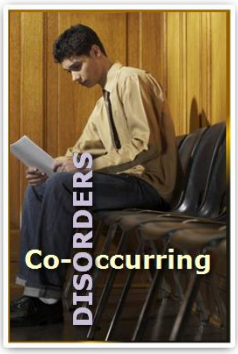

Co-occurring Mental Illness among Clients in Chemical Dependency Treatment

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In collaboration with

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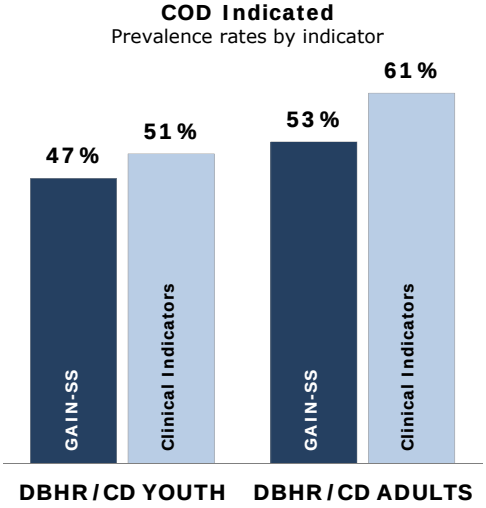
THIS REPORT provides detailed information on clients receiving chemical dependency services through the Washington State Health and Recovery Services Administration (HRSA), Division of Behavioral Health and Recovery (DBHR/CD; formerly Division of Alcohol and Substance Abuse) who have indications of co-occurring mental health problems. Co-occurring disorder (COD) rates and characteristics are presented for those chemical dependency clients identified as having co-occurring mental health problems, including demographics, mental health diagnostic categories, services received, and COD rates by service modality. We have also provided analysis of the overlap between the two COD indicators presented in an earlier report to the legislature and an additional mental illness indicator constructed from assessment items.

FINDING 1

About half of those receiving chemical dependency services have co-occurring mental health problems.

- These findings are consistent with the COD rates presented in the 2008 legislative report.[1]



FINDING 2

Identification of co-occurring mental health problems is consistent across multiple indicators.

- The same individuals are being identified as having COD using different measures.
- The GAIN-SS appears to be working well as a screening tool and is casting the widest net in identifying mental health problems.

FINDING 3

Females, American Indian youth, and adults over 35 have increased risk of co-occurring mental health problems.

- For youth, co-occurring mental health problems were most prevalent for girls (59 percent COD) and American Indian youth (60 percent COD) receiving chemical dependency services.
- Among adults, prevalence of COD is associated with gender and age, with women and adults age 45-64 the most likely to have co-occurring mental health problems (70 percent COD).

FINDING 4

Chemical dependency clients with co-occurring mental health problems have been treated in multiple settings for serious mental illness.

- Based on diagnostic and psychotropic medication categories and receipt of services in multiple settings, the identified mental health problems of those served by DBHR/CD appear to be serious and chronic.
- Of those identified with mental health problems, one-third (31 percent of youth; 41 percent of adults) had histories of mental health diagnoses, prescriptions, AND services.
- There was a surprisingly large proportion (10 percent) of mentally ill adult clients with diagnoses in the psychotic disorder category.

FINDING 5

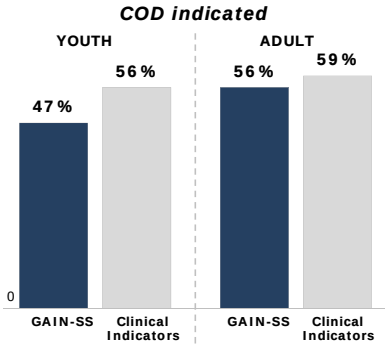
Large proportions of co-occurring mental health problems were found across chemical dependency service modalities.

- At least half of clients served across all chemical dependency service modalities have co-occurring mental health problems.
- The highest proportions of COD were found among youth in residential treatment programs and adults receiving opiate substitution, detoxification and residential treatment services.

Background

The Division of Behavioral Health and Recovery chemical dependency programs (DBHR/CD) provide alcohol and drug-related prevention, intervention, treatment, and aftercare services to indigent and low income youth and adults. [2] A report completed in December 2008 as required by Section 601 (2) of ***the Omnibus Treatment of Mental and Substance Abuse Disorders Act of 2005*** (RCW 70.96C.010), indicated that the highest proportion of COD found among DSHS clients screened was for those served by the Division of Alcohol and Substance Abuse (now part of DBHR). [1] About half of both adults and youth receiving chemical dependency services had COD, as indicated by two independent measures of co-occurring mental illness and substance abuse measured for two different time periods.

Figure 1. Excerpt from the Legislative Report



Division of Alcohol and Substance Abuse (DASA; now DBHR/CD)

The highest proportion of COD was found among clients of the Division of Alcohol and Substance Abuse . Based on both the GAIN-SS and administrative indicators, over 50 percent of adult clients met minimum thresholds for COD. Among youth served by this division, indicators of COD were found for 47 percent of the clients using the GAIN-SS and for 56 percent using administrative data. Thus, the administrative records provided strong corroboration for the screening tool results.

SOURCE: RDA Report No. 3.32, http://publications.rda.dshs.wa.gov/1392/

This report provides updated COD rates and further details for those DBHR chemical dependency (DBHR/CD) clients identified as having co-occurring mental health problems, including demographics, mental health diagnostic categories and services received, and COD rates by service modality. We have also provided analysis of the use of single and multiple indicators in identifying co-occurring mental health problems among chemical dependency clients.

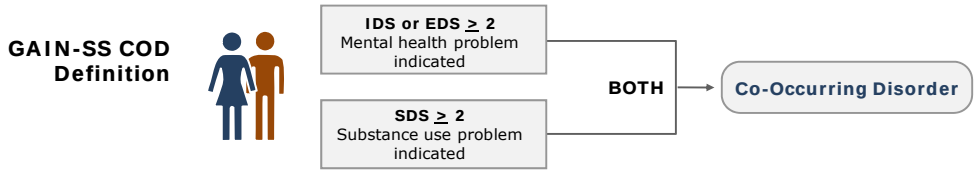
Method and Measures

Data Sources. The primary sources of data for these analyses were GAIN-SS screening results for DBHR/CD clients and administrative data from the DSHS Research and Data Analysis Division (RDA) Integrated Client Services Database. [3]

Timeframe. Analyses were conducted for DSHS clients who received DBHR chemical dependency (DBHR/CD) services during state fiscal year 2008 (SFY 2008). The timeframe for the screening results was January 2007, when the screening process was implemented, through June 2009.

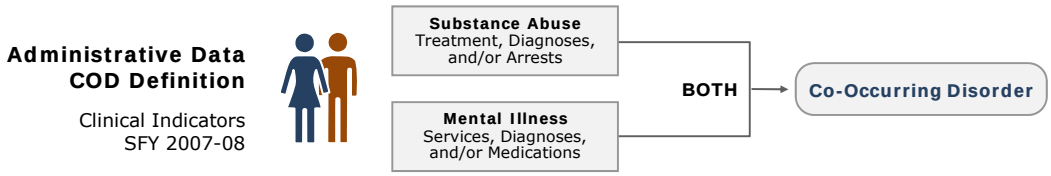
GAIN-SS

Possible Mental Health and Substance Use Disorders Indicated by Screening. In January 2007, several DSHS and affiliated partner programs adopted the past 12-month version of the Global Appraisal of Individual Needs Short Screener (GAIN-SS)[4] to screen for co-occurring disorders (COD). The GAIN-SS is a 15-item short version of the longer Global Appraisal of Individual Needs (GAIN-I). The algorithm for defining COD based on the GAIN-SS mental health and substance abuse disorder scales is presented below. More details on the GAIN-SS administration and scoring are presented in the technical notes.



ADMINISTRATIVE DATA

Clinical Indicator of Mental Health Service and Substance Use, Abuse or Dependence. For clients enrolled in DSHS Medical coverage (Medicaid or Medical Care Services coverage), indicators of substance abuse and mental health disorders have been used extensively by RDA in other projects.[1, 5] This COD flag is comprised of a comprehensive set of clinical indicators linked via the RDA Integrated Client Database. A DSHS medical client is classified as having a possible substance use problem if there is a diagnosis, procedure, prescription, treatment, or arrest that reflects possible substance use, abuse, or dependence during a defined timeframe. A possible mental health problem is indicated if evidence of a mental health diagnosis or procedure, prescribed psychotropic medication, or service through the state mental health system was indicated for the defined timeframe.



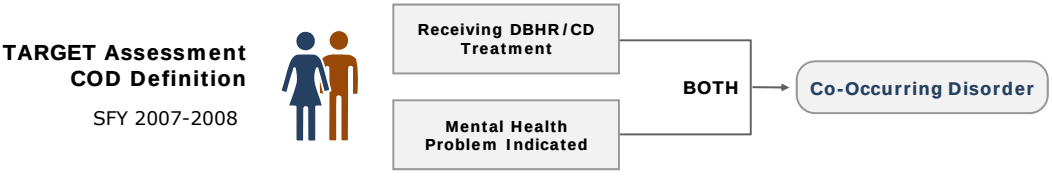
TARGET ASSESSMENT

Current Mental Health Services or Psychotropic Medications Reported. A method of identifying COD through responses to intake assessment items has also been explored and used in recent research projects.[6] These responses are stored in the DBHR Treatment and Assessment Report Generation Tool (TARGET). Items used to identify mental health problems among those receiving chemical dependency services include:

- *Mental health treatment within the last year?*
- *Currently receiving mental health services?*
- *Current or recent psychiatric evaluation?*
- *Currently on prescribed psychiatric medications?*

A positive response to any of the four items indicates a probable co-occurring mental health problem.

TARGET Assessment COD Definition

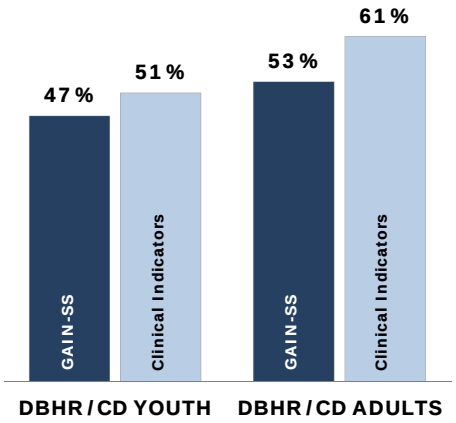


FINDING 1

About half of those receiving chemical dependency services have co-occurring mental health problems.

Findings Consistent with Legislative Report. Using the same measures presented in the legislative report, about half of the chemical dependency clients served by DBHR had indications of co-occurring disorders. This finding is consistent with that reported to the legislature in 2008, and is reported here for a larger sample of chemical dependency clients screened with the GAIN-SS. This finding was consistent regardless of the measurement approach used, including GAIN-SS screening results or clinical indicators constructed from administrative data.

COD Indicated
Prevalence rates by indicator



GAIN-SS Scale Score Positive Screens. Of all screenings using the GAIN-SS in DBHR/CD facilities from January 2007 through June 2009:

- About half (47 percent of youth and 53 percent of Adults) of all clients served by DBHR/CD screened positive for co-occurring disorders.
- About two-thirds of DBHR/CD clients screened positive for mental health problems.

Clinical Indicators. Clinical indicators from administrative data were reviewed for DSHS clients receiving any chemical dependency services during SFY 2008. Of the clients served in any DBHR/CD modality during this timeframe, over half (51 percent of youth and 61 percent of Adults) had evidence of co-occurring substance abuse and mental health problems disorders based on their histories of services, diagnoses and arrests.

Indication of Co-Occurring Disorders
DBHR/CD clients

		MENTAL HEALTH		CHEMICAL DEPENDENCY		CO-OCCURRING DISORDERS	
	POPULATION	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
YOUTH							
GAIN-SS *Screened January 2007 – August 2008*	17,795	12,000	67%	9,967	56%	8,346	47%
Clinical Indicators *All DBHR/CD Services SFY 2008*	5,905	3,268	55%	5,358	91%	3,039	51%
ADULTS							
GAIN-SS *Screened January 2007 – August 2008*	120,130	78,260	65%	78,218	65%	63,731	53%
Clinical Indicators *All DBHR/CD Services SFY 2008*	42,901	27,067	63%	40,763	95%	26,097	61%

*Served and Medically Eligible

TARGET Assessment. An additional summary indicator of TARGET assessment items related to mental health treatment, including current use of psychotropic medication, was used to estimate the proportion of DBHR/CD clients who report mental health problems. The proportion of clients with COD using the TARGET mental illness indicator was similar, although slightly lower than the other two. Based on intake assessment responses alone, 41 percent of youth and 49 percent of adults with DSHS medical eligibility had indications of co-occurring mental health problems.

FINDING 2

Identification of co-occurring mental health problems is consistent across multiple indicators.

The legislative report presented the overlap of GAIN-SS and clinical indicators for the small group of DBHR/CD clients who were screened during the time period of the data extract [1]. The updated administrative data and more recent screening data now available allowed for further analysis of the consistency between data sources in identifying co-occurring mental health problems for chemical dependency treatment clients. For the most part, there is a great deal of overlap among the measures, as indicated in the pie charts below. Although about half of both youth and adults are identified as having COD using any one measure, the identification of possible mental health difficulties is increased using multiple measures, including screening. This analysis is limited to those DBHR/CD clients who had GAIN-SS screenings and who had at least one month of DSHS medical eligibility during SFY 2008. Therefore, these analyses are for a selective subset of clients with a higher prevalence of mental health need than the broader CD service population presented on previous pages.

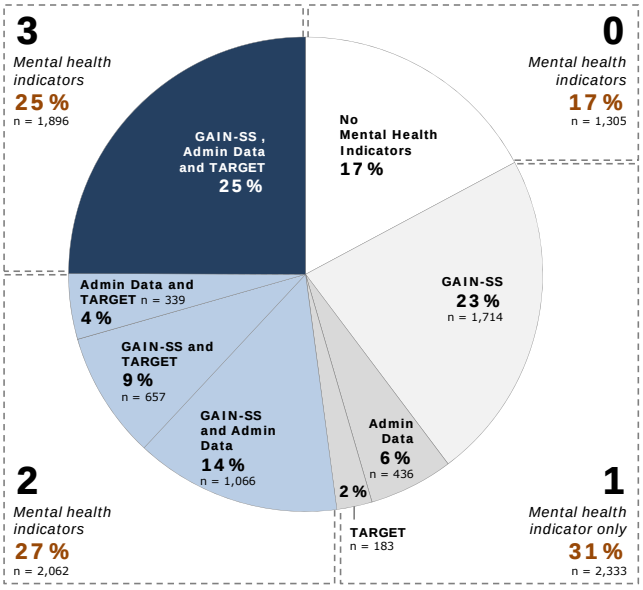
The majority of individuals identified as having mental health problems were flagged by multiple indicators. The GAIN-SS appears to be doing a good job of identifying individuals with co-occurring mental illness. Using the current scale cutoffs of 2, the GAIN-SS casts a wide net as one would expect with a screening tool, identifying 71 percent of youth and 73 percent of adults in this population for further assessment of mental health problems.

The clinical indicators from administrative data seem to have the most concurrence and consistent overlap with other measures. For example, 49 percent of youth are identified with mental illness with the administrative data, but *only 6 percent of youth are identified by administrative data only.* Similarly for adults, 57 percent are identified with administrative data but *only 5 percent of adults are identified by this indicator alone.*

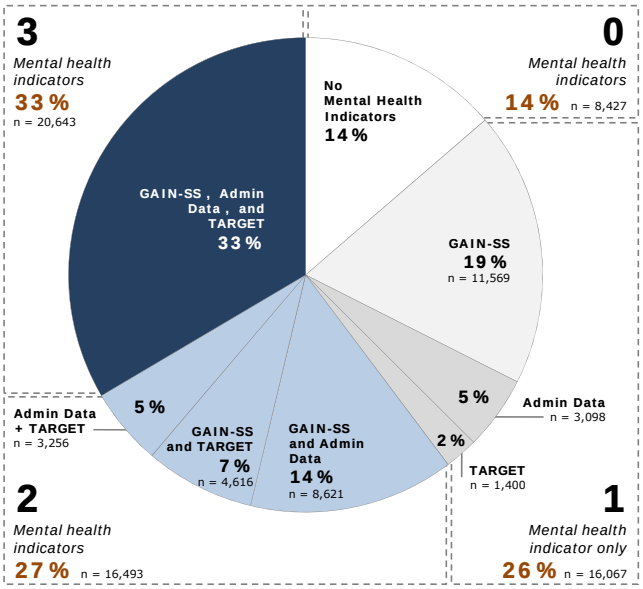
The TARGET assessment indicator also identifies individuals as having mental health problems with a great degree of consistency with the other measures. However, there are fewer individuals identified using the TARGET mental health information alone, and this is likely due to the narrow scope of the questions compared to the GAIN-SS screening and administrative data.

Given that almost 95 percent of youth and adults identified in TARGET as having a mental health problem were also identified with other measures, it appears that the TARGET items are identifying a subset of those identified with the GAIN-SS or administrative data.

Mental Health Problem Indicators: DBHR/CD Youth
TOTAL Served, Screened, and Medically Eligible = 7,596



Mental Health Problem Indicators: DBHR/CD Adults
TOTAL Served, Screened, and Medically Eligible = 61,630

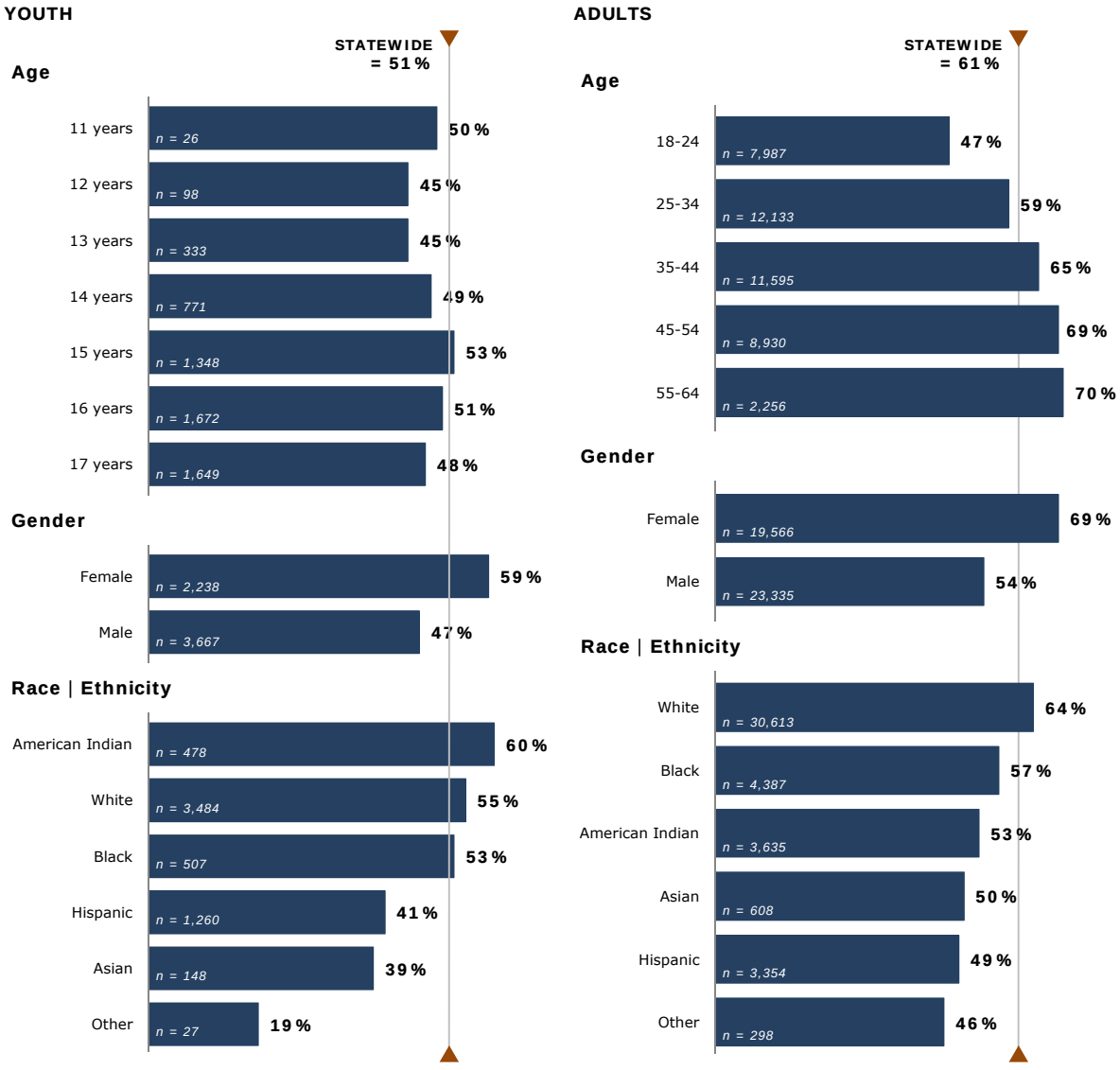


FINDING 3

Females, American Indian youth, and adults over 35 have increased risk of co-occurring mental health problems.

Using the clinical indicators, we looked at the prevalence of COD among various demographic subgroups of youth and adults receiving chemical dependency services. For youth, co-occurring mental health problems were most prevalent for girls and American Indian youth receiving chemical dependency services. Among adults, prevalence of COD seems to increase with age, with adults in treatment who are ages 45-64 being the most likely to have co-occurring chemical dependency and mental health problems [note that this may be a function of WHERE they are being served more than the higher likelihood of having mental illness]. Adult women were much more likely to have indications of co-occurring disorders than men receiving CD services, and Caucasian adults had the highest COD prevalence compared to other race/ethnicity groups, followed by Black and then American Indian clients.

Rates of Co-Occurring Disorders among Youth and Adults
ALL SERVICES, SFY 2008, Served by DBHR/CD and Medically Eligible



In the charts above, numbers represent the total number served and medically eligible

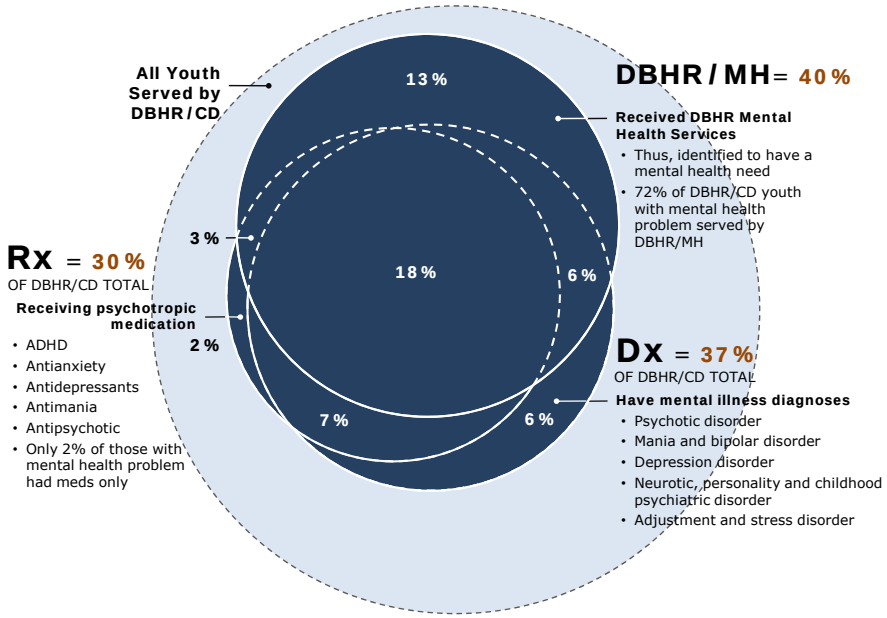
FINDING 4

Chemical dependency clients with co-occurring mental health problems have been treated in multiple settings for serious mental illness.

COD was identified using clinical indicators that include history of mental health services delivered by DBHR mental health (DBHR/MH) programs, the presence of mental health diagnoses in medical records, and psychotropic medications prescribed by physicians. However, most clients we identified as having co-occurring mental health problems did not just have one indicator in their administrative records – they were much more likely to have at least two. In fact, about one-third of those identified (n = 1,034 out of 3,268 or 31 percent of youth; n = 11,191 out of 27,067 or 41 percent of adults) had histories of all three: mental health diagnoses, prescriptions, and services.

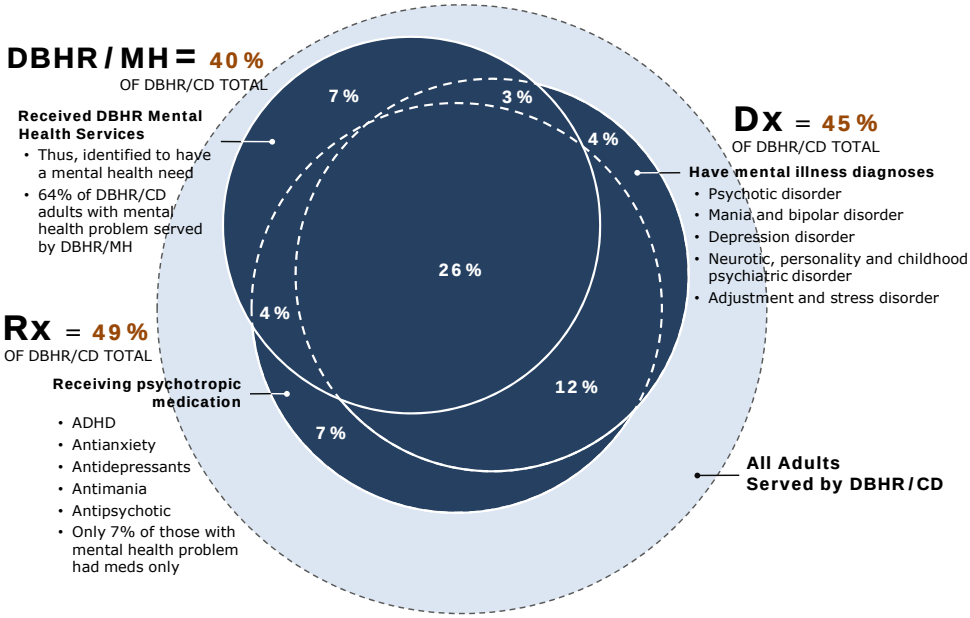
Identifying Mental Health Problems among DBHR/CD Youth

SFY 2008, TOTAL = 5,905, Medically Eligible (Dark blue represents the 55 percent of DBHR/CD youth with mental illness identified with administrative data)



Identifying Mental Health Problems among DBHR/CD Adults

SFY 2008, TOTAL = 42,901, Medically Eligible (Dark blue represents the 63 percent of DBHR/CD adults with mental illness identified with administrative data)



We also looked at the specific diagnostic, medication, and service categories for those individuals identified as having co-occurring mental illness. For youth, the "neurotic, personality and childhood psychiatric disorder" category was the most common (22 percent), which includes diagnoses such as conduct disorder and ADHD (see technical notes), diagnostic category, followed by depressive disorders. Not surprisingly, the most common prescribed psychotropic medications for these youth were antidepressants (18 percent) and ADHD medications, followed by antipsychotic medications.

For adults, depressive disorders were the most common (29 percent), followed by adjustment and stress disorders, which includes anxiety and panic, conversion, and dissociative disorders. The number of patients with diagnoses in the psychotic disorder (10 percent) category is also striking, given that these illnesses are much less prevalent (non-affective psychotic disorders among adults < 1 percent) in the general population.[7] Antidepressants were the most commonly prescribed psychotropic medications for adults (39 percent), followed by antianxiety (21 percent) and antipsychotic (19 percent) medications.

Mental Health Risk Factors for Clients Receiving DBHR/CD Services
SFY 2008, TOTAL = 5,905, Medically Eligible

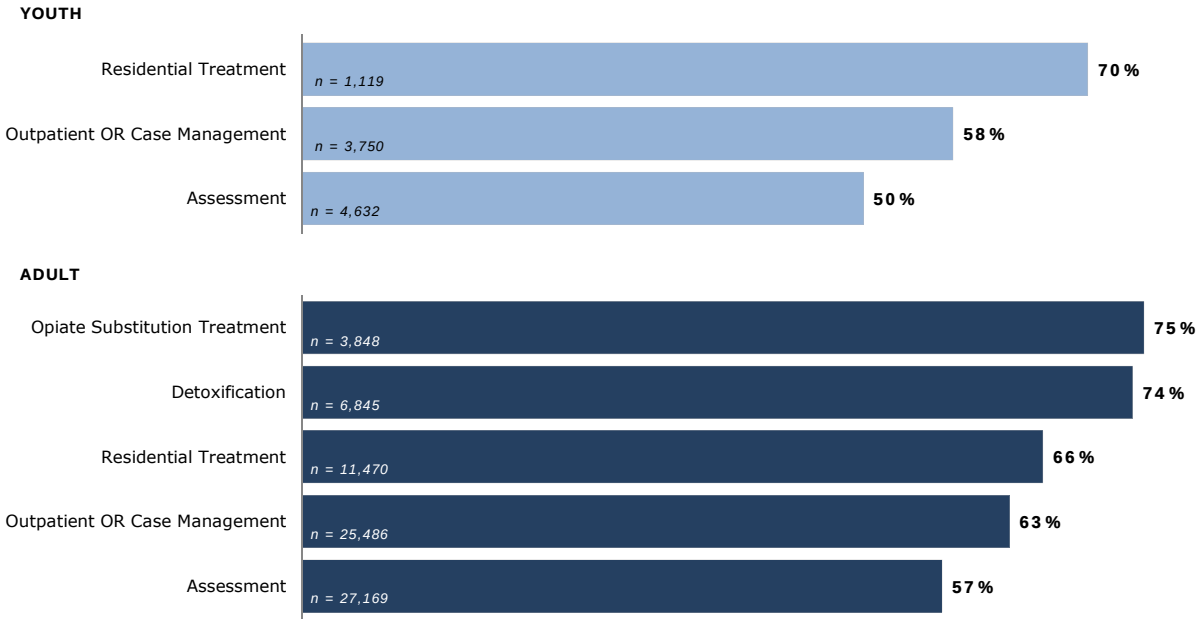
YOUTH	COUNT	PERCENT
Youth diagnosed with mental illness	**2,129**	**36%**
Psychotic disorder	212	4%
Mania and bipolar disorder	430	7%
Depression disorder	935	16%
Neurotic, personality and childhood psychiatric disorder	1,321	22%
Adjustment and stress disorder	765	13%
Filled psychotropic prescriptions for youth	**1,782**	**30%**
ADHD medications	843	14%
Antianxiety	219	4%
Antidepressants	1,073	18%
Antimania	79	1%
Antipsychotic	558	9%
Youth receiving DBHR/MH service *Community Services, Inpatient, Child Study and Treatment Center*	**2,364**	**40%**
ADULTS	COUNT	PERCENT
Adults diagnosed with mental illness	**19,175**	**45%**
Psychotic disorder	4,251	10%
Mania and bipolar disorder	6,167	14%
Depression disorder	12,228	29%
Neurotic, personality and childhood psychiatric disorder	5,210	12%
Adjustment and stress disorder	9,200	21%
Filled psychotropic prescriptions for adults	**21,399**	**50%**
ADHD medications	1,565	4%
Antianxiety	9,090	21%
Antidepressants	16,926	39%
Antimania	1,575	4%
Antipsychotic	8,051	19%
Adults receiving DBHR/MH service *Community Services, Inpatient, State Hospital*	**17,204**	**40%**

FINDING 5

Large proportions of co-occurring mental health problems were found across service modalities.

Modality. The proportions of chemical dependency clients with COD based on clinical indicators were calculated for each of the major DBHR/CD service modalities. All DBHR/CD programs are serving large proportions of clients with mental health problems. The highest proportions of COD were found among youth in residential treatment programs and adults receiving opiate substitution, detoxification and residential treatment services. Although the percentages of clients with COD are highest for these modalities, they represent smaller numbers of total clients served compared to the large number of clients receiving assessments or served in outpatient settings with COD who are driving the overall state averages.

Rate of COD Found Among Youth and Adults in Different Treatment Modalities
Administrative Data, SFY 2008



In the charts above, numbers represent the total number served and medically eligible

Summary and Next Steps

This report expands on a 2008 legislative report and confirms that the DSHS Division of Behavioral Health and Recovery (DBHR) chemical dependency programs are serving a population with a high prevalence of mental illness. This finding is consistent regardless of service setting or measure used, with the GAIN-SS screening tool identifying the broadest population of clients with co-occurring mental health problems. Measures based on administrative data identify a more focused population of COD clients who have received some sort of mental health diagnosis or publicly funded service and are likely to require such services again in the future. Co-occurring disorders are most common for DBHR/CD females, American Indian youth, and middle aged adult clients (age 45-64). Based on diagnostic and psychotropic medication categories and receipt of services in multiple settings, the identified mental health problems of those served by DBHR/CD appear to be serious and chronic. The next steps in this work are to analyze the prevalence of co-occurring disorders among the larger DSHS medical population and to identify specific service utilization patterns of those clients with co-occurring substance abuse and mental health problems.

GAIN-SS

The GAIN-SS is made up of several subscales that were created based on scales of the full 123 item GAIN-I. For the past year version, yes responses are simply added to render a scale score ranging from 0 to 5. All scales correlate highly with the original GAIN-I scales on which they are based, with correlation coefficients between .84 and .90.[8] Locally, two studies have been conducted among adults in an urban medical center and youth in a variety of clinics serving publicly funded clients in Washington State. Both studies found the GAIN-SS had acceptable psychometric properties when compared to findings for the same patients using a well-established structured interview tool. [9, 10] The three GAIN-SS scales used for DSHS screening are listed and described below.

- **Internalizing Disorder Screener (IDS)**. Based on the Internal Mental Distress scale (IMDS) of the GAIN-I, high scores on this scale indicate a possible need for mental health treatment for symptoms related to depression, anxiety, trauma, suicide, and more serious mental illness (SMI) such as schizophrenia.
- **Externalizing Disorder Screener (EDS)**. Based on the Behavior Complexity Scale (BCS) of the GAIN-I, elevated scores on this scale indicate the need for mental health treatment for attention deficits, hyperactivity, impulsivity, and conduct problems. The positive screen rate for this scale is generally expected to be higher for adolescents.
- **Substance Disorder Screener (SDS)**. Based on the Substance Problem Scale (SPS) of the GAIN-I, positive screens on this scale suggest the need for treatment for substance use, abuse, or dependence disorders, including some that may require detoxification or maintenance of services already being received. [4]

CLINICAL INDICATORS

Clinical indicators of substance abuse problems were identified from administrative data by the presence of any of the following during a 24 month period:

- **Medical records**—Medical diagnoses (ICD-9), DRGs, procedure codes (including detoxification), and revenue codes. *SOURCE*: *MMIS and health plan encounter data.*
- **Treatment records**—Admissions to inpatient or outpatient AOD treatment and detoxification. *SOURCE: MMIS and TARGET.*
- **Arrest records**—Arrests within Washington State for drug- or alcohol-related offenses (see Appendix for list of applicable charges) reported through the Washington State Patrol [5].

A need for mental health treatment was flagged if a mental illness-related diagnosis, procedure, prescription, or treatment was indicated for the defined timeframe:

- **Medical Record Diagnoses**—Medical diagnoses (ICD-9) for the mental health diagnostic categories listed in the table below. *SOURCE: MMIS and health plan encounter data.*
- **Medical Record Prescriptions**—In the following National Drug Code (NDC) drug classes (FDA http://www.fda.gov/cder/ndc/): Antianxiety, Antidepressants, Antipsychotic, Antimania, and ADHD. Two mental health medication categories were excluded (anticonvulsants and sedatives) based on the assumption that these are utilized for a wide range for medical disorders and would not be good single indicators of mental illness. *SOURCE: MMIS and health plan encounter data.*
- **Treatment records**—Admissions to inpatient or outpatient mental health treatment, including receipt of Community Services, receipt of Community Inpatient or Evaluation and Treatment Services, stays at a State Hospitals or the Child Study and Treatment Center (CSTC), or stays at Children's Long-term Inpatient Program (CLIP). *SOURCE: CSDB/MMIS/RSN encounter data.*

DIAGNOSTIC CATEGORIES FOR ADULTS AND YOUTH DIAGNOSED WITH MENTAL ILLNESS

DIAGNOSTIC CATEGORES	Sample Diagnoses
Psychotic disorder	Schizophrenia, schizoaffective, delusional disorder
Mania and bipolar disorder	Bipolar I, Bipolar II
Depression disorder	Major depressive, depressive disorder NOS, dysthymic disorder
Neurotic, personality and childhood psychiatric disorder	Social phobia, borderline personality, somatization disorder, bulimia, impulse control disorder, oppositional defiance, ADHD,
Adjustment and stress disorder	Panic disorder, generalized anxiety, adjustment disorder, separation anxiety, PTSD, conversion disorder, dissociative identify disorder

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Washington State Department of Social & Health Services
Research and Data Analysis Division
Report Number 4.82