a drug-involved DUI. On the other hand, clients whose DUI involved only drugs were referred to IOP or residential treatment more often (5.4%) than clients with an alcohol-involved DUI. Lastly, clients with a DUI that involved both drugs and alcohol were more likely (62.7%) to be referred to outpatient treatment than those who reported their current DUI involved only alcohol or drugs.

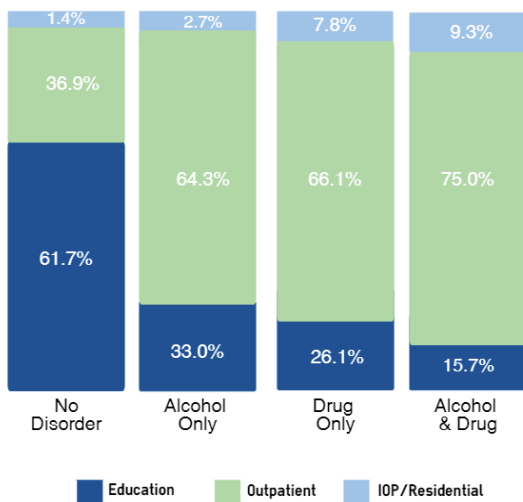
Figure 14: Highest Level of Care by Substances Involved in DUI Arrest



LEVEL OF CARE BY DSM-5 SUBSTANCE USE DISORDERS

Figure 15 presents the highest level of care by DSM-5 substance use disorders. Persons who met criteria for both an alcohol use and drug use disorder in the past 12 months were more likely than other DUI offenders to have received a treatment recommendation (84.3%), followed by those meeting criteria for only a drug use disorder (73.9%). Persons who did not meet criteria for a substance use disorder were most likely to be referred to an education intervention (61.7%).

Figure 15: Highest Level of Care by DSM-5 Substance Use Disorders

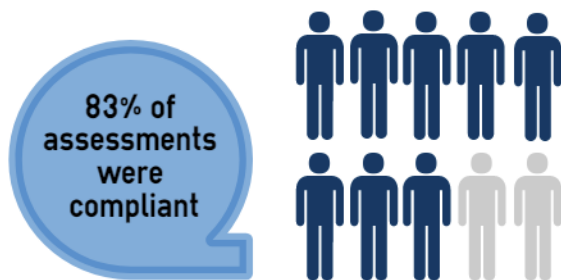


Highest level of care recommended is also related to DSM-5 substance use disorder severity. Nearly nine out of every ten individuals (88.5%) meeting criteria for a severe substance use disorder were referred to some type of treatment; 10.1% were specifically referred to either intensive outpatient or residential treatment. Individuals meeting criteria for a mild substance use disorder were most likely to be referred to education (46.7%) compared to those with more severe substance use disorders.

SECTION 6: COMPLIANCE

Of the 17,197 assessment records, 12,726 records (74.0%) were also completed before December 31, 2017. As described in the Background (page 9), this means that the client either met or did not meet the requirements of the intervention to which they were referred and, as a result, was deemed by the DUI assessor as compliant or non-compliant. Figure 16 presents assessments by compliance for those records that were completed during 2017. Overall, more than four out of every five (82.8%) DUI assessments were for clients compliant with their assigned intervention.

Figure 16: Compliant vs. Non-Compliant



There are 4 reasons a DUI client can be deemed non-compliant with their assigned intervention. Table 5 lists the reasons DUI clients can be deemed non-compliant and the corresponding percentages for calendar year 2017.

Table 5: Main Reason for Non-Compliance

Failure to achieve treatment plan goals	2.7%
Failure to comply with rules of conduct	1.0%
Failure to comply with attendance requirements	90.8%
Failure to pay fees	5.5%

Compliance rates have not varied widely over the past 10 years, ranging from a low of 81.3% in 2010 to a high of 85.3% in 2013 (see Appendix A, Figure A.3 on page 40).

COMPLIANCE BY GENDER

Compliance rates were comparable across gender. Female clients were only slightly less likely to comply with their assigned intervention (82.7%) compared to male clients (82.9%).

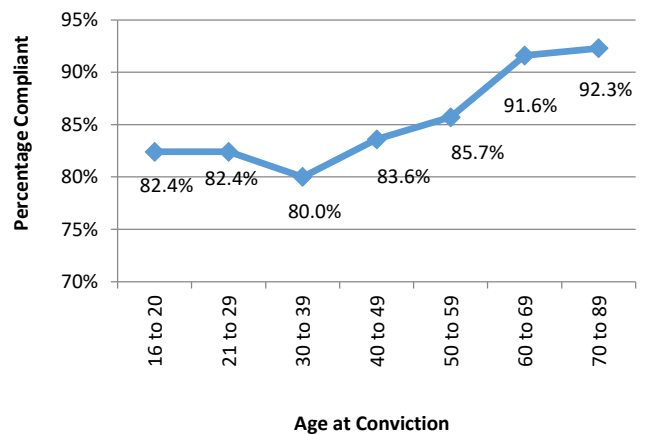
COMPLIANCE BY RACE/ETHNICITY

More than four of every five DUI clients who were White (83.4%), Hispanic (85.5%), or of another racial/ethnic background (84.9%) were compliant with their recommended interventions. African American DUI clients were the least likely to comply (77.9%).

COMPLIANCE BY AGE

In 2017, an increase in a DUI client’s age corresponded to an increased likelihood of complying with one’s recommended intervention. As shown in Figure 17, younger clients tend to be less compliant with only 82.4% of underage (< 21 years old) offenders complying with the recommended intervention while more than 90% of clients ages 60 and older comply with their recommended intervention.

Figure 17: Compliance by Age



COMPLIANCE BY OFFENSE TYPE

The likelihood of compliance decreased with each subsequent conviction. Specifically, individuals convicted of a third offense DUI or higher were the least likely to comply with their assigned intervention (48.7%), while DUI clients convicted of a first offense DUI were the most likely to be compliant (86.7%).

COMPLIANCE BY SUBSTANCE(S) INVOLVED

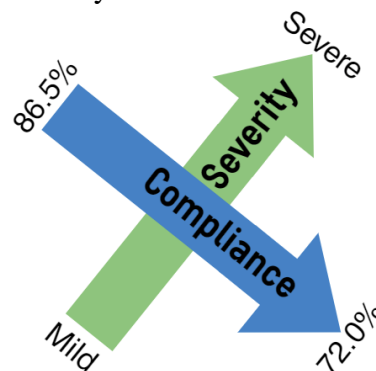
DUI clients who reported driving under the influence of only drugs with their current DUI were less likely to comply with their education and/or treatment recommendations (77.9%) compared to clients involved in alcohol-only DUIs (85.1%) and those whose current DUI involved both alcohol and drugs (78.6%).

COMPLIANCE BY DSM-5 SUBSTANCE USE DISORDERS

DUI clients who met two or more substance use disorder criteria in the past 12 months were less likely to be compliant with their assigned intervention than those with no substance use disorder (79.3% vs. 86.5%). Individuals who met two or more DSM criteria for both a drug and alcohol use disorder were the least likely to be compliant (71.3%), followed by individuals who met criteria for only a drug use disorder (76.0%) and those meeting criteria for only an alcohol use disorder (82.9%).

Figure 18 presents compliance by DSM-5 substance use disorder severity. As shown, the likelihood of compliance decreased as substance use severity increased.

Figure 18: Compliance by DSM-5 Substance Use Disorder Severity



COMPLIANCE BY HIGHEST LEVEL OF CARE RECOMMENDED

Individuals referred for education showed the highest percentages of compliance (90.5%), while persons referred for residential treatment were only slightly less likely to be compliant (90.3%) than those referred for education. Persons referred to outpatient treatment were the least likely to be compliant with their intervention (73.7%).

SECTION 7: COMMUNITY MENTAL HEALTH CENTER REGIONS

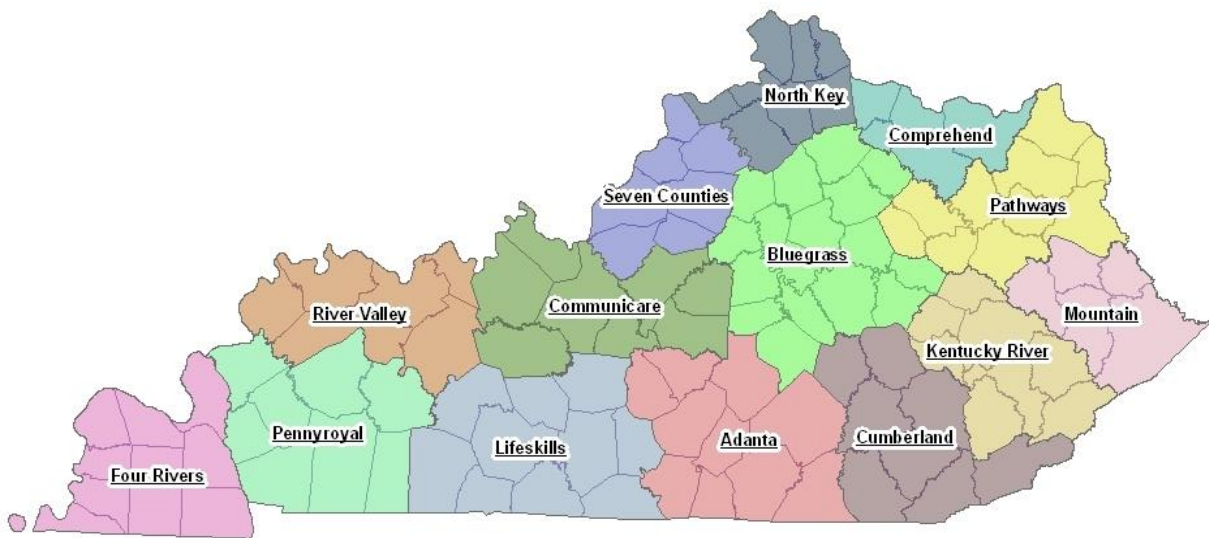
Kentucky has 14 Community Mental Health Centers (CMHC) that provide publicly-funded services to individuals experiencing mental health or substance use problems. Of those 14 CMHCs, 10 are licensed and certified DUI programs. Table 6 presents the number of programs and assessment records submitted by these centers (publicly-funded) and privately-owned assessment programs. CMHCs submitted an average of 279 assessments per program in 2017, while private programs submitted an average of 121 assessments per program. There were seven privately-owned programs that submitted fewer than ten assessments.

Table 6: CMHC and Privately Funded Program Assessments

	CMHC	Private	Total
Assessments Submitted	2,786	14,411	17,197
Number of Programs	10	119	129
Average Assessments per Program	278.6	121.1	133.3

In this section, DUI assessment information is presented for the CMHC regions, including all certified DUI programs (public and private) within that geographic region, not just the CMHC serving the region. Figure 19 presents a map of Kentucky’s CMHC regions, each of which are comprised of multiple counties.

Figure 19: Community Mental Health Center Regional Map



CMHC DEMOGRAPHIC DIFFERENCES

Very few demographic differences were found across CMHC regions. The average age of DUI clients across Kentucky was 36.3 but the average age across CMHC regions ranged from a low of 35.3 years old

in the Communicare region to a high of 37.9 in the Mountain region. While approximately two-thirds of the clients in the Communicare region were under the age of 40 (66.0%), only 59.0% of clients in the Mountain region were under the age of 40. The percentage of male DUI clients was also similar across regions, ranging from a low of 71.9% in the Mountain region to a high of 75.9% in the Pathways region. For a more detailed breakdown of the demographics across CMHC regions, refer to Table E.1 in Appendix E (page 50).

CMHC REGIONS AND CONVICTION HISTORY

The average number of lifetime DUI convictions for Kentucky clients was 1.60. Clients in the Four Rivers region had the highest average number of lifetime DUI convictions (1.84). First offenders were a majority in all regions, with North Key having the highest percentage of assessments for first-time offenders (72.9%). Pennyroyal had the highest percentage of assessments for DUI clients with a second conviction (26.3%) and Four Rivers the highest percentage of assessments for clients with three or more lifetime DUI convictions (20.9%).

Similar to lifetime DUI convictions, individuals convicted of a first DUI offense for their current DUI were a majority in all regions. North Key had the highest percentage of assessments for first DUI offenses (82.5%). Pennyroyal had the highest percentage of assessments for second DUI offenses (26.5%) and for third or higher DUI convictions (5.6%).

See Tables E.2 and E.3 in Appendix E (page 51) for additional details about the number of lifetime DUI convictions and current DUI conviction type across CMHC regions.

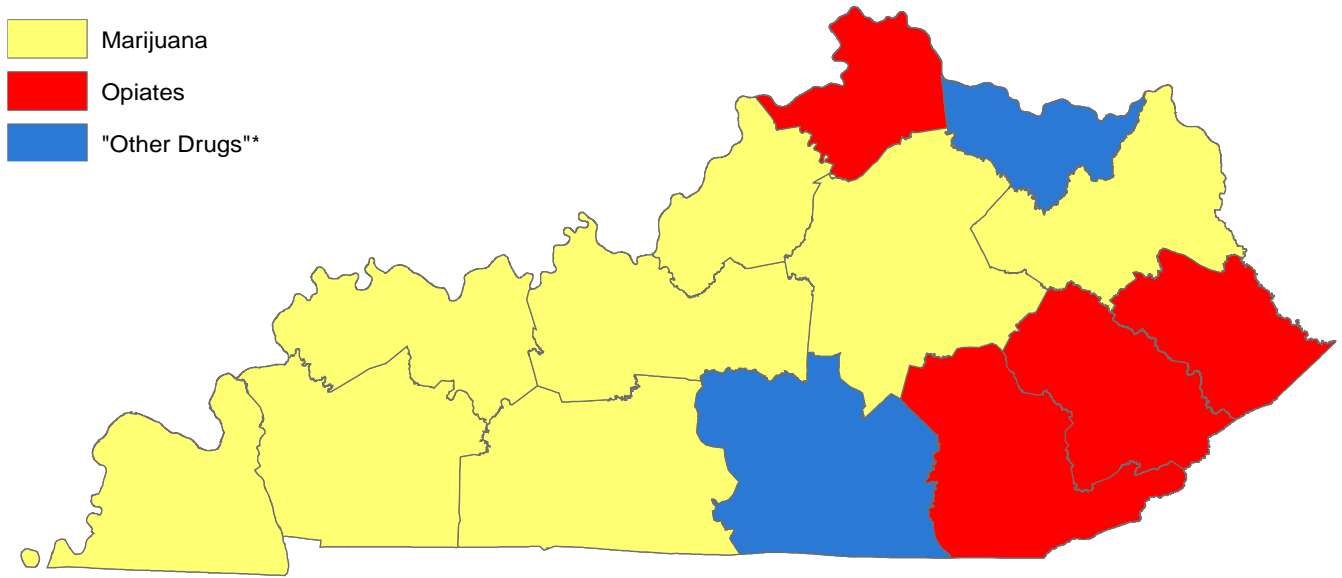
CMHC REGIONS AND SUBSTANCE(S) INVOLVED

The types of substances involved in DUIs varied widely across CMHC regions. Compared to other regions, DUIs that involved only alcohol were most common in the Seven Counties region (83.7%). Alcohol-only DUIs were the least common in the Cumberland region (33.2%) but that region had the highest prevalence of drug-only DUIs (62.3%). Clients in the Four Rivers region were more likely than individuals from any other region to have a DUI that involved both alcohol and drugs (9.1%). For a breakdown of the types of substances involved in clients' current DUI, see Table E.4 in Appendix E (page 52).

While alcohol was involved more often than any specific type of drug, marijuana was the most commonly involved drug across the state. In 2017, more than 1 in every 10 DUIs involved marijuana (13.1%). As shown in Figure 20 on the following page, marijuana was the most commonly reported drug involved for DUI clients in eight of the CMHC regions. In the North Key, Mountain, Kentucky River, and Cumberland regions, opiates were more likely to be involved than any other specific type of drugs.

For a more detailed breakdown of drug involvement in each of the 14 CMHC regions, refer to Figures 21 through 24 on the following page. These maps show the prevalence of involvement for marijuana, opiates, sedatives, and "other drugs" among assessments for drug-involved DUIs by CMHC region.

Figure 20: CMHC Regional Map with Most Commonly Involved Drug



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

Figure 21: Marijuana Involvement by CMHC Region

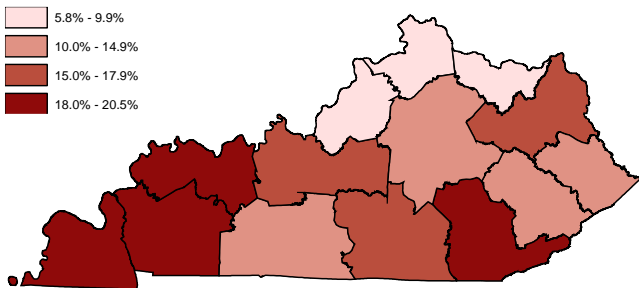


Figure 23: Sedative Involvement by CMHC Region

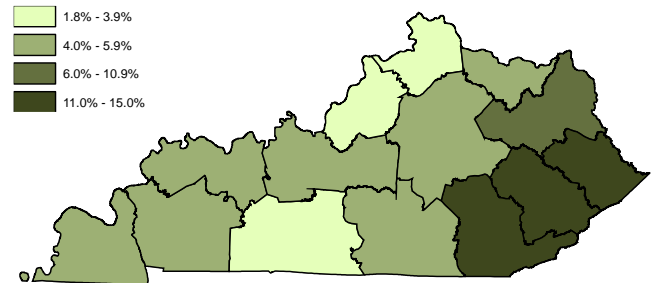


Figure 22: Opiate Involvement by CMHC Region

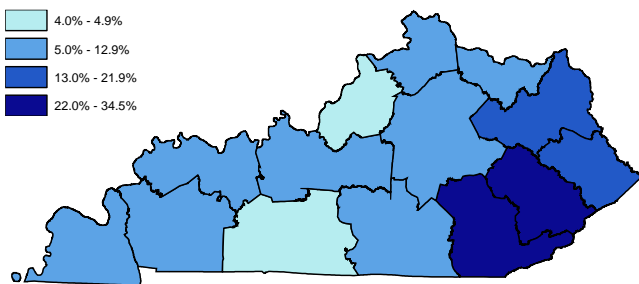
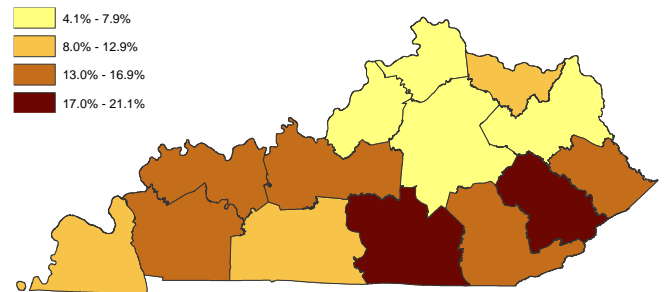


Figure 24: Other Drug Involvement by CMHC Region



CMHC REGIONS AND SCREENING INSTRUMENTS

Table 7 presents the percentage of assessments with positive scores for the AUDIT and DAST and the percentage of assessments for clients who met DSM-5 substance use disorder criteria by CMHC region. Seven Counties had the highest percentage of positive AUDIT scores (32.7%) with an average AUDIT score of 6.82. Mountain had the fewest (10.5%) positive AUDIT scores with an average score of 3.01. The Kentucky River region had the highest percentage of positive DAST scores (50.7%), with an average DAST score of 7.43. Seven Counties had the fewest (18.5%) with an average score of 2.84. Table E.5 in Appendix E (page 52) provides the average AUDIT and DAST score for each of the CMHC regions.

Table 7: CMHC Screening Instruments

	AUDIT % Positive	DAST % Positive	DSM-5 Substance Use Disorder
Four Rivers	29.8%	27.3%	57.4%
Pennyroyal	21.9%	27.5%	52.9%
River Valley	31.6%	31.4%	67.0%
Lifeskills	28.9%	31.1%	63.9%
Communicare	28.4%	32.4%	48.2%
Seven Counties	32.7%	18.5%	59.7%
North Key	31.1%	21.1%	65.7%
Comprehend	17.3%	26.7%	52.7%
Pathways	23.1%	38.0%	47.0%
Mountain	10.5%	34.4%	43.3%
Kentucky River	18.5%	50.7%	61.7%
Cumberland	14.2%	48.5%	53.1%
Adanta	23.6%	41.4%	41.2%
Bluegrass	29.0%	24.6%	47.4%
All Regions	27.2%	28.9%	54.8%

Looking at the DSM, clients in the River Valley regions were more likely to meet DSM-5 criteria for a substance use disorder (67.0%) compared to those from other CMHC regions. Those from the Adanta region were the least likely to meet criteria for a substance use disorder (41.2%). The Lifeskills region had the highest percentage of clients meeting criteria for a severe substance use disorder (27.3%) while clients in the North Key region were more likely to meet criteria for a mild substance use disorder (39.6%) compared to other regions.

CMHC REGIONS AND LEVEL OF CARE

Level of care refers to assessors' education and treatment intervention referrals – specifically, the highest level assigned for each assessment is provided (i.e., when more than one level of care was assigned, only the highest level is presented here). Although outpatient treatment was the recommended intervention for more than half (52.9%) of Kentucky DUI clients in 2017, it was more likely to be recommended for clients in the Kentucky River region (92.5%) than in any other CMHC region. Education was more likely referred as the highest level of care in the Cumberland region (60.3%) compared to any other region. The Mountain region had the highest rate of referrals to residential treatment (4.3%). Lastly, referrals to intensive outpatient treatment were most common in the River Valley region (2.6%). Additional referral information for CMHC regions can be found in Table E.6 in Appendix E (page 53).

CMHC REGIONS AND COMPLIANCE

Compliance refers to the percentage of assessments that were considered compliant upon completion. Out of the 12,726 assessments completed in 2017, assessors deemed 82.8%

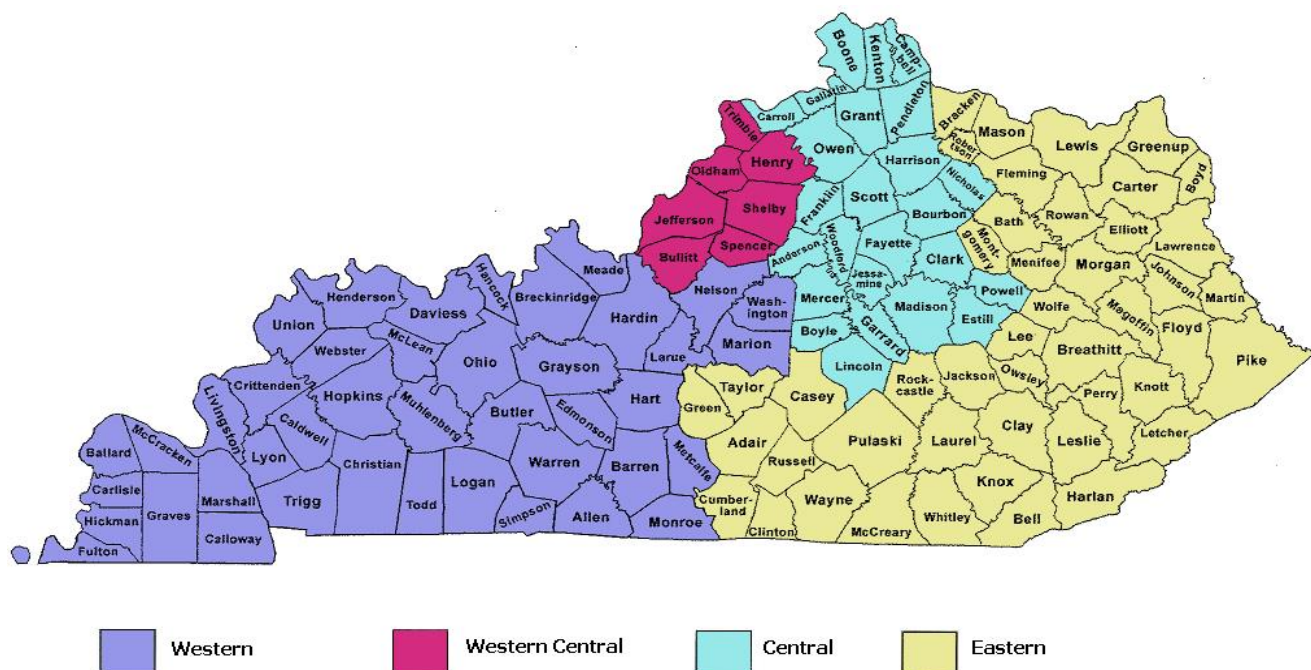
compliant with their recommended intervention. The Pathways region had the highest rate of compliance with nearly 9 out of 10 (89.5%) completed assessments being compliant. However, in the Communicare region, only 7 of every 10 (69.9%) assessment records were deemed compliant. Compliance rates for each of the CMHC regions can be found in Table E.6 in Appendix E (page 53).

SECTION 8: DIVISION OF BEHAVIORAL HEALTH REGIONS

Kentucky is divided into four DUI regions and each region has an assigned DUI regional coordinator who serves as a representative of the Division of Behavioral Health (DBH). DUI regional coordinators are responsible for monitoring and providing support to licensed and certified DUI assessment programs within their assigned region. Figure 25 presents a map of Kentucky’s DBH regions.

In 2017, the Western region had more assessments than the other three regions (31.6%; 5,438 assessments) while the Western Central region had the fewest assessments (17.5%; 3,014 assessments). For the number of assessments submitted in 2017 for each of the four DBH regions, see Table F.1 in Appendix F (page 54).

Figure 25: DBH Regional Map



DBH DEMOGRAPHIC DIFFERENCES

Demographically, the DBH regions were largely similar. In each region, approximately three-quarters of the clients who were assessed were male; ranging from a low of 73.1% in the Central region to a high of 74.4% in the Eastern region. Clients in the Central region were also the youngest, with an average age of 35.6. Conversely, clients in the Eastern region had the highest average age at 37.3 years old. The most

notable difference between the regions were clients’ race/ethnicity. The Eastern region had the highest percentage of White clients (96.2%), followed by the Central region where 84.2% of clients were White. Clients in the Western Central region were the least likely to be White (73.6%). Table F.1 in Appendix F (page 54) provides a more thorough breakdown of the demographic characteristics of DUI clients for each of the 4 DBH regions.

DBH REGIONS AND CONVICTION HISTORY

The average number of lifetime DUI convictions varied slightly across DBH regions. With the highest percentage of offenders with two or more lifetime DUIs (37.6%), the Western region had the highest average number of lifetime DUI convictions compared to the other three regions (1.67) convictions). Clients in the Western Central region were more likely to report that their current DUI was their first DUI conviction in their lifetime (70.8%) and were the most likely to be convicted of a first DUI offense (80.3%). Tables F.2 and F.3 in Appendix F (page 54) contain additional details about the number of lifetime DUI convictions and current DUI conviction type across DBH regions.

DBH REGIONS AND SUBSTANCES INVOLVED

Overall, alcohol was the most commonly-involved substance in each of the regions. However, alcohol-involved DUIs were most common in the Western Central region (88.2%), whereas the Eastern region had the highest percentage of assessments for individuals with a drug-involved DUI (50.6%). Assessments submitted in the Western region were more likely to result from a DUI that involved both alcohol and drugs compared to the other three regions (6.7%). Refer to Appendix F, Table F.4 (page 54) for the complete breakdown of the type of substance(s) involved in clients’ current DUI by DBH region.

Table 8 presents the distribution of specific non-alcohol drugs involved in DUIs by DBH region. The Eastern region had the highest percentage of assessments for individuals with DUIs involving opiates, sedatives, and “other drugs”. The Western

and Eastern regions had the highest prevalence of marijuana-involved DUIs (16.4%).

Table 8: Specific Drugs Involved in DUI by DBH Region

	Central	Eastern	Western	Western Central
Marijuana	9.0%	16.4%	16.4%	8.8%
Opiates	8.1%	20.1%	6.7%	4.0%
Sedatives	3.7%	10.4%	4.9%	1.8%
“Other Drugs”	6.3%	16.0%	11.8%	4.2%

* “Other drugs” includes cocaine, amphetamines, inhalants, hallucinogens, PCP, and an “other drug” category.

DBH REGIONS AND AUDIT/DAST

The Western Central region had the highest percentage of DUI clients with a positive AUDIT score (32.6%), with an average score of 6.80 on assessments submitted in 2017 (see Table 9). Individuals assessed in the Eastern region were the least likely to have a positive AUDIT score (18.8%) but were more likely to have a positive DAST score (41.3%) compared to clients in the other three regions. As shown in Table 9, the average DAST score for those in the Eastern region was 5.79.

Table 9: AUDIT/DAST Scores by DBH Region

	Central	Eastern	Western	Western Central
AUDIT Average	6.40	4.20	5.91	6.80
DAST Average	3.40	5.79	4.00	2.82

DBH REGIONS AND DSM-5 SUBSTANCE USE DISORDERS

Across the DBH regions, clients in the Western Central region were the most likely to meet at least two DSM criteria for a substance use disorder (59.8%) while clients in the Eastern region were

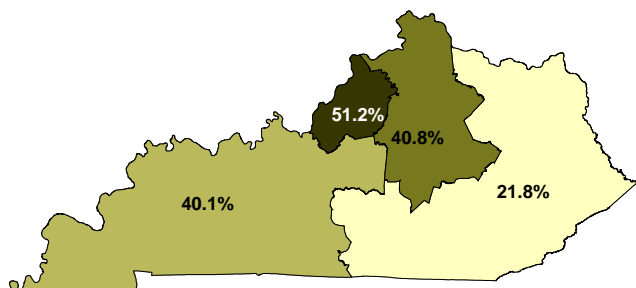
the least likely (47.8%). However, as shown in Table 10, assessments for clients in the Eastern region had the highest percentage of severe substance use disorders (22.1%). Mild substance use disorders were most prevalent in the Central and Western regions (26.9%).

Table 10: DBH Regions and Substance Use Disorder Severity

	Central	Eastern	Western	Western Central
No Disorder	46.5%	52.2%	41.7%	40.2%
Mild	26.9%	16.3%	26.9%	24.2%
Moderate	10.0%	9.4%	11.6%	17.2%
Severe	16.6%	22.1%	19.8%	18.4%

Types of substance use disorders also varied by DBH region. As shown in Figure 26, the Western Central region had the highest percentage of assessments for individuals meeting criteria for an alcohol use disorder (51.2%); 45.8% met criteria for only an alcohol use disorder and 5.4% met criteria for both an alcohol and drug use disorder. Individuals in the Western Central region met an average of 2.5 alcohol use disorder criteria.

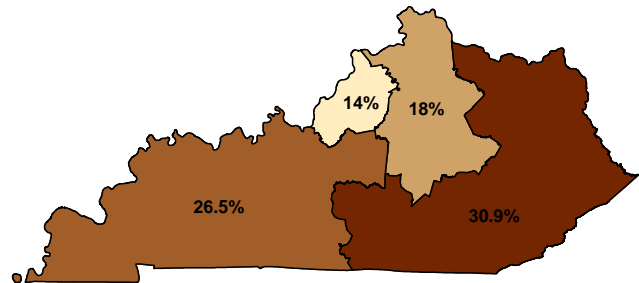
Figure 26: Alcohol Use Disorders by DBH Regions



The Eastern region had the highest percentage of assessments for individuals meeting criteria for a

drug use disorder (30.9%), as indicated in Figure 27. More specifically, 26.1% met criteria for only a drug use disorder and 4.8% met criteria for a drug and alcohol use disorder. Overall, clients in the Eastern region met 2.0 drug use disorder criteria.

Figure 27: Drug Use Disorders by DBH Regions



Lastly, compared to the other three DBH regions, clients in the Western region were more likely to meet substance use disorder criteria for both alcohol and drugs (8.4%).

DBH REGIONS AND LEVEL OF CARE

Outpatient treatment was most often the highest level of care recommended in each of the DBH regions; however, outpatient treatment was more likely to be the highest level of care recommended in the Western region compared to the other regions (55.8%). The Western regions also had the highest percentage of referrals to residential treatment (2.9%) compared to the other regions. The Western Central region had the highest percentage of assessments for DUI clients recommended for education (46.5%). Referrals to intensive outpatient treatment as the highest level of care were most common in the Central region (1.9%). To see the complete distribution of the highest level of care recommended by DBH region, refer to Table F.5 in Appendix F (page 55).

DBH REGIONS AND COMPLIANCE

As mentioned in earlier sections, the majority of clients assessed in 2017 were compliant with their recommended intervention (82.8%). Across DBH regions, compliance rates were the highest in the Western Central region (85.9%) – only slightly higher than in the Eastern region (84.2%). Compliance rates were the lowest in the Western region, with slightly more than three-fourths (79.3%) of assessments being for individuals found to be compliant with their recommended intervention. Compliance rates can also be found in Table F.5 in Appendix F (page 55).



REFERENCES

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APPENDICES



APPENDIX A: DUI TRENDS – 2008 TO 2017

Figure A.1. Percentage of Assessments for Persons Convicted of a Second DUI Offense or Higher between 2008 and 2017

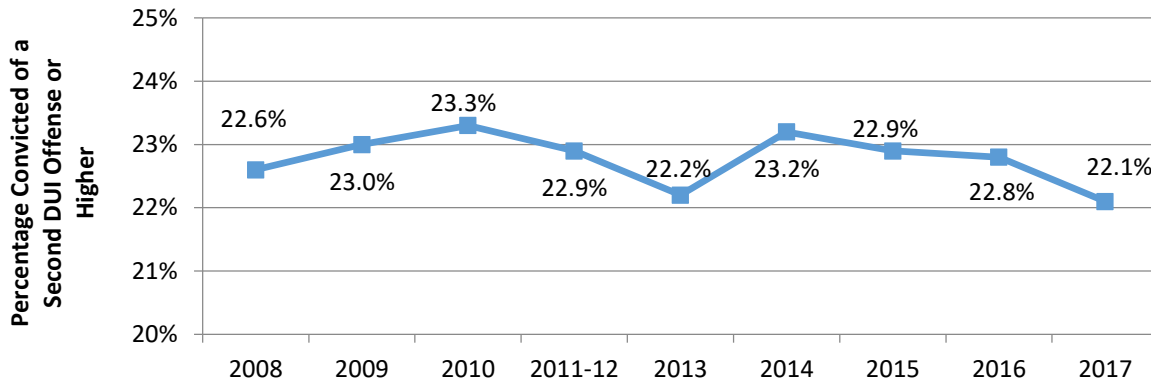


Figure A.2. Intensive Outpatient and Residential Treatment Referrals between 2008 and 2017

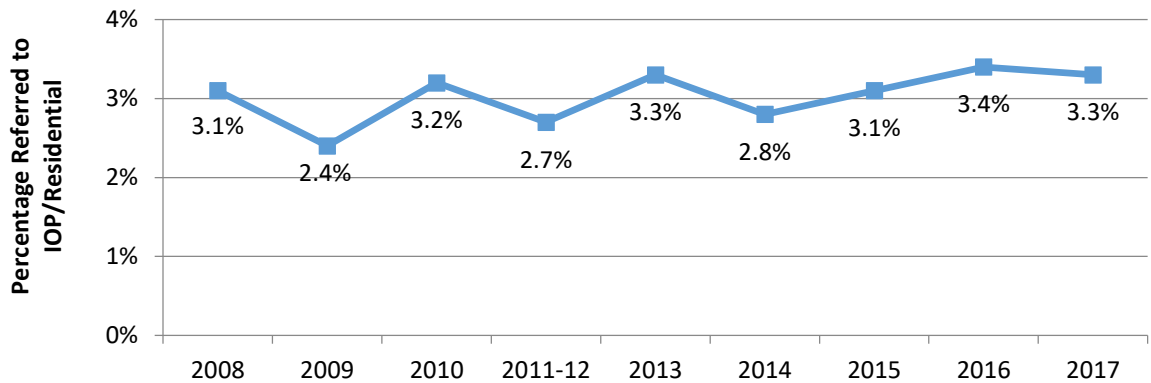
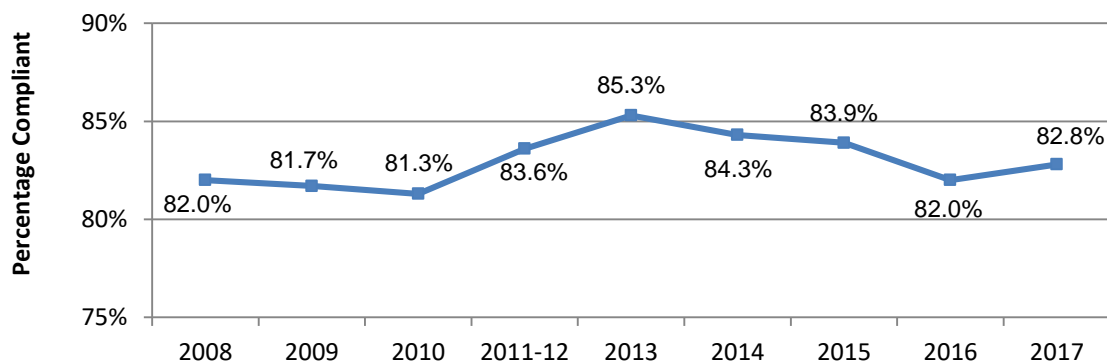


Figure A.3. Compliance Rates between 2008 and 2017



APPENDIX B: AUDIT RESPONSES AND AVERAGE SCORES BY GENDER

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

	Males	Females	Total
(0) Never	23.2%	31.3%	25.3%
(1) Monthly or less	26.2%	29.1%	27.0%
(2) 2 to 4 times a month	25.6%	21.6%	24.6%
(3) 2 to 3 times a week	17.3%	12.7%	16.1%
(4) 4 or more times a week	7.7%	5.2%	7.0%
Average Score	1.60	1.31	1.53

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

	Males	Females	Total
(0) 1 or 2	39.4%	54.6%	43.4%
(1) 3 or 4	28.3%	27.3%	28.1%
(2) 5 or 6	18.5%	10.2%	16.4%
(3) 7, 8, or 9	6.4%	3.9%	5.8%
(4) 10 or more	7.3%	4.0%	6.4%
Average Score	1.14	0.76	1.04

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

	Males	Females	Total
(0) Never	41.4%	57.1%	45.5%
(1) Less than monthly	31.2%	27.0%	30.1%
(2) Monthly	13.5%	7.9%	12.0%
(3) Weekly	10.6%	5.5%	9.2%
(4) Daily or almost daily	3.3%	2.5%	3.1%
Average Score	1.03	0.69	0.94

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	82.9%	83.9%	83.2%
(1) Less than monthly	9.5%	9.0%	9.4%
(2) Monthly	3.4%	2.5%	3.1%
(3) Weekly	2.5%	2.5%	2.5%
(4) Daily or almost daily	1.7%	2.0%	1.8%
Average Score	0.31	0.30	0.30

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	84.8%	84.5%	84.7%
(1) Less than monthly	10.8%	11.1%	10.9%
(2) Monthly	2.2%	1.9%	2.2%
(3) Weekly	1.4%	1.4%	1.4%
(4) Daily or almost daily	0.8%	1.1%	0.8%
Average Score	0.23	0.23	0.23

6. 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	93.8%	93.8%	93.8%
(1) Less than monthly	3.3%	3.2%	3.3%
(2) Monthly	1.0%	0.7%	0.9%
(3) Weekly	1.1%	1.0%	1.1%
(4) Daily or almost daily	0.8%	1.2%	0.9%
Average Score	0.12	0.12	0.12

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

	Males	Females	Total
(0) Never	74.0%	73.3%	73.8%
(1) Less than monthly	18.2%	18.5%	18.3%
(2) Monthly	3.6%	3.2%	3.5%
(3) Weekly	2.4%	2.3%	2.4%
(4) Daily or almost daily	1.8%	2.7%	2.0%
Average Score	0.40	0.43	0.41

8. 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	81.4%	81.1%	81.3%
(1) Less than monthly	14.2%	13.9%	14.1%
(2) Monthly	2.6%	2.4%	2.6%
(3) Weekly	1.3%	2.0%	1.5%
(4) Daily or almost daily	0.5%	0.7%	0.5%
Average Score	0.25	0.27	0.26

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

	Males	Females	Total
(0) No	90.0%	90.6%	90.2%
(2) Yes, but not in the last year	6.5%	5.1%	6.1%
(4) Yes, during the last year	3.5%	4.3%	3.7%
Average Score	0.27	0.27	0.27

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

	Males	Females	Total
(0) No	76.2%	80.3%	77.3%
(2) Yes, but not in the last year	11.1%	9.7%	10.8%
(4) Yes, during the last year	12.7%	10.0%	12.0%
Average Score	0.73	0.59	0.69

APPENDIX C: 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
39.8%	43.5%	40.7%

2. Have you abused prescription drugs?

Males	Females	Total
16.1%	23.7%	18.1%

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

Males	Females	Total
10.8%	15.5%	12.0%

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

Males	Females	Total
4.3%	5.7%	4.7%

Percentage of persons who responded "no"

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

Males	Females	Total
9.4%	13.3%	10.4%

Percentage of persons who responded "no"

6. Do you abuse drugs on a continuous basis?

Males	Females	Total
7.9%	9.8%	8.4%

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

Males	Females	Total
16.0%	18.8%	16.7%

Percentage of persons who responded "no"

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

Males	Females	Total
7.8%	12.3%	9.0%

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

Males	Females	Total
19.4%	27.6%	21.6%

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

Males	Females	Total
15.0%	17.7%	15.7%

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

Males	Females	Total
19.9%	22.8%	20.7%

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

Males	Females	Total
12.5%	16.5%	13.5%

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

Males	Females	Total
6.5%	8.4%	7.0%

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

Males	Females	Total
11.3%	16.1%	12.6%

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

Males	Females	Total
12.8%	18.4%	14.3%

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

Males	Females	Total
7.5%	9.0%	7.9%

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

Males	Females	Total
7.9%	9.3%	8.2%

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

Males	Females	Total
8.7%	11.7%	9.5%

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

Males	Females	Total
14.5%	19.8%	15.9%

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

Males	Females	Total
27.1%	34.8%	29.2%

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

Males	Females	Total
17.2%	19.1%	17.7%

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

Males	Females	Total
20.6%	20.6%	20.6%

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

Males	Females	Total
13.0%	18.9%	14.6%

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

Males	Females	Total
4.8%	8.2%	5.7%

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

Males	Females	Total
13.7%	19.6%	15.3%

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

Males	Females	Total
4.6%	7.7%	5.4%

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

Males	Females	Total
15.3%	20.8%	16.8%

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

Males	Females	Total
12.6%	18.3%	14.1%

APPENDIX D: DSM-5 SUBSTANCE USE DISORDER CRITERIA BY GENDER

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

Males	Females	Total
39.0%	40.2%	39.4%

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

Males	Females	Total
23.6%	27.4%	24.6%

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

Males	Females	Total
17.1%	19.8%	17.8%

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

Males	Females	Total
24.5%	26.9%	25.1%

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

Males	Females	Total
16.5%	20.2%	17.5%

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

Males	Females	Total
21.5%	24.4%	22.2%

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

Males	Females	Total
14.7%	18.3%	15.7%

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

Males	Females	Total
54.5%	52.2%	53.9%

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

Males	Females	Total
18.0%	22.9%	19.3%

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

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

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

Males	Females	Total
40.0%	39.1%	39.7%

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

(a) the characteristic withdrawal syndrome for the substance

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

Males	Females	Total
15.4%	20.3%	16.7%



APPENDIX E: CMHC REGIONAL DATA TABLES

Table E.1. CMHC Demographic Differences*

	Average Age	% Under 40 yr	% Male
Region 1 - Four Rivers	36.2	63.3%	72.2%
Region 2 - Pennyroyal	36.1	63.9%	73.2%
Region 3 - River Valley	36.0	62.8%	73.4%
Region 4 - Lifeskills	35.4	66.0%	74.9%
Region 5 - Communicare	35.3	66.6%	74.8%
Region 6 - Seven Counties	36.7	63.5%	74.3%
Region 7 - North Key	35.5	67.4%	74.1%
Region 8 - Comprehend	36.7	62.6%	75.7%
Region 10 - Pathways	37.1	59.7%	75.9%
Region 11 - Mountain	37.9	59.0%	71.9%
Region 12 - Kentucky River	37.5	61.5%	75.1%
Region 13 - Cumberland	37.6	60.0%	72.9%
Region 14 - Adanta	37.0	61.5%	75.2%
Region 15 - Bluegrass	35.7	65.5%	72.4%
All Regions	36.3	63.9%	73.8%

* Missing Data: Age = 4

Table E.2. CMHC Lifetime DUI Convictions

	Average	0-1	2	3+
Region 1 - Four Rivers	1.84	59.8%	19.3%	20.9%
Region 2 - Pennyroyal	1.68	59.5%	26.3%	14.2%
Region 3 - River Valley	1.60	63.4%	23.2%	13.4%
Region 4 - Lifeskills	1.54	67.8%	21.0%	11.2%
Region 5 - Communicare	1.71	58.8%	25.6%	15.6%
Region 6 - Seven Counties	1.51	70.3%	19.2%	10.5%
Region 7 - North Key	1.36	72.9%	20.8%	6.3%
Region 8 - Comprehend	1.53	63.8%	24.3%	11.9%
Region 10 - Pathways	1.74	60.9%	21.8%	17.3%
Region 11 - Mountain	1.56	65.3%	24.1%	10.6%
Region 12 - Kentucky River	1.81	55.0%	25.8%	19.2%
Region 13 - Cumberland	1.74	58.8%	24.3%	16.9%
Region 14 - Adanta	1.50	70.1%	19.9%	10.0%
Region 15 - Bluegrass	1.62	65.3%	21.5%	13.2%
All Regions	1.60	65.5%	21.7%	12.8%

Table E.3. CMHC DUI Offense Type

	1st	2nd	3 rd or higher
Region 1 - Four Rivers	78.5%	16.9%	4.6%
Region 2 - Pennyroyal	68.0%	26.4%	5.6%
Region 3 - River Valley	76.6%	18.0%	5.4%
Region 4 - Lifeskills	78.4%	18.2%	3.4%
Region 5 - Communicare	73.2%	21.8%	5.0%
Region 6 - Seven Counties	80.0%	16.1%	3.9%
Region 7 - North Key	82.5%	15.6%	1.9%
Region 8 - Comprehend	73.7%	21.8%	4.5%
Region 10 - Pathways	79.1%	17.8%	3.1%
Region 11 - Mountain	79.2%	17.2%	3.6%
Region 12 - Kentucky River	78.4%	18.1%	3.5%
Region 13 - Cumberland	77.6%	17.7%	4.7%
Region 14 - Adanta	79.0%	17.6%	3.4%
Region 15 - Bluegrass	76.7%	18.9%	4.4%
All Regions	77.8%	18.2%	4.0%

Table E.4. CMHC Regions and Substances Involved in DUI Offense

	Alcohol Only	Drug Only	Alcohol + Drug
Region 1 - Four Rivers	65.0%	25.9%	9.1%
Region 2 - Pennyroyal	60.3%	32.2%	7.5%
Region 3 - River Valley	62.8%	29.7%	7.5%
Region 4 - Lifeskills	73.1%	21.2%	5.7%
Region 5 - Communicare	65.3%	30.4%	4.3%
Region 6 - Seven Counties	83.7%	11.7%	4.6%
Region 7 - North Key	82.9%	11.6%	5.5%
Region 8 - Comprehend	72.0%	20.6%	7.4%
Region 10 - Pathways	60.5%	34.7%	4.8%
Region 11 - Mountain	44.9%	50.3%	4.8%
Region 12 - Kentucky River	40.6%	53.8%	5.6%
Region 13 - Cumberland	33.2%	62.3%	4.5%
Region 14 - Adanta	54.0%	41.2%	4.8%
Region 15 - Bluegrass	72.8%	21.7%	5.5%
All Regions	68.0%	26.4%	5.6%

Table E.5. CMHC Regions and AUDIT/DAST Scores

	AUDIT Average	DAST Average
Region 1 - Four Rivers	6.26	3.24
Region 2 - Pennyroyal	4.83	3.44
Region 3 - River Valley	5.94	3.98
Region 4 - Lifeskills	6.09	4.47
Region 5 - Communicare	6.04	4.55
Region 6 - Seven Counties	6.82	2.84
Region 7 - North Key	6.59	2.95
Region 8 - Comprehend	4.64	3.67
Region 10 - Pathways	5.10	5.75
Region 11 - Mountain	3.01	4.79
Region 12 - Kentucky River	3.82	7.43
Region 13 - Cumberland	3.22	6.23
Region 14 - Adanta	4.84	5.81
Region 15 - Bluegrass	6.31	3.68
All Regions	5.79	4.06

Table E.6. CMHC Regions and Level of Care*

	Education	Outpatient	IOP	Residential	Compliance**
Region 1 - Four Rivers	45.9%	51.7%	1.3%	1.1%	83.7%
Region 2 - Pennyroyal	48.5%	50.9%	0.0%	0.6%	76.9%
Region 3 - River Valley	41.5%	51.7%	2.6%	4.2%	76.9%
Region 4 - Lifeskills	29.5%	66.6%	0.2%	3.7%	85.7%
Region 5 - Communicare	43.2%	52.1%	0.7%	4.0%	69.9%
Region 6 - Seven Counties	46.0%	51.4%	1.6%	1.0%	85.6%
Region 7 - North Key	36.5%	59.5%	2.0%	2.0%	84.5%
Region 8 - Comprehend	37.9%	58.8%	2.5%	0.8%	80.4%
Region 10 - Pathways	48.5%	46.8%	1.9%	2.8%	89.5%
Region 11 - Mountain	58.1%	36.4%	1.2%	4.3%	88.5%
Region 12 - Kentucky River	5.1%	92.4%	0.4%	2.1%	80.3%
Region 13 - Cumberland	60.3%	35.9%	1.6%	2.2%	75.1%
Region 14 - Adanta	42.8%	55.6%	0.1%	1.5%	85.9%
Region 15 - Bluegrass	48.7%	48.3%	1.2%	1.8%	83.6%
All Regions	43.8%	52.9%	1.2%	2.1%	82.8%

**Of the 17,197 assessments submitted during 2017, only 12,726 were also completed during 2017.

APPENDIX F: DBH REGIONAL DATA TABLES**Table F.1. DBH Demographic Differences***

	Central	Eastern	Western	Western Central
Assessments	4,592	4,126	5,438	3,041
% Male	73.1%	74.4%	73.8%	74.1%
% White*	84.2%	96.2%	82.4%	73.6%
Average Age**	35.56	37.27	35.76	36.83

* Missing Data = 2,937 Assessments

** Missing Data = 4 Assessments

Table F.2. DBH Lifetime DUI Convictions

	Central	Eastern	Western	Western Central
0-1	67.6%	63.4%	62.4%	70.8%
2	21.4%	22.7%	22.8%	18.8%
3+	11.0%	13.9%	14.8%	10.4%
Average	1.54	1.64	1.67	1.50

Table F.3. DBH DUI Offense Type

	Central	Eastern	Western	Western Central
1st	78.4%	78.5%	75.5%	80.3%
2nd	18.0%	17.8%	19.9%	15.8%
3rd or higher	3.6%	3.7%	4.6%	3.9%

Table F.4. CMHC Regions and Substances Involved in DUI Offense

	Central	Eastern	Western	Western Central
Alcohol Only	76.4%	49.4%	66.2%	83.6%
Drug Only	18.1%	45.6%	27.1%	11.8%
Alcohol + Drug	5.5%	5.0%	6.7%	4.6%

Table F.5: Level of Care and Compliance by DBH Region

	Central	Eastern	Western	Western Central
Highest Level of Care				
Education	44.1%	45.7%	40.4%	46.5%
Outpatient	52.5%	50.8%	55.8%	51.0%
IOP	1.5%	1.1%	0.9%	1.6%
Residential	1.9%	2.3%	2.9%	0.9%
Compliance*	83.6%	84.2%	79.3%	85.9%

* Of the 17,197 assessments submitted during 2017, only 12,726 were also completed during 2017.