

# **2017 Wisconsin Mental Health and Substance Use Needs Assessment**



**WISCONSIN DEPARTMENT**  
*of* **HEALTH SERVICES**

**Division of Care and Treatment Services**  
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# Acronym Dictionary

The following acronyms are frequently used in this report.

- DHS: Wisconsin Department of Health Services
- MHD: Mental health disorder
- SUD: Substance use disorder

# Introduction

Two federal block grants bring approximately \$8 million in mental health disorder (MHD) and \$28 million in substance use disorder (SUD) services funds to Wisconsin each year. Guidance for the federal fiscal year 2018-2019 Community Mental Health and Substance Abuse Prevention and Treatment Block Grant application recommends states complete a data-driven behavioral health needs assessment and plan. The intent of the needs assessment is to:

- Identify how many individuals have MHD and/or SUD needs.
- Assess how many individuals with needs are receiving services and how much unmet need exists.
- Describe the quality and effectiveness of services in improving service participants' health.
- Develop priorities, objectives, and strategies to address the identified needs and gaps.

This needs assessment is used by the Wisconsin Department of Health Services (DHS) to inform ongoing program and policy planning as well as to develop funding and program priorities for the federal fiscal year 2018-2019 Community Mental Health and Substance Abuse Prevention and Treatment Block Grant application. The most recent data available is 2015 unless otherwise indicated. In addition, this report provides enhanced local level data presentation and analysis.

Although this report highlights data intended to plan for 2018-2019, providing immediate historical context on priorities helps to frame the stage for this future planning. Accordingly, the following were Wisconsin's 2016-2017 block grant priorities identified through the previous needs assessment and are also examined in this report:

- Tuberculosis
- Intravenous drug use
- Culturally appropriate and comprehensive services for special populations
- Youth access to tobacco products
- Pregnant women and mothers with dependent children
- Primary prevention services
- Adult binge drinking
- Prescription drug abuse
- Screening, Brief Intervention, and Referral to Treatment
- Workforce capacity
- Youth binge drinking
- Children's mental health—Coordinated Services Teams Initiatives
- Mental health/substance use outcome improvement and quality of care—Comprehensive Community Services program
- Behavioral health services in the criminal justice system—Treatment Alternatives and Diversion Program
- Suicide prevention

## **Approach**

Selected indicators from five broad categories of data and information were collected and analyzed as part of this needs assessment and are described below. The indicators were selected based upon data availability and having been previously identified as a priority problem or need through Wisconsin surveys, studies, or stakeholder input. This report is organized to have a section for each of these categories for each of the mental health and substance use areas.

**Prevalence of Needs:** The prevalence of disorders, conditions, and associated problems for the entire population is examined. The prevalence in subpopulations is examined when available.

**Access to Services:** Data on access to services is examined to determine which and how many individuals receive services. Barriers to access are explored.

**Service Workforce and Capacity:** Available information on the size of mental health and substance use services workforce is examined, including the type and volume of services and strategies provided, the number of providers of these services, and some characteristics of the workforce to explore whether the workforce has the necessary expertise to address the needs of consumers.

**Quality and Appropriateness of Services:** Available information on the practices used by providers is examined to determine whether the services provided meet the consumer's specific needs in a way that promotes positive outcomes.

**Service Participant Outcomes:** Performance measures for mental health and substance use services are examined.

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# **Mental Health**

## Mental Health Executive Summary

- National trends show that adults ages 18-25 have an increasing rate of mental health disorders (MHD) relative to other age groups (Figure 1). The increase from 2011 to 2015 in any mental illness for this age group from 18.5 to 21.7 is the only significant change in prevalence among the different demographic groups.
- Females and unemployed individuals have higher rates of MHDs compared to other groups examined by the National Survey on Drug Use and Health.
- Individuals with an American Indian or multiracial background appear to have higher rates of MHD.
- Individuals involved in the criminal justice system, experiencing homelessness, who have an SUD, or who are a sexual minority have the highest rates of MHD (Table 4).
- Females, those who have an SUD, children, and those living below the federal poverty level comprise both a large proportion of Wisconsin residents and have high rates of any mental illness. Individuals within these categories are not exclusive and likely overlap (Figure 2).
- Those who are deaf or hard of hearing and Hmong individuals are groups in Wisconsin who require appropriately trained and educated clinical staff to address their unique mental health needs.
- American Indians experience high rates of SUD and physical and sexual abuse that may lead to or exacerbate mental health needs (Table 5).
- In Wisconsin, Adverse Childhood Experiences are common, clustered within individuals, and strongly associated with negative mental health outcomes and risk behaviors (Table 6 and Figure 3).
- Nationally and in Wisconsin, sexual minorities are substantially more likely to have mental health problems and negative outcomes related to these problems (Table 7 and Figure 4).
- Nationally and in Wisconsin's major mental health programs, severity of mental health is strongly associated with tobacco, alcohol, and illicit substance use.
- The highest rates of co-occurring disorders (MHD and SUD) occur among young adults, males, and homeless veterans in rural Wisconsin (Tables 8-9 and Figures 5-9).
- Nationally and in Wisconsin's Community Support Programs, medical disorders (metabolic syndrome, obesity, hypertension, and high cholesterol) co-occur with MHDs at a high rate (Figures 10-11).
- Wisconsin's suicide rate appears to be rising in the last few years of available data. Two of the last three years have yielded the highest rates in the last 16 years (Figure 10).
- Wisconsin's youth suicide rate is consistently higher than the national average in the last 10 years (Figure 11). Out of other Midwestern states, Minnesota and Iowa's youth suicide rates are also higher than the national average during this period, but the Illinois rate is consistently lower.
- White males ages 50-54 had the strongest risk for suicide in 2015 (Table 12).
- In Wisconsin, about one-third of adults access services through the public system while most of the other two-thirds of adults access services using commercial insurance (Table 13). Youth, however, rely more heavily on Medicaid funding for accessing services.

- The overall treatment gap, or the gap between the population in need of MHD services and the population that is served, is 49 percent or 509,214 individuals annually.
- The overall adult treatment gap is 53 percent or 441,378 adults annually.
- The overall youth treatment gap is 34 percent, or 67,836 youth annually.
- Wisconsin's overall treatment gap when both public and commercial providers are included is 54 percent for adults and 36 percent for youth.
- Service participant satisfaction surveys suggest that parents of youth, those involved in the criminal justice system, and younger adults are less satisfied with access to mental health services in Wisconsin.
- Distributions of diagnoses in two of Wisconsin's largest public mental health service programs are as expected.
- The public county mental health system plays a major role in serving individuals in crisis. Overall, 67 percent of individuals enrolled in the county mental health system initially received either crisis intervention services or an inpatient hospitalization.
- In a national survey, cost was cited as the number one reason for not accessing treatment by 41 percent of respondents (down 6 percent from 2013). Just under 24 percent of people indicated they could handle their problems without treatment (up 2 percent from 2013) and stigma was cited by 11 percent of respondents (up 2 percent from 2013) (Figures 16-17).
- Trends dating back to 2000 suggest that those who identify as deaf and hard of hearing and have an MHD or SUD are being served less, but that this decline is more pronounced for those receiving mental health services (Figure 18).
- In 2015, nearly one-third of individuals served by the county mental health system received crisis intervention or emergency outpatient services while just over half as many received case management services and a smaller but sizable proportion received services through Community Support Programs and Comprehensive Community Services (Table 19).
- Among the most frequently used services, across 2012-2015 we have seen declines in the use of outpatient mental health and medication management services and increases in crisis intervention or emergency outpatient as well as case management services (Figure 19.)
- The per capita expenditure for the state is \$88 and is similar for youth and adults, but wide variation exists across counties. Menominee, Wood, and Iron have the highest adult per capita expenditures and Milwaukee, Waushara, and La Crosse have the highest youth per capita expenditures.
- For Community Support Programs across 2011-2015, the count and proportion of participants who were waitlisted increased. Waitlist size varies widely across counties (Table 22).
- County mental health systems can have serious workforce retention issues to overcome. In 2015, 41 percent of Coordinated Services Teams Initiatives experienced turnover and small Coordinated Services Teams Initiatives actually averaged less than a full 12 months of staff time resulting inevitably in interruptions in the continuity of care for families.
- The number of certified peer specialists has continued to grow in Wisconsin and close to two-thirds have steady employment in 2016. Certified peer specialists are lacking in rural areas of the state (Figure 21 and Table 24).

- Relative to the number of participants in Comprehensive Community Services and Community Support Programs, few receive evidence-based practices (Figures 23, 26, and 29).
- A wide degree of variation exists in the level of fidelity and completeness of implementation of evidence-based practices offered to Comprehensive Community Services and Community Support Programs participants and, overall, these are quite low.
- For adults, supported employment reaches the most service participants and is most likely to be implemented under a high fidelity and fully implemented model. Accordingly, the approach taken with supported employment may serve as a model for ensuring effective application of other evidence-based practices for MHD and SUD services.
- For youth in Comprehensive Community Services, multisystemic therapy is most likely to be fully implemented with multiple fidelity checks in place, while other evidence-based practices (for example, motivational interviewing) are more likely to serve youth.
- Wisconsin continues to expand trauma-informed care across the state (Figure 32).
- Adults have been more satisfied with access to services, the quality and appropriateness of those services, and general satisfaction with those services (Figures 33 and 34).
- Adults have been less satisfied with treatment outcomes, participation in treatment planning, improved functioning, and social connectedness.
- Youth caregivers have been more satisfied with cultural sensitivity of service providers, participation in services, and their own social connectedness (Figures 35 and 36).
- Youth have been substantially less satisfied with improvements in functioning and outcomes.
- Criminal justice involvement matters for service participant satisfaction among adults; service participants who reported being arrested in the past two years are less likely to be satisfied with their access to services, participation in service planning, improved functioning as a result of their services, or general satisfaction with services (Figure 37).
- Age matters for service participant satisfaction among adults; young adults (followed by middle-aged adults) are the least likely to have improved social connection or improved functioning as a result of their services, access to services, improved outcomes, or general levels of satisfaction (Figure 38 and Table 25).
- Inpatient hospital readmission rates have slowly increased across state fiscal year 2012 through state fiscal year 2016 from 8.1 to 9.6 percent for the state, but individual county rates vary widely. DHS efforts to reduce inpatient readmissions have been ongoing over these five years for a small number of counties.
- Overall, 30 percent of service participants complete the services that were planned for them in the county mental health system and one-third of service participants are referred elsewhere at discharge to continue services. Data from the Coordinated Services Teams Initiatives indicate that service participants using Medicaid are more likely to continue with services elsewhere immediately after discharge.



# I. Prevalence

The purpose of this section is to provide an estimate of the overall prevalence or occurrence of MHDs and co-occurring MHD and SUD, as well as the prevalence of selected conditions and consequences. This section analyzes trends, makes comparisons with available national data, and identifies disparities among selected target populations. Measuring the prevalence of needs helps indicate the size of the need and the type of needs Wisconsin is seeking to address. Establishing how many individuals have a mental health or substance abuse need is an important first step in assessing gaps in the MHD and SUD system.

## **Statewide Mental Health Prevalence**

Two types of mental health prevalence rates are described. If both symptoms and functional impairment exist, the individual is estimated to have a serious mental illness. The term for children in this category is severe emotional disorder. A second group of individuals with more mild mental health conditions experience symptoms but are still able to function for the most part in their daily life. Together, these two groups are sometimes called individuals with any mental illness. The adult any mental illness and serious mental illness national rates for the most recent year available (2015) and the year of the first Wisconsin needs assessment (2011) are compared in Table 1 to examine the current rates and any changes in the past four years.

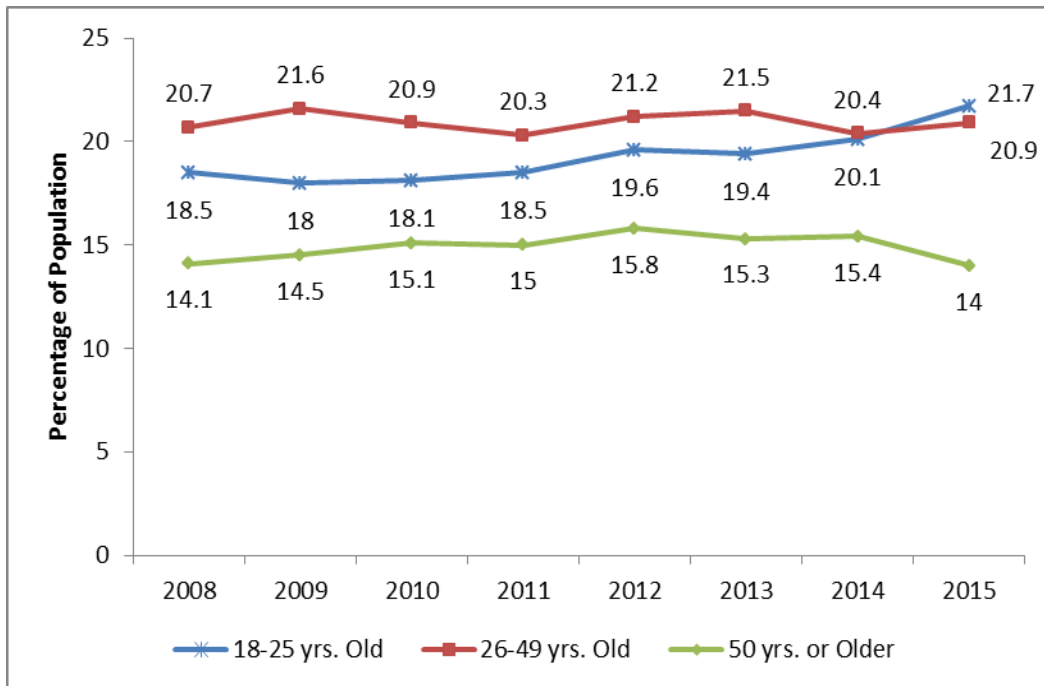
**Table 1: Adult Mental Health Prevalence - 2011 and 2015 National Rates**

<b>Demographic Characteristic</b>	<b>Any Mental Illness 2011</b>	<b>Any Mental Illness 2015</b>	<b>Serious Mental Illness 2011</b>	<b>Serious Mental Illness 2015</b>
<b>TOTAL</b>	19.6	17.9	5.0	4.0
<b>AGE</b>				
18-25	18.5	21.7	7.6	5.0
26-49	21.4	20.9	6.0	5.0
50 or Older	14.3	14	3.0	2.8
<b>GENDER</b>				
Male	15.9	14.3	3.4	3.0
Female	23.0	21.2	6.4	5.0
<b>HISPANIC ORIGIN AND RACE</b>				
Not Hispanic or Latino				
White	20.5	19.3	5.5	4.5
Black or African American	18.8	15.4	3.5	2.9
American Indian or Alaska Native	28.9	21.2	12.4	6.3
Native Hawaiian or Pacific Islander	na	14.8	5.3	1.8
Asian	16.1	12	3.4	1.7
Two or More Races	28.3	29.5	8.1	9.5
Hispanic or Latino	15.9	14.5	3.7	2.9
<b>CURRENT EMPLOYMENT</b>				
Full-Time	nc	15.4	nc	3.1
Part-Time	nc	20.3	nc	4.5
Unemployed	nc	24.5	nc	6.0
Other	nc	19.7	nc	4.9

Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.  
nc - not comparable due to methodological changes.

- The overall national rates of any mental illness and serious mental illness have declined slightly in the last four years, but not significantly.
- National trends show adults ages 18-25 have an increasing rate of MHDs relative to other age groups (Figure 1). The increase from 2011 to 2015 in any mental illness for this age group from 18.5 to 21.7 is the only significant change in prevalence among the different demographic groups in Table 1.
- Females and unemployed individuals have relatively higher rates of MHDs.
- Individuals with an American Indian or multiracial background appear to have higher rates of MHDs.

**Figure 1: Any Mental Illness National Rates by Age Group**



Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

**Table 2: Mental Health Prevalence Indicators for Wisconsin - 2015**

WISCONSIN	12-17 years	18-25 years	26+ years	18+ years – All Adults
Major Depressive Episode	<b>13.64<sup>a</sup></b>	<b>10.61<sup>b</sup></b>	5.89	6.56
Serious Mental Illness	--	5.28	3.77	3.99
Any Mental Illness	--	<b>22.42<sup>b</sup></b>	18.15	18.75

Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

a - Top 20 percent rate across all states

b - Top 20-40 percent rate across all states

- Wisconsin’s rates of any mental illness (18.75 percent) and serious mental illness (3.99 percent) for adults 18 years of age and older displayed in Table 2 are not significantly different from the national rates.
- However, Wisconsin’s rate of adults ages 18-25 with any mental illness (22.42) is slightly higher than average relative to other states. It ranks in the top 20-40 percent of all states.

Estimating the prevalence of mental health needs in the youth population is difficult. The above adult rates were generated from surveys and interviews conducted as part of the annual National Survey on Drug Use and Health by the Substance Abuse and Mental Health Services Administration. However, the National Survey on Drug Use and Health assesses a narrow component of youth mental health called major depressive episode, which is defined as a period of at least two weeks when an individual experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms.

The youth (12-17 years old) rate of major depressive episode in Wisconsin is in the top 20 percent relative to all other states in 2015 as displayed in Table 2. Because major depressive episode is narrowly defined, it cannot be used to estimate the total prevalence of youth mental health needs throughout the state.

In the table below, the number of adults and children with any mental illness and serious mental illness or severe emotional disorder is estimated using the Wisconsin-specific adult rates from the National Survey on Drug Use and Health (18.75 percent and 3.99 percent, respectively) and the national children’s rates from the National Institute of Mental Health Methods for the Epidemiology of Child and Adolescent Mental Disorders study (21 percent and 11 percent). Since these prevalence rates are not specific to differences among Wisconsin’s county populations, the figures below are only meant to provide a general approximation.

**Table 3: Wisconsin County-Level Estimates of Individuals with Mental Health Needs within a Year**

<b>County</b>	<b>Estimated Number of Adults with Any Mental Illness (18.75%)</b>	<b>Estimated Number of Adults with Serious Mental Illness (3.99%)</b>	<b>Estimated Number of Children with Any Mental Illness (21.0%)</b>	<b>Estimated Number of Children with Severe Emotional Disturbance (11.0%)</b>
Adams	3,222	686	469	246
Ashland	2,306	491	541	283
Barron	6,693	1,424	1,509	790
Bayfield	2,304	490	430	225
Brown	36,757	7,822	9,552	5,003
Buffalo	1,954	416	437	229
Burnett	2,328	495	434	228
Calumet	6,982	1,486	1,999	1,047
Chippewa	9,225	1,963	2,263	1,185
Clark	4,558	970	1,540	807
Columbia	8,281	1,762	2,004	1,050
Crawford	2,436	518	542	284
Dane	77,563	16,505	16,557	8,673
Dodge	13,184	2,806	2,909	1,524
Door	4,317	919	732	384
Douglas	6,518	1,387	1,388	727
Dunn	6,681	1,422	1,387	726
Eau Claire	15,215	3,238	3,138	1,644
Florence	712	152	107	56
Fond du Lac	14,933	3,178	3,486	1,826
Forest	1,356	289	271	142
Grant	7,802	1,660	1,654	866

<b>County</b>	<b>Estimated Number of Adults with Any Mental Illness (18.75%)</b>	<b>Estimated Number of Adults with Serious Mental Illness (3.99%)</b>	<b>Estimated Number of Children with Any Mental Illness (21.0%)</b>	<b>Estimated Number of Children with Severe Emotional Disturbance (11.0%)</b>
Green	5,385	1,146	1,359	712
Green Lake	2,733	582	677	355
Iowa	3,428	729	878	460
Iron	917	195	142	74
Jackson	3,001	639	688	360
Jefferson	12,366	2,631	2,960	1,550
Juneau	3,924	835	814	426
Kenosha	24,022	5,112	6,383	3,344
Kewaunee	2,978	634	723	379
La Crosse	17,697	3,766	3,679	1,927
Lafayette	2,368	504	656	344
Langlade	2,900	617	592	310
Lincoln	4,257	906	853	447
Manitowoc	11,824	2,516	2,649	1,387
Marathon	19,577	4,166	4,890	2,562
Marinette	6,188	1,317	1,257	659
Marquette	2,267	482	467	245
Menominee	567	121	215	112
Milwaukee	135,858	28,911	34,495	18,069
Monroe	6,373	1,356	1,782	934
Oconto	5,579	1,187	1,234	646
Oneida	5,523	1,175	954	500
Outagamie	26,131	5,561	6,784	3,554
Ozaukee	12,878	2,740	3,104	1,626
Pepin	1,074	229	248	130
Pierce	6,055	1,288	1,372	718
Polk	6,379	1,357	1,514	793
Portage	10,634	2,263	2,146	1,124
Price	2,105	448	398	208
Racine	27,915	5,940	7,180	3,761
Richland	2,549	543	624	327
Rock	23,086	4,913	5,996	3,141
Rusk	2,095	446	465	243
St. Croix	12,180	2,592	3,599	1,885
Sauk	9,210	1,960	2,245	1,176
Sawyer	2,463	524	497	260
Shawano	6,062	1,290	1,419	743

<b>County</b>	<b>Estimated Number of Adults with Any Mental Illness (18.75%)</b>	<b>Estimated Number of Adults with Serious Mental Illness (3.99%)</b>	<b>Estimated Number of Children with Any Mental Illness (21.0%)</b>	<b>Estimated Number of Children with Severe Emotional Disturbance (11.0%)</b>
Sheboygan	16,778	3,570	4,150	2,174
Taylor	2,929	623	768	402
Trempealeau	4,182	890	1,096	574
Vernon	4,241	902	1,201	629
Vilas	3,331	709	577	302
Walworth	15,089	3,211	3,597	1,884
Washburn	2,354	501	470	246
Washington	19,378	4,124	4,890	2,562
Waukesha	57,897	12,320	14,178	7,426
Waupaca	7,700	1,639	1,720	901
Waushara	3,666	780	697	365
Winnebago	25,199	5,362	5,401	2,829
Wood	10,766	2,291	2,498	1,308
<b>Wisconsin Total</b>	<b>839,383</b>	<b>178,621</b>	<b>200,529</b>	<b>105,039</b>

Sources: National Survey on Drug Use and Health 2015, Substance Abuse and Mental Health Services Administration; Methods for the Epidemiology of Child and Adolescent Mental Disorders Study, National Institute of Mental Health.

## Special Population Groups

### General Summary

MHD prevalence is higher for some racial minority groups; accordingly, special consideration should be considered when addressing needs among minorities and the communities in which they reside.

Figure 2 shows the estimated number of individuals in Wisconsin having any mental illness in ascending order. Table 4 highlights the special populations with prevalence rates higher than 25 percent. A variety of selected special populations are displayed along with the estimated Wisconsin or, when unavailable, national prevalence rates for each group. Where available, National Survey on Drug Use and Health data was used for the estimates and other sources were used when this data was not available. The prevalence rates were applied to the Wisconsin population figures in 2015 or, if 2015 data was unavailable, data within one year of 2015 was used.

While females and people living in rural areas do not have the highest rate of any mental illness, they have the highest number of individuals with any mental illness by far because they comprise a large percentage of the state's population. Other groups that have a relatively high

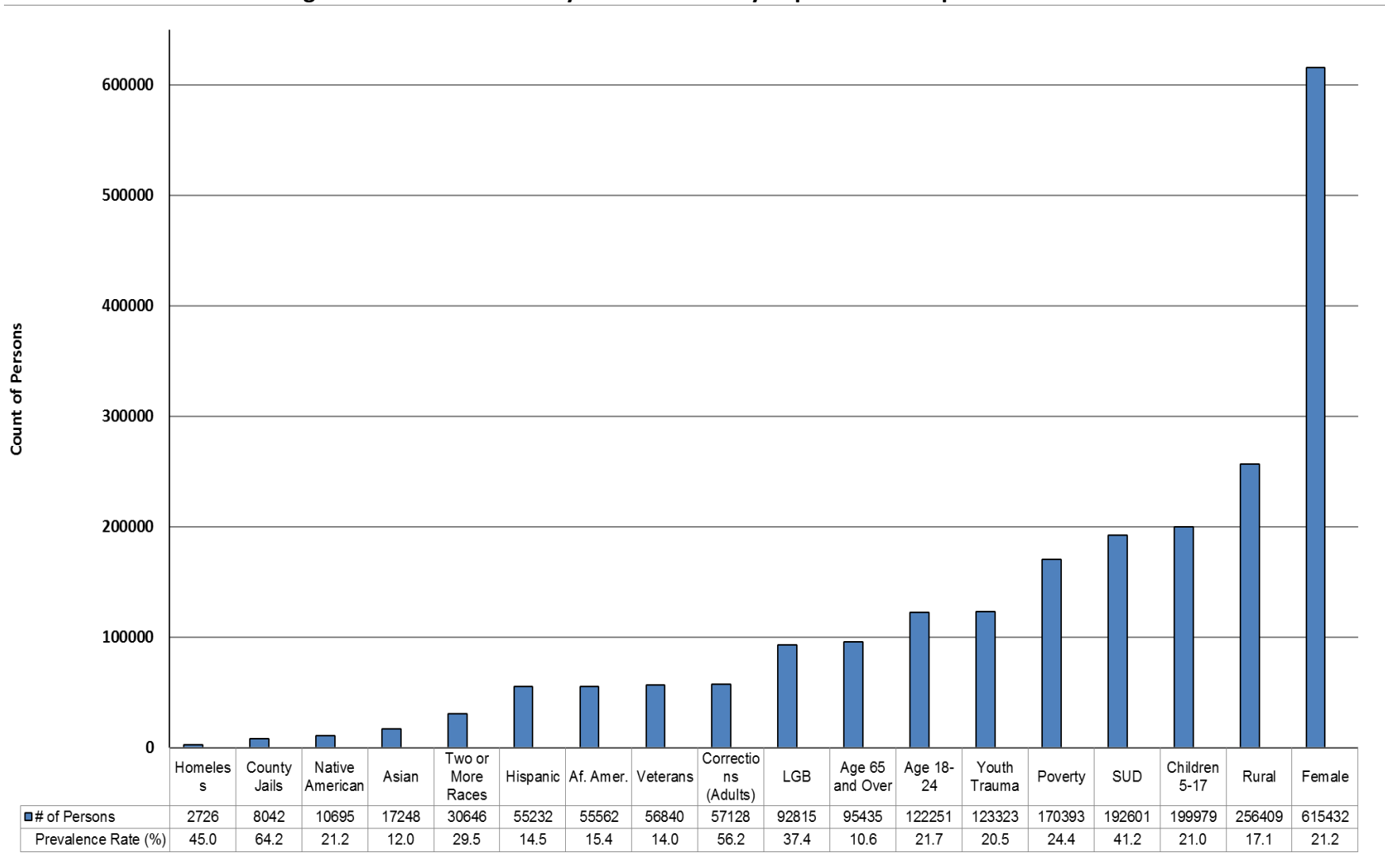
number of individuals with any mental illness, but also have a higher than average rate of any mental illness, including individuals with SUDs and those living below the federal poverty level. Lastly, individuals involved with the criminal justice system have the highest estimated rates of MHDs followed closely by the homeless, those with SUDs, and sexual minorities. It should also be noted that these higher need groups have not changed substantially in rank across any mental illness prevalence rates or statewide counts since a similar analysis was conducted using 2009 estimates.

**Table 4: Population Groups with Highest Prevalence Rates**

<b>Special Population</b>	<b>Any Mental Illness Prevalence Rate</b>
County Jails	64.2
Corrections	56.2
Homeless	45.0
SUD	41.2
Lesbian, Gay, or Bisexual (LGB)	37.4
Two or More Races	29.5

Source: See Appendix III: Special Population Group Any Mental Illness Prevalence Rate References

**Figure 2: Occurrence of Any Mental Illness by Population Group in Wisconsin**



Source: See Appendix III: Special Population Group References - Any Mental Illness Prevalence Rate References



## **Additional Available Data on Special Population Groups**

### **Deaf and Hard of Hearing**

Approximately 3.5 percent (over 200,000) of Wisconsin residents were deaf or hard of hearing in 2015.<sup>1</sup> Those who are deaf and seeking psychiatric treatment have at least equal likelihood of experiencing a MHD in their lifetime, but may have rather different distributions of psychiatric disorders than the general population seeking the same treatment.<sup>2</sup>

### **Southeast Asian Population**

Wisconsin is home to the third largest population of Hmong in the United States. There are 49,240 Hmong living in Wisconsin.<sup>3</sup> Hmong is the largest Asian American group in the state. Along with MHDs, Hmong people also may have increased rates of suicide.<sup>4</sup> See a summary of the 2016 Wisconsin United Coalition of Mutual Assistance Associations funded focus-group study in Appendix II: Other Stakeholder Information on Mental Health Services Needs and Priorities –Southeast Asian Populations.

### **Tribal Nations**

A multi-year analysis of the Behavioral Risk Factor Surveillance Survey, a state-administered national survey coordinated by the Centers for Disease Control and Prevention, provides information on the prevalence of mental health needs of Wisconsin's American Indian population. Because of the relatively small size of this population, multiple years of data from 2011-2014 were pooled together to analyze their needs and compare to non-American Indian racial groups. The significant results from the analysis include:

- Lifetime depression was higher among American Indians (21 percent versus 17 percent).
- Lifetime depression was higher among male American Indians (15 percent versus 12 percent); although the rate of depression was much lower than among females.
- Lifetime depression was higher in female American Indians (32 percent versus 21 percent).
- Frequent mental distress was higher in female American Indians (22 percent versus 13 percent)

Frequent mental distress is a very rudimentary indicator of mental health need in the Behavioral Risk Factor Surveillance Survey and consisted of one question asking the respondent about the number of days out of the last 30 days that they felt their mental health was not good. If the respondent indicated they experienced 14 or more days when their mental health was not good, they are categorized to have experienced frequent mental distress for that period.

In addition to direct measures of mental health, the Behavioral Risk Factor Surveillance Survey also asks respondents about factors that put someone at risk of mental health needs. Table 5 describes how American Indian adult males and females experience significantly higher rates of risk factors that may lead to or exacerbate mental health needs.

**Table 5: Mental Health and Substance Use Disorder Risk Factors for the Wisconsin Adult American Indian Population**

	<b>Native Americans</b>	<b>All others</b>
Alcohol abuse in home before age 18 - women	37%	27%
Alcohol abuse in home before age 18 - men	32%	20%
Illicit drug use in home before age 18 - women	15%	10%
Illicit drug use in home before age 18 - men	18%	10%
Victim of physical abuse - women	32%	16%
Victim of physical abuse - men	34%	18%
Victim of sexual abuse - women	35%	15%
Victim of sexual abuse - men	n/a	n/a
Witnessed parental violence before age 18 - women	24%	17%
Witnessed parental violence before age 18 - men	37%	15%

Source: Behavioral Risk Factor Surveillance Survey, 2011-2014.

n/a - not available due to lack of data

### **Adverse Childhood Experiences and Youth Trauma**

Adverse Childhood Experiences (ACEs) fall into several categories of experiences that occur during the first 18 years of a person’s life and include emotional abuse, physical abuse, sexual abuse, intimate partner violence, household MHD, household substance abuse, parental separation or divorce, or incarceration of a household member.

ACEs have been repeatedly shown to have a cumulative negative impact on health.<sup>5</sup> Those experiencing ACEs are at a higher risk of suicide attempts, lifetime depressive episodes, sleep disturbances in adulthood, high-risk sexual behaviors, and fetal mortality.<sup>6</sup>

The Behavioral Risk Factor Surveillance Survey has recently been used to produce population level estimates of the prevalence and impact of ACEs in Wisconsin (Table 6). Wisconsin Behavioral Risk Factor Surveillance Survey data pooled from 2013 through 2015 indicate that 56 percent of adults have experienced at least one adverse childhood experience in their lifetime. In addition, ACEs in Wisconsin are associated with several characteristics.

**Table 6: Adverse Childhood Experiences in Wisconsin**

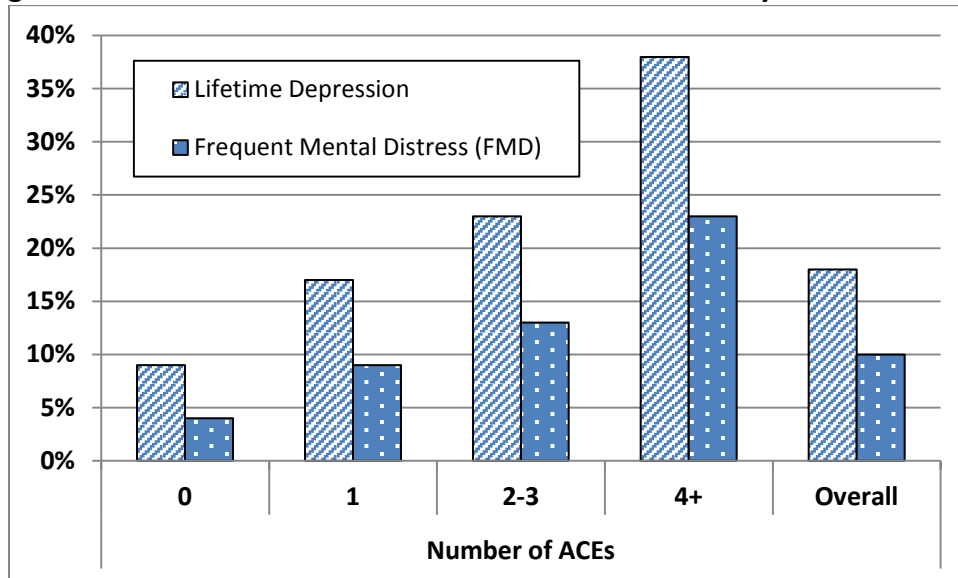
Lifetime ACE Prevalence among Wisconsin Adults	
Count ACEs	Percent Adults
0	44
1	22
2-3	21
4+	13

Source: Behavioral Risk Factor Surveillance Survey, 2013-2015.

Wisconsin ACEs are Concentrated Among: <sup>7,8</sup>
Individuals with lower income
Individuals with lack of health insurance or Medicare
Individuals with less education
Individuals with poor physical health
More risky behaviors (for example, smoking)
Reduced quality of life
African Americans (compared to Whites)
Various Wisconsin counties

Wisconsin data from the Behavioral Risk Factor Surveillance Survey in Figure 3 also shows that there is a strong positive correlation of the experience of ACEs with mental health problems among adults, including higher levels of lifetime depression diagnosis and frequent mental distress (reporting 14 or more days of poor mental health in the past 30 days).

**Figure 3: Wisconsin Adults with Mental Health Problems by Number of ACEs**



Source: Behavioral Risk Factor Surveillance Survey, 2013-2015.

Among children, ACEs are especially concentrated among those involved in the juvenile justice system. The Wisconsin Department of Corrections, Division of Juvenile Corrections, administered ACEs questionnaires to youth at their two juvenile facilities in 2015. Only 2 percent of youth reported having experienced zero ACEs (versus 46 percent of Wisconsin youth in general),<sup>9</sup> whereas almost two-thirds (64 percent) had experienced three or more ACEs. The high likelihood for mental health problems among those with ACEs is further supported by additional data from 2013, which indicated that 94 percent of girls and 82 percent of boys in these juvenile facilities were receiving mental health services, according to a

Department of Corrections point-in-time data query prepared for the Wisconsin Office of Children’s Mental Health in 2014.

Data gathered through new questions on the Behavioral Risk Factor Surveillance Survey on resilience suggest that there are protective factors that mitigate the impact of ACEs on adult outcomes. Specifically for those with four or more ACEs, feeling that their family stood by them in hard times during childhood (as opposed to feeling their family did not) had a 78 percent lower rate of depression and having someone to talk to about difficult feelings in their childhood significantly reduced the number of poor mental health days experienced.

**Sexual Minorities**

In 2015 the National Survey on Drug Use and Health added questions on sexual identity, orientation, and attraction, making it the first comprehensive and nationally representative source of federally collected information on mental health (and substance use) among sexual minority adults (those identifying as gay, lesbian, or bisexual). As presented below, data from the 2015 National Survey on Drug Use and Health suggest that, nationally, sexual minorities, when compared to their sexual majority (those identifying as heterosexual or straight) counterparts, are more than twice as likely to be diagnosed with any mental illness and over 3 ½ times as likely to be diagnosed with an serious mental illness.

**Table 7: Mental Health Disorder Prevalence in the Past Year among Sexual Minority and Sexual Majority Adults, United States**

	Any Mental Illness	Serious Mental Illness
<b>Sexual Minority</b>	37.4%	13.1%
<b>Sexual Majority</b>	17.1%	3.6%

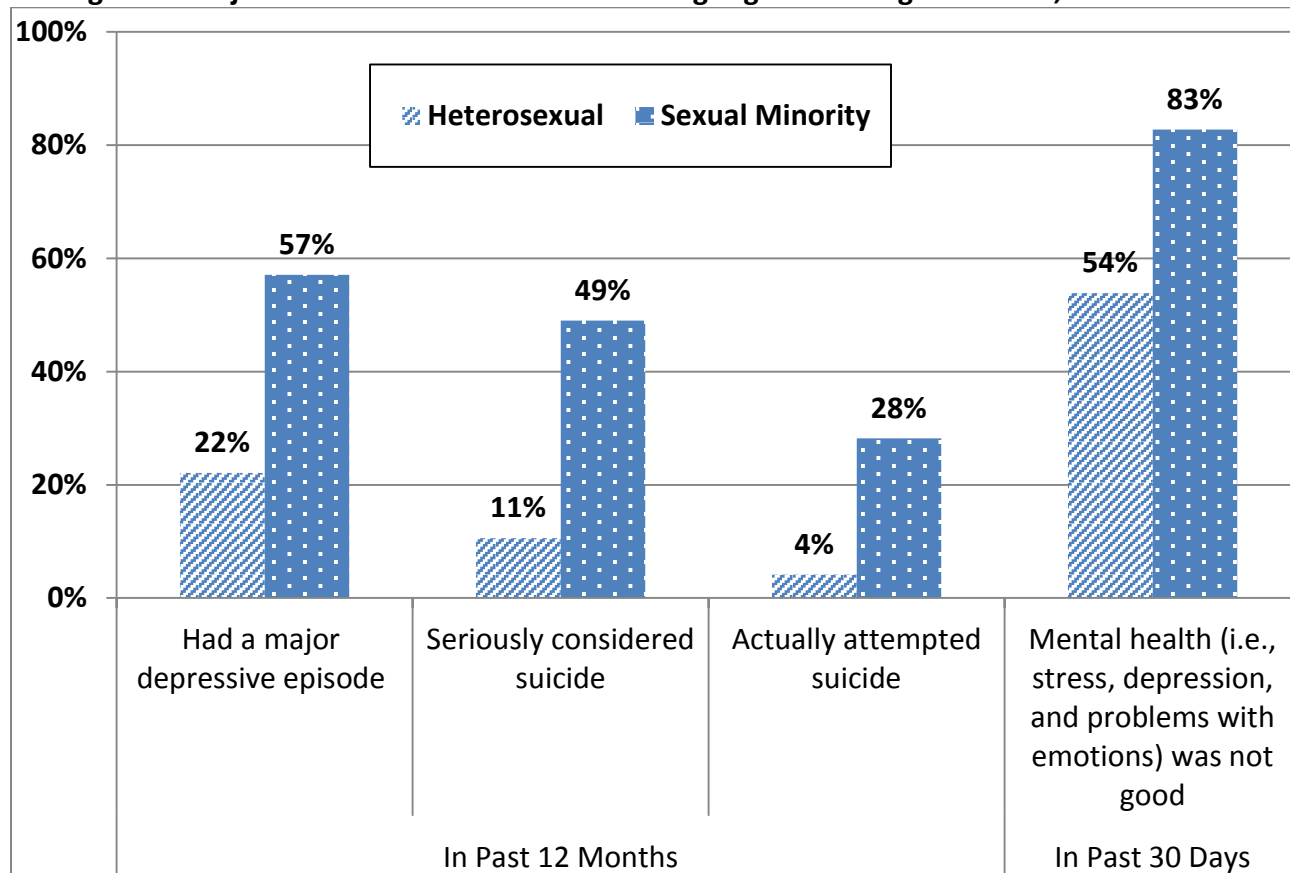
Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration, 2015.

Beyond the adult population, national and statewide data suggest that school-age youth identifying as sexual minority are at increased risk for mental health problems and negative outcomes related to mental health problems. This is shown in the 2015 National School Climate Survey, which sheds light on the experiences of lesbian, gay, bisexual, transgender, questioning, and queer (students in schools in the U.S.). In this survey the top most commonly reported reasons lesbian, gay, bisexual, transgender, questioning, and queer students did not plan to graduate (who planned to drop out or were not sure if they would finish high school) included mental health concerns (depression, anxiety, or stress).

Data from the most recent analysis of the Wisconsin Youth Risk Behavior Survey questions on sexual identity among students in grades nine through 12 is shown below. Mental health indicators within the Wisconsin Youth Risk Behavior Survey include items asking students about suicide, criteria closely mirroring the DSM-IV definition of major depressive episode,<sup>10</sup> past month mental health, and their sexual identity. Similar to the National Survey on Drug Use and Health data for adults presented above, the Wisconsin Youth Risk Behavior Survey 2013 data suggest that sexual minority youth, when compared to sexual majority youth, are substantially

more likely to experience problems with their mental health and, even more troubling, are more likely to consider attempting suicide. This spread across these sexual identity groups is especially pronounced for suicide when compared to questions on mental health.

**Figure 4: Major Mental Health Indicators Among High School Age Students, Wisconsin**



Source: Wisconsin Youth Risk Behavior Survey Results: 2013 Sexual Identity Report, Wisconsin Department of Public Instruction.

## Co-Occurring Disorders

### Tobacco Use and Mental Health Disorders

While smoking has been given less attention among co-occurring substances used and abused among those with a MHD, it's higher than average use among those with a MHD and the fact that it is the leading cause of preventable death in the U.S.<sup>11</sup> suggests that it is a serious health problem to be addressed among those with MHD.

Individuals with any mental illness are more likely to smoke cigarettes when compared to those with no mental illness, as shown in the figure below. Further analysis of the National Survey on Drug Use and Health data on smoking among those with any mental illness also finds that about three in 10 cigarettes smoked by adults are smoked by those with a MHD and adult smokers with a MHD are less likely to quit than adult smokers without mental illness.<sup>12</sup> This information,

when considered alongside the increased likelihood that those with co-occurring disorders smoke and use tobacco products and the increased likelihood for health problems and death among those who use tobacco products suggests that curbing tobacco use among those with a MHD and co-occurring disorders should be a top priority among mental health and SUD service providers.

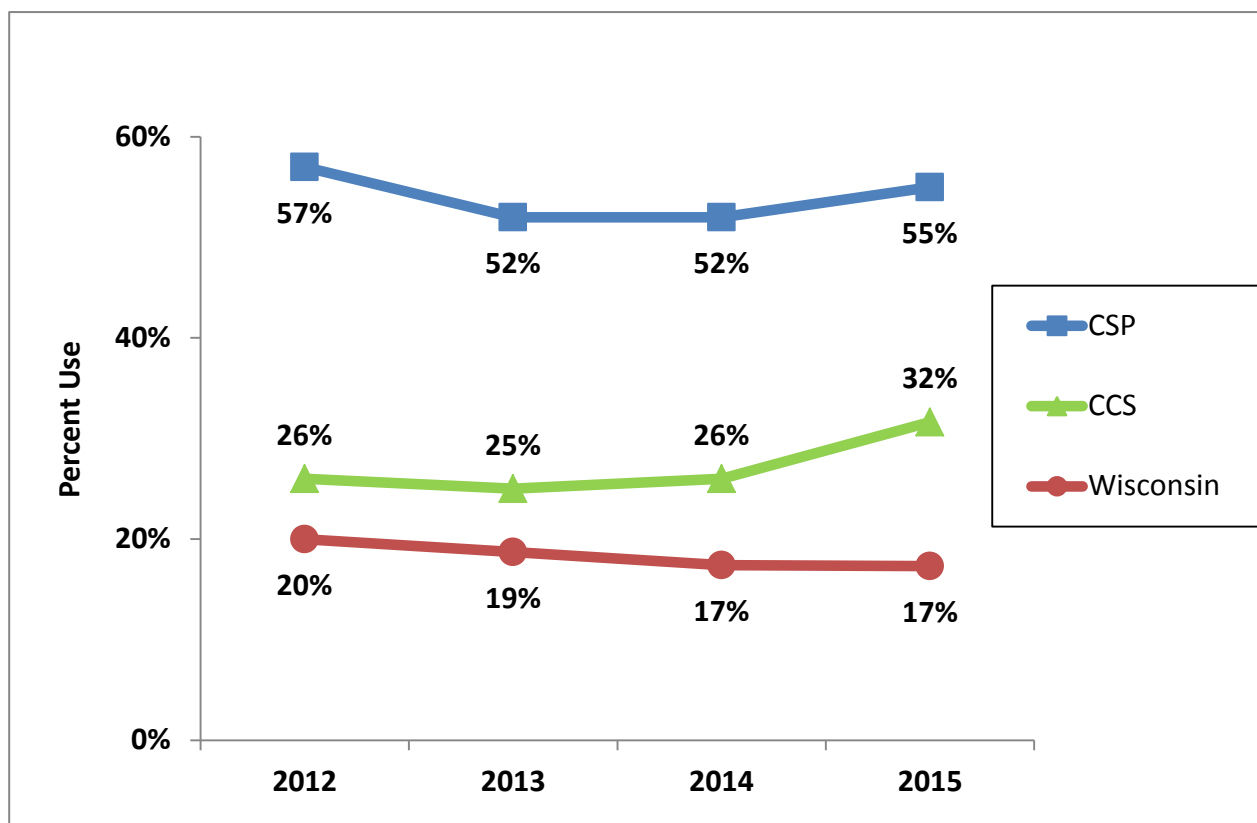
**Table 8: Percentage of Adults who Smoke Cigarettes, by Mental Health Disorder Status in Wisconsin**

	Individuals with any mental illness who smoke cigarettes	Individuals with no mental illness who smoke cigarettes
Wisconsin	35.6%	20.9%
United States	36.1%	21.4%

Source: National Survey on Drug Use and Health, 2009-2011, Substance Abuse and Mental Health Services Administration.

In Figure 5, those in two of Wisconsin’s largest publicly funded mental health service programs are more likely to smoke than the general Wisconsin population. In 2015, program providers reported that 32 percent of the 3,876 participants served in Comprehensive Community Services used tobacco and this percentage has been increasing since 2013. Also in 2015, program providers reported that 55 percent of the 5,262 participants served in Community Support Programs used tobacco. This high proportion of tobacco use, relative to both national population levels and those with any mental illness, has remained fairly steady since 2012.

**Figure 5: Tobacco Use among Mental Health and Substance Use Service Programs, Wisconsin (2012-2015)**



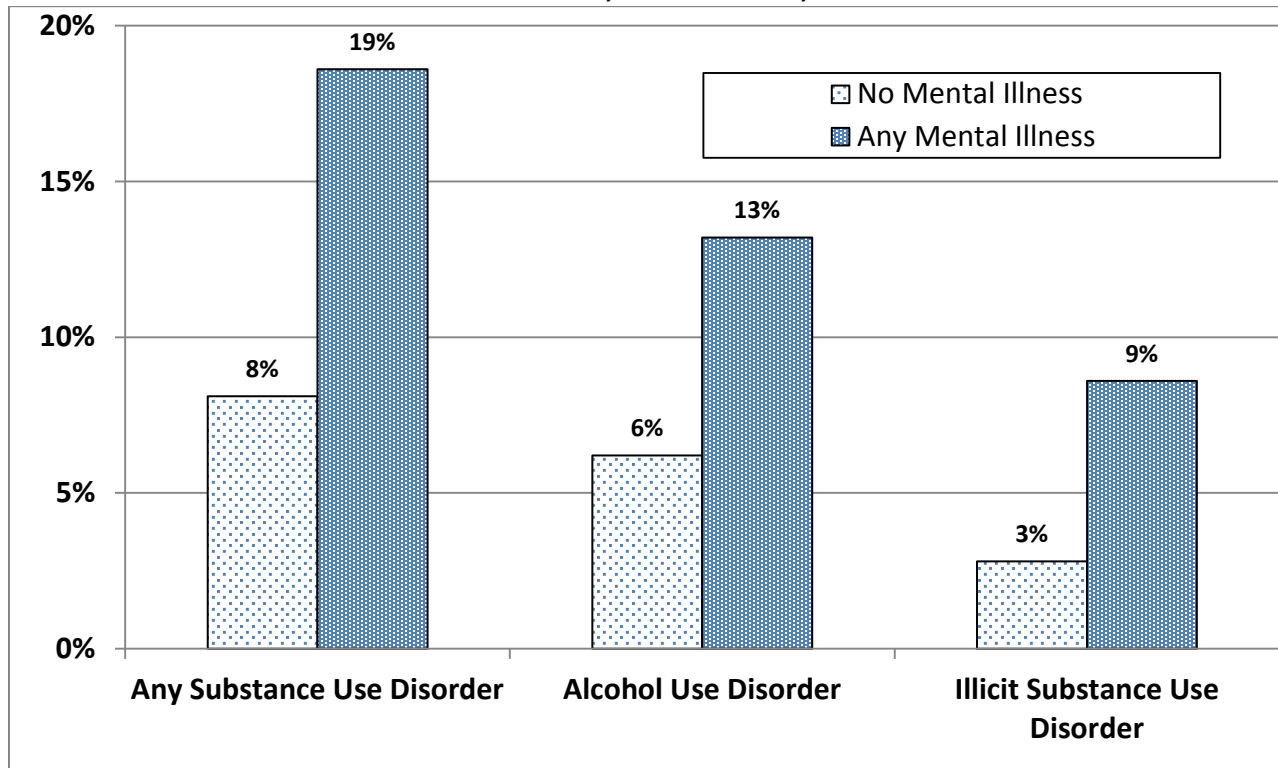
Sources: 2012-2015 Comprehensive Community Services and Community Support Programs program surveys, DHS and Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (Wisconsin 2015, age 18+ years).

The tobacco cessation bucket approach may serve as a useful method for addressing the increasing and high likelihood participants in Comprehensive Community Services and Community Support Programs use tobacco products. This approach was developed at the University of Wisconsin-Center for Tobacco Research and Intervention in collaboration with the National Alliance on Mental Illness, Wisconsin, as a set of tobacco reduction interventions tailored to the user’s willingness to move toward quitting. Current data reveal this approach is widely underutilized as an evidence-based practice in both Comprehensive Community Services and Community Support Programs.

**Alcohol and Illicit Substance Use and Mental Health Disorders**

This section presents national and Wisconsin data on the co-occurrence of MHDs and SUDs. Individuals with SUDs have a very high prevalence rate of any mental illness (41.2 percent), with an estimated 192,601 individuals affected in Wisconsin in 2015. The figures for substance use prevalence among those with a MHD reflect this relationship similarly as shown in Figure 6. Clearly, those with any mental illness are more likely have an SUD than the general U.S. population.

**Figure 6: Substance Use Disorder Prevalence among Individuals with and without Mental Health Disorders, United States, 2015**

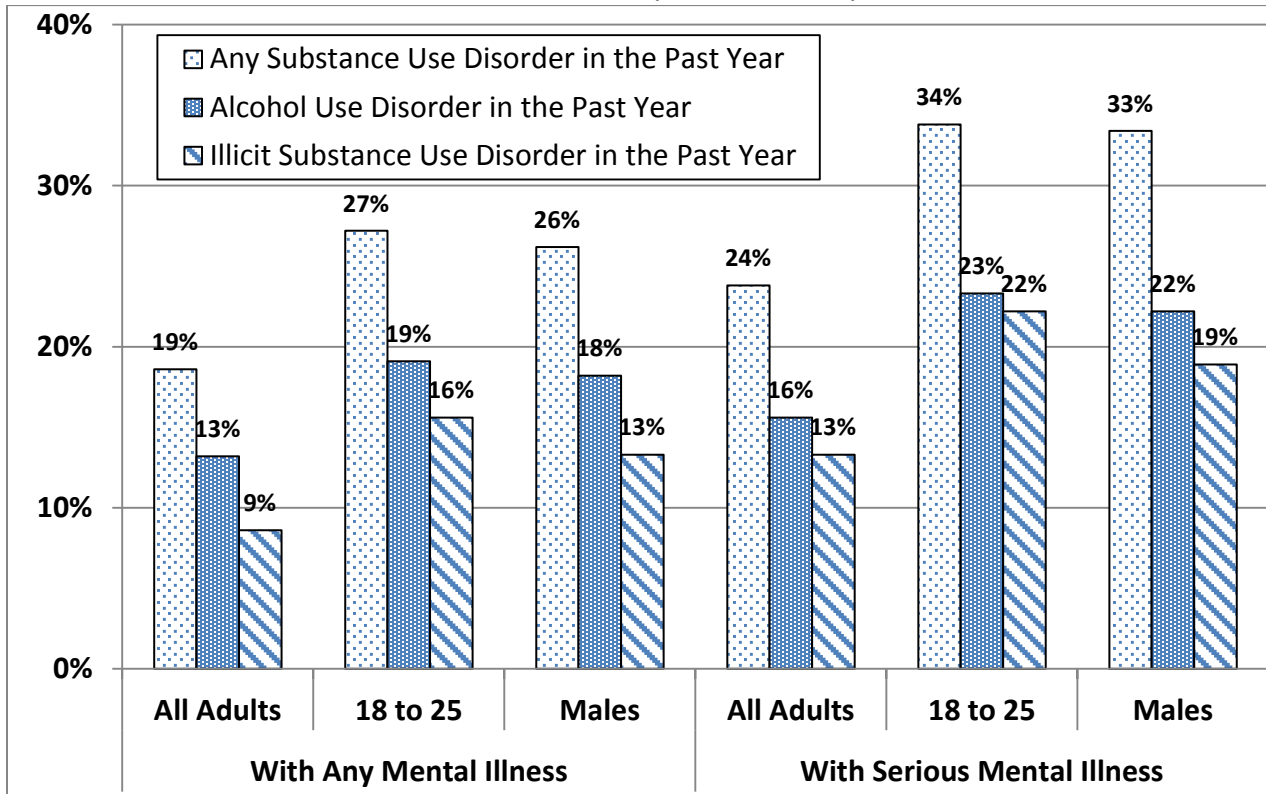


Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.  
 Notes: Figures are for MHD status and SUD status occurring within the past year of survey administration in 2015.

The figure below presents data on the prevalence of SUDs among adults with any mental illness or serious mental illness. In general, individuals qualifying as having a serious mental illness are 26 percent more likely than those with any mental illness to have an SUD. Young adults (compared to older adults) and males (compared to females) also comprise a general group that is more likely to have a co-occurring disorder.



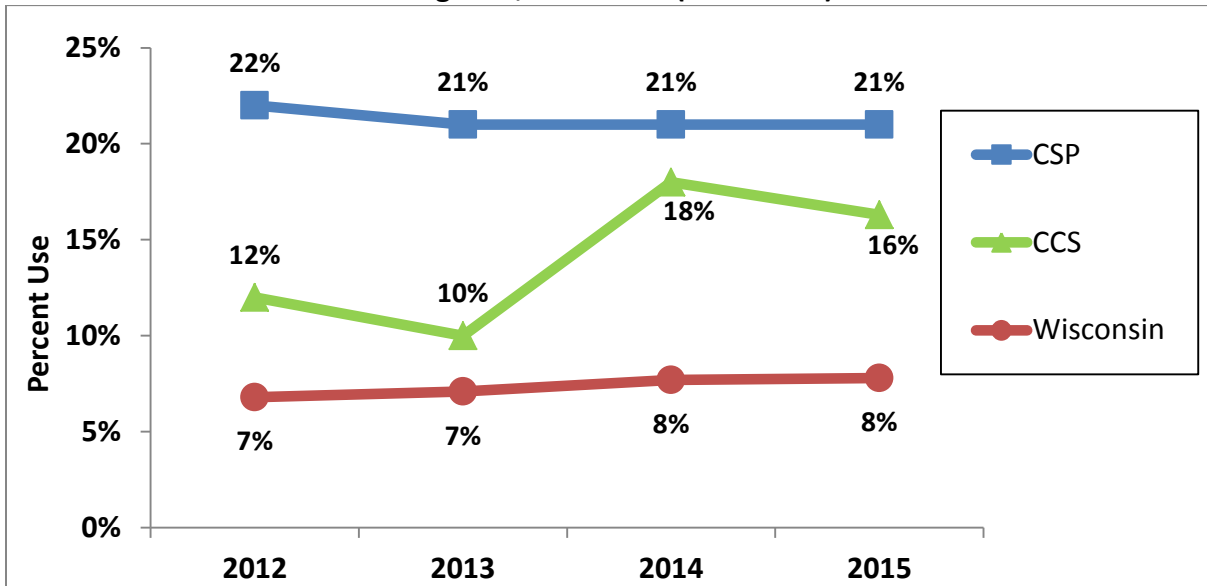
**Figure 7: Groups with Highest Rates of Substance Use Disorder among Individuals with Mental Health Disorders, United States, 2015**



Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.  
 Notes: Figures are for MHD status and SUD status occurring within the past year of survey administration in 2015.

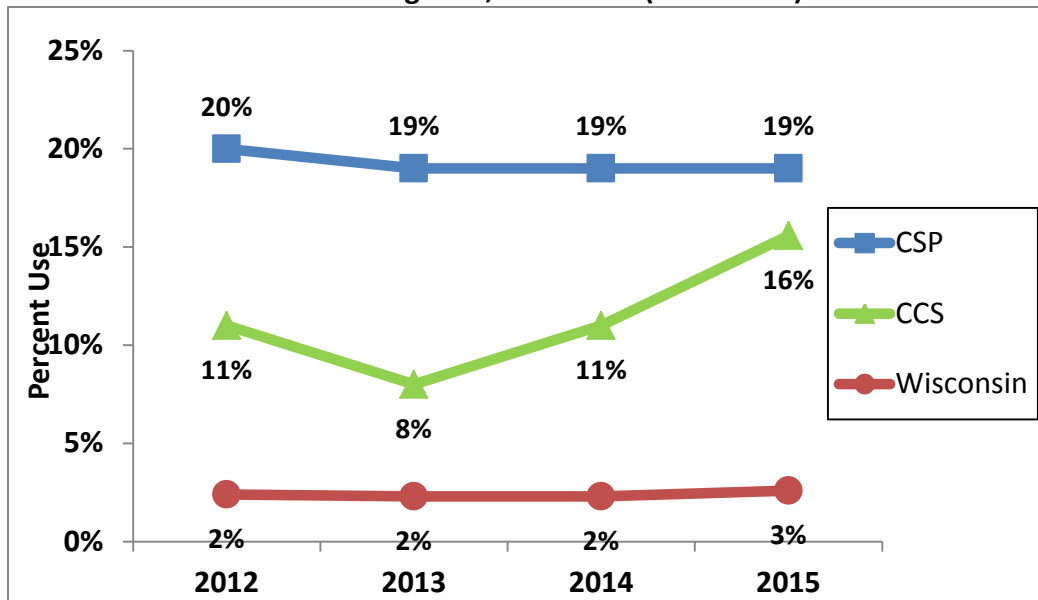
As shown in Figures 8 and 9, those in two of Wisconsin’s largest publicly funded mental health service programs are more likely to abuse alcohol and more likely to abuse illicit substances than the general Wisconsin population. In 2015, program providers reported that 16 percent of the 3,876 participants served in Comprehensive Community Services abused alcohol and the same percent abused illicit substances. Similar to trends seen with tobacco use, we see that the proportion of reported substance use has been increasing as a proportion of Comprehensive Community Services participants since 2013 though trends for Community Support Programs over the same years have remained fairly steady. Also in 2015, program providers reported that 21 percent of the 5,262 participants served in Community Support Programs used alcohol and 19 percent used illicit substances. This high proportion of substance use relative to both national population levels and those with any mental illness suggests that those being served in our programs may be especially prone to SUDs and thus should have ready access to co-occurring disorder services and clinical staff dually certified to provide simultaneous treatment for mental health and SUDs.

**Figure 8: Alcohol Abuse Among Major Mental Health and Substance Use Disorder Service Programs, Wisconsin (2012-2015)**



Sources: 2012-2015 Comprehensive Community Services and Community Support Programs program surveys, DHS and National Survey on Drug Use and Health (Wisconsin 2013-2014, ages 12+ years), Substance Abuse and Mental Health Services Administration.

**Figure 9: Illicit Substance Abuse among Major Mental Health and Substance Use Disorder Service Programs, Wisconsin (2012-2015)**



Sources: 2012-2015 Comprehensive Community Services and Community Support Programs program surveys, DHS and National Survey on Drug Use and Health (Wisconsin 2013-2014, ages 12+ years), Substance Abuse and Mental Health Services Administration.

Table 9 also presents data on diagnoses distributions in the Veterans Outreach and Recovery Program. The Veterans Outreach and Recovery Program supports former service members

regardless of discharge status experiencing homelessness and mental health and substance use challenges by ensuring access to housing and treatment. This was a joint project of DHS and the Wisconsin Department of Veterans Affairs. The Veterans Outreach and Recovery Program clearly had a very high percentage of program participants with a co-occurring mental health and SUD. This may be due in part to the program’s focus on several high-risk sub-populations, including those who are veterans, homeless, and reside in rural areas of Wisconsin with fewer community resources for support in recovery.

**Table 9: Diagnosis Distribution for Veterans Outreach and Recovery Program Participants, Wisconsin, 2017**

Diagnosis	Percent
MHD	39%
SUD	7%
Co-Occurring MHD and SUD	54%
Total	100%

Source: Veterans Outreach and Recovery Program Module, Homeless Management Information System, 2017.  
 Notes: Figures are for all Veterans Outreach and Recovery Program participants enrolled prior to March 31, 2017.

Integrated dual disorder treatment represents a readily available resource for mental health service providers to care for co-occurring substance use service participants. It is a research-proven model of care for people with co-occurring MHDs and SUDs. Under this model, service participants receive a consistent message about treatment from a single practitioner or team of practitioners. Positive outcomes associated with integrated dual disorder treatment include reduced substance use, improvement in psychiatric symptoms and functioning, decreased hospitalization, increased housing stability, fewer arrests, and improved quality of life.<sup>13</sup> Integrated dual disorder treatment is an underutilized, but readily available, evidence-based practice accessible through the Substance Abuse and Mental Health Services Administration’s website.

**Co-Occurring Physical Health Disorders and Mental Health Disorders**

Physical health problems and MHDs have a high incidence of co-occurrence, placing service participants at risk for health complications and early death.<sup>14, 15</sup> National studies have found that more than 68 percent of adults with a mental disorder reported having one or more general medical disorders, and 29 percent of these individuals with a medical disorder had a co-occurring mental health condition.<sup>16</sup>

Data presented in Tables 10 and 11 on Community Support Programs participants in 2015 provide a detailed description of the co-occurrence of mental health and general physical health disorders. The most common co-occurring physical health disorders among this population of individuals with serious mental illness is metabolic syndrome, or the incidence of several of the individual factors presented (but not duplicated) in the same data below such as high blood pressure or hypertension, high cholesterol, and obesity around the midsection.

**Table 10: Median Number of Community Support Programs Participants per Agency/Program with Medical Conditions, Wisconsin, 2015**

Medical Conditions	Median*
Metabolic Syndrome	9
High Blood Pressure or Hypertension	7
High Cholesterol	7
Obesity	9
Type I Diabetes	0
Type II Diabetes	6
Asthma	3
Chronic Obstructive Pulmonary Disease	3
Cardiovascular Problems	3

Source: 2015 Community Support Programs Annual Program Survey, DHS.  
 \*Out of 65 Community Support Programs reporting Medical data in 2015.

**Table 11: Community Support Programs Participants with Medical Conditions, Wisconsin, 2015**

Medical Conditions*	Count	Percent
Metabolic Syndrome	834	16%
High Blood Pressure or Hypertension	1044	20%
High Cholesterol	887	17%
Obesity	1076	20%
Type I Diabetes	80	2%
Type II Diabetes	771	15%
Asthma	522	10%
Chronic Obstructive Pulmonary Disease	493	9%
Cardiovascular Problems	321	6%

Source: 2015 Community Support Programs Annual Program Survey, DHS.

\*While high blood pressure or hypertension, high cholesterol, and obesity are counted exclusive of metabolic syndrome, these and other conditions may occur simultaneously with other conditions for the same service participant.

### Intellectual Disability and Mental Health Disorders

Co-occurring disorder or diagnosis may also be used to describe individuals with simultaneous diagnoses of intellectual disability and MHD. Generally speaking, intellectual disability refers to substantially below average intellectual functioning, most often indicated by a below average intelligence quotient standardized test and substantially below average adaptive functioning indicated through an evaluation of a person’s skills and proficiency in day-to-day activities such as eating and dressing.<sup>11</sup>

While agreement on levels of MHD prevalence in those with intellectual disabilities remains variable, the National Association for the Dually Diagnosed (or individuals with developmental disabilities and mental health needs) cites a standard of 30 to 35 percent; well above the average levels closer to 15 to 20 percent for the general population.<sup>17</sup> In addition, a fairly

recent study in Australia found a prevalence rate of 32 percent among those with intellectual disabilities (compared to the general prevalence rate among Australian adults of 20 percent)<sup>18</sup> and a 2014 study using a rural, population-based sample of adults with disabilities found that individuals living in rural areas with disabilities experience higher rates of mental health symptoms than the general population.<sup>19</sup>

Suggested reasons for this higher prevalence of mental health problems in those diagnosed with an intellectual disability include factors that likely are compounded among those with these disabilities, including:

- Increased social stressors related to negative social conditions.
- Less social support and coping skills to handle negative social conditions.
- Behavioral characteristics or emotional patterns associated with an intellectual disability.

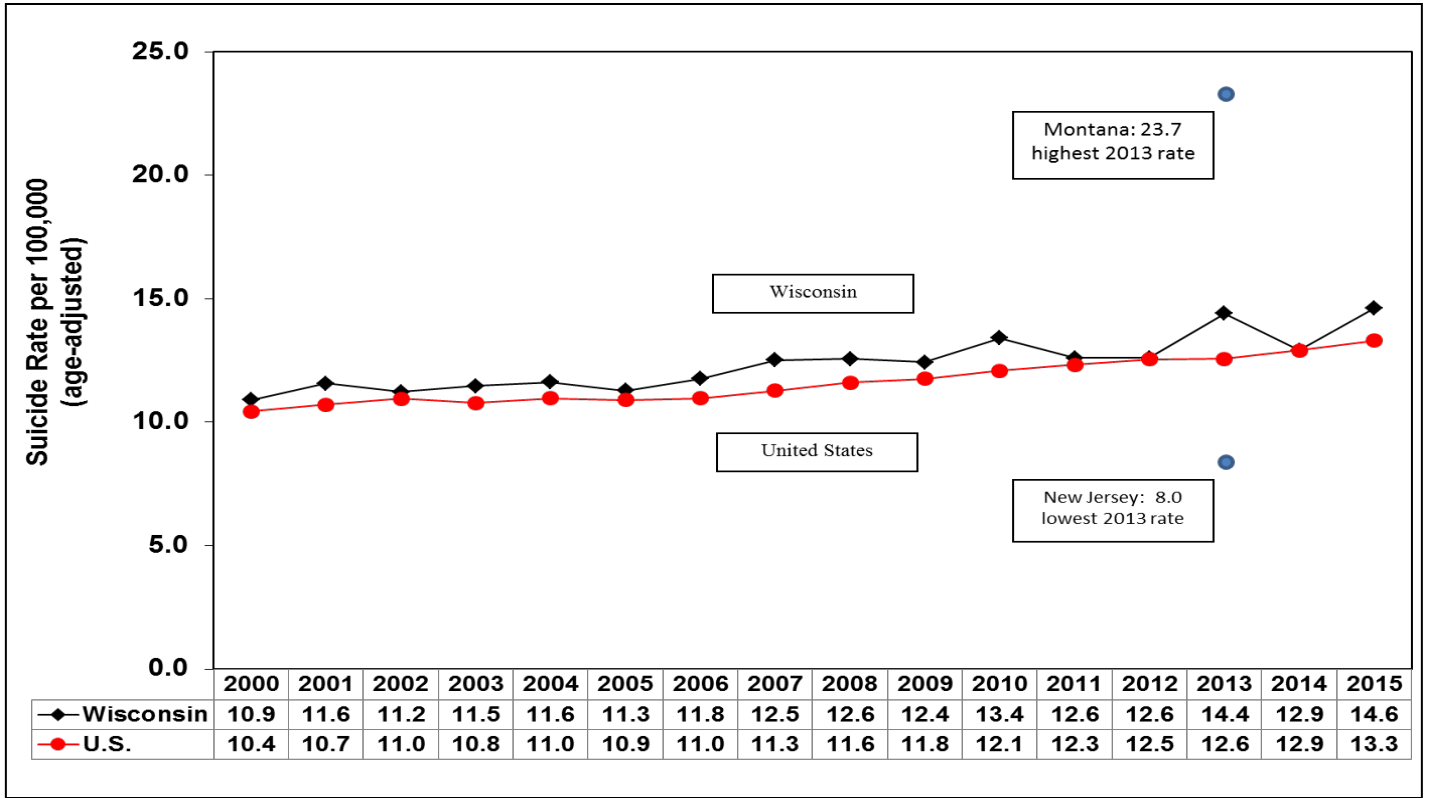
A major barrier to providing adequate data on and treatment of individuals with this type of co-occurring disorder is the tendency for the administration and funding of mental health and intellectual or developmental disability services to be separate. Furthermore, the complexity of diagnoses and potential for overshadowing of one diagnosis (commonly the intellectual diagnosis) over a MHD diagnosis results in the higher likelihood for both the under diagnosis and under treatment of these mental health problems in those with intellectual disabilities.

## **Suicide in Wisconsin**

Wisconsin has had a suicide rate slightly higher than the national average over the last 15 years and calendar year 2015 was no different as illustrated in Figure 10. In addition:

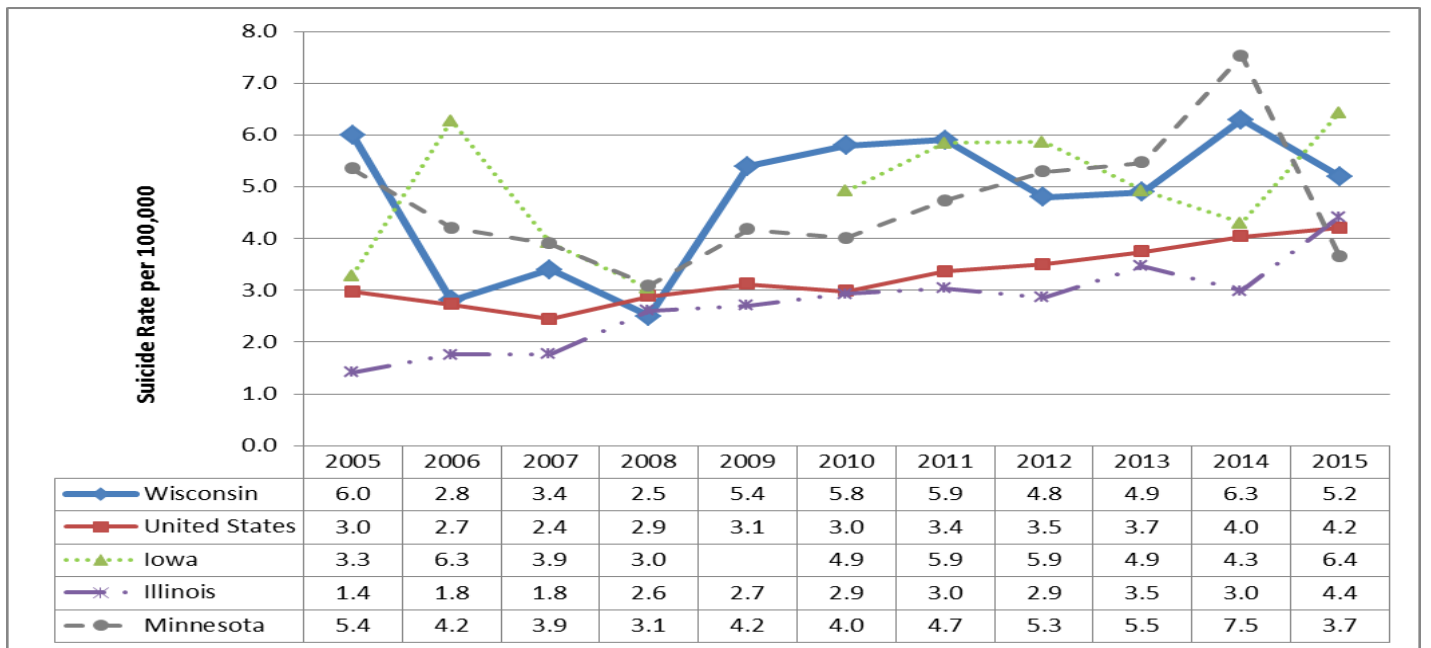
- Wisconsin's suicide rate appears to be rising in the last few years. Two of the last three years have yielded the highest rates in the last 16 years.
- Wisconsin's youth suicide rate is consistently higher than the national average in the last 10 years (Figure 11). Among Midwestern states, Minnesota and Iowa's youth suicide rates are also higher than the national average during this period, but the Illinois rate is consistently lower.
- Individuals who are White, male, and in the 50-54 age range had the strongest risk for suicide in 2015, as described in Figure 12 and Table 12.

Figure 10: Suicide Rates 2000-2015 (Age-Adjusted), Wisconsin



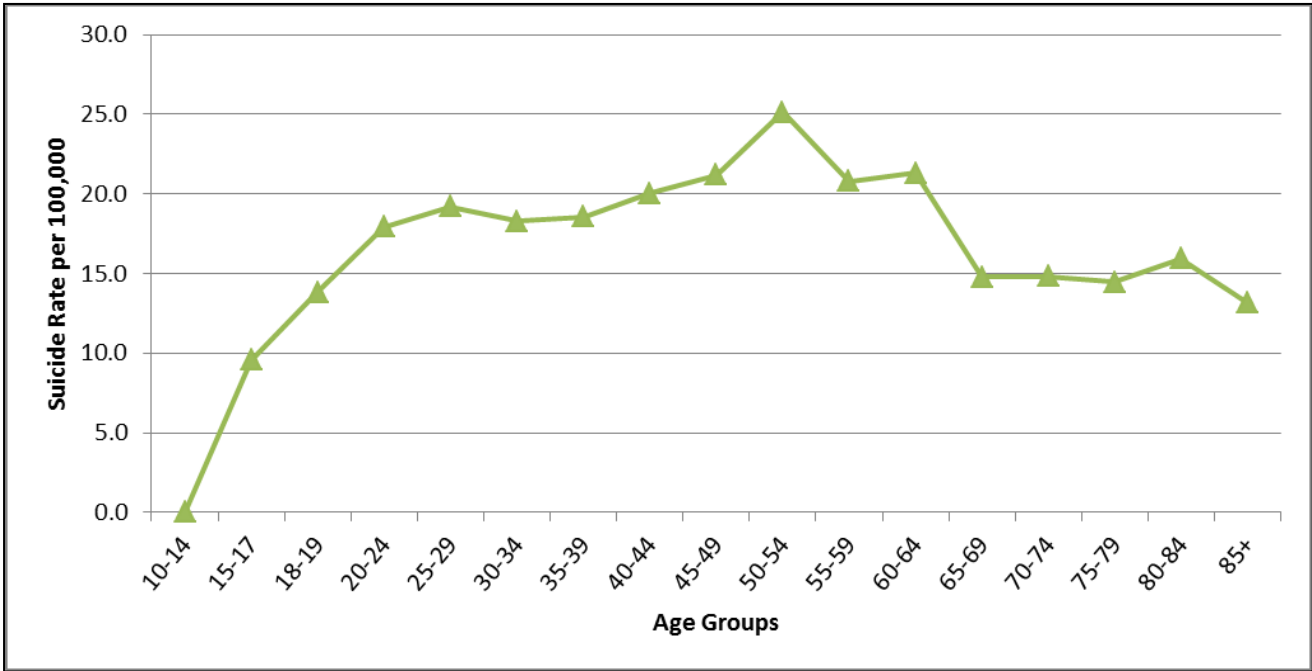
Source: Wisconsin Vital Statistics, DHS.

Figure 11: Age-Adjusted Youth Suicide Rates per 100,000 (10- to 17-Years-Old), Wisconsin



Source: Wisconsin Vital Statistics, DHS.

**Figure 12: Age-Adjusted Suicide Rates per 100,000 by Age Groups, Wisconsin, 2015**



Source: Wisconsin Vital Statistics, DHS.

**Table 12: Suicide Rates per 100,000 by Demographic Groups, Wisconsin, 2015**

	Suicide Rate
Male	22.4
Female	7
White	15.8
Black	2.7
American Indian	9.2
Asian	5.6
Hispanic	5.6
Non-Hispanic	15.2
Southern Region	15.4
Southeastern Region	12.6
Northeastern Region	14.7
Western Region	18.3
Northern Region	15.6

Source: Wisconsin Vital Statistics, DHS.

## II. Access to Services

This section examines available data on access to prevention and treatment services to identify possible issues. Areas analyzed include geographic access issues, the penetration rate or treated prevalence, reasons people do not seek or obtain needed services, waiting lists, and disparities among selected target populations. Comparisons with national data are made whenever this data is available.

Many potential barriers lay in the path of someone accessing the help they need including:

- Meeting eligibility requirements.
- Adequate financial resources.
- Insurance coverage policies.
- Personal motivation and self-awareness of one's own needs.
- Availability of services in the geographic area.
- Capacity of the local service system.

Even when a person becomes enrolled in services, there exists a range of secondary problems with access to needed services such as a lack of available staff.

### **Number of Mental Health Service Participants Receiving Services**

The number of participants served is sometimes referred to as treated prevalence. Treated prevalence is defined as the percentage of individuals with needs who actually received mental health services. The untreated prevalence describes the gap between the population in need and the population that is served.

The number served includes individuals served in both the public and private systems. Figure 13 illustrates all major providers and insurers of mental health services in Wisconsin and provides a general portrayal of how services may overlap or remain distinct. The public system is defined as both services provided by public agencies and services paid for with public funds. The public providers in the mental health service system are primarily the county-based service system and the two state mental health institutes. The state correctional system provides services to a significant number of individuals within their institutions who could also be categorized as a separate component of the public service system. The largest single funder of public services is Medicaid, although private providers may also use Medicaid. The largest provider of mental health services overall is the commercial insurance sector. The one sector for which no data is available is employer-funded insurance plans.



**Figure 13: Sectors of Mental Health Providers and Insurers in Wisconsin**

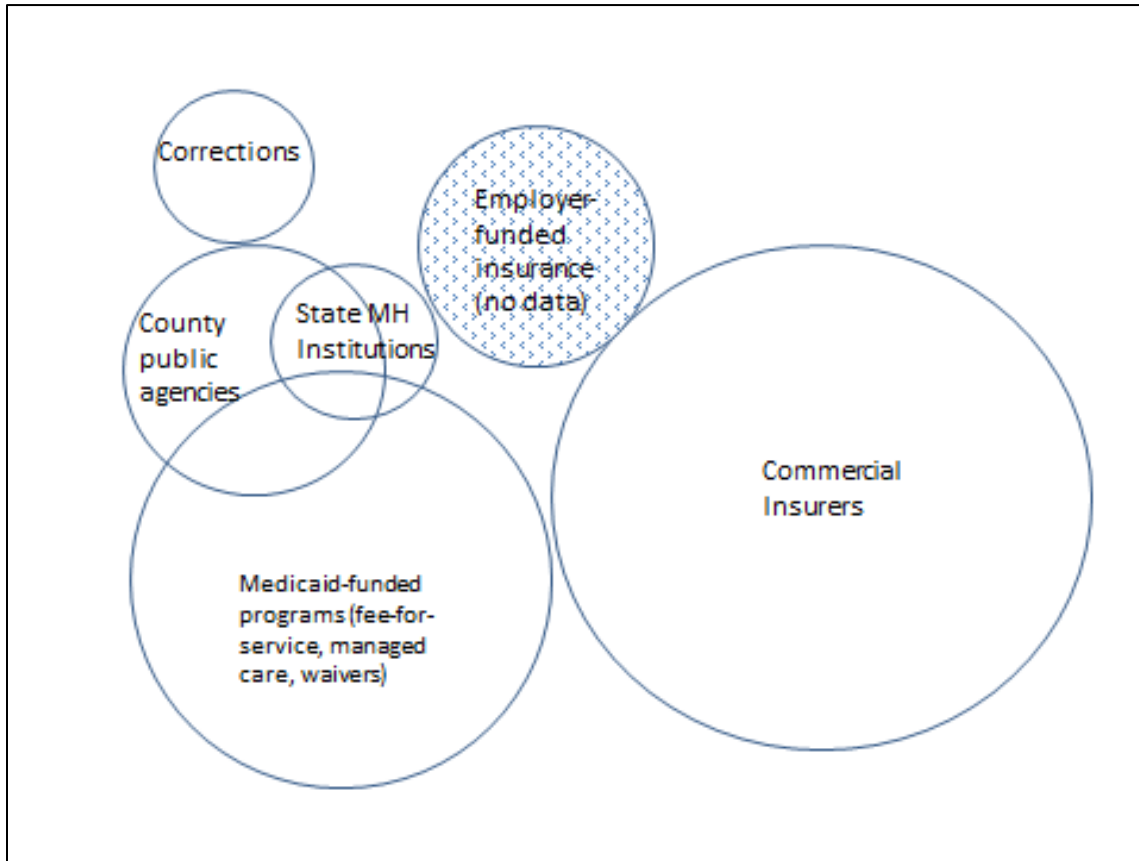


Table 13 describes how many adult and youth service participants received mental health services across different service sectors and funding sources in 2015. While many service participants (61,273) access mental health services through the public system that DHS oversees, many more access services through other sectors. Just over 100,000 are served in Medicaid or medical assistance managed care programs and another 96,832 access services using Medicaid fee-for-service funding. When these groups and some smaller public sector client groups are counted and unduplicated, it reveals 208,353 service participants received services in the public service systems or were served with public funds. When the even larger group with commercial insurance who received services in 2015 is added, an estimated 530,698 received mental health services in 2015.

Adults and youth tend to access mental health services differently. Similar numbers of adults access services through the public system, Medicaid fee-for-service, and Medicaid managed care programs. About one-third of adults access services using public systems or public Medicaid funds, while most of the other two-thirds of adults access services using commercial insurance. Youth, however, rely more heavily on Medicaid funding for accessing services. Sixty percent of youth use public systems and/or Medicaid funds, while only 40 percent use commercial insurance.

**Table 13: Mental Health Service Participants Served, Wisconsin, 2015**

<b>Wisconsin Programs/Agencies Providing Mental Health Care</b>	<b>Adults Served (18+)</b>	<b>Youth Served (0-17)</b>	<b>Total Served</b>
County Public System	50,873	10,400	61,273
State Mental Health Institutions	2,138	793	2,931
Medicaid Fee-for-Service	61,350	35,482	96,832
Medicaid Managed Care	59,426	47,856	107,282
Medicaid Milwaukee Wraparound/Dane Children Come First	0	1,912	1,912
Medicaid Children's Long-Term Care SED Waiver	58	949	1,007
<b>Unduplicated Subtotal</b>	<b>128,289</b>	<b>80,064</b>	<b>208,353</b>
Corrections	9,300	126	9,422
Commercial Insurers <sup>a</sup>	260,416	52,503	312,919
<b>Total Service Participants Served (partially unduplicated)<sup>b</sup></b>	<b>398,005</b>	<b>132,693</b>	<b>530,698</b>

<sup>a</sup> Commercial insurance client figures are based on 85 percent of data.

<sup>b</sup> The total number of people served is unduplicated across the county system, institutions, and Medicaid-funded services. However, some duplication of clients served through other providers may exist.

Subtracting these figures from the number of individuals estimated to have any mental illness in 2015:

- The overall treatment gap is 49 percent, or 509,214 individuals annually.
- The overall adult treatment gap is 53 percent, or 441,378 adults annually.
- The overall youth treatment gap is 34 percent, or 67,836 youth annually.

### **Service Participant Satisfaction with Access to Mental Health Services**

Wisconsin has been gathering service participant satisfaction data from adult and youth clients for several years. More recent results suggest that approximately 78 percent of adults are satisfied with their ability to access the care they need, while only 68 percent of parents of youth report being satisfied. An additional analysis of this adult data also demonstrates that those involved in the criminal justice system in the past two years and younger adults are least likely to be satisfied with their access to services.

### **Most Common Diagnoses Served by Mental Health Services**

Comprehensive Community Services is a program for individuals of all ages who need ongoing services for a MHD, SUD, or a co-occurring disorder beyond occasional outpatient care, but less than the intensive care provided in an inpatient setting. The individual works with a dedicated team of service providers to develop a treatment and recovery plan to meet the individual's unique needs and goals. The goal of this community-based approach is to promote better

overall health and life satisfaction for the individual. The total number of individuals served by Comprehensive Community Services in 2015 was 3,939. The National Institute of Mental Health has identified anxiety and depressive disorders as the most common in the U.S. and the distribution of primary diagnoses for Comprehensive Community Services among program participants mirrors these findings.

**Table 14: Most Common Primary Diagnosis Among Comprehensive Community Services Participants, Wisconsin, 2015**

Primary Diagnosis	Frequency	Percent
Depressive Disorder	52	17.1%
Anxiety Disorder	41	13.5%
Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder	32	10.5%
Other Mood Disorder	30	9.9%
Unspecified MHD	29	9.5%
Bipolar Disorder	28	9.2%
Conduct/Oppositional Defiant Disorder	26	8.6%
Schizophrenia and/or Psychotic Disorder	25	8.2%

Source: Program Participation System, DHS.

Note: Defined as present among 5 percent or more of Comprehensive Community Services discharges in 2015.

Community Support Programs are for adults living with a serious and persistent MHD. These programs provide coordinated professional care and treatment in the community that includes a broad range of services to meet the individual's unique personal needs, reduce symptoms, and promote recovery. The level of services provided range from minimal to intensive or a level that might otherwise require care in a hospital setting. As would be expected, the distribution of primary diagnoses for services among program participants includes those illnesses that require more intensive treatment planning and more often result in functional impairment.

**Table 15: Most Common Primary Diagnosis among Community Support Programs Participants, Wisconsin, 2015**

Primary Diagnosis	Frequency	Percent
Schizophrenia and/or Psychotic Disorder	2983	46.2%
Bipolar Disorder	634	9.8%
Personality Disorder	600	9.3%
Depressive Disorder	453	7.0%

Source: Program Participation System, DHS.

Note: Defined as present among 5 percent or more of Community Support Programs discharges in 2015.

## Geographic Disparities in Access to Mental Health Services

Table 16 and 17 provide county-level detail on the treated and untreated prevalence to examine where geographic disparities might exist. Table 17 describes publicly treated prevalence, or the number and percent of service participants with any mental illness served in the public system and/or with public Medicaid funds. The state totals reveal the public system is reaching a much larger percentage of youth in need than adults (39 percent versus 15 percent). The variability among county rates may reflect different approaches counties may take with their service system. For example, some counties dedicate fewer resources to their system, use Medicaid funds less frequently, and/or rely more heavily on local private providers. All of these factors can affect the percentage of participants with any mental illness served, or publicly treated prevalence. The counties with the:

- Highest adult rates are Menominee, Forest/Oneida/Vilas, Ashland, and Milwaukee.
- Lowest adult rates are Waukesha, Calumet, Pepin, and Buffalo.
- Highest youth rates are Menominee, Iron, Adams, Burnett, and Kenosha.
- Lowest youth rates are Ozaukee, Waukesha, Calumet, Lafayette, and Trempealeau.

**Table 16: Mental Health Service Participants Served in the Public System or With Public Medicaid Funds by County, Wisconsin, 2015**

County	Adults			Youth		
	Estimated # w/Any Mental Illness (18.75%)	# Served	% w/Any Mental Illness Served	Estimated # w/Any Mental Illness (21.0%)	# Served	% w/Any Mental Illness Served
<b>Wisconsin Total</b>	<b>839,383</b>	<b>128,270*</b>	<b>15%</b>	<b>200,529</b>	<b>79,184*</b>	<b>39%</b>
Adams	3,222	657	20%	469	299	64%
Ashland	2,306	519	23%	541	326	60%
Barron	6,693	1,023	15%	1,509	610	40%
Bayfield	2,304	292	13%	430	230	53%
Brown	36,757	6,053	16%	9,552	3,108	33%
Buffalo	1,954	164	8%	437	109	25%
Burnett	2,328	358	15%	434	270	62%
Calumet	6,982	536	8%	1,999	452	23%
Chippewa	9,225	1,235	13%	2,263	840	37%
Clark	4,558	759	17%	1,540	373	24%
Columbia	8,281	1,180	14%	2,004	587	29%
Crawford	2,436	462	19%	542	234	43%
Dane	77,563	9,136	12%	16,557	4,904	30%
Dodge	13,184	1,613	12%	2,909	1,021	35%
Door	4,317	497	12%	732	359	49%
Douglas	6,518	830	13%	1,388	658	47%
Dunn	6,681	779	12%	1,387	454	33%
Eau Claire	15,215	2,219	15%	3,138	1,312	42%
Florence	712	64	9%	107	30	28%
Fond du Lac	14,933	2,648	18%	3,486	1,133	33%
Forest-Oneida-Vilas	10,210	2,314	23%	1,802	1,044	58%
Grant and Iowa	11,230	1,408	13%	2,532	722	29%
Green	5,385	713	13%	1,359	424	31%
Green Lake	2,733	517	19%	677	257	38%
Iron	917	183	20%	142	92	65%
Jackson	3,001	363	12%	688	277	40%
Jefferson	12,366	1,911	15%	2,960	899	30%
Juneau	3,924	699	18%	814	320	39%
Kenosha	24,022	4,353	18%	6,383	3,936	62%
Kewaunee	2,978	389	13%	723	215	30%
La Crosse	17,697	2,594	15%	3,679	1,282	35%

County	Adults			Youth		
	Estimated # w/Any Mental Illness (18.75%)	# Served	% w/ Any Mental Illness Served	Estimated # w/Any Mental Illness (21.0%)	# Served	% w/Any Mental Illness Served
<b>Wisconsin Total</b>	<b>839,383</b>	<b>128,270*</b>	<b>15%</b>	<b>200,529</b>	<b>79,184*</b>	<b>39%</b>
Lafayette	2,368	341	14%	656	151	23%
Langlade-Lincoln-Marathon	26,734	4,481	17%	6,335	2,503	40%
Manitowoc	11,824	1,549	13%	2,649	814	31%
Marinette	6,188	1,149	19%	1,257	581	46%
Marquette	2,267	462	20%	467	201	43%
Menominee	567	227	40%	215	144	67%
Milwaukee	135,858	28,571	21%	34,495	22,464	65%
Monroe	6,373	1,037	16%	1,782	561	31%
Oconto	5,579	768	14%	1,234	370	30%
Outagamie	26,131	3,430	13%	6,784	2,285	34%
Ozaukee	12,878	1,167	9%	3,104	490	16%
Pepin	1,074	89	8%	248	76	31%
Pierce	6,055	589	10%	1,372	326	24%
Polk	6,379	919	14%	1,514	666	44%
Portage	10,634	1,431	13%	2,146	738	34%
Price	2,105	339	16%	398	181	46%
Racine	27,915	4,572	16%	7,180	2,563	36%
Richland	2,549	368	14%	624	260	42%
Rock	23,086	4,284	19%	5,996	2,222	37%
Rusk	2,095	372	18%	465	196	42%
St. Croix	12,180	1,334	11%	3,599	862	24%
Sauk	9,210	1,525	17%	2,245	736	33%
Sawyer	2,463	393	16%	497	297	60%
Shawano	6,062	1,062	18%	1,419	597	42%
Sheboygan	16,778	2,354	14%	4,150	1,109	27%
Taylor	2,929	357	12%	768	224	29%
Trempealeau	4,182	421	10%	1,096	257	23%
Vernon	4,241	577	14%	1,201	319	27%
Walworth	15,089	1,980	13%	3,597	1,210	34%
Washburn	2,354	371	16%	470	260	55%
Washington	19,378	2,470	13%	4,890	1,239	25%
Waukesha	57,897	4,289	7%	14,178	2,684	19%

County	Adults			Youth		
	Estimated # w/Any Mental Illness (18.75%)	# Served	% w/Any Mental Illness Served	Estimated # w/Any Mental Illness (21.0%)	# Served	% w/Any Mental Illness Served
<b>Wisconsin Total</b>	<b>839,383</b>	<b>128,270*</b>	<b>15%</b>	<b>200,529</b>	<b>79,184*</b>	<b>39%</b>
Waupaca	7,700	1,056	14%	1,720	667	39%
Waushara	3,666	557	15%	697	365	52%
Winnebago	25,199	4,737	19%	5,401	2,770	51%
Wood	10,766	2,174	20%	2,498	1,019	41%

Note: The county for 19 adults and 880 youth was unknown and excluded from this table. This explains the difference in total adults/youth served compared to Table 13.

While it is important to examine how many individuals access the public mental health system or publicly funded services, public services are only one option for service participants. In Table 17 below, individuals who use commercial insurance to access mental health services are added with individuals who access public services to provide a more comprehensive analysis of how many individuals access services overall by county. Commercial insurance data was not available for each separate county, so the county groupings in Table 17 are different than those in Table 16.

- The counties with the largest adult treatment gap are Calumet, Buffalo/Pepin, and Waushara.
- The counties with the smallest adult treatment gap are Dane, Columbia, Wood, Green, and Sauk.
- The counties with the largest youth treatment gap are Calumet, Buffalo/Pepin, Clark, Ozaukee, and Sheboygan.
- The counties with the smallest youth treatment gap are Dane, Columbia, Wood, Green, and Sauk.

**Table 17: Mental Health Treatment Gap, Wisconsin, 2015**

County	Adults			Youth		
	% w/Any Mental Illness Served - Public	% w/Any Mental Illness Served - Commercial	% Unserved - Treatment Gap	% w/Any Mental Illness Served - Public	% w/Any Mental Illness Served - Commercial	% Unserved - Treatment Gap
<b>Wisconsin Total</b>	<b>15%</b>	<b>31%</b>	<b>54%</b>	<b>39%</b>	<b>26%</b>	<b>35%</b>
Ashland, Bayfield, Burnett, Rusk, Sawyer, Washburn	17%	19%	64%	56%	13%	32%
Barron	15%	23%	61%	40%	14%	45%
Brown, Florence, Menominee	17%	25%	59%	33%	18%	49%
Buffalo, Pepin	8%	19%	72%	27%	15%	58%
Calumet	8%	13%	80%	23%	9%	68%
Chippewa	13%	29%	57%	37%	21%	42%
Clark	17%	27%	57%	24%	14%	61%
Columbia	14%	71%	15%	29%	62%	9%
Dane	12%	83%	5%	30%	82%	no gap
Dodge	12%	37%	50%	35%	36%	29%
Door	12%	19%	69%	49%	17%	34%
Douglas	13%	27%	60%	47%	22%	30%
Dunn	12%	23%	65%	33%	19%	48%
Eau Claire	15%	32%	54%	42%	32%	26%
Fond du Lac	18%	17%	65%	33%	12%	55%
Grant, Iowa	13%	45%	42%	29%	37%	35%
Green	13%	57%	29%	31%	48%	21%
Green Lake	19%	18%	63%	38%	12%	51%
Jefferson	15%	41%	43%	30%	35%	34%
Juneau	18%	40%	42%	39%	32%	29%
Kenosha	18%	16%	66%	62%	12%	26%
Kewaunee	13%	25%	61%	30%	21%	49%
La Crosse	15%	37%	48%	35%	37%	29%
Manitowoc	13%	25%	62%	31%	24%	46%
Marathon, Lincoln, Langlade, Taylor	16%	28%	56%	38%	22%	40%
Marinette	19%	20%	61%	46%	20%	34%
Marquette, Adams	20%	21%	58%	53%	18%	29%
Milwaukee	21%	15%	64%	65%	10%	25%



County	Adults			Youth		
	% w/Any Mental Illness Served - Public	% w/Any Mental Illness Served - Commercial	% Unserved - Treatment Gap	% w/Any Mental Illness Served - Public	% w/Any Mental Illness Served - Commercial	% Unserved - Treatment Gap
<b>Wisconsin Total</b>	<b>15%</b>	<b>31%</b>	<b>54%</b>	<b>39%</b>	<b>26%</b>	<b>35%</b>
Monroe	16%	27%	57%	31%	23%	45%
Oconto	14%	22%	65%	30%	16%	54%
Outagamie	13%	26%	61%	34%	20%	47%
Ozaukee	9%	28%	63%	16%	28%	56%
Pierce	10%	28%	63%	24%	33%	44%
Polk	14%	27%	58%	44%	22%	34%
Portage	13%	38%	49%	34%	32%	34%
Racine	16%	20%	64%	36%	15%	49%
Richland, Lafayette	14%	33%	53%	32%	20%	48%
Rock	19%	45%	37%	37%	37%	26%
St. Croix	11%	30%	59%	24%	28%	48%
Sauk	17%	59%	25%	33%	48%	19%
Shawano	18%	17%	66%	42%	14%	44%
Sheboygan	14%	21%	65%	27%	17%	56%
Trempealeau	10%	32%	58%	23%	25%	51%
Vernon	14%	28%	58%	27%	20%	53%
Vilas, Forest, Oneida, Iron, Price	21%	27%	52%	56%	20%	24%
Walworth	13%	22%	65%	34%	18%	48%
Washington	13%	23%	65%	25%	22%	53%
Waukesha	7%	26%	66%	19%	26%	55%
Waupaca	14%	29%	57%	39%	23%	38%
Waushara	15%	15%	70%	52%	13%	35%
Winnebago	19%	19%	62%	51%	16%	33%
Wood	20%	47%	33%	41%	41%	18%

Note: Commercial insurance data was not available for each separate county. Therefore, the county groupings in this table are different than those in Table 16.

### Accessing Services through the Public Mental Health System

Counties should provide equal access to mental health services to all service participants in need, but there may be certain groups of service participants who tend to seek services through the county system more often than others. Although income level is not available, service participants' demographic characteristics are available to examine who receives services

through the county system and at what relative rates. Table 18 compares the percentage of Wisconsin individuals within different demographic groups estimated to have any mental illness versus individuals served in the public mental health system. Comparison of the percentages within each demographic group illustrates overall that counties are serving relatively similar proportions of individuals compared to those with needs in the population with a few exceptions. Females are underserved by about 10 percent and youth are underserved by about nine percent. A slightly higher rate (four percent) of African Americans access the public system compared to the rate of need in the general population. As explained above, many youth access Medicaid services outside of the public mental health system. Thus, the rates in Table 18 may not only indicate if the public system is underserving a demographic group, but also what role the public system plays in the larger Wisconsin mental health system.

**Table 18: Mental Health Disorder Prevalence and County-Authorized Mental Health Service Participants, Wisconsin, 2015**

	Mental Health Prevalence - Any Mental Illness		County-Authorized Mental Health Service Participants Served - 2015	
	Number	Percent	Number	Percent
<b>Female</b>	615,592	60%	30,942	50%
<b>Male</b>	410,067	40%	30,336	50%
<b>Total</b>	1,025,659	100%	61,278	100%
<b>Age 0-17</b>	271,871	26%	10,407	17%
<b>Age 18-24</b>	122,251	11%	7,170	12%
<b>Age 25-49</b>	374,112	35%	26,089	42%
<b>Age 50 and over</b>	297,266	28%	17,619	29%
<b>Total</b>	1,065,501	100%	61,285	100%
<b>White</b>	911,968	84%	48,651	82%
<b>African American</b>	56,087	5%	5,446	9%
<b>Hispanic</b>	55,372	5%	2,147	4%
<b>American Indian</b>	10,759	1%	1,175	2%
<b>Asian</b>	18,815	2%	699	1%
<b>Hawaiian/Pacific Islander</b>	280	0%	49	0%
<b>Multiracial</b>	26,728	3%	1,226	2%
<b>Total</b>	1,080,009	100%	59,393	100%

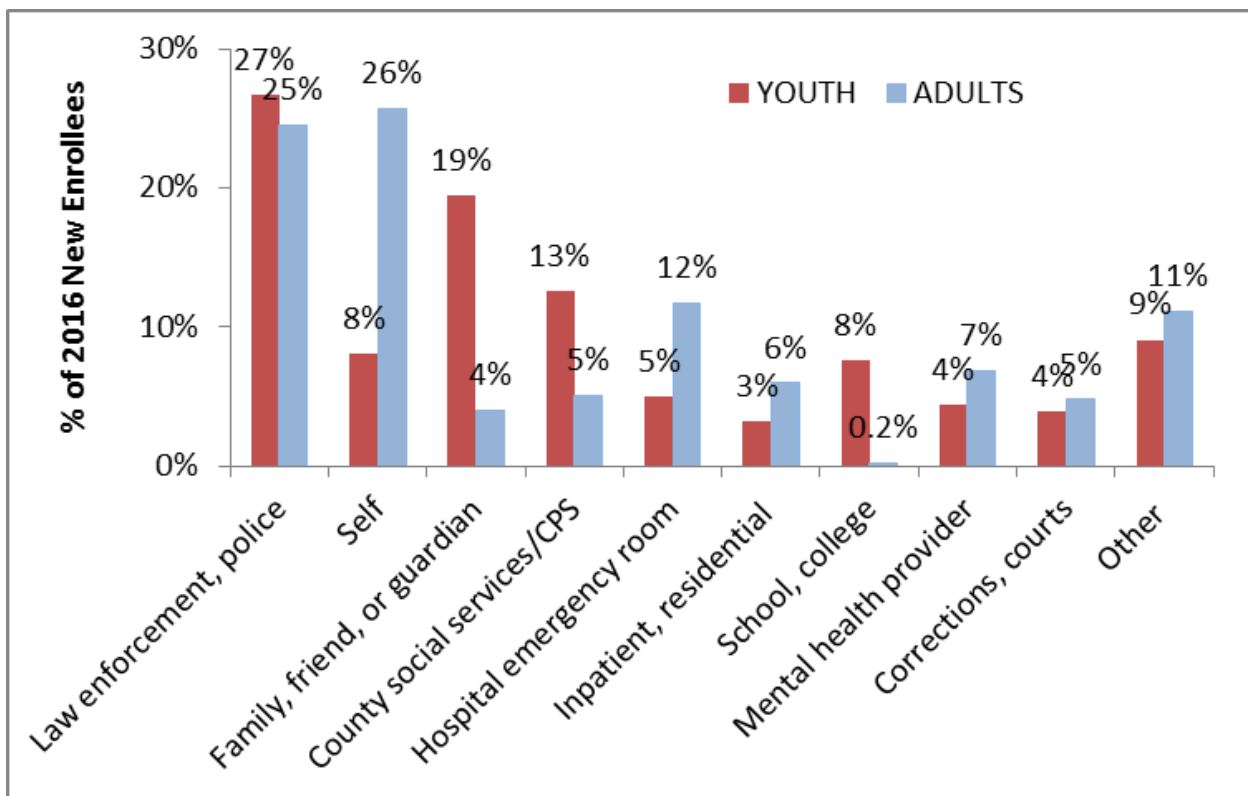
Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration; Program Participation System, DHS.

In addition to the number of individuals who access services, how individuals access services can be an important indicator of the role of the county mental health service system and what subsequent service participants may receive. Individuals who access services initially due to a crisis will need acute, short-term services to stabilize the crisis before consideration is given to

longer-term services that may more effectively address an individual’s ongoing mental health needs.

Multiple indicators reveal that the majority of individuals who access Wisconsin’s public mental health system are initially in crisis. For example, the most frequent referral source of individuals to the public system is law enforcement (26 percent). Other referral sources indicating acute needs for service participants are hospital emergency rooms (10 percent) and other inpatient hospital units (5 percent). Of all referral sources for new enrollees in 2016, 41 percent of service participants came from these three sources.

**Figure 14: Referral Source for Mental Health Enrollments, Wisconsin, 2016**



Source: Program Participation System, DHS.

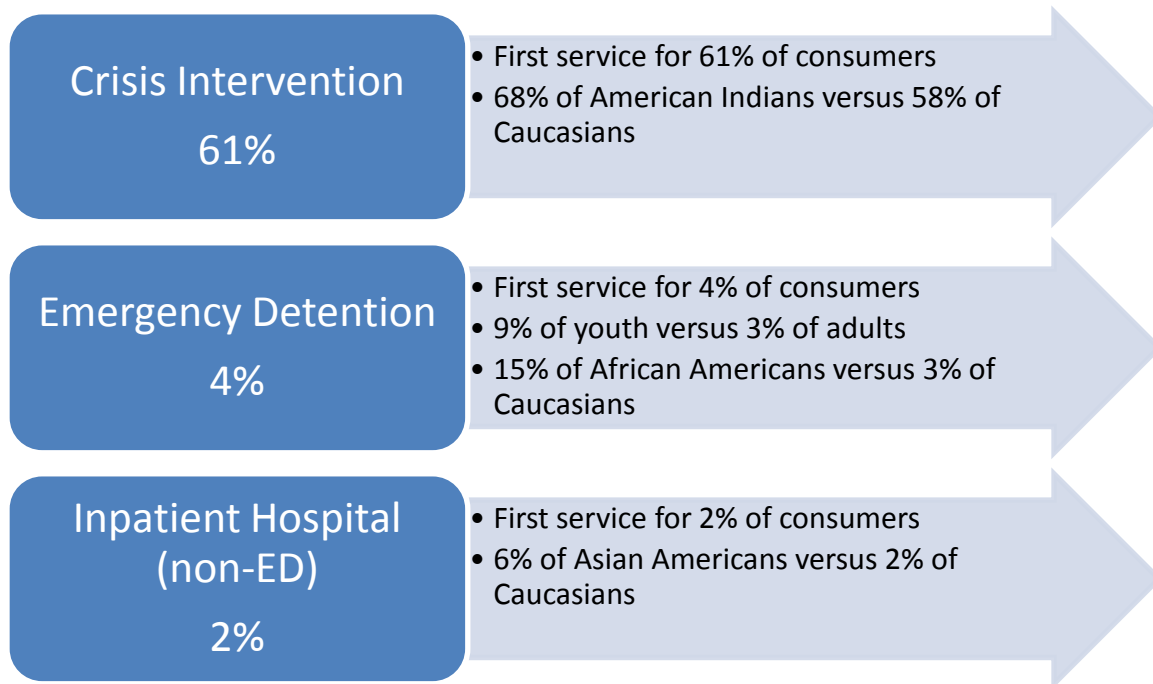
While many referral sources for youth versus adults are used at different rates, law enforcement refers youth and adults at similar rates (Figure 14). However, youth are more likely to be referred by family, county social service or child protective agencies, and schools. Adults are more likely to connect to county services via self-referral or hospitals.

A second indicator of the circumstances under which individuals access services is the initial type of service provided. This appears to be a stronger indicator of the initial acute needs of service participants who are accessing the public mental health system. Overall, 67 percent of individuals enrolled in the public mental health system initially received either crisis intervention services or an inpatient hospitalization. The vast majority (61 percent) started with

community crisis intervention services. Another 9 percent of individuals who started with community mental health services initially were referred from a hospital emergency room, inpatient hospital, or law enforcement, indicating they very recently experienced an acute crisis.

As illustrated in Figure 15, four percent of new enrollees in 2016 initially received an emergency detention and 2 percent were hospitalized under nonemergency conditions. Some disparities among how different demographic groups access the public mental health system are worth noting as well. Youth access the county system under an emergency detention at triple the rate of adults and among racial groups. African Americans do so at five times the rate of individuals identifying as White.

**Figure 15: Initial Service when Accessing the Public Mental Health System, Wisconsin, 2016**



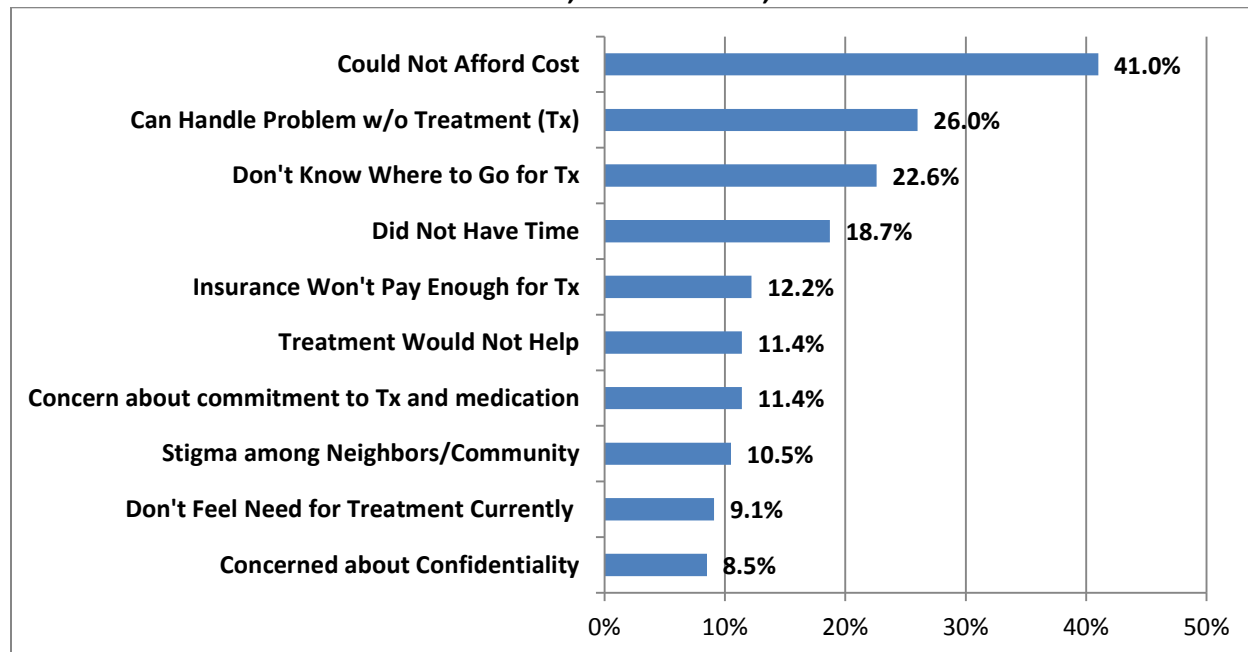
### Barriers to Mental Health Disorder Treatment

A 2015 National Survey on Drug Use and Health estimate indicated a high proportion of adults with any mental illness (56.9 percent) or serious mental illness (34.7 percent) did not receive any mental health services and this figure for adults with serious mental illness increased by 3.1 percentage points from 2013. The National Survey on Drug Use and Health also asked individuals whether they had a mental health need, if they received treatment, and if they experienced barriers to accessing treatment.

In 2015, respondents who had an unmet mental health need for treatment cited the top 10 reasons for why they did not access treatment (below). While this top 10 list has remained fairly unchanged from 2013, it should be noted that not feeling a need for treatment has

moved lower on this list, treatment would not help has moved higher on this list, and treatment might have negative effect on job has been replaced with concerns about confidentiality.

**Figure 16: Percent of Individuals Citing Each Reason for Not Receiving Mental Health Treatment, United States, 2015**

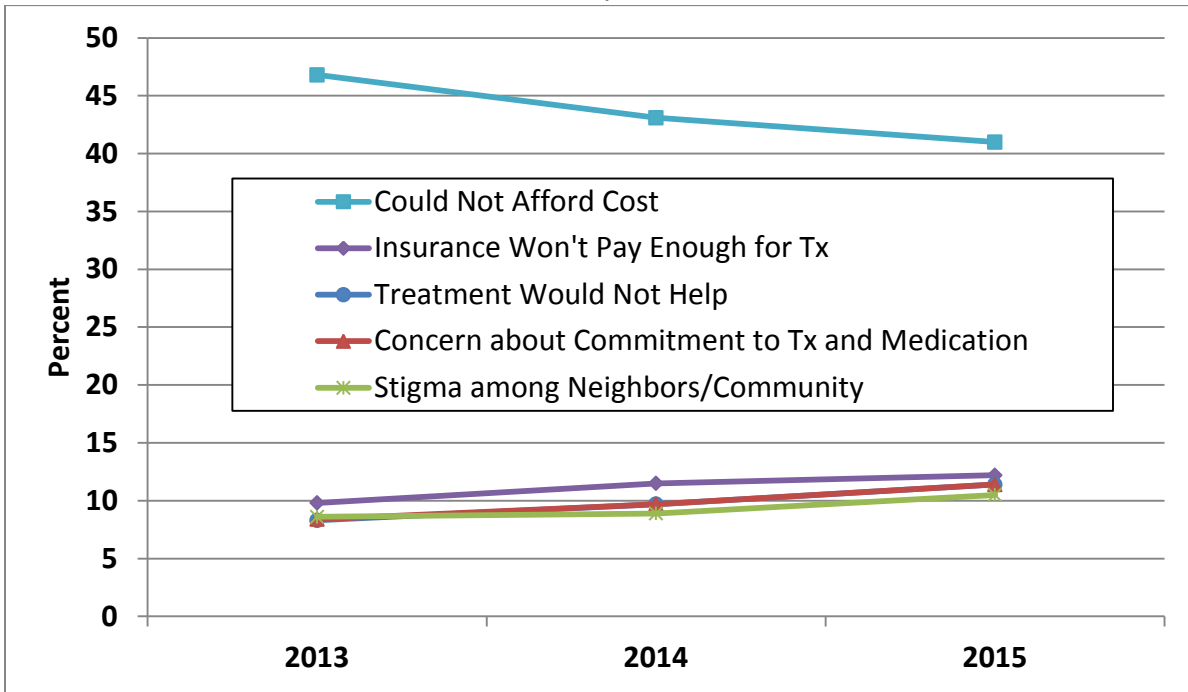


Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

Note: Among top 10 identified reasons

Also notable are trends across 2013 and 2015 in the percent of respondents who had an unmet mental health need and perceived barriers to treatment (Figure 17). When looking at the top five reasons for barriers to treatment in this period, not being able to afford cost for treatment, although identified as the most common reason, has been decreasing. The remaining top five frequent barriers to treatment, although identified less as barriers to treatment when compared to cost, have all slightly increased at about the same rate. These barriers include the inability of insurance to pay enough, treatment not being helpful, concern about commitment to treatment and medication, and stigma among neighbors.

**Figure 17: Notable Trends in Top Cited Reasons for Not Receiving Mental Health Treatment, United States, 2013-2015\***



Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.  
 Note: Among top 10 identified reasons from 2013

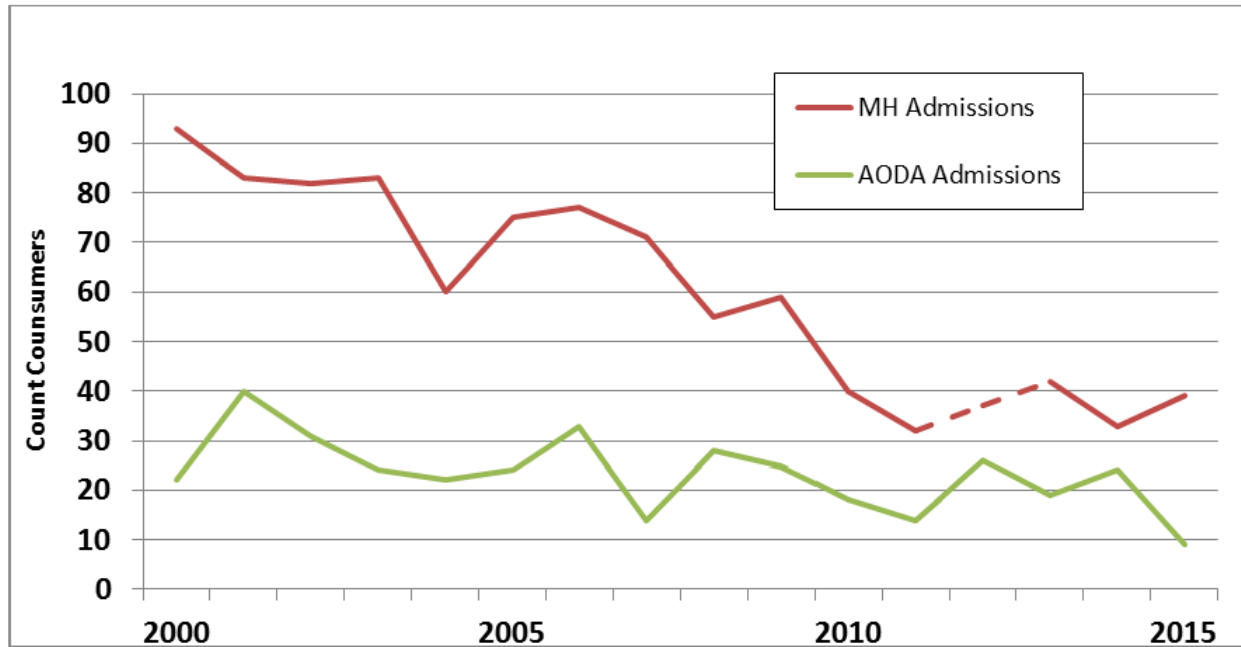
**Access to Services by Deaf and Hard of Hearing**

Communication barriers and misunderstandings about the deaf and hard of hearing among medical practitioners may impede the likelihood that these individuals receive adequate assessment and treatment for MHDs and SUDs. Further, although these individuals are likely no more predisposed to have a MHD than those without hearing impediments, their hearing impairment may result in greater barriers to finding adequate care when not provided with culturally competent and fluent American Sign Language-signing clinicians.<sup>20</sup>

Figure 18 presents data on the number of individuals identifying as deaf and hard of hearing and served in Wisconsin’s county or tribal mental health and SUD service systems. Trends dating back to 2000 suggest that both types of deaf and hard of hearing service participants are being served less, but that this decline is more pronounced for those receiving mental health services. This, combined with substantially fewer deaf and hard of hearing service participants reported as being served in the SUD system, has resulted in a closing gap in the number served across both service systems. It should be noted that current data collection requirements do not mandate county or tribal service providers to assess and report a person identifying as deaf or hard of hearing, thus suggesting that this is likely a conservative estimate of those served who identify as deaf and hard of hearing. This further suggests that providing more adequate screening and assessment for deaf and hard of hearing in MHD and SUD services is needed to adequately screen, treat, and track service participants who identify as deaf and hard of

hearing. In addition, culturally competent and fluent American sign language-signing clinicians are central to ensuring access to quality treatment for those who identify as deaf or hard of hearing.

**Figure 18: Admissions of Mental Health and Substance Use Disorder Service Participants Who Identify as Deaf or Hard of Hearing, Wisconsin**



Source: Human Services Reporting System and Program Participation System, DHS.

\*Note: 2012 Program Participation System mental health admissions were determined using average admissions across 2011 and 2013 due to a number of duplicate admissions that resulted from the transition from the Human Services Reporting System to the Program Participation System in 2012.

### **III. Service Workforce and Capacity**

This section examines available information on the size of the workforce in the mental health system as an indication of its capacity to meet the needs of individuals across the state. Information on type and volume of services and strategies provided in Wisconsin, the number of providers of these services, and some characteristics of this workforce are presented. This, combined with additional information on county expenditures on MHD services, helps to examine if the capacity of the system is appropriately aligned with service needs and if services provided are cost effective (relative use of more intensive inpatient care compared to other community-based care). Due to the limits of some workforce data, service utilization data is used as a proxy for the size and distribution of the workforce.

#### **County Mental Health Service Utilization**

In 2013 the county mental health system provided crisis intervention services to 18,951 individuals or 31.1 percent of all individuals served in this system (Table 19). The county system also provided emergency detentions, inpatient hospitalization, and residential treatment to 7.6 percent, 4.1 percent, and 3.2 percent of these individuals served, respectively. Comparatively, the county system provided case management to 15.9 percent, Community Support Programs services to 11 percent, and Comprehensive Community Services to 2.9 percent of individuals served. This may reflect the capacity and emphasis of the Wisconsin public mental health service system to serve individuals with high-level intensive needs that often require crisis and inpatient care. It may also indicate an underutilization of intensive community care, although such programs expanded after 2013.



**Table 19: Mental Health Service Utilization in the County System, Wisconsin**

Mental Health Service Category	Count of Service Participants			
	2012	2013	2014	2015
Community Support Programs	7,148	6,683	4,740	6,357
Comprehensive Community Services	1,661	1,791	2,263	3,566
Community Recovery Services	166	227	293	304
Coordinated Services Teams	763	883	1068	1359
Crisis Intervention/Emergency Outpatient	23,001	18,951	22,921	25,354
Emergency Detention	4,115	4,643	4,068	4,001
Inpatient Services	4,397	2,497	2,798	2,424
Residential Services	2,272	1,939	1,979	1,684
Partial Day Services	449	332	323	297
Court Services	868	1,026	1129	875
Medication Management	17,986	15,981	14,173	14,069
Intake Assessment	4,411	4,531	4,928	5,386
Case Management	10,634	9,707	10,796	12,588
Outpatient Services	25,486	27,093	24,947	23,088
Supportive Services	1963	1,800	1859	1,729
Other Services	121	58	111	104

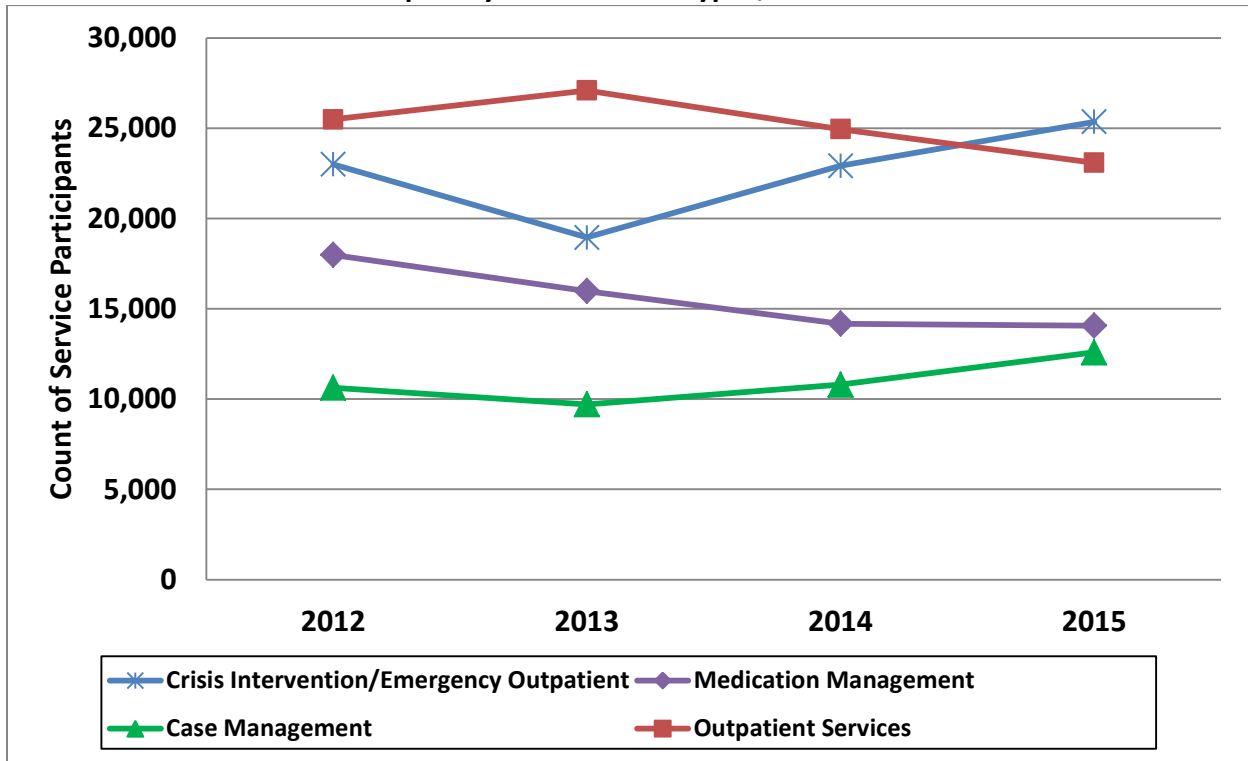
Source: Human Services Reporting System and Program Participation System, DHS

Note: Service participants are counted only once (unduplicated) within a service category or grouping regardless of how many times they received that service. However, an individual service participant may be counted in more than one service category or grouping. For example, if a service participant received both medication management services and individual counseling services, he/she would be counted once for each type of these services received.

Individuals using outpatient mental health have declined since 2013 whereas those using crisis intervention or emergency outpatient have increased. Individuals using medication management have decreased since 2012, but this decline leveled off between 2014 and 2015. Case management services have also been increasing in their use since 2013.

Figure 19 highlights the varying trends in service use among the most frequently used in the county system. In more recent years, outpatient and medication management services have been used less often, but that crisis intervention or emergency outpatient and case management services have been used more often. For more detailed analyses, mental health service utilization by county is displayed in Appendix I: Mental Health Service Participants Served by Service Type and County/Region – CY 2015.

**Figure 19: Individuals Served by the County Mental Health System among the Most Frequently Used Service Types, Wisconsin**



Source: Human Services Reporting System and Program Participation System, DHS  
 Note: See note under Table 19.

## County Per Capita Mental Health Expenditures

Counties report their mental health agency expenditures annually to DHS. Although counties may provide some mental health services through agencies other than their mental health agency, such as their child welfare or developmental disability agencies, the majority of their mental health service expenditures are incurred by their mental health agency. These 2015 expenditures are detailed in Table 20 and provide an indication of the resource capacity each county dedicates to its mental health service delivery system. The per capita expenditure for the state is \$88 and is similar for youth and adults, but variation exists across counties. Menominee, Wood, and Iron have the highest adult per capita expenditures and Milwaukee, Waushara, and La Crosse have the highest youth per capita expenditures.

**Table 20: County Mental Health Agency Per Capita Expenditures, Wisconsin, 2015**

County	Adult Per Capita Expenditures	Youth Per Capita Expenditures	Total Per Capita Expenditures	Total Expenditures
<b>Wisconsin Total</b>	<b>\$86</b>	<b>\$94</b>	<b>\$88</b>	<b>\$504,346,390</b>
Adams	\$88	\$146	\$96	\$1,948,101
Ashland	\$86	\$9	\$69	\$1,107,103
Barron	\$82	\$41	\$73	\$3,315,310
Bayfield	\$95	\$29	\$84	\$1,257,329
Brown	\$73	\$3	\$56	\$14,457,876
Buffalo	\$51	\$28	\$46	\$606,065
Burnett	\$44	\$23	\$40	\$610,366
Calumet	\$66	\$62	\$65	\$3,194,441
Chippewa	\$56	\$42	\$53	\$3,348,650
Clark	\$67	\$31	\$57	\$1,945,242
Columbia	\$59	\$69	\$62	\$3,488,484
Crawford	\$101	\$32	\$87	\$1,429,519
Dane	\$69	\$60	\$67	\$34,723,101
Dodge	\$54	\$82	\$60	\$5,289,735
Door	\$85	\$56	\$80	\$2,229,974
Douglas	\$93	\$3	\$73	\$3,210,242
Dunn	\$75	\$6	\$60	\$2,636,923
Eau Claire	\$67	\$43	\$62	\$6,246,719
Florence	\$23	\$4	\$20	\$89,698
Fond du Lac	\$69	\$83	\$72	\$7,321,271
Forest, Oneida, Vilas	\$114	\$40	\$101	\$6,693,254
Grant, Iowa	\$48	\$15	\$41	\$3,068,292
Green	\$90	\$13	\$72	\$2,682,680
Green Lake	\$84	\$72	\$82	\$1,536,995
Iron	\$167	\$158	\$165	\$978,859

<b>County</b>	<b>Adult Per Capita Expenditures</b>	<b>Youth Per Capita Expenditures</b>	<b>Total Per Capita Expenditures</b>	<b>Total Expenditures</b>
Jackson	\$37	\$18	\$33	\$687,410
Jefferson	\$86	\$79	\$85	\$7,134,740
Juneau	\$123	\$14	\$101	\$2,677,039
Kenosha	\$83	\$84	\$83	\$13,957,943
Kewaunee	\$98	\$44	\$86	\$1,756,756
La Crosse	\$108	\$167	\$121	\$14,297,574
Lafayette	\$104	\$37	\$87	\$1,458,426
Langlade, Lincoln, Marathon	\$107	\$112	\$108	\$19,830,432
Manitowoc	\$97	\$21	\$81	\$6,466,762
Marinette	\$77	\$77	\$77	\$3,166,952
Marquette	\$92	\$67	\$88	\$1,320,938
Menominee	\$223	\$146	\$202	\$912,336
Milwaukee	\$123	\$284	\$162	\$154,997,375
Monroe	\$51	\$29	\$45	\$2,048,019
Oconto	\$53	\$20	\$46	\$1,736,035
Outagamie	\$87	\$21	\$72	\$13,033,364
Ozaukee	\$40	\$16	\$34	\$3,016,950
Pepin	\$24	\$0	\$19	\$138,067
Pierce	\$34	\$15	\$30	\$1,219,850
Polk	\$85	\$63	\$80	\$3,479,991
Portage	\$32	\$56	\$37	\$2,598,333
Price	\$69	\$24	\$61	\$831,013
Racine	\$68	\$9	\$54	\$10,575,902
Richland	\$101	\$81	\$97	\$1,706,876
Rock	\$122	\$124	\$122	\$19,698,380
Rusk	\$57	\$10	\$47	\$676,357
Sauk	\$118	\$92	\$112	\$7,102,336
Sawyer	\$147	\$2	\$119	\$1,961,194
Shawano	\$57	\$34	\$52	\$2,166,335
Sheboygan	\$73	\$28	\$63	\$7,250,075
St. Croix	\$67	\$48	\$62	\$5,412,827
Taylor	\$77	\$18	\$63	\$1,286,378
Trempealeau	\$43	\$2	\$33	\$979,755
Vernon	\$95	\$0	\$71	\$2,155,501
Walworth	\$97	\$70	\$91	\$9,426,208
Washburn	\$56	\$29	\$51	\$797,962
Washington	\$93	\$62	\$86	\$11,415,784
Waukesha	\$66	\$22	\$57	\$22,361,521
Waupaca	\$60	\$72	\$63	\$3,274,326

County	Adult Per Capita Expenditures	Youth Per Capita Expenditures	Total Per Capita Expenditures	Total Expenditures
Waushara	\$65	\$251	\$99	\$2,404,941
Winnebago	\$73	\$79	\$75	\$12,639,916
Wood	\$177	\$104	\$161	\$11,850,141

Source: Program Participation System, DHS.

## Psychiatrist Shortages

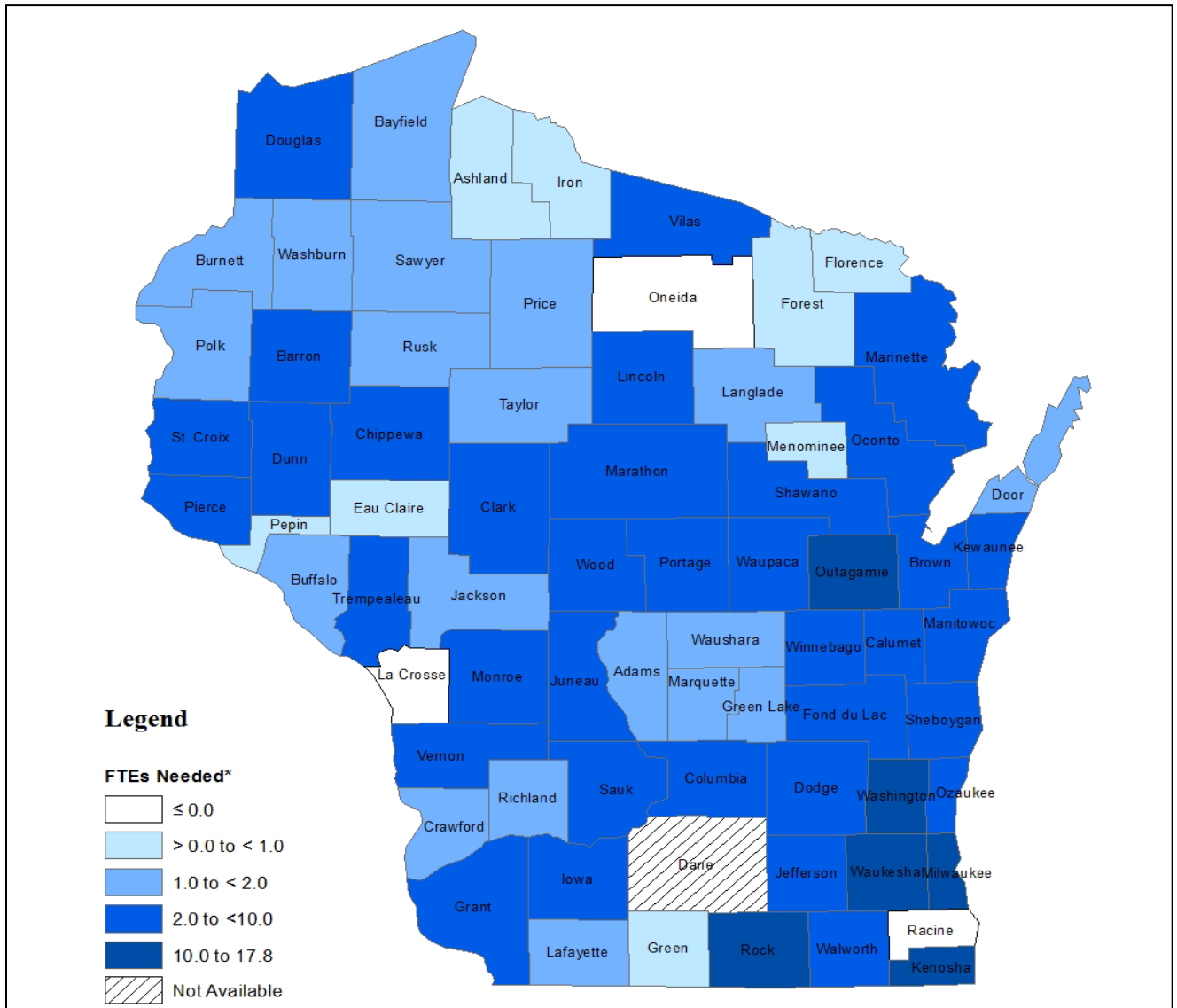
The DHS Primary Care Program is responsible for tracking health care professional shortages in Wisconsin, including psychiatrists, and coordinating federal grants targeted to address these shortages. However, the workforce shortage areas only need to be identified approximately every five years. The last available data on psychiatrist shortage areas is from 2012 and is described below and in the map and table that follow. National statistics suggest that:

- Seventy-seven percent of U.S. counties had a severe shortage of psychiatrists and 96 percent had at least some unmet need for psychiatrists. Rural counties and those with low per capita income tended to have higher levels of unmet need.
- A significant shortage means having a ratio of 10,000 population to one full-time equivalent psychiatrist or higher. A 20,000 to one full-time equivalent ratio is required to qualify for a federal designation as a health professional shortage area and be eligible for federal benefits.
- Counties who are not eligible for a health professional shortage area designation status either do not meet the population to psychiatrist ratio or are contiguous to a county with adequate psychiatrists they could access.

Wisconsin counties followed this pattern. The counties with the greatest overall need for any mental health professionals were Menominee, Crawford, Richland, Sauk, Adams, Marquette, Buffalo, Clark, Taylor, Price, Iron, Sawyer, Washburn, and Burnett – all mostly rural counties. All of these counties had rates of unmet need for mental health professionals that put them in the top quartile nationally for unmet need. Most other counties with similarly high levels of unmet need are found in the Great Plains, Rocky Mountains, or Alaska. Wisconsin counties in the lowest quartile nationally were primarily in the southeast area of Wisconsin extending from Kenosha to Dane to Brown County.

- All but four counties have some level of psychiatrist shortages (Figure 20 and Table 21).
- Eight primarily rural counties have shortages of less than one full-time equivalent and six primarily urban counties have shortages of 10 full-time equivalents or more.
- Sixteen counties (Buffalo, Burnett, Chippewa, Florence, Forest, Green Lake, Iron, Kewaunee, Lincoln, Pepin, Price, Richland, Rusk, Trempealeau, Washburn, and Waupaca) reported zero psychiatrist full-time equivalents providing on-site outpatient care.

**Figure 20: Number of Psychiatrist Full-Time Equivalents Needed to Reduce Significant Shortages for the Resident Population, November 2012**



Source: Primary Care Office, Division of Public Health, DHS.

**Table 21: Number of Psychiatrists Needed to Reduce Significant Shortage**

<b>County</b>	<b>Number of Psychiatrist Full-Time Equivalents Needed to Reduce Significant Shortage</b>	<b>Resident Civilian Population</b>	<b>Mental Health Professional Shortage Area status (as of June 2012)</b>
<i>Wisconsin</i>	N/A	5,486,658	
Adams	1.8	19,646	County
Ashland	0.6	15,541	Not eligible – # psych
Barron	2.3	45,396	County
Bayfield	1.4	14,655	County
Brown	8.5	236,714	Not eligible – # psych
Buffalo	1.4	13,657	Not eligible – contiguous
Burnett	1.5	15,380	County
Calumet	4.6	47,493	Not eligible – contiguous
Chippewa	6.0	60,292	Not eligible – contiguous
Clark	3.2	33,933	County
Columbia	4.6	54,387	County
Crawford	1.3	16,056	County
Dane **	0.0	464,510	Not eligible – # psych
Dodge	5.5	81,526	County
Door	1.9	27,724	County
Douglas	4.0	42,189	County
Dunn	3.2	39,849	County
Eau Claire	0.7	92,416	Not eligible – # psych
Florence	0.5	4,511	County
Fond du Lac	3.0	98,347	Not eligible – # psych
Forest	0.9	9,215	County
Grant	4.0	46,753	County
Green	0.3	35,984	Not eligible – # psych
Green Lake	1.9	19,036	Not eligible – contiguous
Iowa	2.1	23,449	County
Iron	0.6	5,840	County
Jackson	1.3	18,871	County
Jefferson	5.6	80,253	County
Juneau	2.5	26,600	County
Kenosha	10.5	160,047	Not eligible – contiguous
Kewaunee	2.0	20,369	County
La Crosse	<b>-0.7</b>	107,543	Not eligible – # psych
Lafayette	1.4	16,577	County
Langlade	1.2	19,775	County
Lincoln	2.9	28,553	County
Manitowoc	7.2	80,370	County
Marathon	9.5	130,865	County

<b>County</b>	<b>Number of Psychiatrist Full-Time Equivalents Needed to Reduce Significant Shortage</b>	<b>Resident Civilian Population</b>	<b>Mental Health Professional Shortage Area status (as of June 2012)</b>
Marinette	2.7	40,112	County
Marquette	1.3	15,324	County
Menominee	0.2	4,251	County
Milwaukee Inner City **	17.8	350,243	Inner City**
Monroe	4.1	43,524	County
Oconto	3.5	37,280	County
Oneida	-0.1	35,415	County
Outagamie	10.2	171,629	Not eligible – contiguous
Ozaukee	4.1	84,941	Not eligible – contiguous
Pepin	0.7	7,336	County
Pierce	3.6	37,791	Not eligible – contiguous
Polk	1.9	43,821	County
Portage	4.4	65,720	Not eligible – contiguous
Price	1.4	14,156	County
Racine Inner City **	-4.5	19,261	Inner City**
Richland	1.8	18,002	County
Rock	10.2	156,695	Beloit and Janesville
Rusk	1.5	14,531	County
St. Croix	7.2	81,763	Not eligible – contiguous
Sauk	4.5	60,179	County
Sawyer	1.3	16,277	County
Shawano	3.4	40,957	County
Sheboygan	7.3	111,879	Being reviewed
Taylor	1.9	20,333	County
Trempealeau	2.8	27,869	County
Vernon	2.5	28,969	County
Vilas	2.1	21,553	County
Walworth	8.2	98,813	County
Washburn	1.5	15,042	County
Washington	10.1	129,170	Not eligible – contiguous
Waukesha	22.9	381,495	Not eligible – contiguous
Waupaca	5.1	50,725	County
Waushara	2.0	23,248	County
Winnebago	2.2	155,133	Not eligible – # psych
Wood	2.9	73,782	Not eligible – # psych

\*\*Data is incomplete for these counties except for the inner city areas of Milwaukee and Racine.



## Indicators of Workforce Capacity Needs in the County System

The presence and large volume of waitlists in community mental health programs may serve as an indicator that more resources, such as program staff, are needed. Across Wisconsin, the count of service participants on Community Support Program waitlists and the percentage of individuals eligible for the programs who have been waitlisted have steadily increased in recent years (Table 22). While most Community Support Programs have seen modest changes in waitlist counts across the years, some programs have contributed substantially to these counts.

**Table 22: Community Support Programs Waitlists**

County	Count of Individuals				
	2011	2012	2013	2014	2015
Ashland	28	7	27	24	23
Barron	-	12	-	-	-
Bayfield	9	11	10	20	12
Clark	6	2	2	-	-
Columbia	26	31	28	36	35
Dane (two programs)	40	56	33	32	82
Forest, Oneida, and Vilas	12	-	-	-	-
Green	13	14	13	26	-
Iron	-	-	2	-	-
Jefferson	-	-	1	4	-
Kenosha	81	74	72	104	108
La Crosse, Jackson, and Monroe	16	17	16	16	-
Lafayette	5	9	15	5	2
Marquette	-	-	-	3	-
Polk	25	18	12	11	17
Price	-	6	5	4	-
Racine	12	-	-	-	-
Rock (two programs)	6	8	9	19	29
Sauk	43	49	56	49	46
Sawyer	33	33	37	37	3
Sheboygan	23	13	8	-	-
St. Croix	-	-	-	56	150
Trempealeau	-	4	-		
Vernon	17	11	27	23	17
Waukesha	27	31	37	21	9
Waupaca	-	-	-	-	2
<b>Total on Waitlist</b>	<b>422</b>	<b>406</b>	<b>410</b>	<b>490</b>	<b>535</b>
<b>% Participants Waitlisted</b>	<b>7.3%</b>	<b>6.8%</b>	<b>7.4%</b>	<b>8.8%</b>	<b>10.2%</b>

Source: Community Support Programs annual program surveys, DHS.

Turnover of staff in community mental health programs may also indicate a need for more resources and support for staff in these programs. Evidence of frequent staff turnover and its impact on the continuity of care within Coordinated Services Teams Initiatives was reported through the 2015 Coordinated Services Teams Initiatives Survey. The survey results indicate the impact is serious and not necessarily consistent across all initiatives. For instance:

- The average number of coordinator full-time equivalents is 1.5 across approximately two positions, but half have exactly one coordinator in one full-time equivalent position.
- Initiatives that utilize Medicaid have a higher average of 2.2 coordinator full-time equivalents.
- The average (median) number of months that coordinator positions were vacant was 2.5 months.
- The average (median) number of months needed to hire a coordinator was two months.

In 2015, 41 percent of Coordinated Services Teams Initiatives experienced staff turnover. Of these:

- Twenty-four percent were existing staff departures.
- Four percent were new hires.
- Thirteen percent experienced both types of vacancies.

As indicated in Table 23, smaller county and tribal Coordinated Services Team Initiatives have serious workforce capacity needs just to maintain available services. Small county and tribal initiatives lose more staff full-time equivalent months per year than larger counties. These small county and tribal initiatives actually averaged less than a full 12 months of staff time in 2015 indicating interruptions in their continuity of care for families.

**Table 23: Staff Vacancies in Coordinated Services Teams Initiatives – 2015**

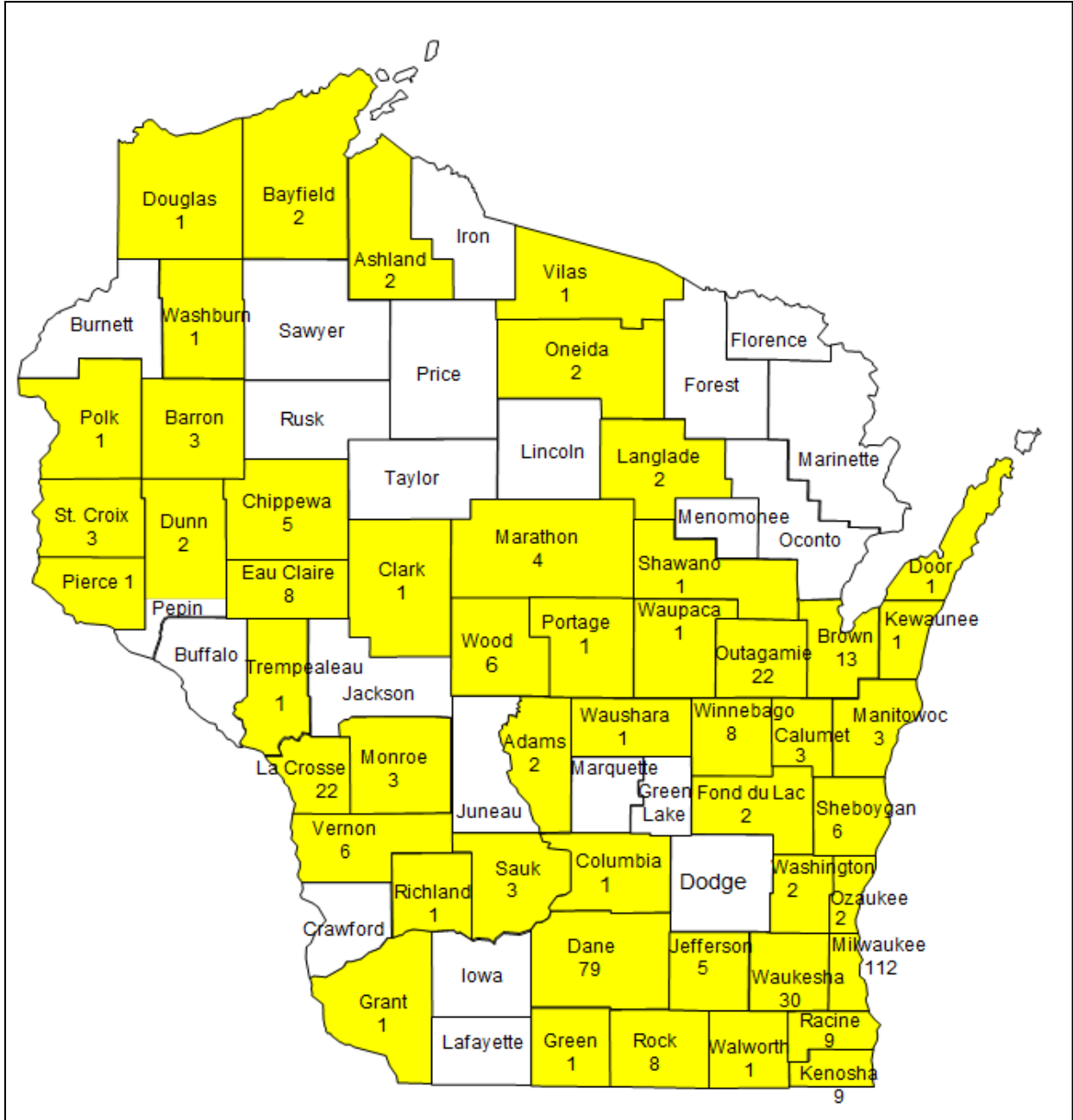
	<b>Percent of with Vacancies</b>	<b>Average Number of Full-Time Equivalent Months Lost</b>	<b>Average Number of Staffed Full-Time Equivalent Months</b>
County Population Over 80,000	39%	1.8 months	26.9 months
County Population Between 21,000-80,000	36%	2.9 months	13.0 months
County Population Under 21,000	24%	3.8 months	11.3 months
Tribes	60%	4.3 months	9.4 months

## **Certified Peer Specialist Capacity**

The use of peer specialists to expand the capacity of the Wisconsin mental health system has grown exponentially since the initial and updated needs assessment reports. Peer specialists cannot only increase the capacity of an agency's workforce; they can also improve the quality and effectiveness of treatment by establishing a collaborative, trusting relationship between the provider agency and the individuals receiving services.

The map in Figure 21 provides the most recent snapshot of certified peer specialists across Wisconsin. In October 2016, there were 405 certified peer specialists in Wisconsin, up from 333 in April 2015. As expected, more certified peer specialists exist in more urban areas of the state. Rural counties in the northeastern and southwestern areas of the state are in the greatest need of certified peer specialists.

**Figure 21: Wisconsin Certified Peer Specialists by County as of October 2016**



Note: This map is based on the county of residence for certified peer specialists. Four individuals listed counties that were outside of Wisconsin. This map does not reflect counties in which the certified peer specialists perform work.

A 2016 survey of certified peer specialists (n= 196) found that 62.6 percent of respondents were currently employed and 66.9 percent of the employed peer specialists had been employed for more than one year. The survey also found that the greatest barrier to certified peer specialist employment identified by unemployed peer specialists was that there were no certified peer specialist jobs in the area they resided.

Community Support Programs and Comprehensive Community Services, available in most areas of the state, may provide an accessible and sustainable environment for certified peer specialists to find employment. These programs are among some of the most common sources of employment for certified peer specialists (Table 24).

**Table 24: Most Common Employment Environments Among Employed Certified Peer Specialists\***

<b>Employment Environment</b>	<b>Frequency</b>	<b>Percent</b>
Drop-in Center (Peer run)	16	12.6%
Community Support Programs	15	11.8%
Independent Living Center	13	10.2%
Comprehensive Community Services	12	9.4%
Peer-Run Respite	12	9.4%
Housing (Supported Living Arrangement)	7	5.50%

Source: 2016 Survey of Peer Specialists (n=196) by Access to Independence, Inc., the DHS contracted manager of the certified peer specialist initiative.

\*Defined as present among 5 percent or more of certified peer specialist survey respondents

Note: "Other (Specify)" was the most common employment environment listed (among 15.7 percent of respondents), although it included 19 different types of environments.

## **IV. Quality and Appropriateness of Services**

The purpose of this report section is to answer questions such as:

- Do people receive appropriate preventative, treatment, and supportive services?
- Are the services, strategies, supports, and treatment of desired quality?
- Are the services or strategies safe, client-centered, efficient, equitable, evidence-based, effective, and otherwise proven to work?

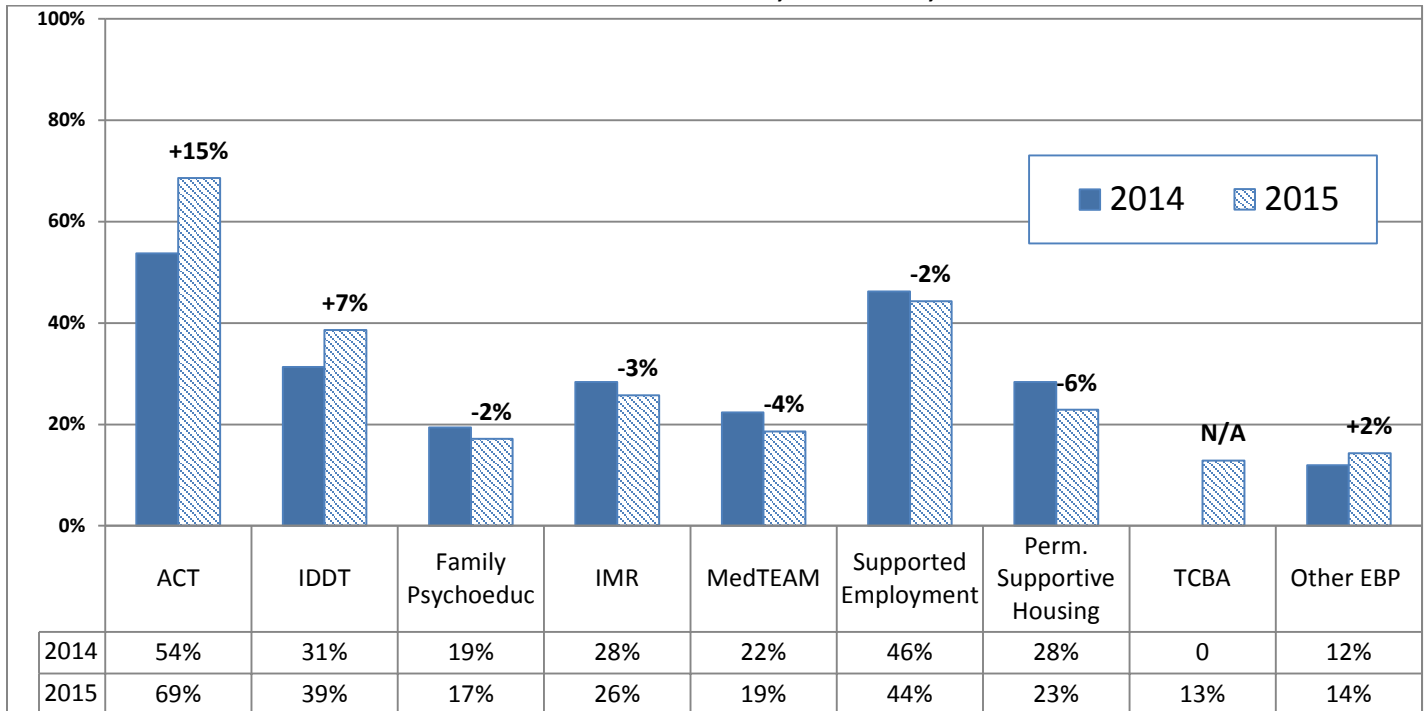
### **Use of Evidence-Based Practices in Wisconsin's Major Mental Health and Substance Use Disorder Service Programs**

DHS conducts an annual program survey of all Community Support Programs and Comprehensive Community Services providers across the state. These surveys have asked program staff for information on their use of evidence-based practices among Community Support Programs since 2007 and Comprehensive Community Services programs since 2011. DHS provided grant funding to select counties and tribes from 2006-2008 to implement evidence-based practices for adults in Community Support Programs and has more recently funded training for supported employment. The state has provided no other financial support to counties and tribes to implement evidence-based practices.

## Use of Evidence-Based Practices in Community Support Programs – Adults<sup>i</sup>

With the exception of assertive community treatment and supported employment, other evidence-based practices are being offered by relatively few Community Support Programs (Figure 22). Along with being offered widely by most Community Support Programs, the use of assertive community treatment as an evidence-based practice has substantially increased since 2014.

**Figure 22: Percent Community Support Programs Offering Various Evidence-Based Practices and Annual Percent Difference, Wisconsin, 2014-2015**

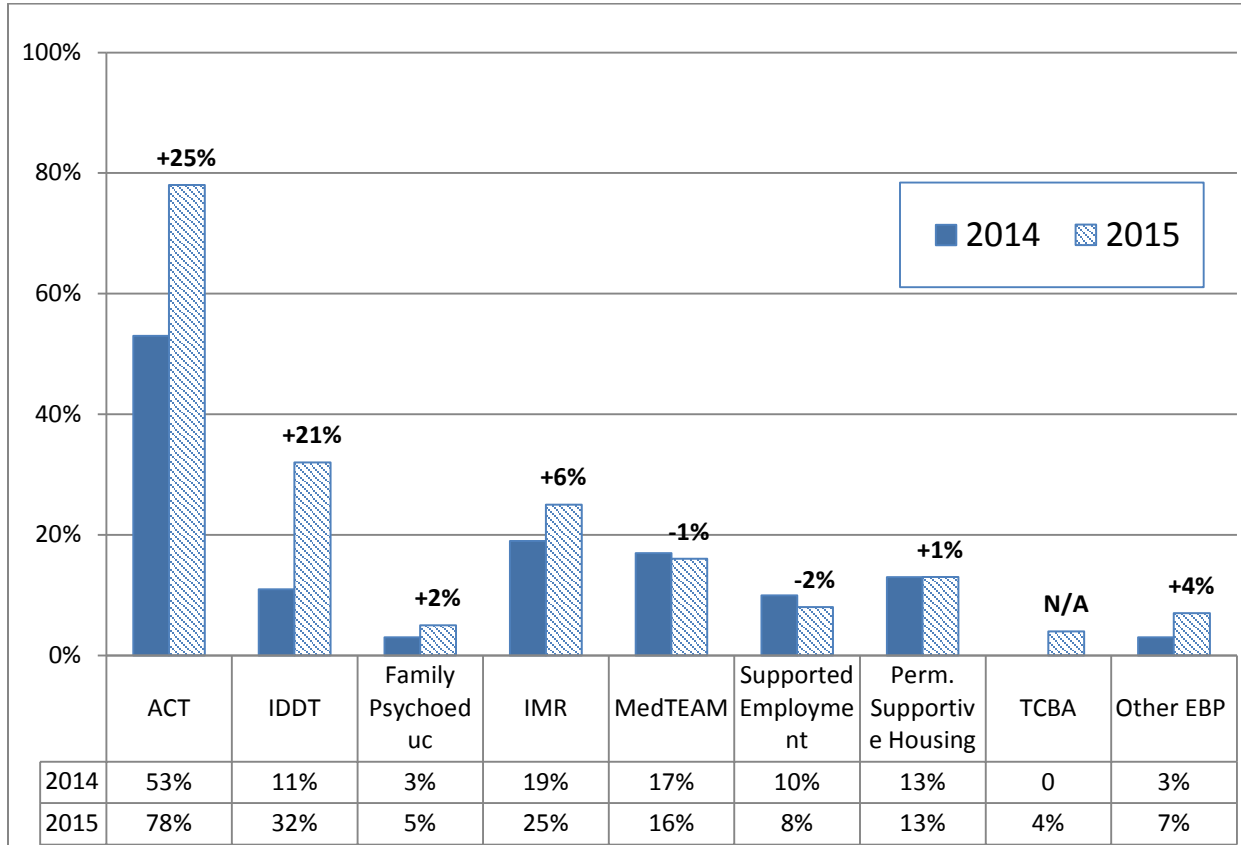


Source: 2014 and 2015 Community Support Programs annual program surveys, DHS

<sup>i</sup> Analysis of the results of the evidence-based practices of supported employment, permanent supportive housing, and integrated dual disorder treatment from this data for Community Support Programs should be interpreted with caution as they are likely underreported. This was due to previous instructions to providers of Community Support Program to not report these evidence-based practices when they served as a component of an assertive community treatment model. Reporting practices were updated in 2016 to more accurately collect data for these evidence-based practices.

The proportion of Community Support Programs participants being served by assertive community treatment reflects the proportion of programs offering it as an evidence-based practice (Figure 23). While the proportion of participants being served by other evidence-based practices remains low, the proportion of participants served by integrated dual disorder treatment has increased by nearly threefold and for assertive community treatment by nearly 150 percent across 2014 and 2015.

**Figure 23: Percent Community Support Programs Participants Receiving Evidence-Based Practices and Annual Percent Difference**



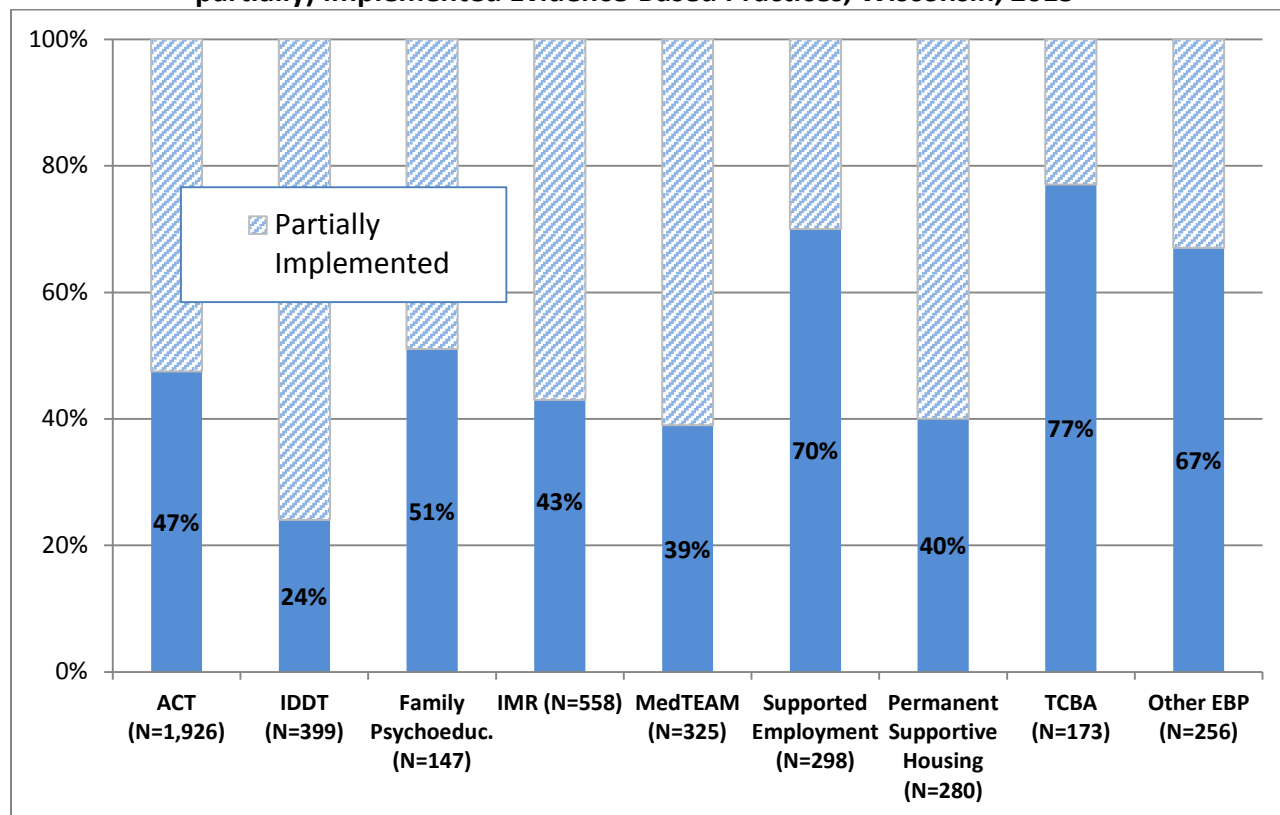
Source: 2014 and 2015 Community Support Programs annual program surveys, DHS

Note: Some participants may have received more than one evidence-based practice in each of 2014 and 2015.



Many Community Support Program participants are receiving only partially implemented evidence-based practices or evidence-based practices that only include some of the core elements of their model (Figure 24). Participants served under the tobacco cessation bucket approach, supported employment, and other evidence-based practices (not listed) are most likely to receive those evidence-based practices under a fully implemented model.

**Figure 24: Percent Community Support Programs Participants Served Under Fully (Versus partially) Implemented Evidence-Based Practices, Wisconsin, 2015**

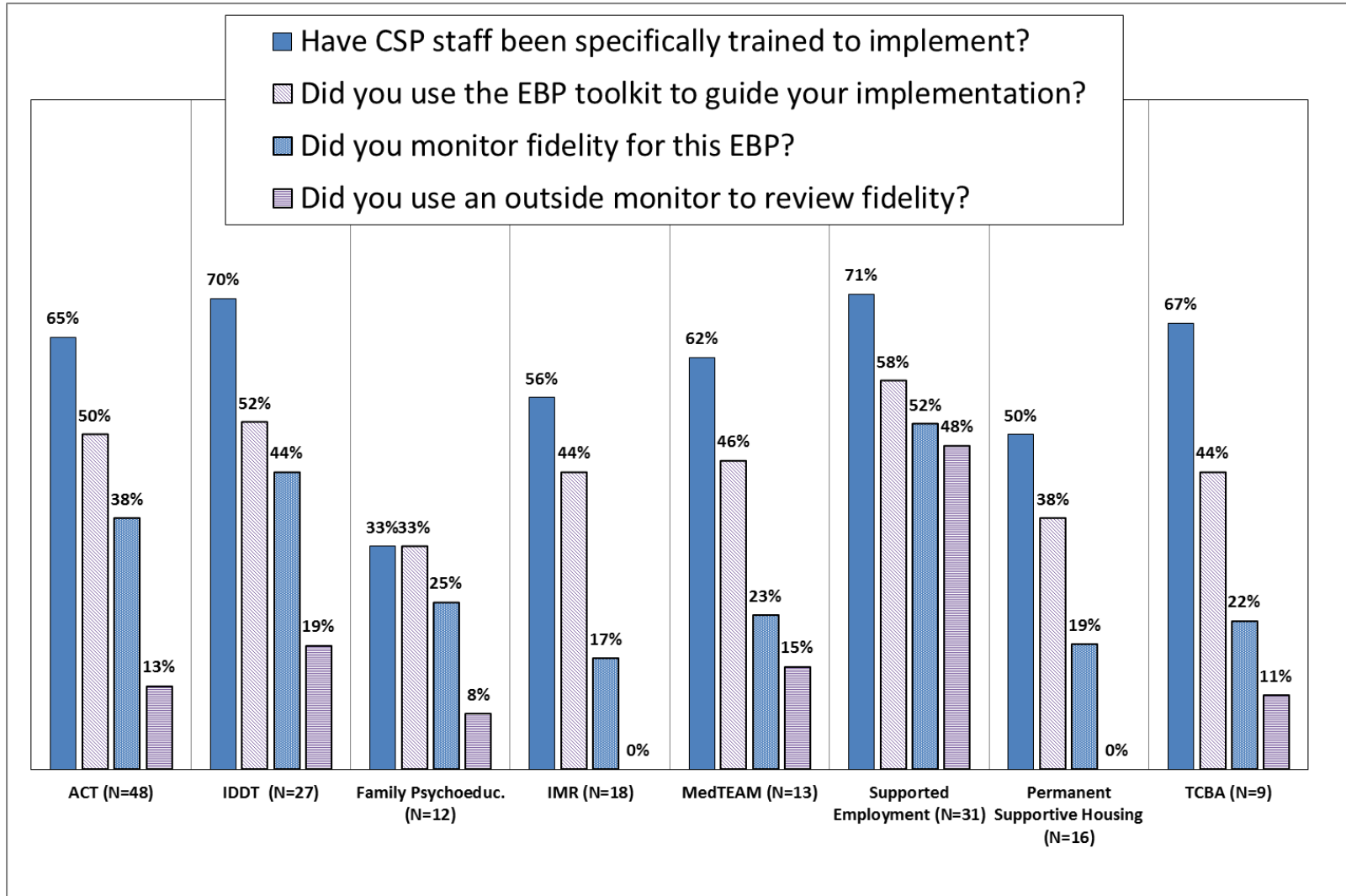


Source: 2015 Community Support Programs Annual Program Survey, DHS

Note: Some participants may have received more than one evidence-based practice in each of 2015.

As shown in Figure 25, a sizable proportion of Community Support Programs offering evidence-based practices have staff trained to implement their respective evidence-based practices, but few use an evidence-based practice toolkit issued by the Substance Abuse and Mental Health Services Administration to guide their implementation, monitor their fidelity, or use an outside monitor to review their fidelity. Additionally, out of all evidence-based practices offered by Community Support Programs, supported employment has the highest proportion of fidelity checks in place.

Figure 25: Percent of Community Support Programs Implementing Programs with Fidelity Checks, Wisconsin 2015



Source: 2015 Community Support Programs Annual Program Survey, DHS

In summary, assertive community treatment is widely used and is increasing in its use at a high rate although the degree of implementation and fidelity of this key component of Community Support Programs is still lacking. As demonstrated by the supported employment evidence-based practice, devotion of additional staff and training towards assertive community treatment and other evidence-based practices may substantially impact the proportion of individuals receiving these fully implemented and high-fidelity, evidence-based practices. This, in turn, may increase the likelihood that an evidence-based practice is effective and improves outcomes for individuals who receive that evidence-based practice as part of their services in MHD and SUD programs in Wisconsin.

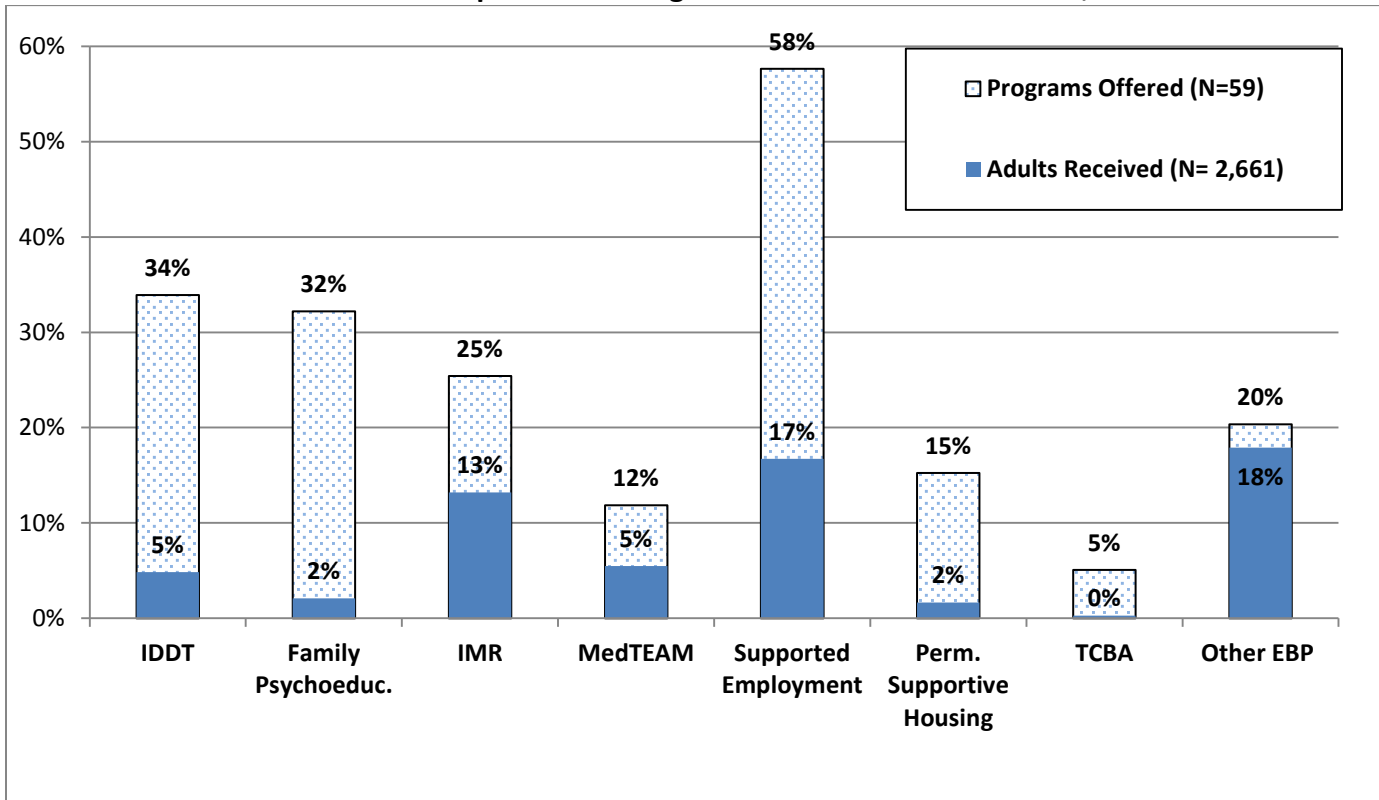
### **Use of evidence-based practices in Comprehensive Community Services – Adults**

Figure 26 presents evidence-based practice-type data across both the number of Comprehensive Community Services programs offering each evidence-based practice (n=59) and the number of adult service participants served within each evidence-based practice (n=2,661).<sup>2</sup> Supported employment is offered by the largest proportion of Comprehensive Community Services programs although, similar to other evidence-based practices, it serves a relatively small proportion of participants.

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<sup>2</sup> Unlike the prior Community Support Programs evidence-based practice analysis, cross-year comparisons of Comprehensive Community Services evidence-based practice data have been omitted due to the many changes that have accompanied Comprehensive Community Services during program expansion in 2014.

**Figure 26: Percent of Comprehensive Community Services Programs Offering and Adult Service Participants Receiving Each Evidence-Based Practice, 2015**

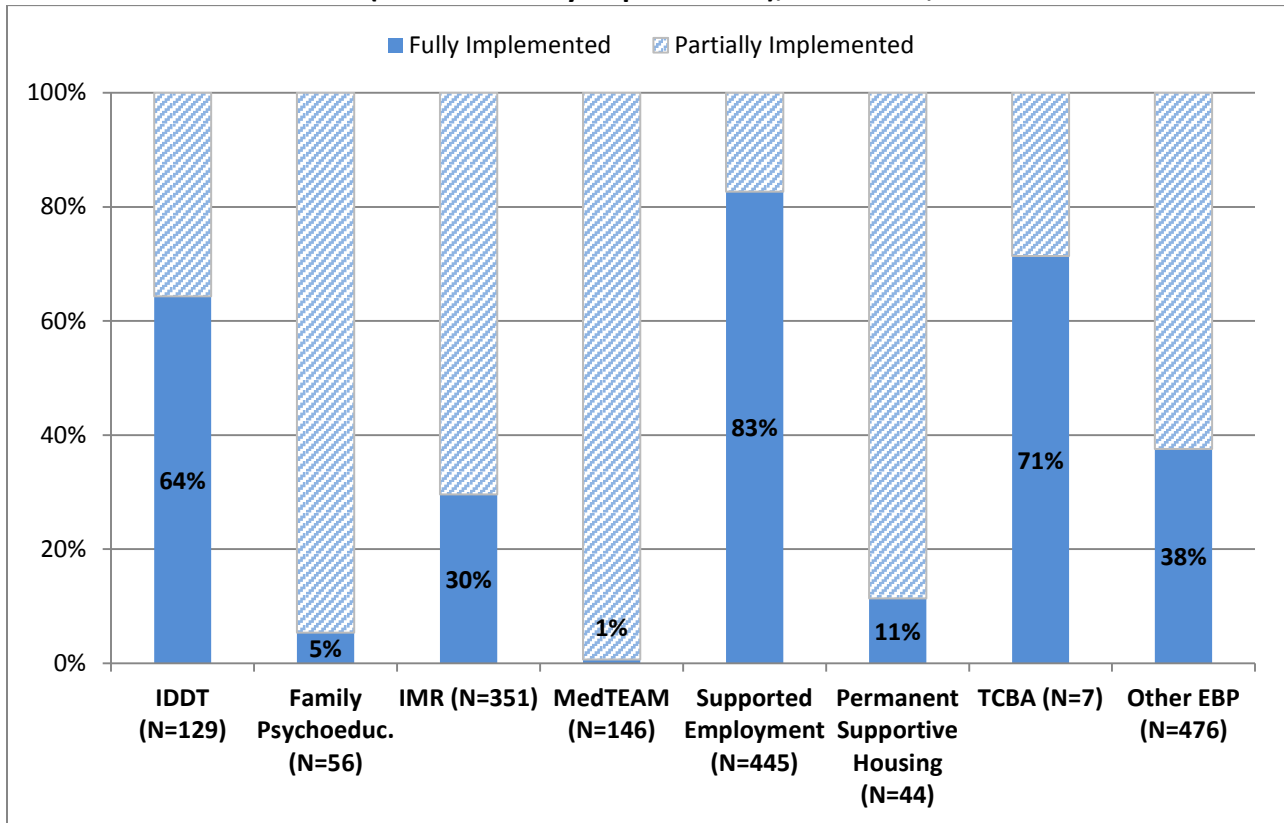


Source: 2015 Comprehensive Community Services Program Survey, DHS.

Notes: While some youth are reported as being served under adult evidence-based practices, percentages for adults received use the total adults reported as served as the baseline for this calculation. Some participants may have received more than one evidence-based practice in 2015.

Similar to Community Support Programs, many Comprehensive Community Services participants are receiving only partially implemented evidence-based practices, or evidence-based practices that only include some of the core elements of their model (Figure 27). Supported employment, tobacco cessation bucket approach, and integrated dual disorder treatment are the exceptions to this trend.

**Figure 27: Percent Service Participants Served Under Fully Implemented Evidence-Based Practice (versus Partially Implemented), Wisconsin, 2015**



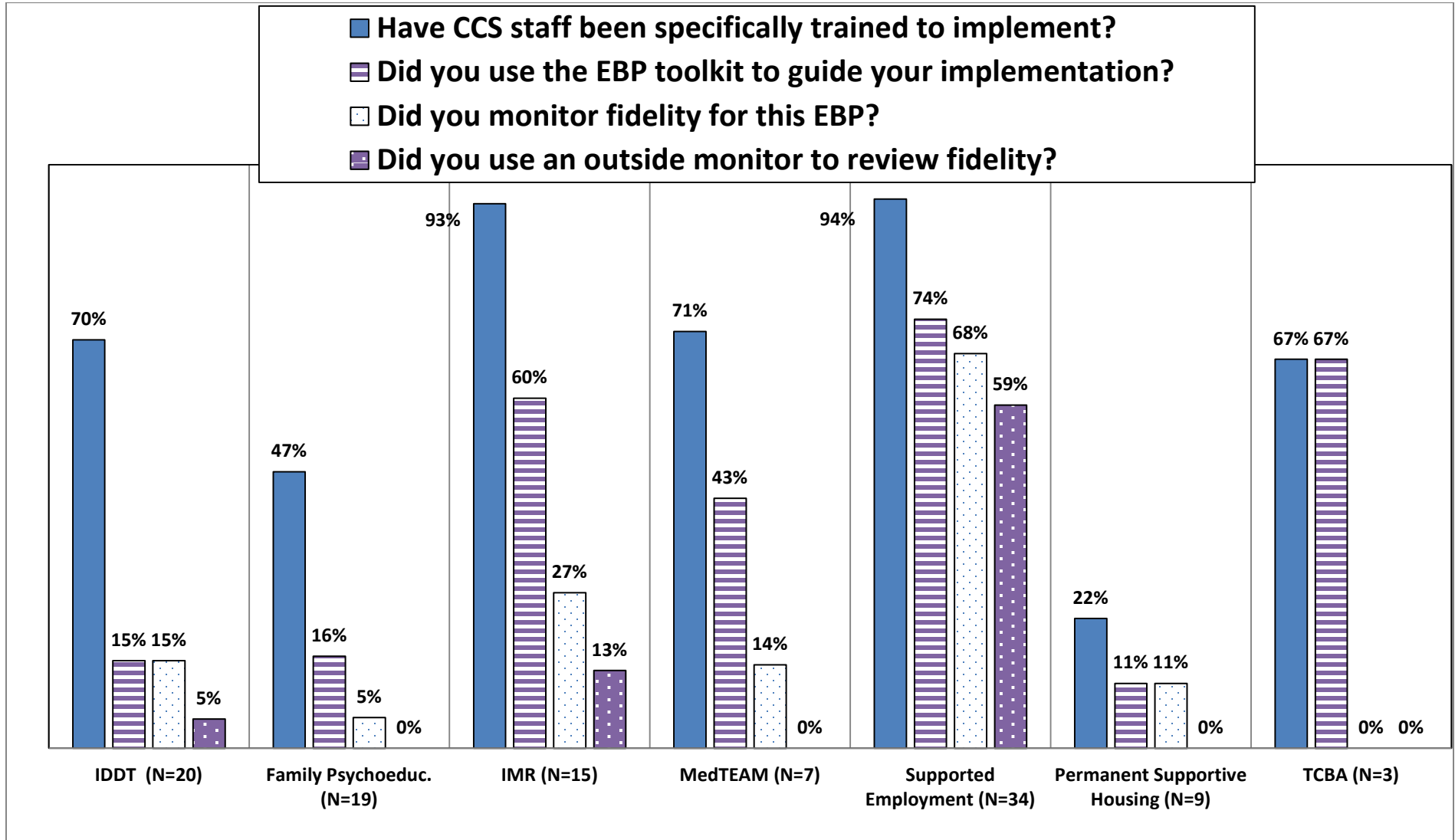
Source: 2015 Comprehensive Community Services Program Survey, DHS.

Note: Some participants may have received more than one evidence-based practice in 2015.

As shown in Figure 28, a sizable proportion of Comprehensive Community Services programs offering evidence-based practices have staff trained to implement their respective evidence-based practices, though very few monitor their fidelity and almost none use an outside monitor to review their fidelity. Similar to Community Support Programs, supported employment has the highest proportion of fidelity checks in place of all evidence-based practices offered by Comprehensive Community Services programs.

Across both Community Support Programs and Comprehensive Community Services programs, adult participants receiving the supported employment evidence-based practice are most likely to be receiving a fully implemented and high-fidelity evidence-based practice. In addition, Comprehensive Community Services adults are just as likely to be receiving supported employment as they are other evidence-based practices (for example, motivational interviewing). Results of this analysis also demonstrate that devotion of additional staff and training towards supported employment may substantially impact the proportion of individuals receiving these fully implemented and high-fidelity evidence-based practices.

Figure 28: Percent of Comprehensive Community Services Adult Evidence-Based Practices Implemented with Fidelity Checks, Wisconsin 2015

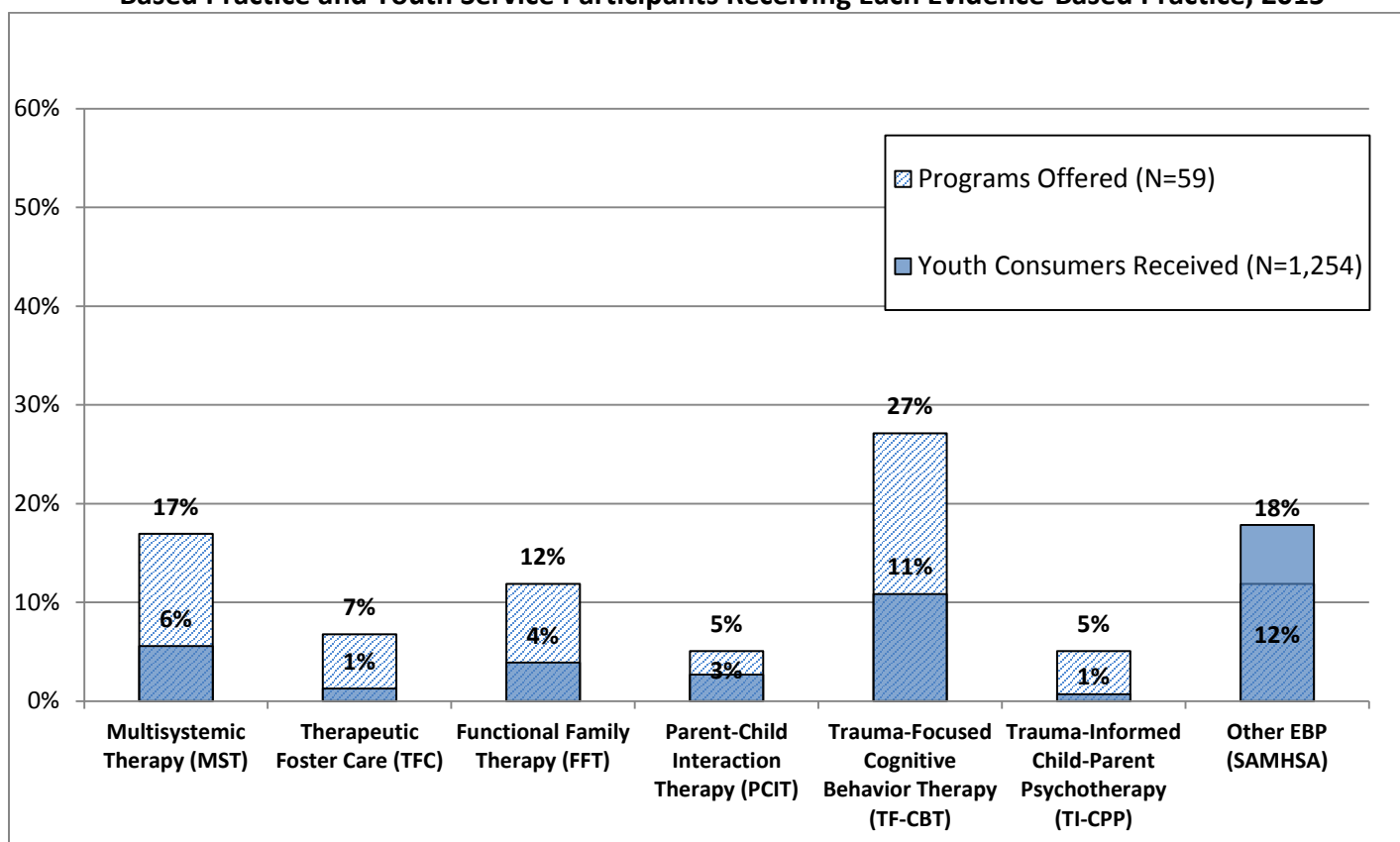


Source: 2015 Comprehensive Community Services Program Survey, DHS.

### Use of Evidence-Based Practices in Comprehensive Community Services – Youth

Similar analyses of data are provided below for Comprehensive Community Services programs (n=59) offering evidence-based practices to youth (n= 1,254).<sup>iii</sup> As shown in Figure 29., trauma-focused cognitive behavioral therapy followed closely by other evidence-based practices, and multisystemic therapy are offered by the largest proportion of Comprehensive Community Services programs although, similar to adult evidence-based practices, all youth evidence-based practices are offered by a relatively small proportion of Comprehensive Community Services programs and are received by an even smaller proportion of participants. Also somewhat similar to adults, youth are served by a relatively high proportion of evidence-based practices listed under other evidence-based practices (for example, motivational interviewing).

**Figure 29: Percent Comprehensive Community Services Programs Offering Each Evidence-Based Practice and Youth Service Participants Receiving Each Evidence-Based Practice, 2015**



Source: 2015 Comprehensive Community Services Program Survey, DHS.

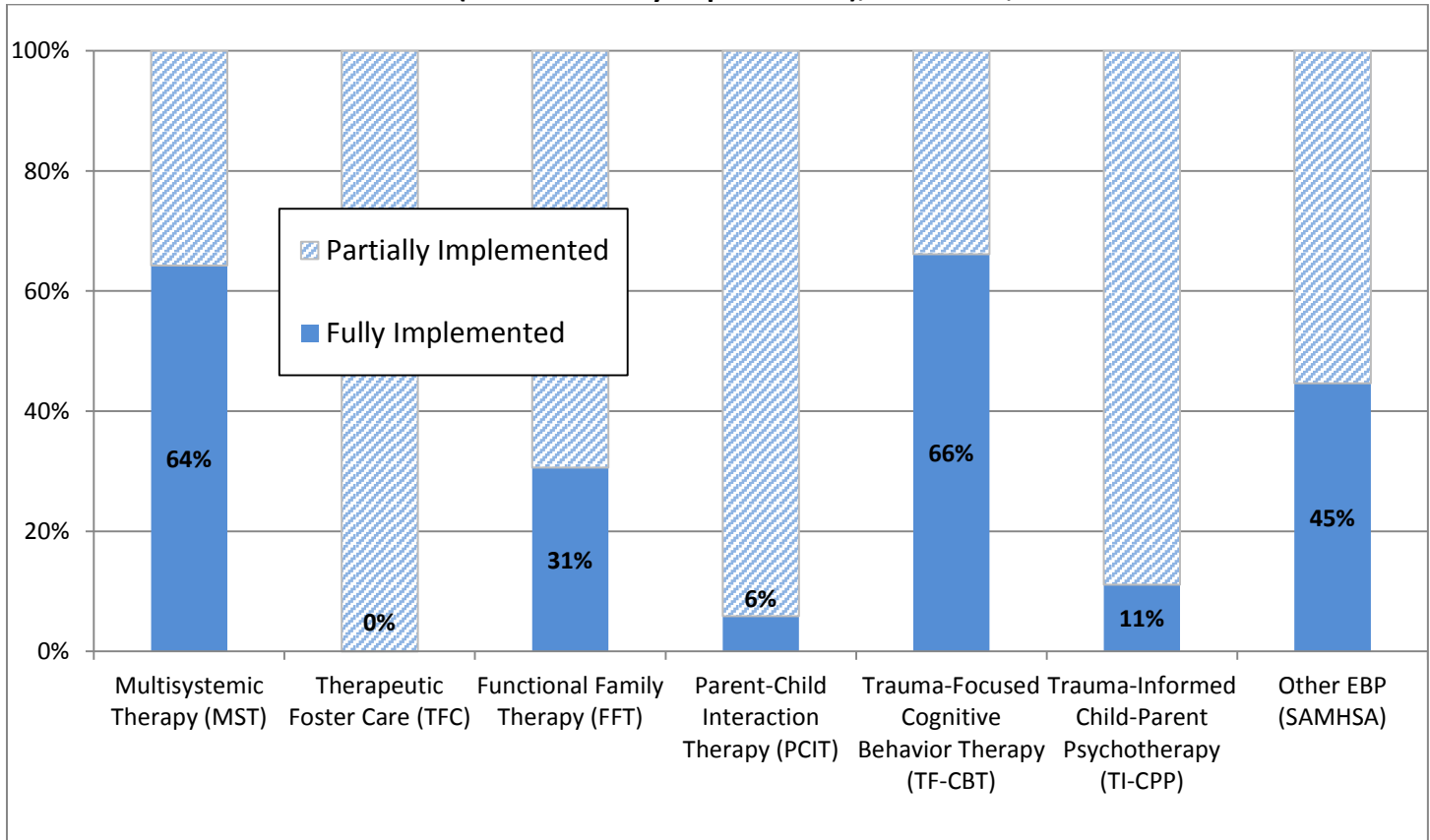
Notes: While some youth are reported as being served under adult evidence-based practices, percentages for youth received use the total youth reported as served as the baseline for this calculation. Some participants may have received more than one evidence-based practice in 2015.

Similar to adults, many youth participants in Comprehensive Community Services are receiving only partially implemented evidence-based practices or evidence-based practices that only

<sup>iii</sup> Cross-year comparisons of this data have been omitted because data on youth evidence-based practices was not collected until 2015.

include some of the core elements of their model as shown in Figure 30. The exception to this is that nearly one-third of participants are served under fully implemented, trauma-focused, cognitive behavioral therapy and multisystemic therapy programs, respectively.

**Figure 30: Percent Service Participants Served Under Fully Implemented, Evidence-Based Practice (versus Partially Implemented), Wisconsin, 2015**



Source: 2015 Comprehensive Community Services Program Survey, DHS.

Note: Some participants may have received more than one evidence-based practice in 2015.

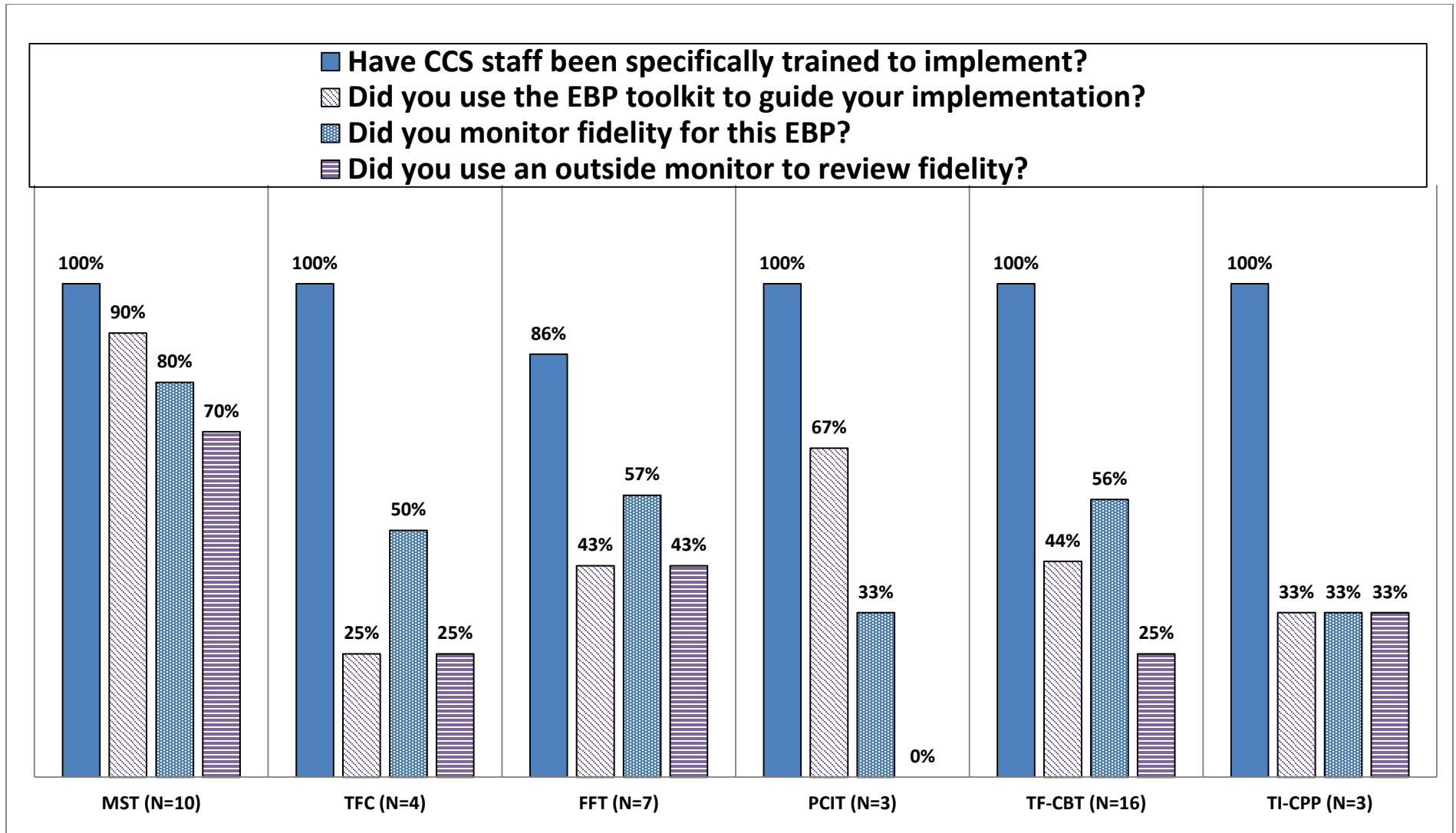
Figure 31 demonstrates that, unlike adult evidence-based practices, all Comprehensive Community Services programs offering youth evidence-based practices have staff trained to implement these respective evidence-based practices. However, similar to adult evidence-based practices, a much lower proportion of these evidence-based practices use evidence-based practice toolkits for their implementation, monitor their fidelity, or use an outside monitor to review their fidelity. The exception to this is that multisystemic therapy has the highest proportion of fidelity checks in place with over two-thirds of programs having all respective fidelity checks in place.

In summary, data on youth evidence-based practices offered in Comprehensive Community Services suggest that additional evidence-based practices beyond the most common are being implemented by program providers. Similar to adult evidence-based practices, a wide degree of variation exists in the level of fidelity and completeness of implementation of evidence-based



practices offered to youth. The implementation model used for multisystemic therapy appears to be the most promising as youth in this intervention are most likely to receive services under a high-fidelity model.

Figure 31: Percent of Comprehensive Community Services Youth Evidence-Based Practices Implemented with Fidelity Checks, Wisconsin 2015



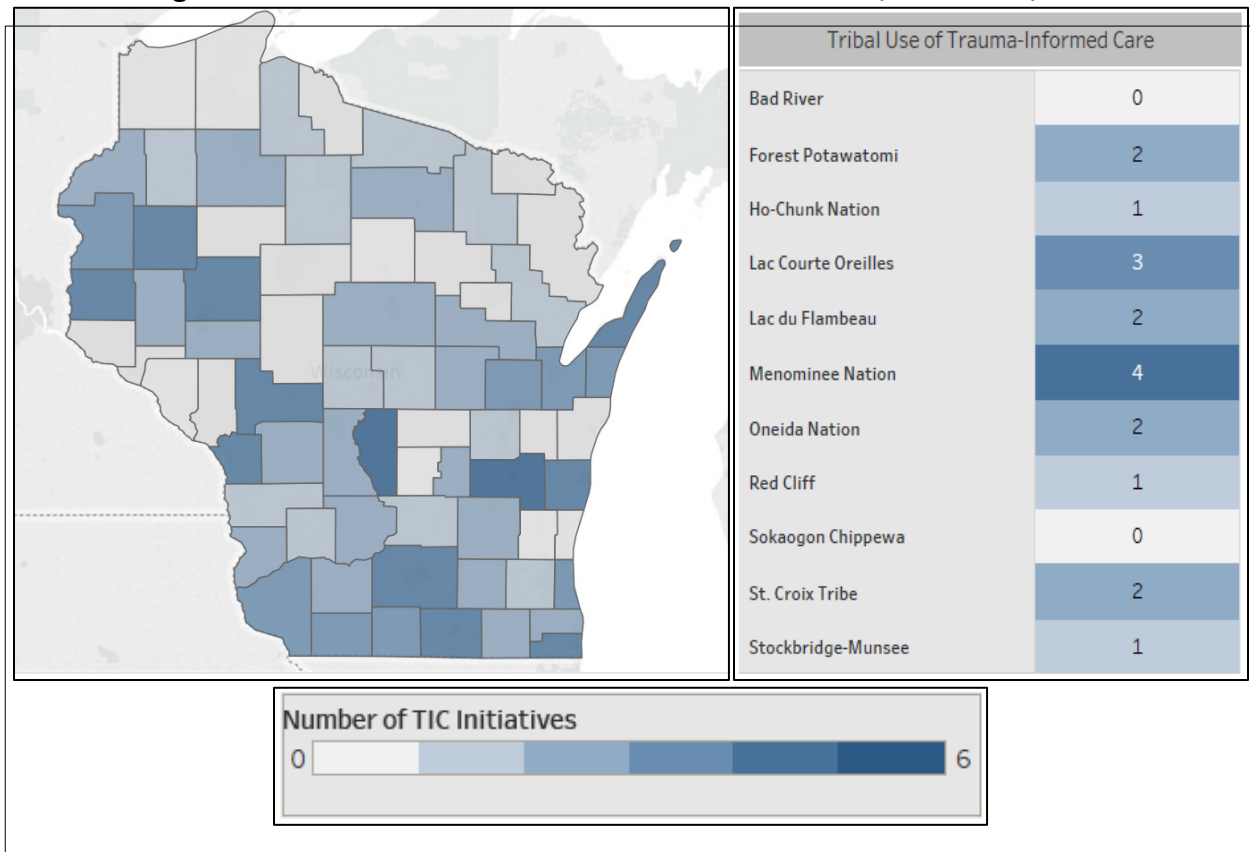
Source: 2015 Comprehensive Community Services Program Survey, DHS.

## Trauma-Informed Care

Evidence suggests that in the U.S., 61 percent of men and 51 percent of women experience at least one lifetime traumatic event. This figure jumps to 90 percent when examining public behavioral health clients. The physical and emotional harm from lifetime and childhood traumatic events or experiences may have lasting adverse effects on lifetime functioning and well-being.<sup>21</sup> Furthermore, research suggests that factors such as incidence and duration of childhood trauma may be some of the most significant predictors that a person will have mental health problems later in life.<sup>22</sup>

In order to address trauma and ensure Wisconsin’s systems of care are trauma-informed, several stakeholders have taken steps to ensure Wisconsin’s workforce is appropriately trauma-informed and able to provide trauma-sensitive services. In fact, DHS has a trauma-informed care coordinator. In 2016, the trauma-informed coordinator held 38 training sessions and presentations for external audiences attended by 2,700 people. In 2015, the Wisconsin Children’s Mental Health Collective Impact Trauma-Informed Care Workgroup organized by the Office of Children’s Mental Health issued a survey to county social service providers regarding the application of trauma-informed care. The map below presents data from this self-report survey. The most current data is available is online.

**Figure 32: Number of Trauma-Informed Care Initiatives, Wisconsin, 2015**



Source: The Wisconsin Children’s Mental Health Collective Impact Trauma-Informed Care Workgroup (2015). Retrieved on May 24, 2017: <https://children.wi.gov/Pages/Integrate/TICMap.aspx>

## V. Service Participant Outcomes

The purpose of this section is to present data on potential improvements in service outcomes for individuals who participate in the county mental health services system.

### Service Participants' Satisfaction with Mental Health Services for Adults and Youth

Every year DHS distributes a satisfaction survey to a random sample of adults and parents or caregivers of youth served in the county mental health system across the state. This questionnaire is a version of the federally approved Mental Health Statistical Improvement Project survey and is administered to adult participants with serious mental illness and the primary caregivers of youth ages 6-17 years old. A statistical method is applied to combine survey items into five summative domains. These domains include:

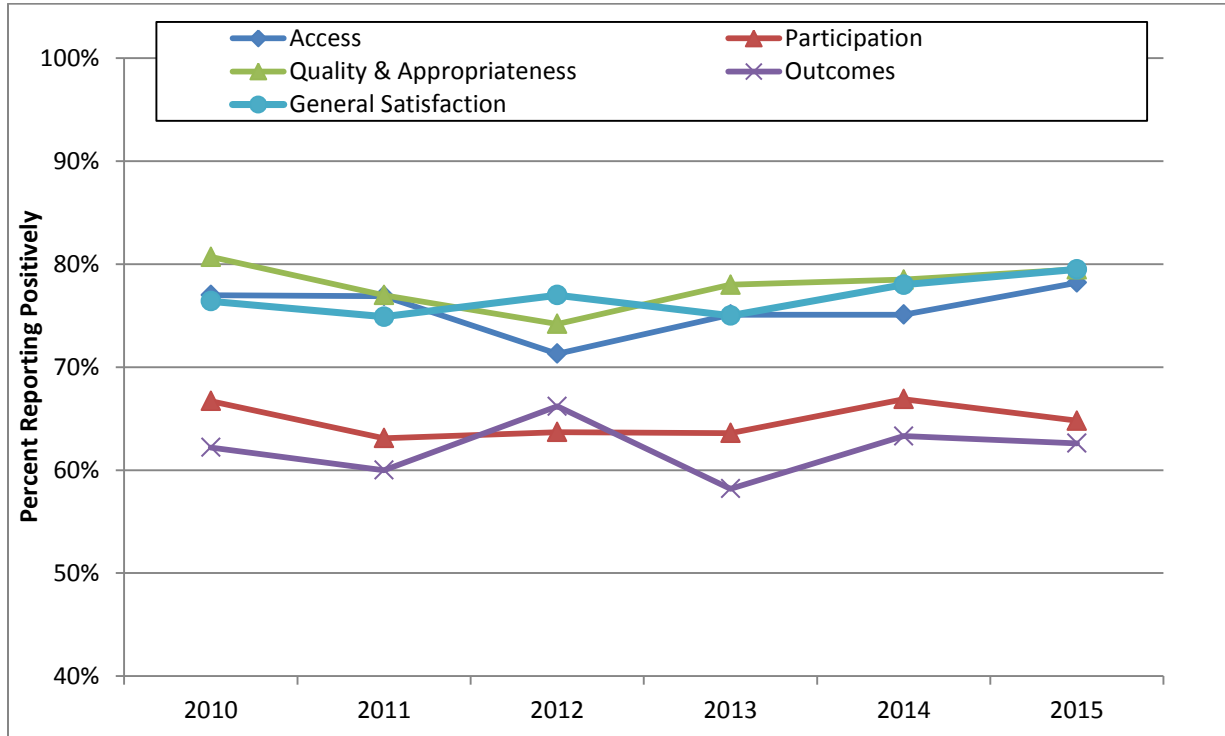
- Access to services (*Access*).
- Participation in treatment planning (*Participation*).
- Social connectedness (*Social Connect*).<sup>iv</sup>
- Treatment outcomes (*Outcomes*).
- Overall satisfaction with services (*Overall*).
- Quality and appropriateness of services of adults only (*Quality*).
- Improved level of functioning as a result of treatment (*Functioning*).
- Cultural sensitivity of staff providers of youth only (*Culture*).

For adults (Figures 33 and 34), trends in satisfaction levels have remained fairly steady through time, although satisfaction has been higher for service participants' perception of their access to services, the quality and appropriateness of those services, and general satisfaction with those services. Overall, adults have been less satisfied with their treatment outcomes, participation in treatment planning, improved functioning, and social connectedness.

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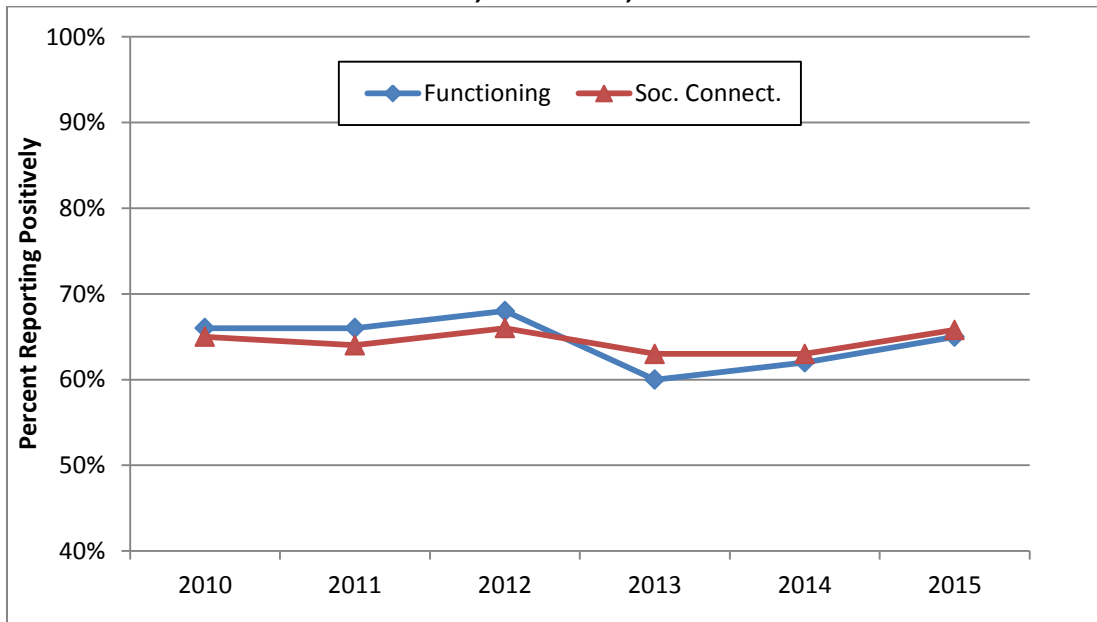
<sup>iv</sup> In contrast to other domains on the youth survey, the social connectedness questions ask the parent or guardian to respond based on *their own* social connectedness, rather than the connectedness of the youth receiving services.

**Figure 33: Adult Positive Perceptions of Mental Health Services by Domain and Year, Wisconsin, 2010-2015**



Source: Annual Mental Health Statistical Improvement Project satisfaction surveys, DHS.

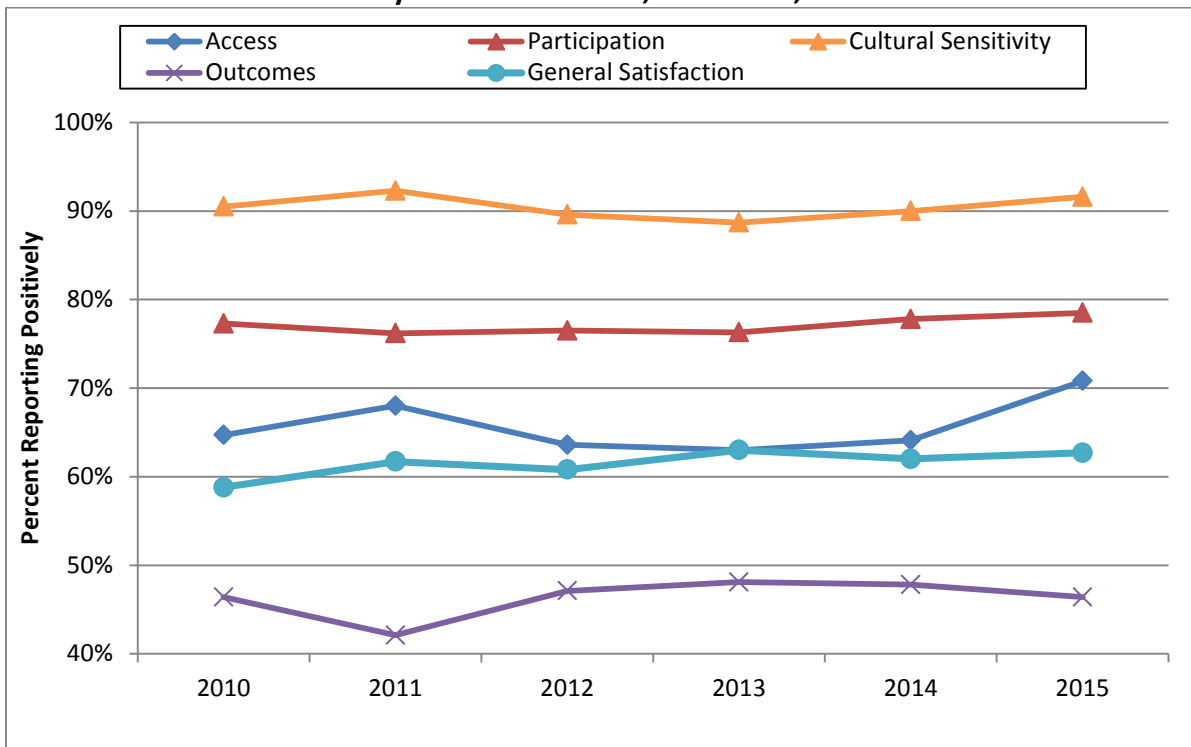
**Figure 34: Adult Positive Perceptions of Mental Health Services by Domain and Year, Continued, Wisconsin, 2010-2015**



Source: Annual Mental Health Statistical Improvement Project satisfaction surveys, DHS.

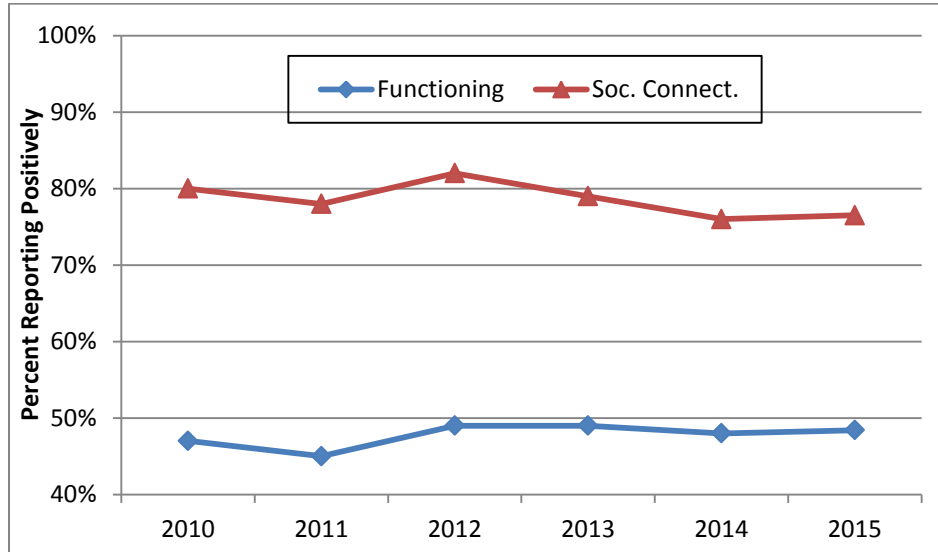
For parents or caregivers of youth in mental health services (Figures 35 and 36), trends in satisfaction levels have remained fairly steady through time although relative satisfaction levels across each of the domains is rather variable. While perceived satisfaction with the cultural sensitivity of mental health service providers is rather high, satisfaction with the outcomes of these services and improved functioning is relatively low.

**Figure 35: Caregivers of Youth Service Participants Positive Perceptions of Mental Health Services by Domain and Year, Wisconsin, 2010-2015**



Source: Annual Mental Health Statistical Improvement Project satisfaction surveys, DHS.

**Figure 36: Caregivers of Youth Service Participant Positive Perceptions of Mental Health Services by Domain and Year, Continued, Wisconsin, 2010-2015**



Source: Annual Mental Health Statistical Improvement Project satisfaction surveys, DHS.

Comparisons across adults and parents or caregivers of youth reveal that adults are approximately 10 percent less likely to feel as though they are participating in their services, while caregivers of youth are approximately 20 percent less likely to feel as though their child’s outcomes are improving as a result of their services, and approximately 15 percent less likely to have been generally satisfied with their child’s services. Also striking is the substantial difference in caregivers of youth satisfaction with their improvement in levels of functioning, which is approximately 15 percentage points lower than adults on the same measure. In contrast, caregivers of youth are substantially more likely to view their own social connectedness as improving as a result of the services their child receives.

**Differences in Adult Participant Satisfaction with Mental Health Services across Different Characteristic Groups**

There are potential disparities in the effectiveness and quality of mental health services across various social and demographic groups. Figure 37 presents pooled data from adult Mental Health Statistical Improvement Project surveys across 2013, 2014, and 2015 to examine associations of participant characteristics with a perceived satisfaction status (“Satisfied” or “Unsatisfied-Neutral”) for each respective domain represented in the surveys.<sup>v</sup> Similar to the above analyses, a binary outcome is analyzed for each participant satisfaction domain (“Satisfied” at all versus “Not satisfied at all” or “Neutral”). A chi-square test of independence was performed to determine if participant characteristic categories and participant satisfaction

<sup>v</sup> Sample sizes and differences in methodologies across past service participant satisfaction surveys limited this analysis to adults only. In the future data will allow for an analysis to include youth service participant satisfaction data.

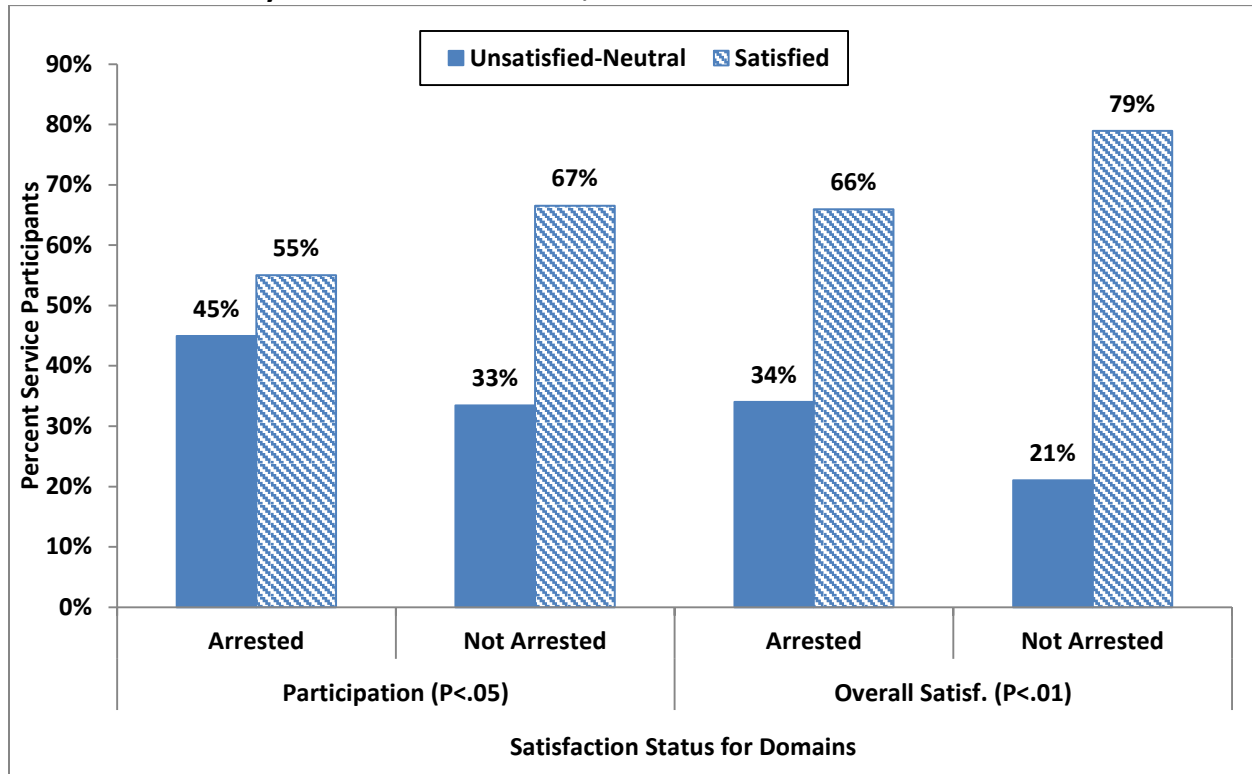
status categories are significantly related. If a statistically significant relationship was found, cross-tabulations of results are displayed in both graphical and table format along with significance levels reported in parentheses (for example,  $P < .05$ ).

The first group of participant characteristics examined was across gender categories of male or female, which were reported through the Program Participation System. No significant results were found suggesting that male and female adult participants do not substantially differ in their satisfaction with mental health services.

The second group examined was across criminal justice status, which was indicated in survey items asking whether the participant had been arrested for committing any offense(s) in the last two years. Results suggest that there is a significant association between criminal justice system involvement and participant satisfaction, whereby participants who reported being arrested in the past two years are less likely to be satisfied with their access to services, participation in service planning, or have improved functioning as a result of their services ( $p < .05$ ). This association is even more likely when we examine general levels of satisfaction ( $p < .01$ ).



**Figure 37: Adult Satisfaction with Mental Health Services among Statistically Significant Domains by Criminal Justice Status, Wisconsin Pooled Data Across 2013-2015**



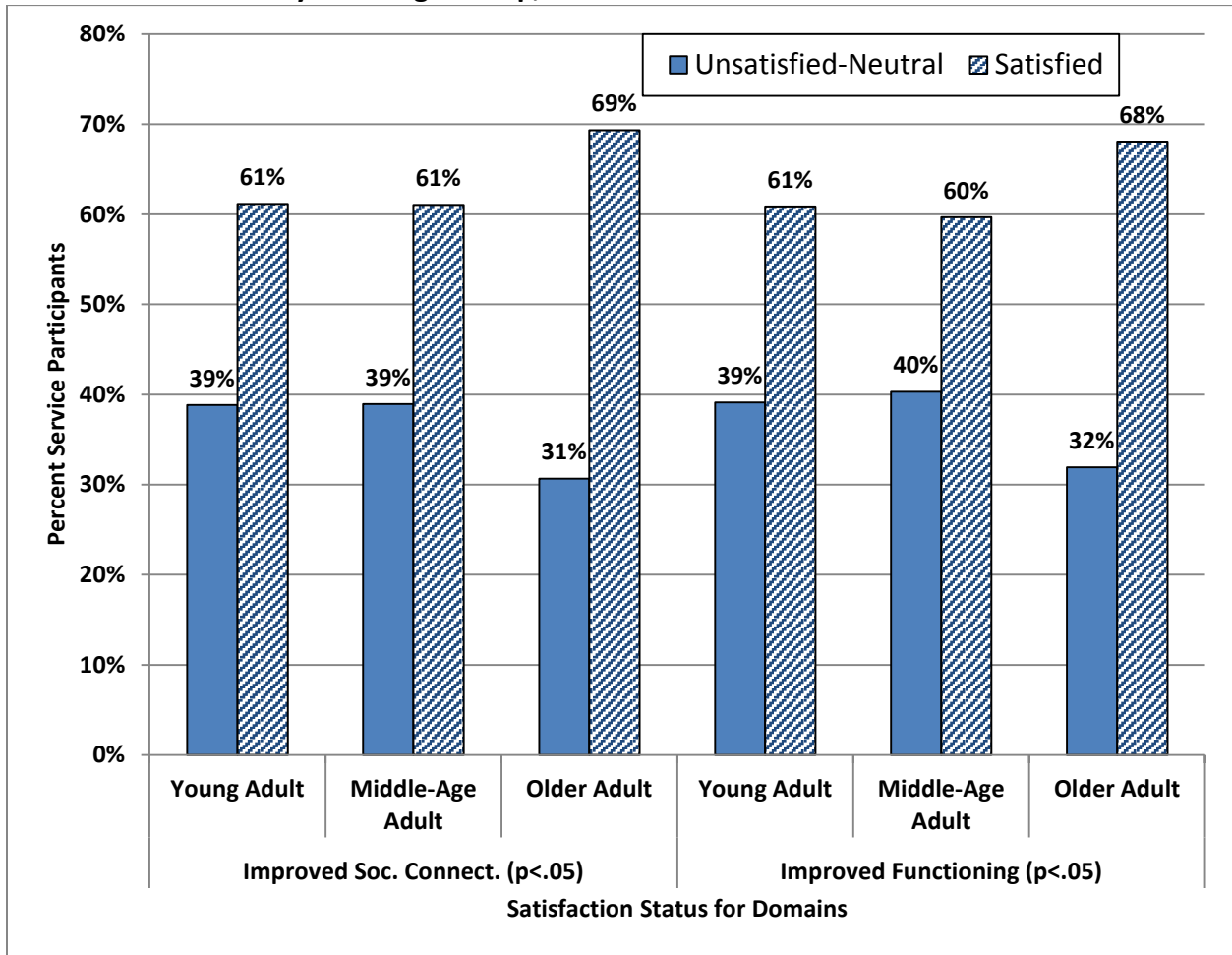
Source: Annual Mental Health Statistical Improvement Project satisfaction surveys, DHS.

The third group examined was across racial categories, which were reported through the Program Participation System as Asian, African American, American Indian, Pacific Islander, or White. Even after conducting further analysis with combined racial categories, no significant results were found suggesting that perceptions of mental health service participant satisfaction do not substantially differ across reported racial groups.

The fourth group examined was across adult age groups (Figures 38 and Table 25).<sup>vi</sup> Results suggest that there is a significant association between adult age group and service participant satisfaction whereby young adults (followed by middle-aged adults) are the least likely to have improved social connection or improved functioning as a result of their services (P<.05). This association is even more likely when we examine access to services, improved outcomes, or general levels of satisfaction (p<.01).

<sup>vi</sup> Age groups were calculated using service participants' dates of birth as reported through the Program Participation System and defined as a service participant's age at the approximate time of survey administration for each respective survey. The three age categories included young adult (18-25 years), middle-aged adults (26-55 years), and older adults (56 years and older).

**Figure 38: Adult Satisfaction with Mental Health Services among Statistically Significant Domains by Adult Age Group, Wisconsin Pooled Data Across 2013-2015**



Source: Annual Mental Health Statistical Improvement Project satisfaction surveys, DHS.

**Table 25: Service Participant Satisfaction by Age Group**

Domain	Perceived Satisfaction Status	Adult Age Category					
		Young (18-35)		Ages 36-55		Older (56+)	
		Count	Percent	Count	Percent	Count	Percent
Access (P<.01)	Unsatisfied-Neutral	81	38.9%	109	21.3%	58	17.6%
	Satisfied	127	61.1%	403	78.7%	272	82.4%
Outcomes (P<.01)	Unsatisfied-Neutral	91	44.8%	201	41.4%	92	30.2%
	Satisfied	112	55.2%	285	58.6%	213	69.8%
General Satisfaction (P<.01)	Unsatisfied-Neutral	71	34.1%	114	22.0%	53	15.9%
	Satisfied	137	65.9%	404	78.0%	280	84.1%
Social Connectedness (P<.05)	Unsatisfied-Neutral	80	38.8%	197	38.9%	100	30.7%
	Satisfied	126	61.2%	309	61.1%	226	69.3%
Improved Functioning (P<.05)	Unsatisfied-Neutral	81	39.1%	204	40.3%	105	31.9%
	Satisfied	126	60.9%	302	59.68%	224	68.1%

In summary, these results suggest that those least satisfied with their mental health services are young adults and those involved in the criminal justice system. In addition, young adults are particularly more likely to be less satisfied with their access to services and outcomes as a result of these services.

### **Inpatient Hospital Readmissions**

County mental health agencies handle many acute crises, including the authorization of all emergency detentions. All emergency detentions and voluntary psychiatric hospitalizations are combined in county-reported data to examine hospital 30-day readmissions. A readmission within 30 days of an initial hospitalization may indicate the participant’s acute needs could not be met during the first hospitalization or that the service participant was not connected with community mental health services after their first hospitalization that may have prevented the readmission. Reducing readmissions with select counties has been the focus of a DHS project for the last seven years.

The statewide 30-day readmission rate has varied from about 7.7 to 9.7 percent over the last five years and has not declined; the state fiscal year 2016 readmission rate was at 9.6 percent. Each county’s readmission rate over the last five years is displayed in Table 26 below. Great variability existed across counties in state fiscal year 2016 from 0.0 to 24.6 percent indicating high-rate counties could possibly improve their rates by examining best practices used in low-rate counties.

Analyses by gender and race did not indicate significant differences in the state fiscal year 2016 rates. However, youth 30-day readmission rates (11.6 percent) were significantly higher than adult rates (9.5 percent). In addition, the rate of youth readmissions occurring after 30 days (16.3 percent) was also significantly higher than the comparable adult rates (10.7 percent). A workgroup of staff from multiple state agencies, county providers, and advocates led by the Wisconsin Office of Children's Mental Health have been discussing options to lower youth psychiatric hospitalization rates for over two years, including a focus on increasing access to community alternatives to hospitalization.

**Table 26: 30-Day Psychiatric Inpatient Readmission Rates by County**

	State Fiscal Year 2012	State Fiscal Year 2013	State Fiscal Year 2014	State Fiscal Year 2015	State Fiscal Year 2016
County Agency	Readmit Rate	Readmit Rate	Readmit Rate	Readmit Rate	Readmit Rate
Adams	3.9%	5.9%	12.3%	6.5%	13.2%
Ashland	11.1%	0.0%	0.0%	24.2%	24.6%
Barron	4.7%	7.1%	0.0%	7.7%	3.8%
Bayfield	7.3%	0.0%	0.0%	0.0%	3.8%
Brown	9.9%	11.6%	12.8%	14.0%	9.8%
Buffalo	0.0%	0.0%	8.3%	0.0%	14.3%
Burnett	0.0%	0.0%	20.0%	0.0%	0.0%
Calumet	3.0%	3.6%	0.0%	5.7%	3.8%
Chippewa	0.0%	4.5%	3.8%	15.0%	0.0%
Clark	5.3%	8.8%	3.1%	13.5%	16.0%
Columbia	5.1%	5.1%	6.4%	9.3%	13.4%
Crawford	9.5%	10.0%	0.0%	7.7%	7.1%
Dane	11.1%	9.4%	14.9%	9.1%	13.6%
Dodge	6.4%	5.2%	9.2%	4.7%	8.9%
Door	8.6%	5.6%	11.1%	0.0%	0.0%
Douglas	0.0%	0.0%	0.0%	20.0%	0.0%
Dunn	14.3%	16.7%	0.0%	8.3%	11.8%
Eau Claire	0.0%	0.0%	5.9%	5.7%	5.3%
Florence	0.0%	0.0%	0.0%	0.0%	0.0%
Fond du Lac*	6.8%	9.7%		7.7%	13.9%
Human Service Center*	5.7%	4.3%	8.1%	8.0%	7.5%
Grant and Iowa	5.2%	2.3%	5.7%	8.8%	12.4%
Green	4.3%	0.0%	5.4%	11.1%	3.4%
Green Lake	3.4%	8.7%	4.5%	0.0%	4.3%
Iron	20.0%	0.0%	0.0%	0.0%	0.0%
Jackson	0.0%	6.7%	13.3%	0.0%	0.0%
Jefferson	11.3%	5.9%	9.2%	10.9%	5.5%
Juneau	0.0%	0.0%	3.0%	7.3%	10.5%
Kenosha	4.3%	8.5%	11.3%	7.2%	5.5%
Kewaunee	0.0%	27.3%	0.0%	10.0%	0.0%
La Crosse	6.3%	2.3%	3.7%	6.9%	7.3%
Lafayette	13.3%	14.3%	14.3%	5.3%	9.5%
North Central Health Care*	1.2%	2.8%	6.4%	7.8%	7.8%
Manitowoc	5.8%	3.8%	11.1%	13.3%	6.9%
Marinette	6.1%	10.9%	8.7%	3.1%	0.0%

	State Fiscal Year 2012	State Fiscal Year 2013	State Fiscal Year 2014	State Fiscal Year 2015	State Fiscal Year 2016
County Agency	Readmit Rate	Readmit Rate	Readmit Rate	Readmit Rate	Readmit Rate
Marquette	0.0%	13.0%	13.3%	6.7%	13.6%
Menominee	9.1%	5.9%	8.1%	5.3%	9.7%
Milwaukee	11.2%	12.4%	6.0%	10.4%	8.8%
Monroe	0.0%	7.3%	7.7%	22.2%	13.5%
Oconto	7.7%	9.1%	5.3%	10.0%	15.6%
Outagamie	5.0%	6.9%	5.1%	7.3%	11.1%
Ozaukee	0.0%	13.6%	12.0%	2.8%	15.4%
Pepin	0.0%	0.0%	0.0%	0.0%	0.0%
Pierce	0.0%	0.0%	0.0%	10.0%	0.0%
Polk	9.0%	2.9%	0.0%	10.0%	0.0%
Portage	7.3%	16.7%	5.1%	13.5%	15.2%
Price	12.0%	6.3%	5.0%	6.9%	0.0%
Racine	9.5%	6.7%	8.3%	9.5%	4.8%
Richland	0.0%	0.0%	10.5%	13.6%	20.0%
Rock	6.8%	2.4%	11.4%	12.8%	6.1%
Rusk	22.2%	20.0%	0.0%	0.0%	0.0%
Sauk	6.3%	2.8%	9.5%	6.3%	4.3%
Sawyer	3.3%	1.1%	11.1%	28.6%	21.6%
Shawano	5.5%	0.0%	7.1%	5.8%	7.8%
Sheboygan	14.1%	9.4%	11.5%	11.9%	12.2%
St. Croix	5.3%	1.4%	0.0%	7.5%	4.5%
Taylor	9.5%	0.0%	18.2%	8.7%	6.7%
Trempealeau	6.7%	11.8%	4.2%	0.0%	11.1%
Vernon	9.5%	0.0%	0.0%	4.8%	0.0%
Walworth	3.5%	7.2%	3.8%	5.5%	7.7%
Washburn	9.1%	0.0%	0.0%	0.0%	0.0%
Washington	4.5%	7.0%	8.3%	7.6%	4.5%
Waukesha	6.1%	6.2%	10.2%	7.4%	8.0%
Waupaca	6.0%	3.4%	6.5%	6.0%	7.4%
Waushara	7.9%	3.1%	0.0%	4.5%	11.5%
Winnebago	10.9%	7.9%	7.8%	8.3%	13.9%
Wood	7.9%	8.7%	14.3%	11.6%	16.7%
<b>State Totals</b>	<b>8.1%</b>	<b>7.7%</b>	<b>8.6%</b>	<b>9.7%</b>	<b>9.6%</b>

\*Human Services Center: Forest, Oneida, Vilas; North Central Health Care: Langlade, Lincoln, Marathon

- Data include voluntary inpatient hospitalizations and emergency detentions.
- Data reported by the counties and state mental health institutes.
- Fond du Lac inpatient data submitted incorrectly and could not be used in state fiscal year 2014.

## Reason for Discharge from County Mental Health Services

Although lacking detail, the reason a participant in county mental health services is discharged can provide a broad overview of their progress and final status. Overall, according to providers, 30 percent of participants completed the services that were planned for them—23 percent completed services with changes in their mental health and/or functional status and 6 percent completed services with no change. One-third of participants were referred for services elsewhere. For 23 percent of participants, the county agency initiated the discharge due to a variety of potential reasons such as participant noncompliance or lack of funding.

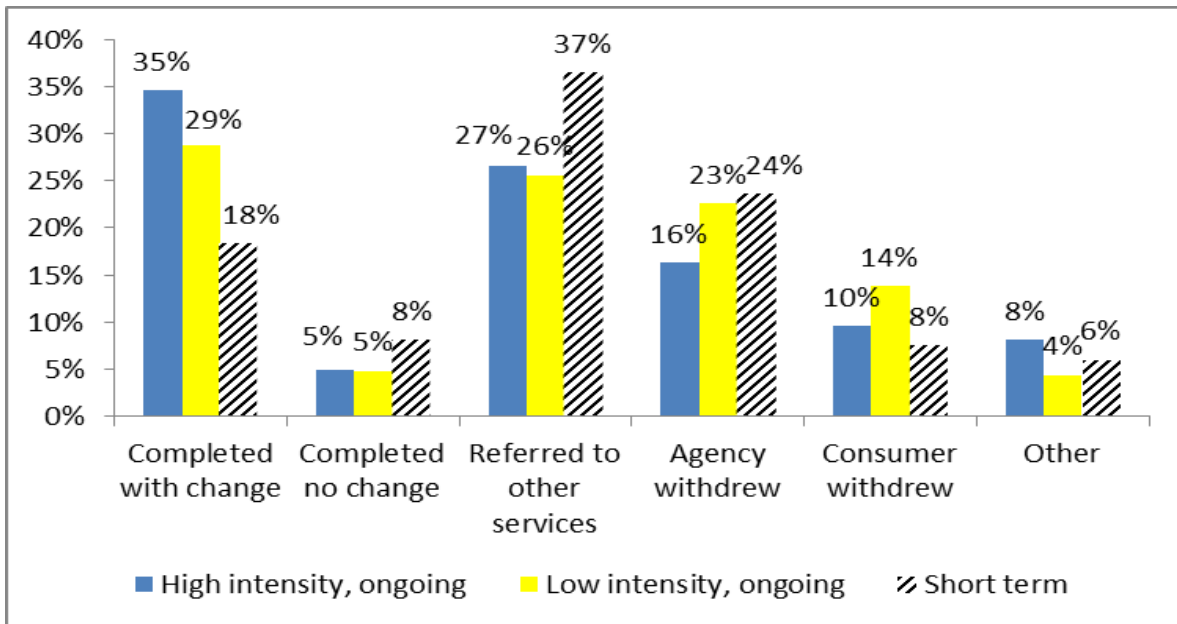
Participants' assessed level of need at enrollment is related to their final status at discharge. In other words, discharge reasons for participants with high-intensity, ongoing needs vary somewhat from participants with more short-term needs. In Figure 39, reasons for discharge are examined for participants with high-intensity ongoing needs, low-intensity ongoing needs, and short-term situational needs.<sup>vii</sup>

Participants with short-term needs are more likely (37 percent) to be referred elsewhere for additional services at discharge than participants who had ongoing needs for services (27 percent). While counties serve many participants with ongoing community services who start with more short-term acute services, this result implies a significant proportion of short-term acute participants are also referred elsewhere for ongoing services. The short-term group of participants is also less likely to complete services with significant change to their condition (18 percent) relative to participants with high-intensity ongoing needs (35 percent). The low rate of change for participants with short-term needs implies additional services were needed.

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<sup>vii</sup> Participants who receive acute services only, such as crisis or inpatient hospitalization, are included in the “short-term” group due to the brief duration of their services even though their level of need could be high.

**Figure 39: Discharge Reason by Participant Level of Need - 2016**

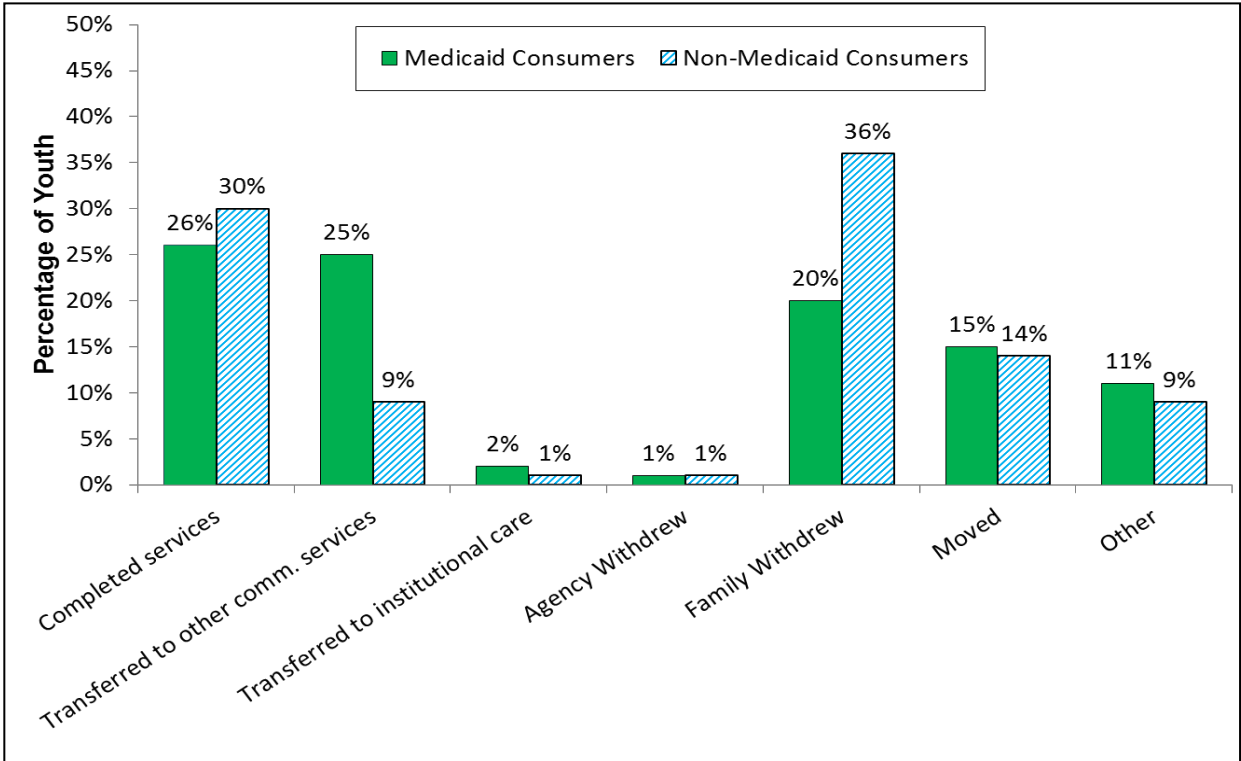


Source: Program Participation System, DHS.

Another source of discharge reason data for youth in Coordinated Services Teams Initiatives indicates Medicaid enrollment also can impact a participant’s final status. Youth using Medicaid as a payer for some of their services were significantly more likely to transfer to other ongoing community services at discharge and significantly less likely to initiate a withdrawal from services (Figure 40). The financial coverage of Medicaid enrollees may ease the transition to other services when needed for youth and families. No differences in discharge reason existed for youth by gender, age, or diagnosis.



**Figure 40: Coordinated Services Teams Youth Discharge Reason for Medicaid vs. Non-Medicaid Participants**



Source: Program Participation System, DHS.

# Substance Use

## Substance Use Executive Summary

- Adult use of alcoholic beverages across Wisconsin has not changed and remained above the national average in 2015.
- Wisconsin adult heavy drinking occasions (binge drinking) also remained above the national average in 2015.
- Wisconsin youth alcohol use was down in 2015 and is similar to the national average.
- In 2015, there was an upturn in alcohol-related traffic crashes and fatalities.
- The highest concentrations of alcohol problems are in Vilas, Forest, Adams, Menominee, and Oneida counties, the lowest are in Calumet, Clark, Waukesha, Ozaukee, and Pepin.
- Deaths related to the unhealthy and life-threatening use of alcohol rose to 1,477 in 2015, the highest ever. Drug-related deaths showed a slight leveling off at 821. The average age for these substance-related deaths was mid-50s.
- In 2015, Wisconsin youth were slightly below the national average for rates of illicit drug use.
- The highest concentrations of opioid problems are in Vilas, Marquette, Milwaukee, Kenosha, and Menominee. The lowest concentrations of opioid problems are in Buffalo, Taylor, Pepin, Clark, and Pierce counties.
- Wisconsin remains well below the national average on the rate of new tuberculosis cases.
- In 2014, there were 2,880 new cases of hepatitis C reported and hepatitis C can be found in every Wisconsin county.
- New injection drug use HIV cases remained relatively low at nine in 2015, due largely to clean needle outreach and distribution.
- County-authorized or subsidized, publicly supported substance use services continue to decline by about 4 percent per year, but the need for these services continues to remain substantial.
- Both opioid and methamphetamine service admissions have increased over the past four to seven years.
- Alcohol, opioids, and marijuana, in that order, are the most prevalent substances used by individuals receiving services.
- Wisconsin's treatment gap is estimated to be 78 percent. That is, 78 percent of individuals needing substance use treatment are not seeking or receiving it, totaling over 355,000 individuals statewide.
- In 2015, 11 county agencies indicated that there were individuals who either couldn't get services (114 individuals) or that waited at least two weeks to access services (662 individuals). Services may not be available nearby or county funds were not sufficient.
- White males, people living in urban areas, and those having an alcohol use disorder make up a large percentage of individuals receiving substance use services. Females and youth under age 18 are underserved.
- While the implementation of a regional model for substance use prevention services has helped pool resources and know-how and has vastly improved collaboration and reach of prevention services, many areas of the state have as little as \$2,000 in funding for substance use prevention services.

- Wisconsin continued to provide less residential and intensive outpatient treatment services than the national average.
- While life-saving in nature, the Wisconsin Medicaid program appears to over utilize emergency department and hospitalization for substance use patients.
- Eighteen counties have elevated numbers of injection drug users receiving substance use treatment without close access to an opioid treatment program.
- Every Wisconsin county has opioid-addicted individuals and yet there are 17 counties that do not have access to a buprenorphine prescriber.
- Overall, substance use treatment customers are satisfied with services, found it to be a positive experience, and would recommend services to others.
- In 2015, 52 percent of individuals treated on an outpatient basis completed treatment, exceeding the national average (36 percent). Also in 2015, 75 percent of individuals treated received at least 90 days of treatment, another useful proxy measure of treatment outcomes.
- Disparities in treatment outcome exist among African Americans, American Indians, females, adolescents, and opioid users.

## VI. Prevalence

The purpose of this section is to provide an estimate of the overall prevalence of SUDs; the prevalence or occurrence of selected conditions and consequences of substance use; analysis of substance use trends; comparisons of Wisconsin with national data where available; and identification of disparities in substance use among selected target populations. Measuring the prevalence of needs will help indicate the size of the need and the type of needs that Wisconsin is seeking to address. Establishing how many individuals have a substance abuse need is an important first step before assessing access to services for these needs in the following section. This section of the report also provides a brief overview of data on the prevalence of co-occurring SUDs and MHDs.

A variety of terms and phrases are used throughout this report to describe the addictive, harmful, and illicit use of alcohol and other mood-altering, habit-forming substances. Terms like addiction or dependence refer to essentially the same thing; the person would be eligible for treatment and would have a substance-related addictive disorder. The term substance use is used widely throughout the report and generally refers to the range of harmful, illicit, or addictive alcohol or other drug use.

### **Need for State Activities Relating to Substance Misuse and Addiction**

Alcohol and other drug misuse and addiction are significant health, social, public safety, and economic problems in Wisconsin. Each year in Wisconsin, there are 2,170 deaths, 5,000 traffic crashes, 2,900 traffic injuries, 1,500 cases of child abuse, 93,000 arrests, and annual economic costs totaling \$6.8 billion attributed to substance misuse and addiction. Thirty percent of offenders booked into Wisconsin jails and 60 percent of the prison population have substance use problems. Alcohol and other drug addiction are the fourth leading cause of death in Wisconsin behind heart disease, cancer, and stroke. Substance misuse is the fourth leading cause for hospitalization in Wisconsin (substance misuse-related accidents, alcohol incapacitation, bronchitis, cancer, drug overdose, hypertension, liver disease, and neonatal abstinence syndrome) behind MHDs, heart disease, and cancer. There are an estimated 456,000 individuals in need of treatment for addiction in Wisconsin and just 23 percent of those in need of addiction treatment receive it.

The 2013-2014 National Survey on Drug Use and Health estimates 9.5 percent of individuals aged 12 and older in Wisconsin have an SUD. A person having an SUD means that they meet the screening criteria of a negative pattern of alcohol or other mood-altering drug misuse or addiction, resulting in significant health, social, psychological, or vocational impairment or distress and where intervention or treatment is advised. Table 27 displays the rate and occurrence of substance misuse among Wisconsin residents. Wisconsin's rate of alcohol or drug addiction or dependence exceeds the national rate by 1.3 percent. Wisconsin's rate of alcohol or drug addiction or dependence varies by age group with 18- to 25-year-olds having the highest rate, 20.2 percent, which is 3.4 percentage points higher than the national rate.

**Table 27: Wisconsin Substance Use Prevalence Age 12 and Over, 2013-2014**

<b>Substance Use Measure</b>	<b>Percent</b>	<b>Individuals</b>
<b>Alcohol or Drug Addiction or Dependence</b>	0.5%	456,000
<b>Past Month Binge (heavy occasion) Alcohol Use (5 or more drinks per occasion)</b>	29.8%	1,430,485
<b>Past Year Nonmedical Prescription or Illegal Opioid Use</b>	4.2%	201,610
<b>Past Year Cocaine Use</b>	1.8%	86,400
<b>Past Month Marijuana Use</b>	6.5%	312,020

Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

Table 28 below portrays rates of substance use among youth ages 12-17 – years old. Wisconsin’s rate of youth alcohol/drug addiction or dependence exceeds the national rate by 1.3 percent as well.

**Table 28: Wisconsin Substance Use Prevalence Ages 12-17**

<b>Substance Use Measure</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Alcohol or drug Dependence</b>	8.2%	6.5%	6.2%	6.2%	6.4%	Not Available
<b>Any alcohol use in the past month</b>	17%	14%	15%	15%	14%	11%
<b>Past month marijuana use</b>	6.9%	6.4%	7.8%	7.2%	7.2%	7.6%
<b>Any illegal drug use in the past month</b>	10%	9.3%	9.7%	9.4%	9.3%	Not Available

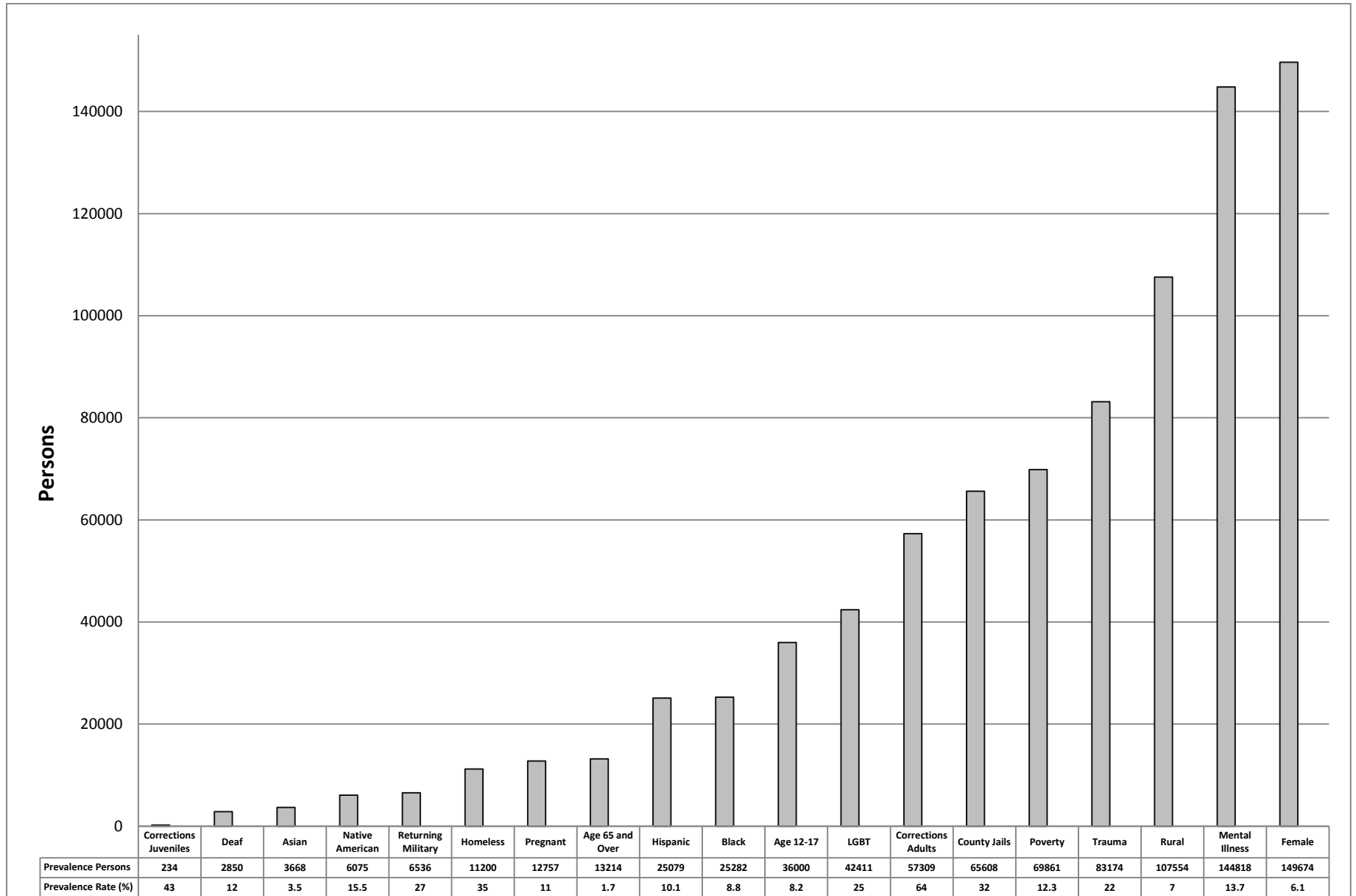
Source: National Survey on Drug Use and Health, 2013-2015, Substance Abuse and Mental Health Services Administration.

## **Substance Use Treatment Need Prevalence among Special Population Groups**

Estimates from the National Survey on Drug Use and Health suggest that rates of substance use disorder vary across different groups and some groups may be of particular interest also due to their projected prominence in the U.S. population.

Figure 41 shows the estimated number of individuals having an SUD for each of 19 selected target populations. The concentration or rate of SUD is highest among corrections, criminal offenders, homeless, returning military personnel, and LGBTQ populations. The total number of individuals having an SUD among our selected special populations is highest among females, individuals having an MHD, rural populations, individuals experiencing severe trauma or trauma-related disorders, and individuals living in poverty. Other populations, such as those who are White, male, living in urban areas, and having an alcohol use disorder, were not included in the chart because they traditionally make up the largest percentage of individuals served by Wisconsin's substance use services system.

**Figure 41: Prevalence Individuals - Occurrence of Substance Use Disorders by Population Group**



Source: See Appendix III: Special Population Group References – Occurrence of Substance Use Disorder Prevalence Rate References

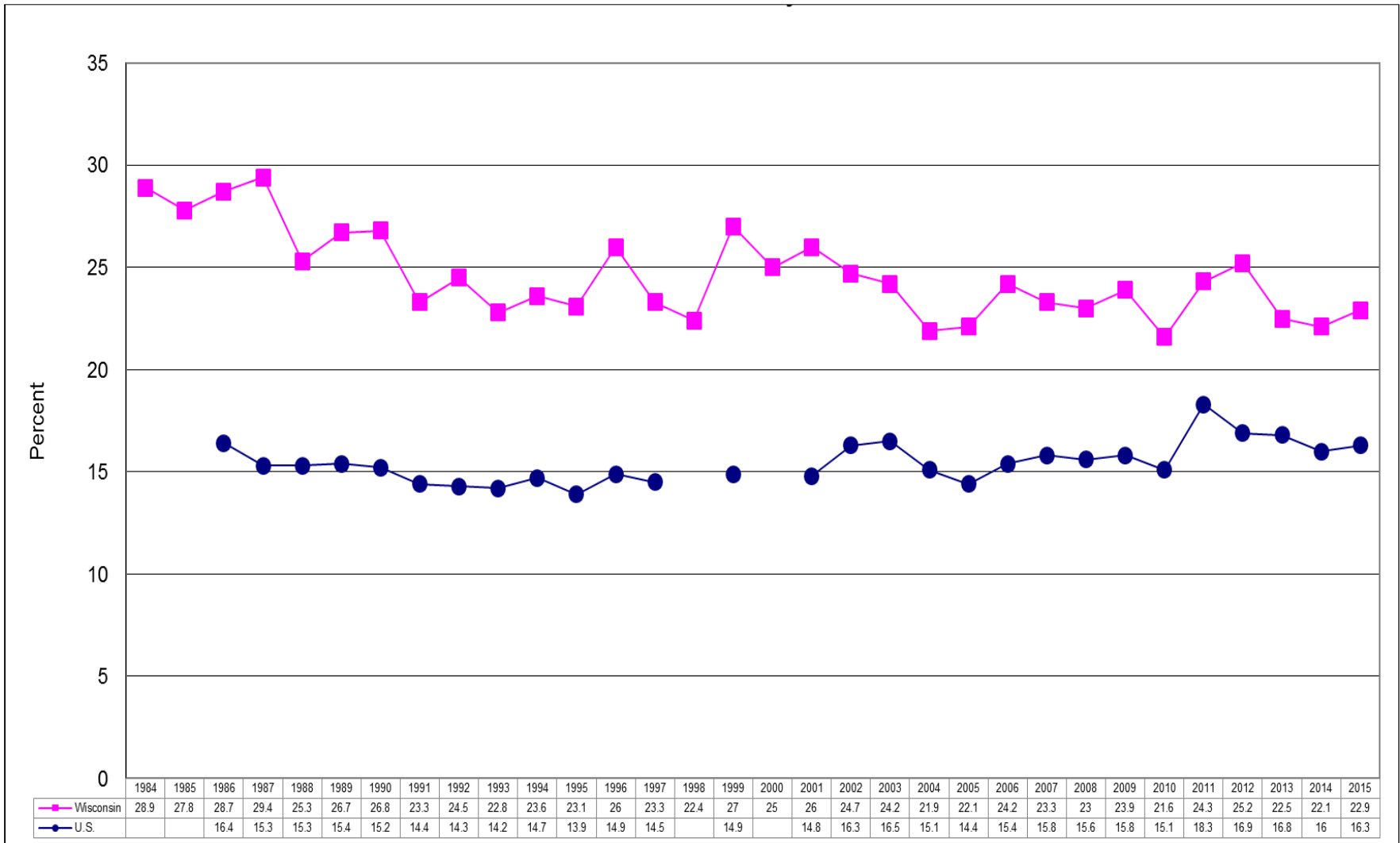


## **Alcohol**

Alcohol (beer, wine, and distilled spirits) is the most often used substance of misuse and addiction in Wisconsin.

Figure 42 presents the percent of adults in the general population who report consuming five or more drinks during an occasion of drinking in the past 30 days. Negative social, health, public safety, criminal justice, and economic impacts occur as a result of binge drinking. The highest rates of Wisconsin adult binge drinking occurred in the mid-1980s—28 percent, compared to 23 percent for the most recent five-year period. Wisconsin continues to exceed the national rate by nearly seven percentage points in binge drinking.

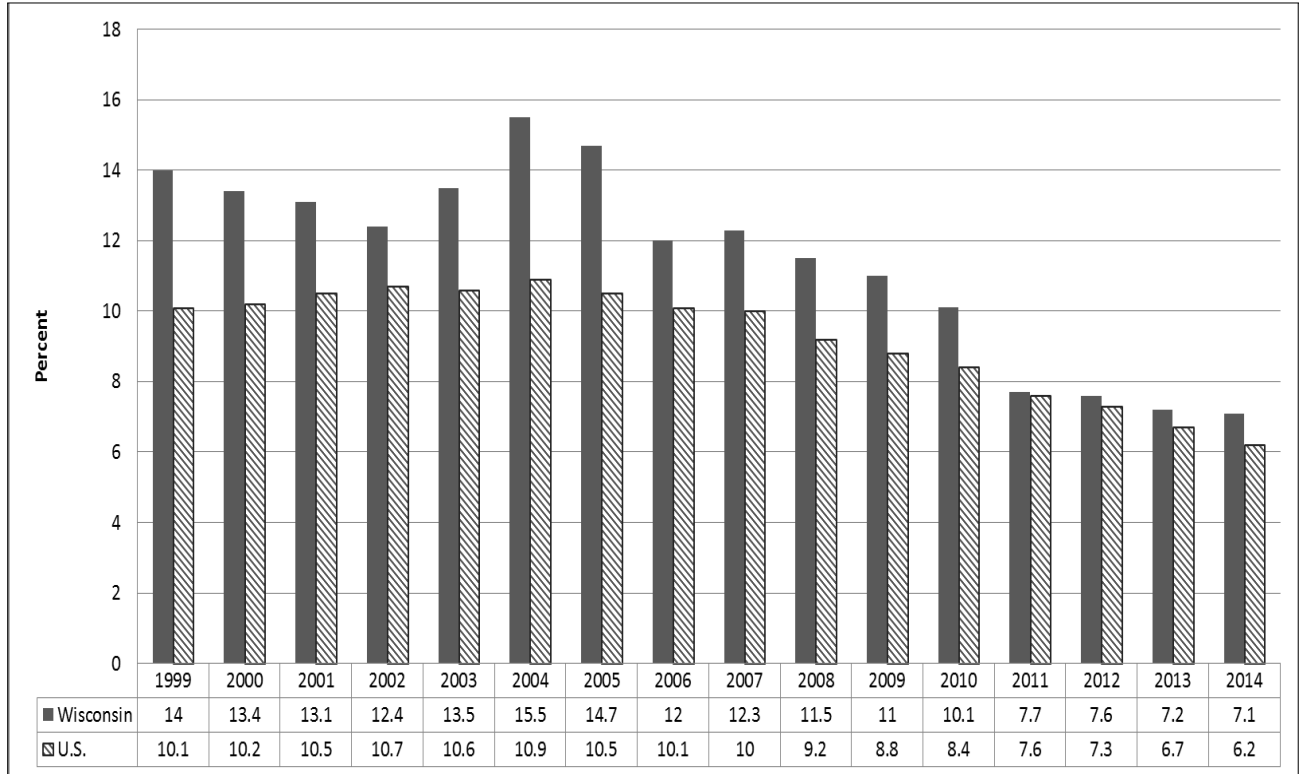
**Figure 42: Heavy Occasion Drinking (binge; 5+ drinks), Adults, Wisconsin and U.S. Averages**



Source: Behavioral Risk Factor Surveillance Survey, Centers for Disease Control and Prevention.

Figure 43 shows the percent of youth who report consuming five or more drinks during an occasion of drinking in the past 30 days. Binge drinking among Wisconsin youth has been declining and the difference between Wisconsin and the U.S. rate has narrowed considerably.

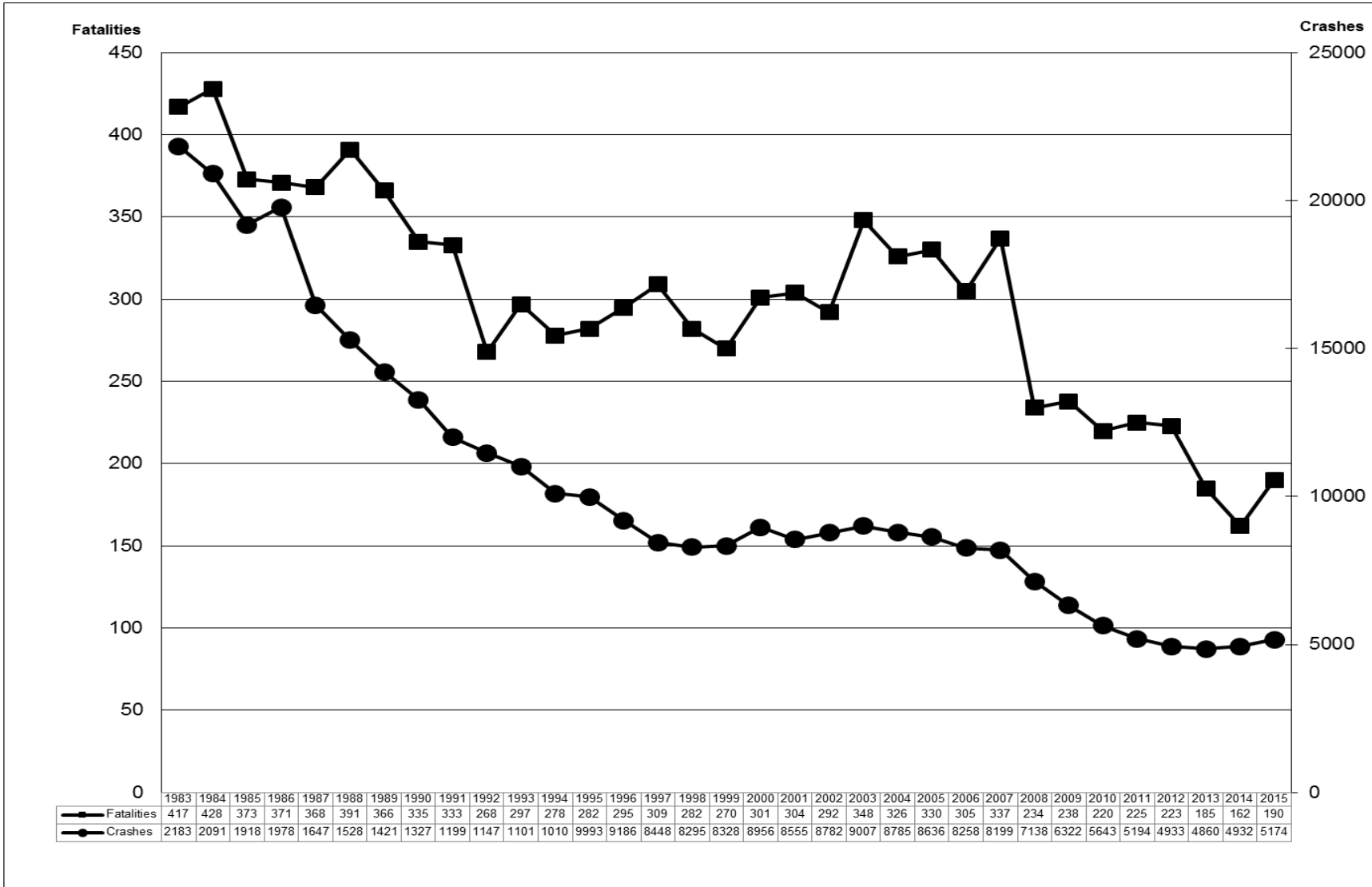
**Figure 43: Binge (heavy occasion) Alcohol Use, Wisconsin and United States, Ages 12-17**



Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

There were 3,186 unintentional injury deaths across Wisconsin in 2015 and it is the leading cause of death for individuals ages 45 and under. One of the principal causes of injury deaths is motor vehicle crashes, which are largely preventable from the standpoint of traffic safety, as well as alcohol or drug misuse and addiction. Figure 44 tracks impaired driver traffic crashes and fatalities. Impaired driver fatalities were at their lowest in 30 years in 2014 (162) and rose to 190 in 2015.

Figure 44: Alcohol-Related Traffic Crashes and Fatalities



Source: Wisconsin Department of Transportation.

## **County-Level Alcohol Problem Indicators Composite**

Table 29 presents several per capita indicators of alcohol problems available at the county level. Raw counts of instances for each indicator were summed for each county then converted to instances per 1,000 population (per capita). Counties were then rank-ordered (1 through 72) on each per capita indicator. The assigned ranks for each county were then averaged. The nine-indicator average ranks were used to assign the composite rank in the right-most column.<sup>23, 24, 25, 26</sup>

These data show where there are relatively higher/heavier or lower/lighter concentrations of alcohol misuse. Statistical analyses determined that the nine listed indicators correlate or are connected. That is, counties with higher rates on one indicator generally have higher rates on another indicator; counties with lower rates on one indicator generally have lower rates on another indicator. The last column provides an overall county ranking on the alcohol misuse and addiction indicators (1=highest concentration of alcohol misuse/addiction; 72=lowest concentration of alcohol misuse/addiction).

**Table 29: County-Level Alcohol Problem Indicators Concentration**

(Data are per 1,000 population for 2015 unless otherwise indicated; rank 1=high misuse 72=low misuse)

County	Alcohol-related Deaths	Alcohol-related Hospitalizations	Alcohol-related Traffic Crashes	Persons Killed in Alcohol-related Traffic Crashes	Persons Receiving County-authorized Alcohol Use Services	2013-2014 Alcohol-related School Suspensions and Expulsions	2014-2015 Alcohol Beverage Licenses Issued	2014 Disorderly Conduct Arrests	Substantiated Cases of Child Abuse	Rank Among Counties Across All Alcohol Misuse Indicators
Adams	0.53	1.15	1.82	0.10	3.83	0.24	4.74	5.81	2.44	3
Ashland	0.62	5.57	0.68	0.00	2.54	0.00	6.07	6.34	0.93	30
Barron	0.22	2.01	1.00	0.00	1.42	0.02	3.40	2.44	0.72	66
Bayfield	0.33	3.86	2.33	0.07	1.80	0.07	9.52	1.92	1.73	6
Brown	0.28	1.49	0.83	0.03	0.82	0.10	2.52	5.18	0.67	59
Buffalo	0.07	1.77	1.32	0.00	0.15	0.00	6.26	4.67	0.52	63
Burnett	0.39	1.10	1.10	0.00	0.52	0.06	6.21	5.7	4.08	32
Calumet	0.20	0.53	0.90	0.02	1.69	0.02	2.53	1.82	0.41	72
Chippewa	0.13	2.63	0.93	0.06	0.58	0.06	3.59	3.88	0.72	53
Clark	0.06	1.01	0.43	0.00	4.24	0.00	4.18	1.5	0.69	71
Columbia	0.44	1.48	1.20	0.05	2.22	0.02	3.68	8.47	0.88	26
Crawford	0.30	0.78	1.08	0.00	1.92	0.12	5.05	1.81	1.20	45
Dane	0.23	1.28	0.97	0.02	4.09	0.12	2.32	6.29	0.64	51
Dodge	0.28	1.21	0.90	0.02	3.58	0.03	3.03	6.72	0.42	58
Door	0.22	1.15	0.90	0.07	4.10	0.04	9.25	4.54	0.50	46
Douglas	0.29	0.97	0.50	0.02	2.15	0.14	4.44	8.75	1.18	37
Dunn	0.32	1.50	1.03	0.09	1.78	0.02	2.51	6.52	1.19	34
Eau Claire	0.24	3.13	1.23	0.02	0.96	0.20	2.39	7.97	0.86	28
Florence	0.45	0.45	3.17	0.00	1.81	0.00	9.95	1.57	0.90	48
Fond du Lac	0.19	2.73	0.82	0.03	7.55	0.23	2.90	8.09	1.58	14
Forest	0.64	2.90	1.29	0.11	5.48	0.00	8.38	11.92	0.86	2
Grant	0.21	0.59	0.98	0.02	4.04	0.00	3.91	5.16	0.82	65
Green	0.22	0.73	1.19	0.05	4.89	0.05	3.01	6.77	0.98	36
Green Lake	0.47	1.15	1.05	0.05	4.20	0.05	4.36	7.83	1.63	12
Iowa	0.13	0.89	0.93	0.04	4.05	0.13	4.56	2.69	0.63	61
Iron	0.85	2.20	0.51	0.17	4.56	0.00	16.57	3.04	0.85	24
Jackson	0.88	1.47	1.47	0.00	0.59	0.00	4.55	8.95	2.40	19
Jefferson	0.16	1.12	0.94	0.01	5.87	0.16	3.26	9.1	0.59	44
Juneau	0.41	1.28	1.24	0.08	4.13	0.08	4.91	5.64	0.90	9
Kenosha	0.27	1.69	0.93	0.00	1.77	0.14	2.24	7.86	0.85	49
Kewaunee	0.10	0.63	0.68	0.00	4.91	0.05	4.67	3.88	0.87	67
La Crosse	0.24	2.93	1.06	0.02	1.22	0.04	2.65	9.65	0.68	39
Lafayette	0.00	0.89	1.25	0.00	6.36	0.06	4.63	7.63	1.25	33
Langlade	0.20	1.10	0.80	0.10	7.26	0.00	5.56	7.45	2.60	24
Lincoln	0.35	2.33	0.70	0.14	7.24	0.24	5.25	3.69	0.24	15
Manitowoc	0.42	1.66	0.97	0.01	0.60	0.02	3.38	5.95	1.28	43
Marathon	0.37	1.91	0.66	0.04	7.27	0.12	2.89	6.22	1.42	17

**Table 29: County-Level Alcohol Problem Indicators Concentration, Continued**

(Data are per 1,000 population for 2015 unless otherwise indicated; rank 1=high misuse 72=low misuse)

County	Alcohol-related Deaths	Alcohol-related Hospitalizations	Alcohol-related Traffic Crashes	Persons Killed in Alcohol-related Traffic Crashes	Persons Receiving County-authorized Alcohol Use Services	2013-2014 Alcohol-related School Suspensions and Expulsions	2014-2015 Alcohol Beverage Licenses Issued	2014 Disorderly Conduct Arrests	Substantiated Cases of Child Abuse	Rank Among Counties Across All Alcohol Misuse Indicators
Marinette	0.26	1.25	1.03	0.00	4.10	0.02	5.34	5.4	1.72	35
Marquette	0.32	1.36	1.43	0.06	8.57	0.00	4.74	3.86	0.39	29
Menominee	1.18	4.02	0.71	0.00	24.10	0.24	1.89	23.52	4.73	4
Milwaukee	0.26	2.25	0.81	0.03	2.30	0.06	1.99	7.57	0.94	40
Monroe	0.25	1.34	1.16	0.02	5.24	0.07	3.38	7.44	1.50	22
Oconto	0.48	1.01	0.77	0.13	2.63	0.00	5.05	2.03	0.80	50
Oneida	0.56	3.03	1.19	0.03	5.47	0.00	6.78	5.09	1.81	5
Outagamie	0.27	2.00	0.79	0.01	1.17	0.15	2.89	5.83	0.62	54
Ozaukee	0.13	1.69	0.66	0.01	3.51	0.08	2.75	4.38	0.27	69
Pepin	0.13	2.01	0.94	0.00	0.13	0.00	5.76	3.65	0.13	68
Pierce	0.29	1.37	0.78	0.05	5.12	0.02	3.02	4.09	1.05	48
Polk	0.50	1.58	1.02	0.07	3.71	0.25	3.73	3.12	1.00	16
Portage	0.21	2.57	0.86	0.00	6.28	0.14	3.30	3.94	1.50	31
Price	0.14	1.98	0.71	0.00	1.62	0.07	6.92	5.79	0.35	60
Racine	0.34	1.86	0.96	0.06	1.64	0.24	2.34	6.17	2.00	21
Richland	0.17	1.05	1.17	0.00	4.44	0.00	3.11	6.26	1.39	52
Rock	0.36	2.12	1.22	0.04	6.44	0.06	2.05	12.25	1.82	7
Rusk	0.54	1.22	1.22	0.20	0.27	0.20	5.63	6.01	0.81	10
St. Croix	0.18	1.58	1.04	0.06	2.32	0.00	3.36	3.83	0.64	57
Sauk	0.23	1.34	1.29	0.05	1.68	0.10	2.89	7.15	0.48	43
Sawyer	0.85	2.66	0.60	0.12	7.13	0.06	11.96	3.43	0.60	14
Shawano	0.24	1.03	1.12	0.05	3.72	0.21	8.94	8.26	1.00	12
Sheboygan	0.26	2.15	0.62	0.02	0.82	0.03	1.71	11.51	0.92	55
Taylor	0.29	0.39	0.58	0.05	3.63	0.05	4.79	5.37	0.77	56
Trempealeau	0.24	1.80	1.46	0.17	4.41	0.00	4.55	3.68	1.08	20
Vernon	0.30	0.64	1.04	0.07	0.71	0.03	3.36	4.42	0.54	62
Vilas	0.23	4.95	1.31	0.09	5.55	0.05	10.64	9.25	2.38	1
Walworth	0.18	1.22	1.18	0.06	5.59	0.07	3.23	11.52	1.09	19
Washburn	0.19	1.76	0.94	0.00	1.32	0.06	5.91	4.67	3.14	38
Washington	0.18	1.75	0.79	0.02	4.06	0.05	2.30	8.13	0.20	64
Waukesha	0.10	1.97	0.63	0.01	1.06	0.11	1.99	3.58	0.45	70
Waupaca	0.40	1.41	1.39	0.10	2.58	0.00	4.16	8.14	0.59	25
Waushara	0.20	1.14	1.02	0.04	5.59	0.00	4.20	6.97	0.73	41
Winnebago	0.28	2.11	0.85	0.02	6.96	0.17	2.41	9.13	0.62	27
Wood	0.20	2.58	0.83	0.08	6.01	0.19	3.06	9.99	1.28	8

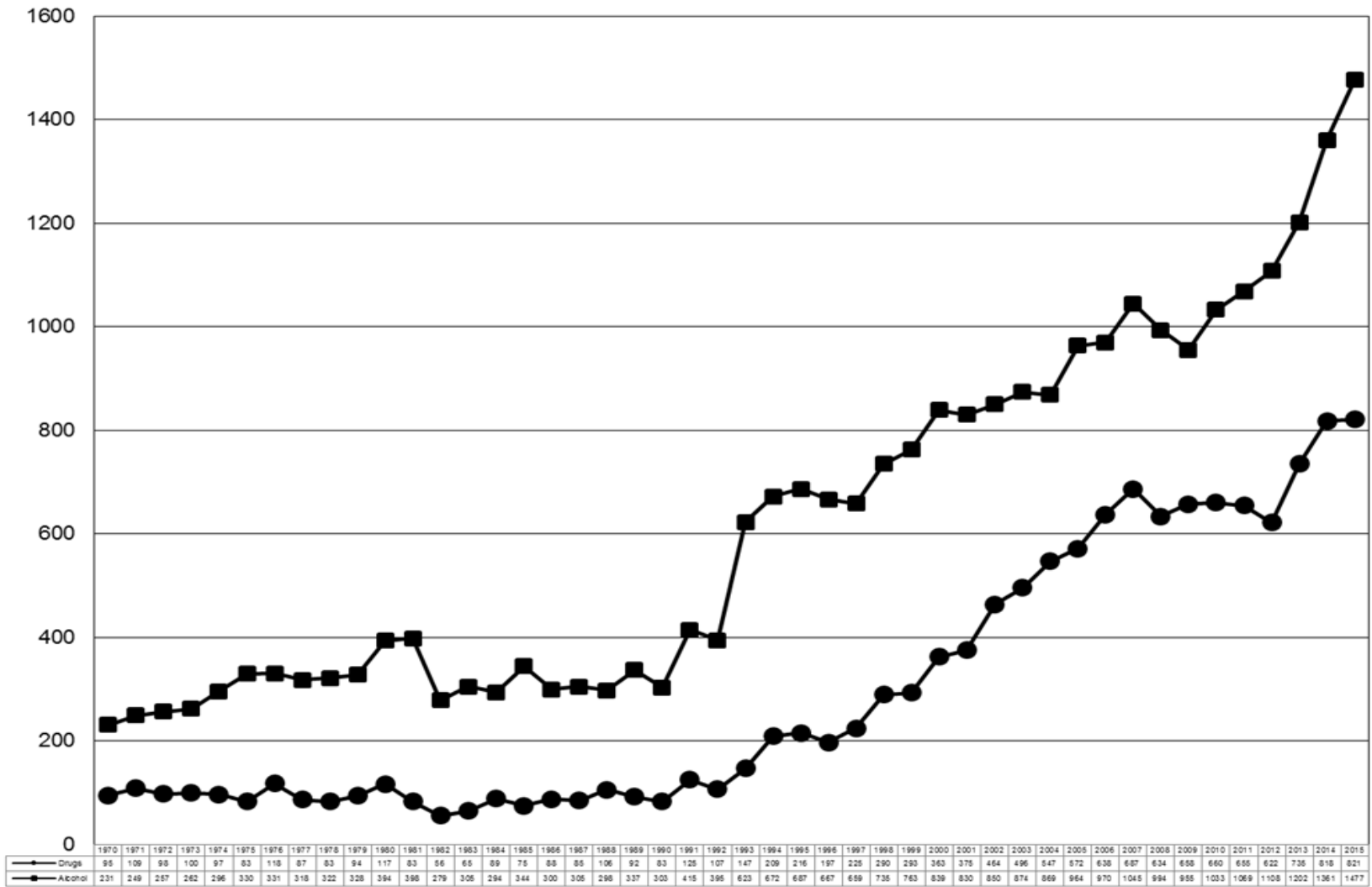
Sources: United States Census Bureau; DHS (death certificates and hospital discharge database), Wisconsin Department of Transportation, Wisconsin Department of Public Instruction, Wisconsin Department of Revenue, Wisconsin Department of Justice, and Wisconsin Department of Children and Families.

## **Alcohol- and Drug-Related Mortality**

All causes of death combined, a total of 50,000 deaths occur across Wisconsin each year with the leading causes being heart disease, cancer, stroke, and injury. Conditions such as liver cirrhosis, pancreatitis, hepatitis C, overdose, and addiction are included in the cause of death counts in Figure 45. Extreme unhealthy and life-threatening misuse of and addiction to mood-altering, habit-forming substances continues to rise in Wisconsin, resulting in increased alcohol- and drug-related mortality. Largely preventable, there were 1,477 alcohol and 821 habit-forming drug deaths in the state during 2015. The average age of death for these substance-related deaths was mid-50s.



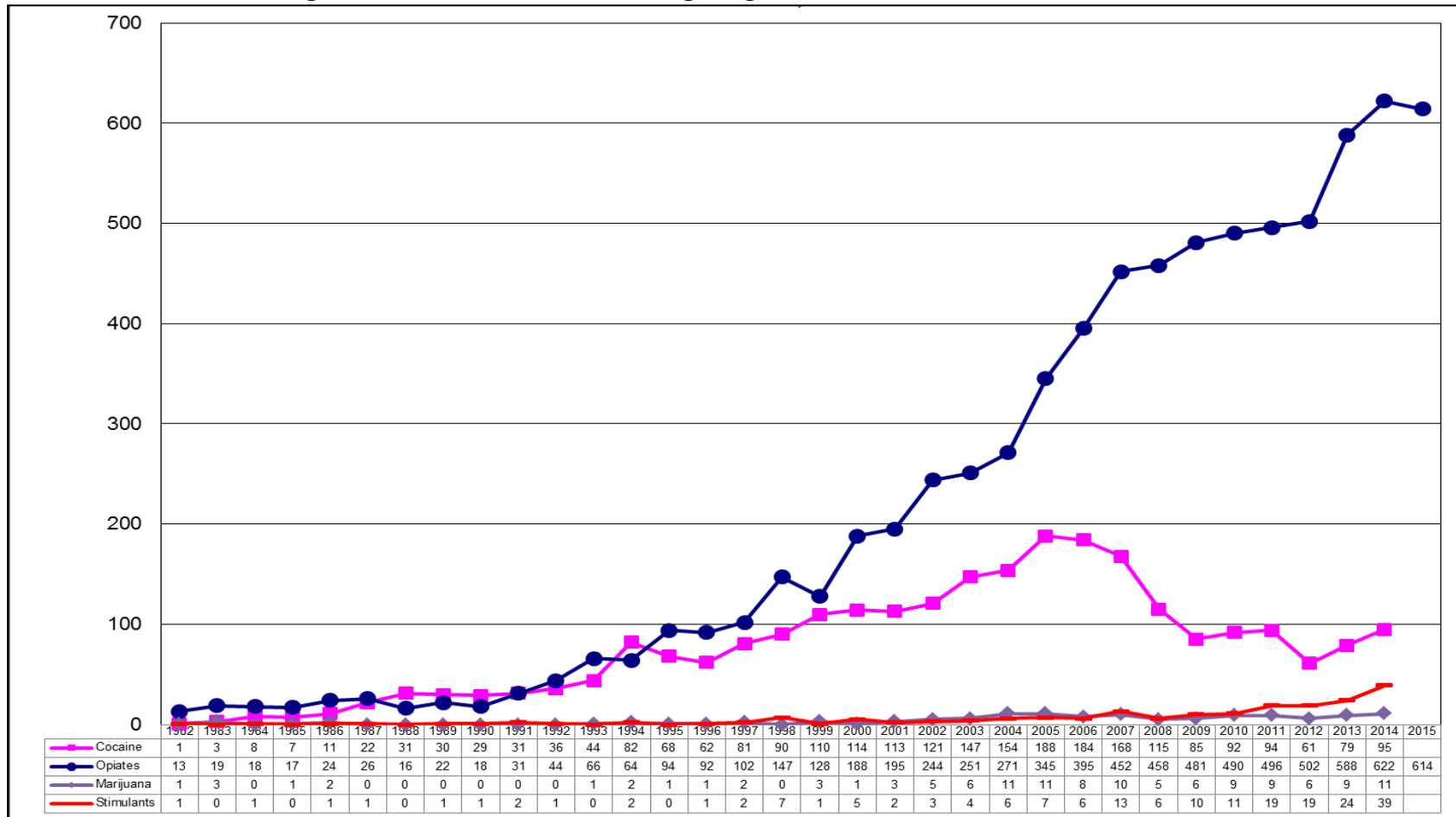
Figure 45: Alcohol and Mood-Altering Drug Poisoning and Abuse Deaths, Wisconsin



Source: Wisconsin Death Certificates, DHS.

Figure 46 breaks out the deaths into selected categories of habit-forming illicit drugs and medications. Opioid deaths in Wisconsin increased 24 percent in the past five years, from 496 in 2011 to 614 in 2015. Also, in 2014, there were 170 tranquilizer (muscle relaxant) deaths and 52 barbiturate (sleeping pill) deaths.

**Figure 46: Estimated Mood-Altering Drug Deaths, Wisconsin Death Certificates**

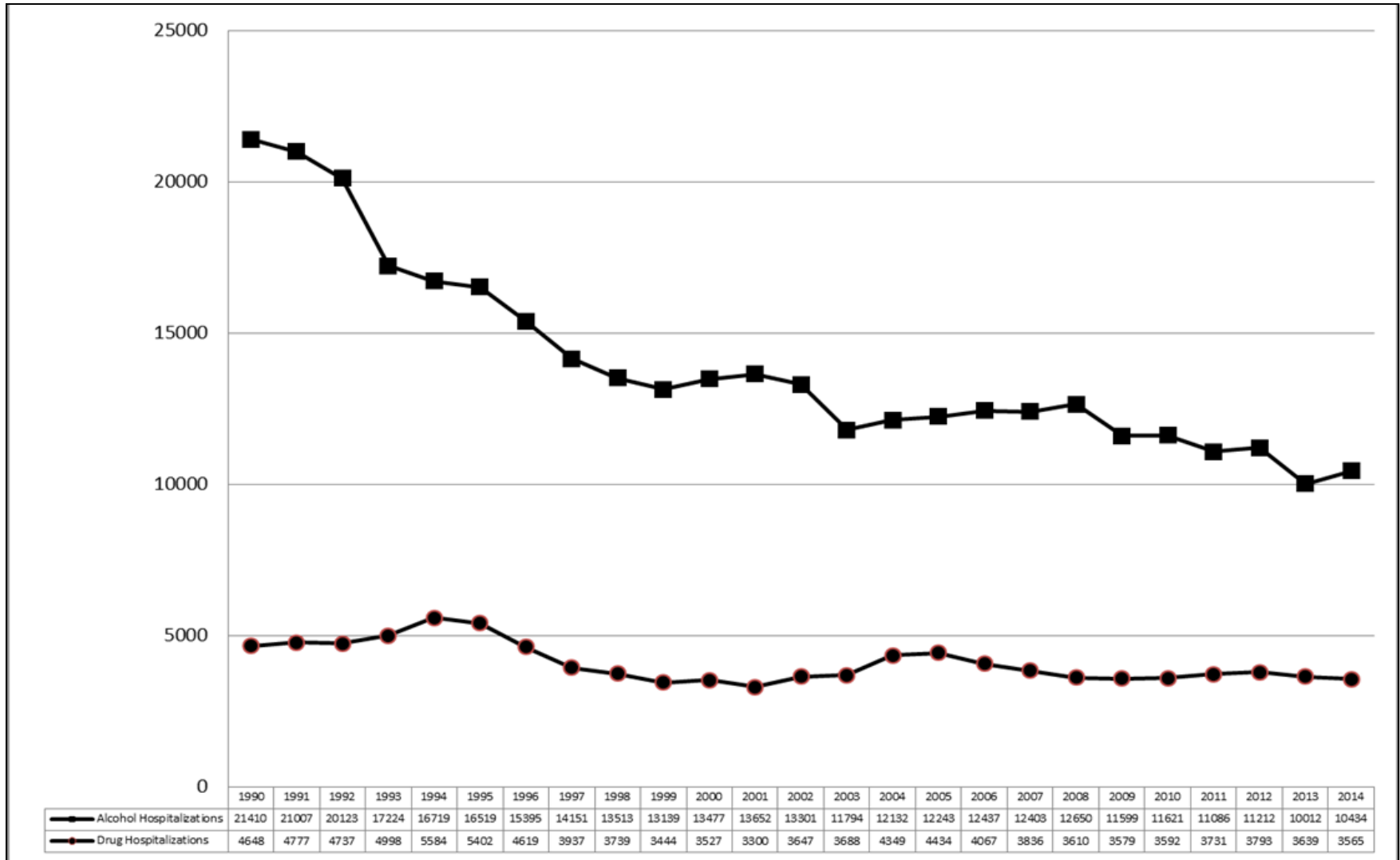


Source: DHS.

## **Alcohol- and Drug-Related Hospitalizations**

While many alcohol- and drug-related hospitalizations are for life-saving detox and inpatient treatment, it is important to track hospitalizations for alcohol and other mood-altering drug-related conditions such as overdose, liver cirrhosis, pancreatitis, and addiction because they are an indicator of unhealthy use of substances and use of health care resources that are preventable. In Figure 47, there were 10,434 alcohol-related hospitalizations and 3,565 mood-altering, drug-related hospitalizations reported across Wisconsin in 2014 (most recent year available), with alcohol-related hospitalizations trending downward over the past 25 years. Drug-related hospitalizations are also showing an overall decline but at a slower pace.

Figure 47: Wisconsin Alcohol and Drug-Related Hospitalizations



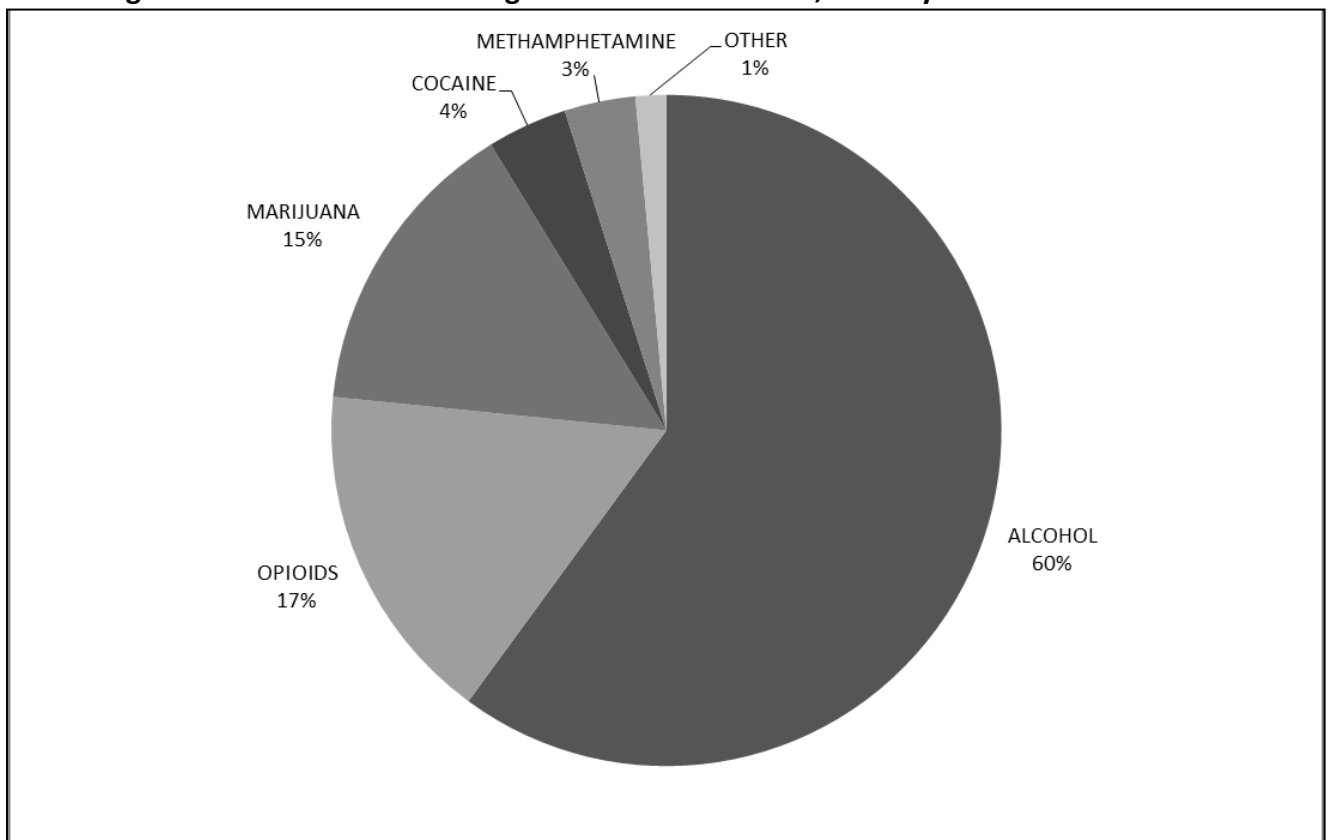
Source: Hospital Inpatient Discharge Database, DHS.

## Substances Used by Individuals Receiving County-Authorized Treatment

County human services departments submit demographic and service data for substance use services they authorize to the Program Participation System. Program Participation System data include individuals receiving public opioid treatment subsidies from state and federal aids to counties, as well as local sources of revenue. Program Participation System data represent about one-third of the reported addiction services provided in the state. The other two-thirds of individuals receiving addiction services are recorded in Medicaid or commercial health insurance databases.

In 2004-2005, the distribution of primary substance of use among county-authorized individuals receiving addiction treatment was 78 percent alcohol, 7 percent cocaine, 5 percent opioids, 8 percent marijuana, 1 percent methamphetamine, and 1 percent other. Figure 48 charts individuals receiving county-authorized addiction treatment by the primary substance used across 2014 and 2015.

**Figure 48: Individuals Receiving Treatment 2014-2015, Primary Substance Used**

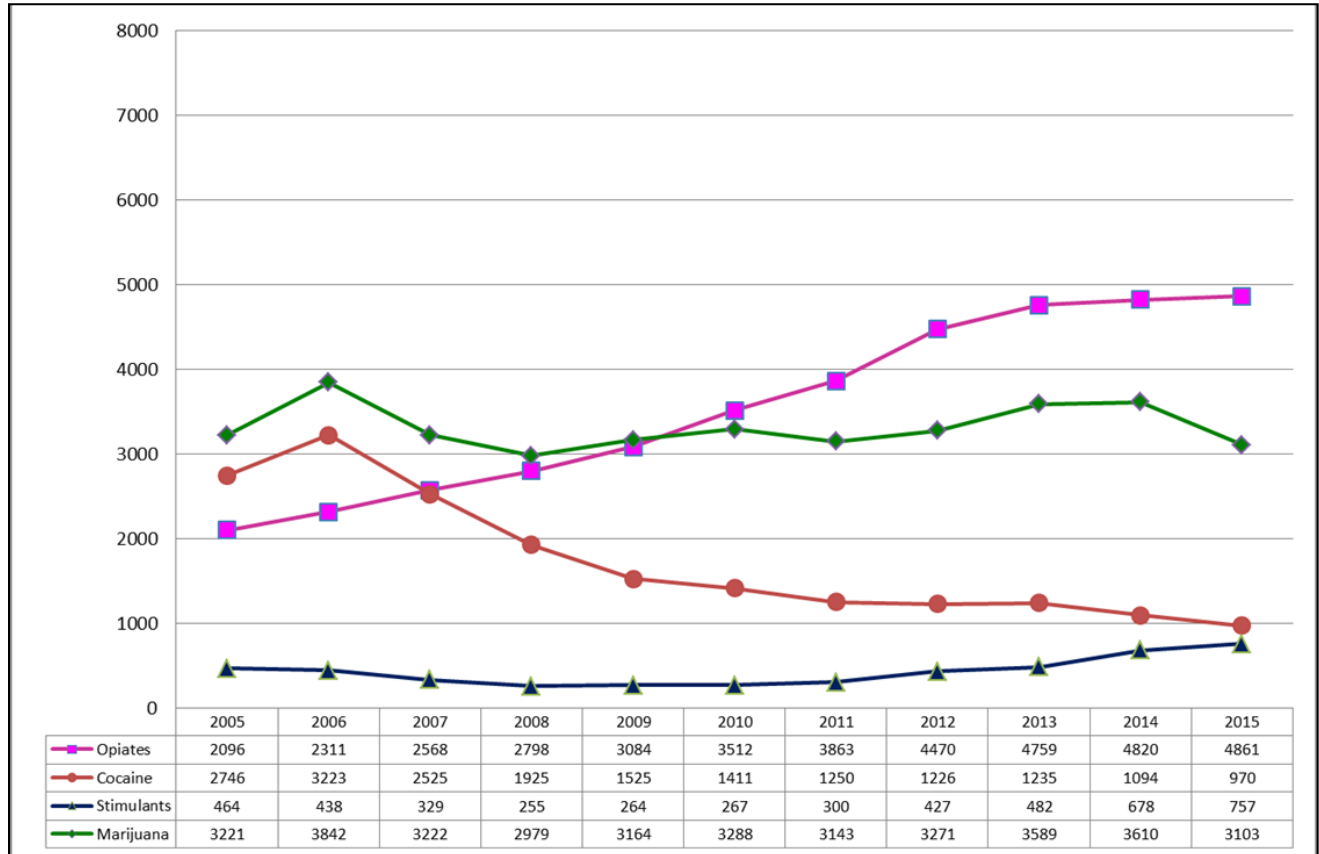


Source: Program Participation System, DHS  
Note: Includes only county-authorized services.

Counts of individuals receiving substance use services are a useful proxy to identify the relative occurrence of various misused substances. Figure 49 tracks trends in county-authorized service

admissions for selected substances. Increases are seen in opioid and methamphetamine admissions, marijuana admissions are stable, and cocaine admissions have declined.

**Figure 49: Selected Drug Abuse Treatment Individuals Served**



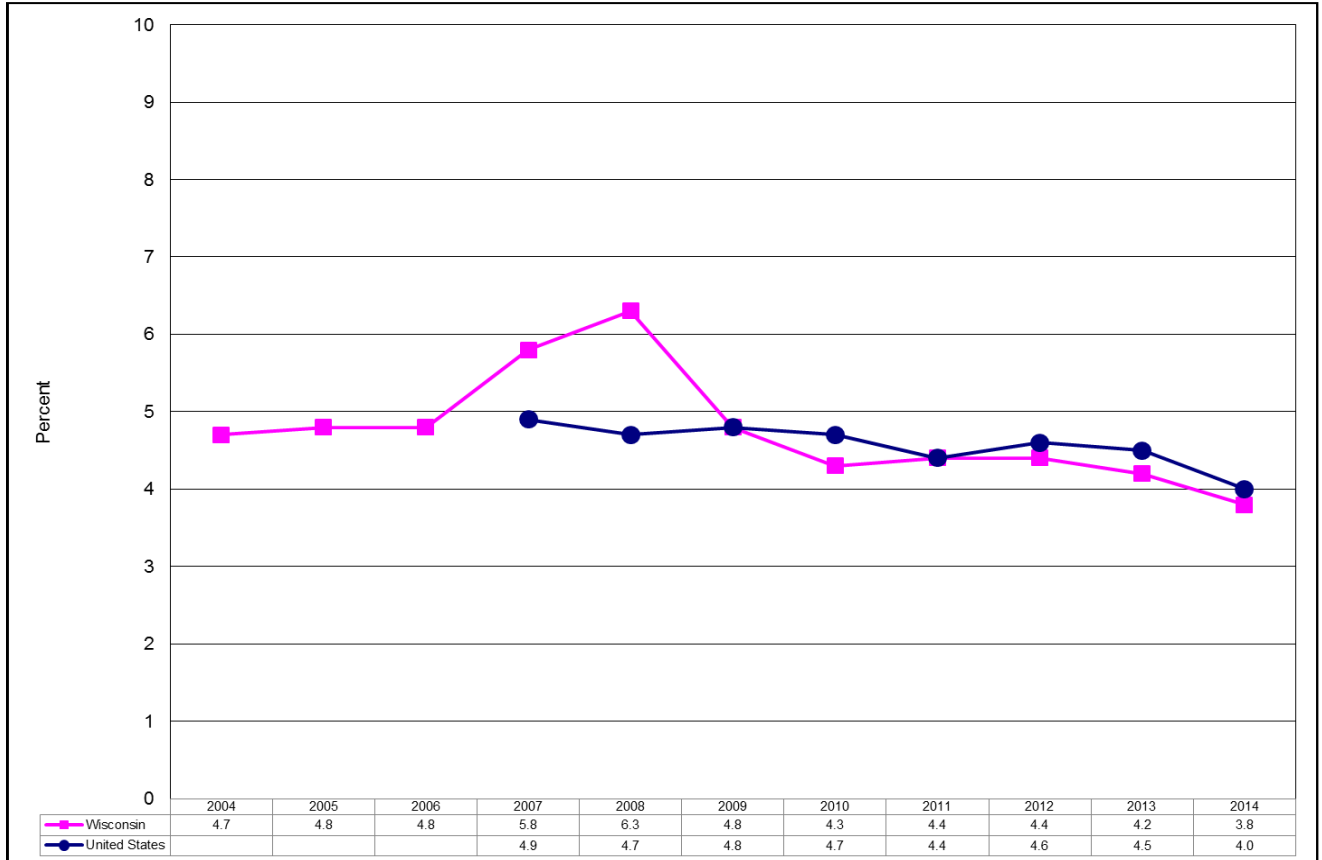
Source: Program Participation System, DHS  
 Note: Includes only county-authorized services.

## Opioids

Since the early 2000s, Wisconsin has been experiencing a surge in opioid misuse and its related harmful consequences. At the start of this increase, the age-adjusted death rate from opioid overdose has risen over fivefold. Over the last decade alone, the number of opioid-related deaths in Wisconsin has nearly doubled. Among Wisconsin’s 72 counties, the number of counties with any opioid-related deaths increased from 36 counties to 58 counties between 2004 and 2015. According to a 2016 report by the Centers for Disease Control and Prevention, Wisconsin’s rate of drug and opioid overdose deaths per 100,000 population exceeds the national average. Wisconsin ranks 16th in the U.S. in the percent change (worsening) in prescription opioid-related deaths from 2012 to 2014. There were 614 opioid-related deaths in 2015 (see previous Figure 46). Wisconsin drug overdose deaths were the leading (28 percent) injury-related cause of potential years of life lost before age 65 exceeding motor vehicle crashes (19 percent), firearm suicides (10 percent), firearm homicides (7 percent), and unintentional falls (2 percent).

The prevalence of illicit and nonmedical use of opioids can be estimated from the National Survey on Drug Use and Health, Wisconsin sample data. Figure 50 reports the nonmedical use of opioid-based medications in the past year continues at about 4 percent of the population in Wisconsin and is slightly less than the national average.

**Figure 50: Opioid Misuse in the Past Year, Adults, Wisconsin and U.S.**



Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

Many individuals with addiction to opioids begin their opioid use with a prescription for pain medication such as codeine, oxycontin, or vicodin. In the most recent three years of data there were over 1.5 million individuals each year in Wisconsin who obtained an opioid prescription and over five million prescriptions filled each year (see Table 30).

**Table 30: Wisconsin Opioid Prescriptions**

<b>Prescription Indicator</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Individuals Obtaining an Opioid Prescription</b>	1,590,327	1,610,056	1,607,694
<b>Prescriptions Filled</b>	5,137,529	5,640,571	5,197,228
<b>Average Prescriptions Filled Per Person Obtaining an Opioid Prescription</b>	3.2	3.5	3.2

Source: Prescription Drug Monitoring Program, Wisconsin Department of Safety and Professional Services.

Sixty-seven (93 percent) of Wisconsin’s 72 counties have ambulance runs where naloxone (an opioid overdose antidote) is administered. According to the DHS ambulance run data system, there were 3,557 such naloxone ambulance runs across Wisconsin in 2014 and 3,857 in 2015, an increase of 8 percent.

Figure 49 (page 108) shows county-authorized treatment admissions for opioid use are rising steadily and, apart from alcohol, opioid addiction is the most prevalent substance used among individuals seeking county-authorized treatment.

### **County-Level Opioid Problem Indicators Composite**

Table 31 presents several per capita indicators of community opioid problems occurring at the county level. These data show where there are relatively higher or heavier or lower or lighter concentrations of opioid misuse. Statistical analyses determined that the six listed indicators correlate. The last column provides an overall county ranking on opioid misuse (1=highest concentration of opioid misuse; 72=lowest concentration of opioid misuse).



**Table 31: County-Level Opioid Problem Indicators Concentration**

(Data are per 1,000 population for 2015 unless otherwise indicated; rank 1=high misuse 72=low misuse)

County	2013-2015 Average Annual Opioid- related Deaths	2014 Opioid- related Hospital- izations	Persons Obtaining an Opioid Prescription	Ambulance Runs Where Naloxone is Administered	Persons Receiving County- authorized Opioid Use Services	Rank Among Counties Across All Opioid Misuse Indicators
Adams	0.11	0.58	328.86	0.72	0.62	7
Ashland	0.08	0.25	288.98	0.80	0.25	31
Barron	0.06	0.24	276.48	0.22	0.41	52
Bayfield	0.07	0.20	271.28	0.87	0.33	37
Brown	0.04	0.26	295.36	0.71	0.21	38
Buffalo	0.02	0.07	175.98	0.22	0.00	72
Burnett	0.06	0.52	280.07	0.06	0.13	43
Calumet	0.05	0.12	259.42	0.20	0.25	67
Chippewa	0.02	0.36	282.50	0.48	0.14	55
Clark	0.03	0.23	219.80	0.14	0.17	69
Columbia	0.09	0.84	292.73	1.02	0.28	13
Crawford	0.00	0.12	270.19	0.48	0.36	65
Dane	0.13	0.58	267.26	0.90	0.89	11
Dodge	0.11	0.49	280.03	1.05	1.23	8
Door	0.05	0.25	308.69	0.29	0.29	41
Douglas	0.06	0.75	254.38	0.52	0.27	35
Dunn	0.05	0.23	237.64	0.43	0.62	53
Eau Claire	0.04	0.22	263.12	0.50	0.17	60
Florence	0.23	0.00	73.71	0.00	0.68	54
Fond du Lac	0.10	0.40	273.75	0.73	2.20	18
Forest	0.04	0.43	325.56	2.15	2.58	9
Grant	0.03	0.32	222.68	0.16	0.70	57
Green	0.06	0.54	278.43	0.46	0.19	36
Green Lake	0.00	0.47	261.56	0.73	1.00	34
Iowa	0.06	0.55	274.71	0.72	0.72	21
Iron	0.06	0.00	240.20	0.51	1.18	47
Jackson	0.03	0.39	271.16	0.20	0.20	58
Jefferson	0.09	0.29	273.19	0.65	1.89	27
Juneau	0.04	0.64	306.93	0.71	1.28	14
Kenosha	0.21	0.59	307.48	0.93	0.65	4
Kewaunee	0.03	0.29	253.38	0.68	0.63	47
La Crosse	0.06	0.55	266.28	0.13	0.11	51
Lafayette	0.06	0.06	235.92	0.00	0.65	63
Langlade	0.02	0.46	318.97	0.70	0.55	29
Lincoln	0.00	0.56	299.62	0.87	0.56	23
Manitowoc	0.14	0.46	292.50	0.69	0.28	19
Marathon	0.03	0.36	269.02	0.47	0.55	49

**Table 31: County-Level Opioid Problem Indicators Concentration, Continued**

(Data are per 1,000 population for 2015 unless otherwise indicated; rank 1=high misuse 72=low misuse)

County	2013-2015 Average Annual Opioid- related Deaths	2014 Opioid- related Hospital- izations	Persons Obtaining an Opioid Prescription	Ambulance Runs Where Naloxone is Administered	Persons Receiving County- authorized Opioid Use Services	Rank Among Counties Across All Opioid Misuse Indicators
Marinette	0.02	0.43	295.91	0.69	1.51	28
Marquette	0.15	1.05	294.40	1.10	1.56	2
Menominee	0.39	0.46	474.01	5.43	0.47	5
Milwaukee	0.21	0.97	294.16	0.99	1.39	3
Monroe	0.07	0.62	279.48	0.58	0.81	17
Oconto	0.03	0.29	304.49	0.24	0.53	44
Oneida	0.07	0.20	309.32	1.22	2.58	12
Outagamie	0.07	0.24	271.73	0.40	0.52	42
Ozaukee	0.07	0.46	299.27	0.84	0.54	16
Pepin	0.04	0.14	225.87	0.00	0.00	70
Pierce	0.06	0.22	178.09	0.22	0.07	68
Polk	0.03	0.34	250.31	0.20	0.48	61
Portage	0.07	0.27	260.24	0.24	0.90	40
Price	0.00	0.14	286.18	0.35	0.28	62
Racine	0.17	0.51	331.82	0.86	0.26	10
Richland	0.04	0.39	252.87	0.17	0.78	51
Rock	0.14	0.64	311.83	0.37	0.45	15
Rusk	0.05	0.41	249.41	0.00	0.00	66
St. Croix	0.04	0.36	225.86	0.27	0.30	59
Sauk	0.13	0.77	290.77	0.76	0.73	6
Sawyer	0.04	0.30	315.88	0.97	0.54	26
Shawano	0.02	0.31	283.92	0.57	0.41	49
Sheboygan	0.03	0.49	282.73	1.06	0.35	30
Taylor	0.00	0.19	223.69	0.00	0.29	71
Trempealeau	0.05	0.41	264.02	0.35	0.14	56
Vernon	0.07	0.33	236.62	0.03	0.17	64
Vilas	0.16	0.51	357.07	1.03	2.57	1
Walworth	0.13	0.28	285.17	0.78	0.55	25
Washburn	0.02	0.69	309.72	0.25	0.06	39
Washington	0.12	0.44	280.96	0.44	0.79	22
Waukesha	0.09	0.49	291.39	0.61	0.43	21
Waupaca	0.04	0.46	288.00	0.36	0.06	45
Waushara	0.04	0.41	286.50	0.16	1.51	33
Winnebago	0.10	0.35	283.13	0.49	0.95	24
Wood	0.03	0.47	277.58	0.63	0.67	33

Sources: United States Census Bureau, DHS (death certificates, hospital discharge database, emergency medical services database, Program Participation System), Wisconsin Department of Safety and Professional Services.

As discussed previously, opioid deaths are rising in Wisconsin. Table 32 displays some disparities across race and ethnicity in opioid-related deaths. African Americans have the highest rate of opioid-related deaths followed by American Indians.

**Table 32: Concentration of Drug Overdose Deaths Involving any Opioid by Race or Ethnicity, Wisconsin, 2013-2015 combined (rates are per 1,000 population)**

<b>Race or Ethnicity</b>	<b>3-Year Number</b>	<b>Rate</b>
<b>Black</b>	186	.159
<b>American Indian</b>	23	.138
<b>White</b>	1509	.105
<b>Hispanic</b>	74	.066
<b>Asian</b>	4	.008

Source: Wisconsin Death Certificates, DHS.

## **Methamphetamine**

Rural northwestern Wisconsin experienced a surge in methamphetamine addiction in the early 2000s, at which time state laws were enacted to restrict access to ephedrine substances used to produce methamphetamine in secret home labs. Since 2011, Wisconsin has seen a resurgence in methamphetamine addiction. It is spreading south and east and increasingly seen in Wisconsin urban areas including Milwaukee.

The National Survey on Drug Use and Health estimates there are 9,000 individuals addicted to methamphetamines across Wisconsin and this may be rising according to statistics on law enforcement drug seizures and arrests. Figure 46 (page 104) tracks Wisconsin stimulant-related deaths from 1982 to 2014, which primarily include deaths from methamphetamine. Over the past five years, these deaths have increased 31 percent to 39 deaths in 2014. Addiction to methamphetamine likely contributes to poor health, crime, unemployment, and family disruption. County-authorized methamphetamine treatment admissions have risen to 3 percent of all treatment admissions (see previous Figure 49).

## **County-Level Methamphetamine Problem Indicators Composite**

Table 33 presents several per capita indicators of methamphetamine problems available at the county level. These data show where there are relatively higher or heavier or lower or lighter concentrations of methamphetamine addiction. Statistical analyses determined that the three listed indicators correlate. The last column provides an overall county ranking on methamphetamine problems (1=highest concentration of methamphetamine addiction; 72=lowest concentration of methamphetamine addiction).

**Table 33: County-Level Methamphetamine Problems Concentration**

(Data are annualized per 1,000 population for 2013-2015; rank 1=high problems 72=low problems)

<b>County</b>	<b>Persons Receiving County-authorized Methamphetamine Addiction Services</b>	<b>Persons Receiving Medicaid-reimbursed Methamphetamine Addiction Services</b>	<b>Crime Lab Methamphetamine Seizure Cases</b>	<b>Rank Among Counties Across All Methamphetamine Addiction Indicators</b>
<b>Adams</b>	0.05	0.06	0.03	37
<b>Ashland</b>	0.35	0.37	1.30	4
<b>Barron</b>	1.48	0.12	1.40	3
<b>Bayfield</b>	0.22	0.22	0.11	18
<b>Brown</b>	0.01	0.03	0.18	41
<b>Buffalo</b>	0.20	0.02	0.59	26
<b>Burnett</b>	0.84	0.13	1.42	2
<b>Calumet</b>	0.04	0.01	0.10	50
<b>Chippewa</b>	0.13	0.10	0.17	25
<b>Clark</b>	0.21	0.01	0.15	34
<b>Columbia</b>	0.03	0.02	0.02	57
<b>Crawford</b>	0.62	0.04	0.20	22
<b>Dane</b>	0.03	0.01	0.01	62
<b>Dodge</b>	0.02	0.00	0.00	71
<b>Door</b>	0.04	0.00	0.11	53
<b>Douglas</b>	0.54	0.10	1.80	6
<b>Dunn</b>	0.94	0.08	0.69	7
<b>Eau Claire</b>	0.37	0.14	0.33	9
<b>Florence</b>	0.23	0.08	0.00	34
<b>Fond du Lac</b>	0.04	0.01	0.03	55
<b>Forest</b>	0.25	0.21	0.11	17
<b>Grant</b>	0.10	0.03	0.03	45
<b>Green</b>	0.03	0.01	0.05	56
<b>Green Lake</b>	0.16	0.00	0.02	54
<b>Iowa</b>	0.10	0.00	0.02	58
<b>Iron</b>	0.73	0.00	0.06	36
<b>Jackson</b>	0.07	0.08	0.64	23
<b>Jefferson</b>	0.03	0.02	0.02	59
<b>Juneau</b>	0.08	0.03	0.01	49
<b>Kenosha</b>	0.01	0.01	0.00	67
<b>Kewaunee</b>	0.18	0.02	0.03	40
<b>La Crosse</b>	0.25	0.22	0.18	11
<b>Lafayette</b>	0.14	0.00	0.12	44
<b>Langlade</b>	0.51	0.05	0.31	20
<b>Lincoln</b>	0.51	0.06	0.31	16
<b>Manitowoc</b>	0.04	0.04	0.05	44
<b>Marathon</b>	0.51	0.06	0.31	15

**Table 32: County-Level Methamphetamine Problems Concentration, Continued**

(Data are annualized per 1,000 population for 2013-2015; rank 1=high problems 72=low problems)

County	Persons Receiving County-authorized Methamphetamine Addiction Services	Persons Receiving Medicaid-reimbursed Methamphetamine Addiction Services	Crime Lab Methamphetamine Seizure Cases	Rank Among Counties Across All Methamphetamine Addiction Indicators
Marinette	0.04	0.02	0.02	53
Marquette	0.28	0.00	0.00	51
Menominee	0.00	0.16	0.00	47
Milwaukee	0.01	0.01	0.01	65
Monroe	0.15	0.03	0.09	32
Oconto	0.10	0.03	0.03	46
Oneida	0.24	0.06	0.09	25
Outagamie	0.13	0.04	0.23	28
Ozaukee	0.01	0.00	0.00	72
Pepin	0.13	0.13	0.22	22
Pierce	0.90	0.04	0.72	13
Polk	1.76	0.11	2.38	1
Portage	0.16	0.02	0.02	42
Price	0.07	0.05	0.16	31
Racine	0.01	0.02	0.00	65
Richland	0.06	0.13	0.00	39
Rock	0.02	0.01	0.04	60
Rusk	0.34	0.14	1.85	5
St. Croix	0.53	0.06	0.68	13
Sauk	0.02	0.01	0.02	63
Sawyer	0.68	0.12	0.42	8
Shawano	0.07	0.03	0.11	36
Sheboygan	0.03	0.01	0.09	49
Taylor	0.23	0.11	0.27	20
Trempealeau	0.23	0.13	0.84	10
Vernon	0.13	0.08	0.06	29
Vilas	0.25	0.05	0.09	27
Walworth	0.01	0.00	0.01	71
Washburn	0.19	0.13	1.19	14
Washington	0.03	0.01	0.01	66
Waukesha	0.01	0.01	0.00	71
Waupaca	0.00	0.02	0.03	61
Waushara	0.00	0.01	0.00	68
Winnebago	0.08	0.03	0.05	39
Wood	0.12	0.04	0.11	30

Sources: United States Census Bureau, DHS (Program Participation System and Medicaid claims analysis database), and Wisconsin Department of Justice.

## Cocaine, Marijuana, and Other Mood-Altering Substances

### Cocaine

Law enforcement reports that cocaine use is prevalent in eastern, central, and west central Wisconsin—especially in Milwaukee—and greatly affects lower income and African American families. Cocaine addiction is prevalent in Appleton, Green Bay, Janesville, Kenosha, La Crosse, Madison, Milwaukee, and Racine and in rural areas such as Door, Clark, Forest, Menominee, Shawano, and Taylor counties.

Cocaine addiction across Wisconsin and its harmful consequences have seen a decline since 2005; however, it is still important to track cocaine indicators. Figure 46 (page 104) tracks Wisconsin cocaine-related deaths from 1982 to 2014. Over the past five years, cocaine deaths have remained largely unchanged at an average of 84 deaths per year. Cocaine addiction constitutes 4 percent of county-authorized treatment admissions each year.

Any cocaine use during pregnancy is considered harmful to the baby in the womb. Wisconsin sample surveys from the 2015 National Survey on Drug Use and Health show that about 1 percent of youth and 5 percent of young adults have used cocaine.

### Marijuana

Table 34 tracks the rate of marijuana use among Wisconsin youth compared to national averages over the past five years. Wisconsin's youth marijuana use rate mirrors the national rate.

**Table 34: Wisconsin Marijuana Use among Youth Age 12-17**

Area	2011	2012	2013	2014	2015
Wisconsin	6.4%	7.8%	7.2%	7.2%	7.6%
United States	7.6%	7.2%	7.1%	7.2%	7.2%

Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

Figure 46 also tracks Wisconsin marijuana-related deaths from 1982 to 2014. For the past five years, these deaths have remained unchanged at an average of 9 deaths per year.

Marijuana addiction makes up 15 percent of county-authorized treatment admissions each year.

### Other Mood-Altering, Habit-Forming Substances

To a somewhat lesser extent, there are several other mood-altering, habit-forming substances misused across Wisconsin.

Tranquilizers (which relax the muscles), barbiturates (which induce sleep), hallucinogenic substances such as:

- LSD.
- Peyote.
- Mescaline.

- Psilocybin.
- Psilocyn.
- Phencyclidine (PCP).

Club drugs such as:

- Gamma-hydroxybutyrate
- Methylenedioxymethamphetamine
- Gamma-butyrolactone
- Ketamine.

Synthetics such as:

- Cathinone stimulants.
- Synthetic marijuana.
- Inhalants such as glue.
- Solvents.
- Nitrous oxide.
- Amyl nitrite.
- Butyl nitrite.

### **Overall County-Level Other Drug Problem Indicators Composite**

Table 35 presents several per capita indicators of overall drug misuse and addiction prevalence (generally excluding alcohol), which are available at the county level. These data show where there are relatively higher or lower concentrations of drug misuse and addiction. Statistical analyses determined that the nine listed indicators correlate. While drug possession, sale, and manufacturing arrests were considered in the analysis, they did not correlate well with the other indicators and were removed. Reasons for this may be related to local enforcement priorities. The last column provides a county ranking on overall drug misuse and addiction problems (1=highest concentration of overall drug misuse and addiction; 72=lowest concentration of overall drug misuse and addiction).



**Table 35: County-Level Other Drug Problems Concentration**

(Except for income, data are per 1,000 population for 2015 unless otherwise indicated; rank 1=high problems 72=low problems)

County	Drug-related Deaths	2014 Drug-related Hospitalizations	Persons Receiving County-authorized Services for Drug Use	2013-2014 Annualized Property Crime Arrests	2013-2014 Annualized Violent Crime Arrests	2013-2014 School Year Suspensions and Expulsions	2013 Lower Median Income	2012 Uninsured Adults	2013 Unemployed Persons	Rank
Adams	0.19	0.48	1.29	25.80	2.25	0.48	\$43,814	84.26	45.94	11
Ashland	0.19	2.35	1.24	26.61	2.79	0.50	\$37,909	103.55	47.72	3
Barron	0.07	0.74	2.53	4.49	0.33	0.11	\$44,086	90.78	38.70	44
Bayfield	0.07	1.13	1.07	11.86	1.86	0.00	\$45,466	113.16	54.15	22
Brown	0.08	0.22	0.40	17.48	2.40	0.67	\$51,956	96.17	34.66	37
Buffalo	0.00	0.52	0.22	6.99	0.33	0.22	\$48,418	89.13	31.50	70
Burnett	0.06	0.78	1.16	34.09	2.04	0.97	\$41,388	102.93	40.63	7
Calumet	0.06	0.18	0.59	5.15	0.41	0.02	\$66,657	64.02	29.69	72
Chippewa	0.03	1.27	0.32	13.13	1.05	0.75	\$49,491	78.54	36.85	42
Clark	0.00	0.52	0.92	6.93	0.32	0.35	\$42,477	152.81	34.74	48
Columbia	0.21	0.30	0.70	12.83	1.40	0.18	\$57,613	74.16	34.54	60
Crawford	0.00	0.42	1.14	13.16	0.99	0.06	\$41,598	82.43	39.89	50
Dane	0.16	0.33	1.56	24.49	2.37	0.52	\$60,326	75.32	29.02	38
Dodge	0.21	0.64	2.26	13.10	0.52	0.14	\$51,623	70.25	37.77	47
Door	0.11	0.11	0.54	10.44	0.63	0.32	\$51,761	86.52	55.25	53
Douglas	0.11	0.45	1.31	45.77	2.06	0.54	\$43,417	93.89	32.41	16
Dunn	0.14	1.23	1.35	16.38	1.44	0.30	\$50,425	85.41	34.41	27
Eau Claire	0.09	1.46	0.70	20.48	1.46	0.49	\$49,345	83.52	32.91	29
Florence	0.45	0.68	2.03	21.48	1.36	0.00	\$44,139	100.16	43.64	12
Fond du Lac	0.17	0.80	4.73	15.66	1.84	0.58	\$54,649	83.22	34.88	17
Forest	0.00	1.83	3.44	13.60	2.10	0.54	\$40,153	118.87	46.97	6
Grant	0.04	0.21	1.93	12.97	1.36	0.27	\$45,854	90.71	31.97	49
Green	0.03	0.27	1.17	13.83	1.00	0.33	\$55,732	79.77	32.57	64
Green Lake	0.05	0.37	1.42	16.17	0.52	0.16	\$44,184	92.23	42.88	40
Iowa	0.08	0.38	1.98	9.44	1.03	0.25	\$53,186	81.69	37.07	55
Iron	0.34	1.18	2.37	12.17	1.27	0.17	\$37,412	85.70	57.81	13
Jackson	0.20	1.27	0.29	14.74	1.10	0.29	\$46,442	105.82	36.33	23
Jefferson	0.16	0.73	2.95	15.84	1.66	0.32	\$52,399	80.66	34.83	28
Juneau	0.11	0.86	2.29	14.31	2.10	0.19	\$45,167	99.27	42.42	14
Kenosha	0.23	0.78	1.25	20.66	2.04	0.61	\$51,929	96.19	41.86	10
Kewaunee	0.05	0.44	1.56	10.74	0.39	0.05	\$52,954	74.90	35.77	67
La Crosse	0.10	0.81	0.47	21.28	1.20	0.36	\$51,324	71.79	30.54	43
Lafayette	0.00	0.06	1.54	9.56	0.62	0.00	\$46,422	116.12	30.00	63
Langlade	0.10	0.80	2.85	28.73	0.75	0.60	\$42,025	97.21	44.15	8
Lincoln	0.00	0.63	2.89	12.77	1.43	0.73	\$47,721	77.55	44.85	26
Manitowoc	0.26	0.45	0.44	17.05	1.41	0.26	47835.00	76.35	39.00	35
Marathon	0.08	0.70	2.89	14.09	0.97	0.40	51830.00	90.16	36.16	33

**Table 35: County-Level Other Drug Problems Concentration, Cont'd.**

(Except for income, data are per 1,000 population for 2015 unless otherwise indicated; rank 1=high problems 72=low problems)

County	Drug-related Deaths	2014 Drug-related Hospitalizations	Persons Receiving County-authorized Services for Drug Use	2013-2014 Annualized Property Crime Arrests	2013-2014 Annualized Violent Crime Arrests	2013-2014 School Year Suspensions and Expulsions	2013 Lower Median Income	2012 Uninsured Adults	2013 Unemployed Persons	Rank
Marinette	0.05	0.31	3.11	17.57	0.48	0.46	41446.00	81.82	41.56	31
Marquette	0.00	0.52	3.70	12.72	0.06	0.06	47760.00	94.00	40.96	45
Menominee	0.24	1.42	3.78	28.95	7.80	4.25	32769.00	134.92	51.51	1
Milwaukee	0.27	0.82	2.68	41.81	9.55	0.70	42058.00	114.85	40.37	2
Monroe	0.02	1.01	1.39	14.23	1.32	0.49	51411.00	107.60	35.19	30
Oconto	0.03	0.19	1.67	4.37	0.24	0.21	52800.00	90.04	39.27	66
Oneida	0.06	0.61	3.39	15.18	1.85	0.33	46773.00	79.75	44.97	20
Outagamie	0.11	0.45	0.78	17.69	1.55	0.48	57124.00	74.66	34.76	46
Ozaukee	0.09	0.65	1.50	9.61	0.41	0.15	74392.00	47.68	29.79	69
Pepin	0.00	0.40	0.00	8.90	0.87	0.00	50728.00	89.03	30.39	71
Pierce	0.07	0.59	1.51	15.75	1.16	0.32	60824.00	69.50	28.08	56
Polk	0.14	0.43	3.33	10.70	2.39	0.32	49138.00	90.71	39.50	24
Portage	0.06	0.37	1.77	15.08	1.04	0.64	51587.00	79.54	38.08	39
Price	0.00	0.28	0.35	12.92	1.27	0.14	43004.00	85.60	32.98	61
Racine	0.19	0.60	0.72	23.70	1.98	0.77	54403.00	97.51	42.95	15
Richland	0.11	0.39	2.05	5.33	0.17	0.00	43635.00	92.95	31.74	57
Rock	0.19	0.77	1.17	25.19	2.24	0.87	49157.00	94.64	39.89	9
Rusk	0.00	1.02	0.41	11.96	1.32	0.27	37350.00	93.19	38.97	34
St. Croix	0.02	0.58	1.34	12.29	0.60	0.45	69641.00	67.85	27.19	68
Sauk	0.18	0.48	0.97	26.07	1.02	0.89	50923.00	99.93	35.88	19
Sawyer	0.12	1.21	3.38	14.13	1.75	0.54	40608.00	121.22	53.21	5
Shawano	0.00	0.24	1.55	14.47	0.66	0.26	45953.00	109.87	38.67	41
Sheboygan	0.10	0.65	0.58	17.60	1.52	0.12	52106.00	78.98	32.31	51
Taylor	0.00	0.39	0.82	9.91	0.94	0.10	45985.00	101.70	34.85	59
Trempealeau	0.03	0.76	0.80	7.69	0.57	0.21	50953.00	91.16	31.86	62
Vernon	0.03	0.50	0.47	9.30	0.72	0.27	47063.00	114.73	30.40	58
Vilas	0.28	0.70	3.45	21.28	2.89	0.14	40454.00	117.97	48.44	4
Walworth	0.14	0.41	1.05	16.65	0.83	0.65	52610.00	101.88	38.09	32
Washburn	0.13	0.88	0.38	19.64	1.85	0.25	43588.00	94.09	37.77	18
Washington	0.15	0.62	1.32	14.45	0.66	0.34	67276.00	60.71	34.14	53
Waukesha	0.11	0.73	0.81	12.02	0.65	0.25	75652.00	51.23	32.44	65
Waupaca	0.04	0.34	0.46	18.55	1.26	0.21	48056.00	77.70	38.07	54
Waushara	0.04	0.33	4.20	13.57	0.84	0.65	43175.00	97.69	41.35	21
Winnebago	0.13	0.45	1.98	17.42	1.69	0.64	50469.00	81.63	35.34	25
Wood	0.07	0.76	2.30	17.67	0.35	0.33	48723.00	73.71	37.98	37

Source: United State Census Bureau, DHS (death certificates, hospital discharge database, Wisconsin Family Health Survey, Program Participation System), Wisconsin Department of Justice, Wisconsin Department of Public Instruction, and Wisconsin Department Workforce Development.

## Tuberculosis and Hepatitis C

Tuberculosis is a contagious bacterial infection that usually attacks the lungs. It can also spread to other parts of the body like the brain, spinal cord, lymph nodes, and circulation. Active tuberculosis is contagious and spread from person to person through airborne particles. If an infected person coughs, sneezes, shouts, or spits, the bacteria can enter the air and come into contact with uninfected people who breathe the bacteria into their lungs. tuberculosis symptoms include cough, chest pain, coughing up blood, tiredness, fever, night sweats, loss of appetite, and weight loss. Homeless individuals, individuals with HIV, and needle users are among the populations at higher risk of contracting tuberculosis. Active tuberculosis can usually be cured with a long-term dose of antibiotics.

New cases of tuberculosis in Wisconsin remain low in comparison to the national average (Table 36). There were 69 new cases statewide in 2015. This is one new case of tuberculosis for every 100,000 people in the state. The rate of new tuberculosis cases across the U.S. was nearly three times higher.

**Table 36: New Cases of Tuberculosis per 100,000 Population, Wisconsin and U.S., 2015**

Wisconsin	United States
1.2 new cases	3.0 new cases

Source: Centers for Disease Control and Prevention

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). If untreated, it can lead to liver damage, including liver cirrhosis, liver cancer, and liver failure. Many people don't know that they have hepatitis C until they already have some liver damage and this can take many years. Some people who get hepatitis C have it for a short time and then get better. HCV is spread primarily by exposure to human blood from an infected person. It can also be spread sexually or from an infected mother to her infant. Most people become infected with hepatitis C virus by sharing needles or other equipment to inject drugs. Most (90 percent) HCV infections do not display symptoms. Individuals can be screened for the HCV virus. Of individuals infected with HCV, about 15 percent may develop liver cirrhosis over a period of 20 to 30 years, and 5 percent may die from the consequences of long-term HCV infection. In about 15 percent of hepatitis C cases, the body's immune system is able to completely destroy the virus. Building up the immune system and medication are common courses of treatment. Although hepatitis C can be very serious, most people can manage the disease and lead full, active lives.

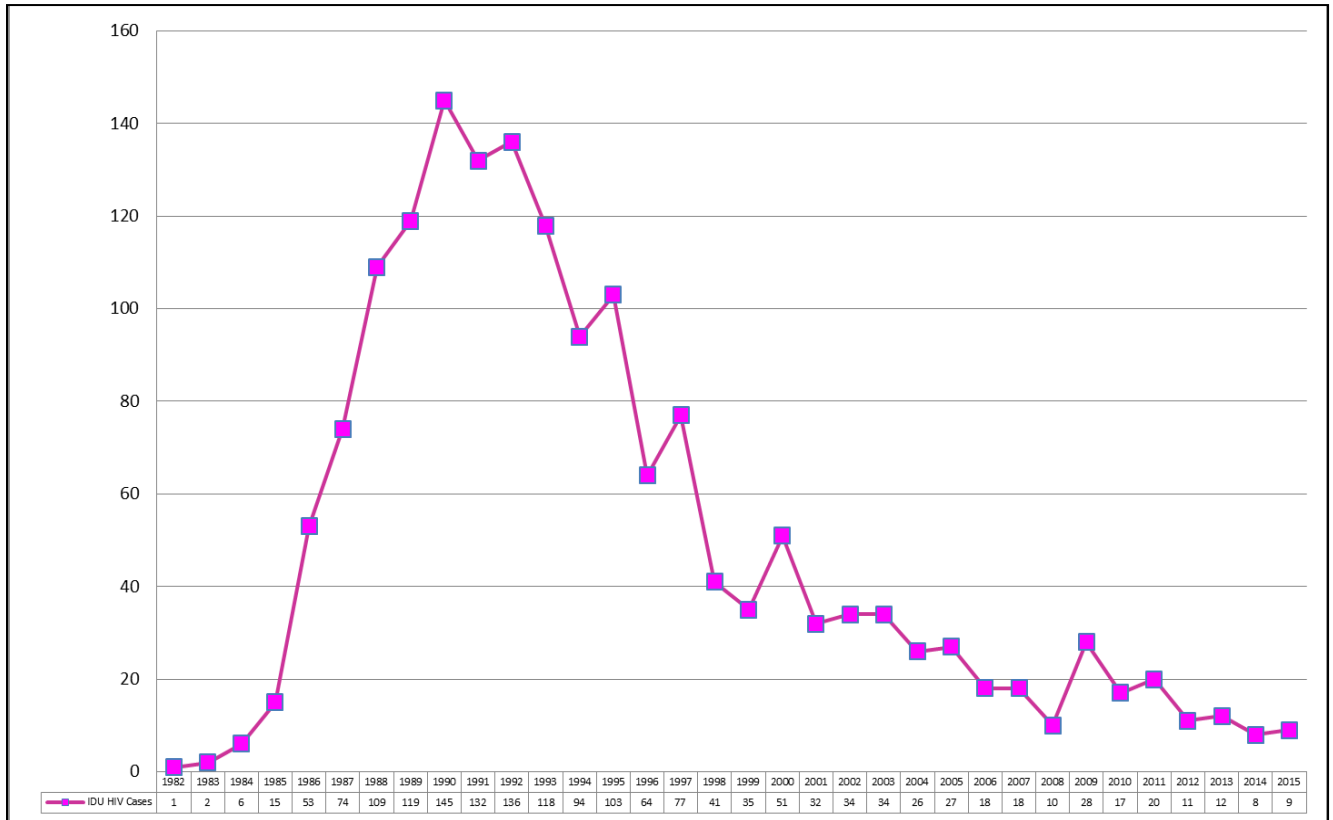
In 2014, there were 2,880 newly reported cases of hepatitis C virus in Wisconsin. Cases have been reported in every Wisconsin county. There are an estimated 90,000 individuals living in Wisconsin with hepatitis C virus.

## HIV and Intravenous Drug Use

HIV damages the body's immune system, the system that fights infections. Without a strong immune system's protection, the body is defenseless against serious and potentially life-threatening diseases, which can lead to the development of AIDS, the later stage of HIV. HIV is transmitted through contact with an infected person's body fluids, including sharing needles and/or syringes for injecting drugs like heroin with someone who is infected. Early treatment with antiviral and other related medications can slow the progression of HIV and the development of AIDS. Because there is no medication that rids HIV from the body, most infected individuals will need to take HIV medications their entire lives.

Drug injection is a method of introducing a drug into the bloodstream via a hollow hypodermic needle and a syringe, which is pierced through the skin into the body (usually in a vein, but also in a muscle or just below the skin). Heroin is the principal substance injected, but cocaine, methamphetamine, and any mood-altering, habit-forming drug that comes in tablet or capsule form can be prepared and injected. Injection drug use accounted for approximately 4 percent of the 225 new HIV cases in Wisconsin during 2015. Figure 51 tracks new HIV cases where exposure was caused by injection drug use.

**Figure 51: Number of Injection Drug Use-Related HIV Infections, Wisconsin**



Source: DHS.

In 2015, there were 2,292 injection drug users who received county-authorized treatment for addiction. County-authorized treatment for injection drug use is trending upward at a rate of 5 percent each year, corresponding with the increase in opioid misuse and addiction.

### Gambling Addiction

The American Psychiatric Association classifies gambling disorder as a “substance-related and addictive disorder” due to its development, course, and treatment. In addition, Substance Abuse and Mental Health Services Administration permits addressing co-existing gambling addiction alongside treatment of alcohol or other drug addiction. There are many commonalities between problem gambling and substance addiction and as such they are treated using similar approaches. Studies indicate that 1.1 percent of the adult population has a gambling disorder and an additional 2.8 percent are problem gamblers who need intervention or treatment. Problem gambling is defined as gambling resulting in a pattern of negative health, financial, or social consequences to the gambler, his or her family, employer, or community. Teen rates of problem gambling are higher than for adults. Four to 8 percent of youth ages 12-17 have a gambling problem and another 10 to 15 percent are at risk. In Wisconsin there are at least 230,000 problem gamblers. The societal costs of problem gambling in Wisconsin are estimated at \$10,000 per problem gambler.<sup>27, 28, 29</sup>

Since 1993, the Wisconsin Council on Problem Gambling has managed problem gambling public awareness and education in Wisconsin. This effort includes a 24-hour helpline (1-800-GAMBLE-5), an annual conference, and gambling counselor professional trainings. Calls to the helpline have nearly quadrupled from 3,865 in 1997 to 14,690 in 2015.

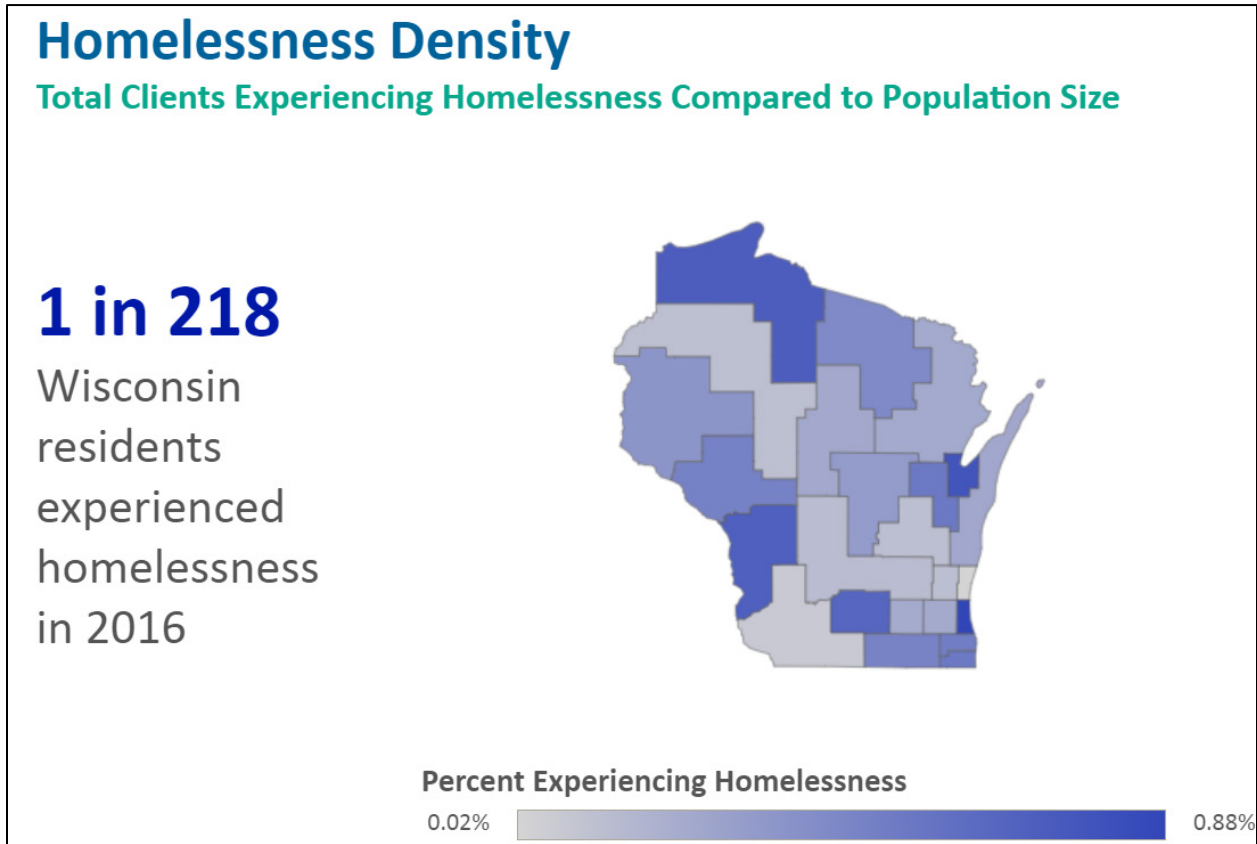
In 2015, seven individuals received county-authorized problem-gambling counseling reported through the Program Participation System; 10 individuals were reported having received problem-gambling counseling reimbursed by Medicaid. It is unknown how many individuals received problem-gambling treatment covered by private insurance.

## **Homelessness**

Individuals without a fixed address have one of the highest rates (35 percent) of substance misuse and addiction. Approximately 10,000 Wisconsin homeless individuals are experiencing substance addiction. Homelessness can be a result of substance addiction, often underlies the addiction, and in some instances being homeless increases the risk of substance misuse. According to the 2016 State of Homelessness in Wisconsin report by the Iowa-based Institute for Community Alliances,<sup>30</sup> there were 27,532 homeless individuals in Wisconsin. Forty-three percent are families with children. Whites (50 percent) and African Americans (40 percent) make up the largest percentages of homeless individuals. About 6.3 percent of Wisconsin homeless individuals are veterans.

Figure 52 shows the concentration of homelessness in Wisconsin regions and counties.<sup>34</sup> These individuals received formal housing support or other services from a local homeless service agency. Darker shaded areas have a higher density of homelessness. An interactive version of this map can be found at: <https://www.icalliances.org/wisconsin-annual-report-dashboard>.

Figure 52: Concentration of Homelessness in Wisconsin Regions and Counties



Source: Institute for Community Alliances, Des Moines, Iowa. Retrieved from <https://www.icalliances.org/wisconsin-annual-report-dashboard>

### Tobacco Use among Substance Use Treatment Clients

Alcohol and tobacco use are among the top causes of preventable deaths in the U.S. Studies have found that people who smoke are much more likely to drink, and people who drink are much more likely to smoke. Dependence on alcohol and tobacco is correlated: People who are dependent on alcohol are three times more likely than those in the general population to be smokers, and people who are dependent on tobacco are four times more likely than the general population to be dependent on alcohol. According to Substance Abuse and Mental Health Services Administration, 63 to 85 percent of individuals who seek substance use treatment report smoking cigarettes compared with 24 percent in the general population. While the rate of smoking in the general population has declined, smoking rates for substance use treatment clients have not changed.

Tobacco can serve as a trigger for relapse later in recovery and research shows that quitting smoking can improve addiction recovery outcomes.

Addressing smoking should also be part of a substance misuse prevention strategy. Data analyzed from the National Survey on Drug Use and Health showed that those who had smoked

cigarettes were far more likely to use cocaine, heroin, and marijuana, suggesting that cigarette smoking may be a gateway to illegal drug use.



## **Co-Occurring Mental Health and Substance Use Disorders**

Having a MHD increases vulnerability to using substances like alcohol or other habit-forming drugs to self-medicate. In such situations, a MHD usually precedes the addiction and then the addiction co-occurs with the MHD. There also is evidence that heavy alcohol use may alter the brain's ability to recover from traumatic experiences, therefore alcohol addiction and posttraumatic stress disorder can co-exist. Similarly, marijuana use can increase the risk of acquiring schizophrenia in those who have specific genetic vulnerabilities. The consequences of undiagnosed, untreated, or undertreated co-occurring disorders can lead to a higher likelihood of experiencing homelessness, incarceration, medical illnesses, suicide, and early death.

The 2014 National Survey on Drug Use and Health is a good source of data on the prevalence of co-occurring MHD and SUDs:

- A little more than 3 percent of all adults and 1.4 percent of all adolescents have a co-occurring disorder.
- Of individuals with a SUD or a MHD combined, 14 percent have a co-existing disorder.
- At least 18 percent of individuals who present with a MHD also have a SUD (this rate can vary by the type of MHD).
- Of individuals who present with an SUD, 39 percent also have an MHD.

## **VII. Access to Services**

This section examines available data on access to prevention and treatment services. Areas that will be analyzed include geographic access issues; the penetration rate or treated prevalence; reasons people do not seek or obtain needed services; and waiting lists/disparities among selected target populations. Comparisons with national data will be made where available.

Many potential barriers lay in the path of someone accessing the help they need including:

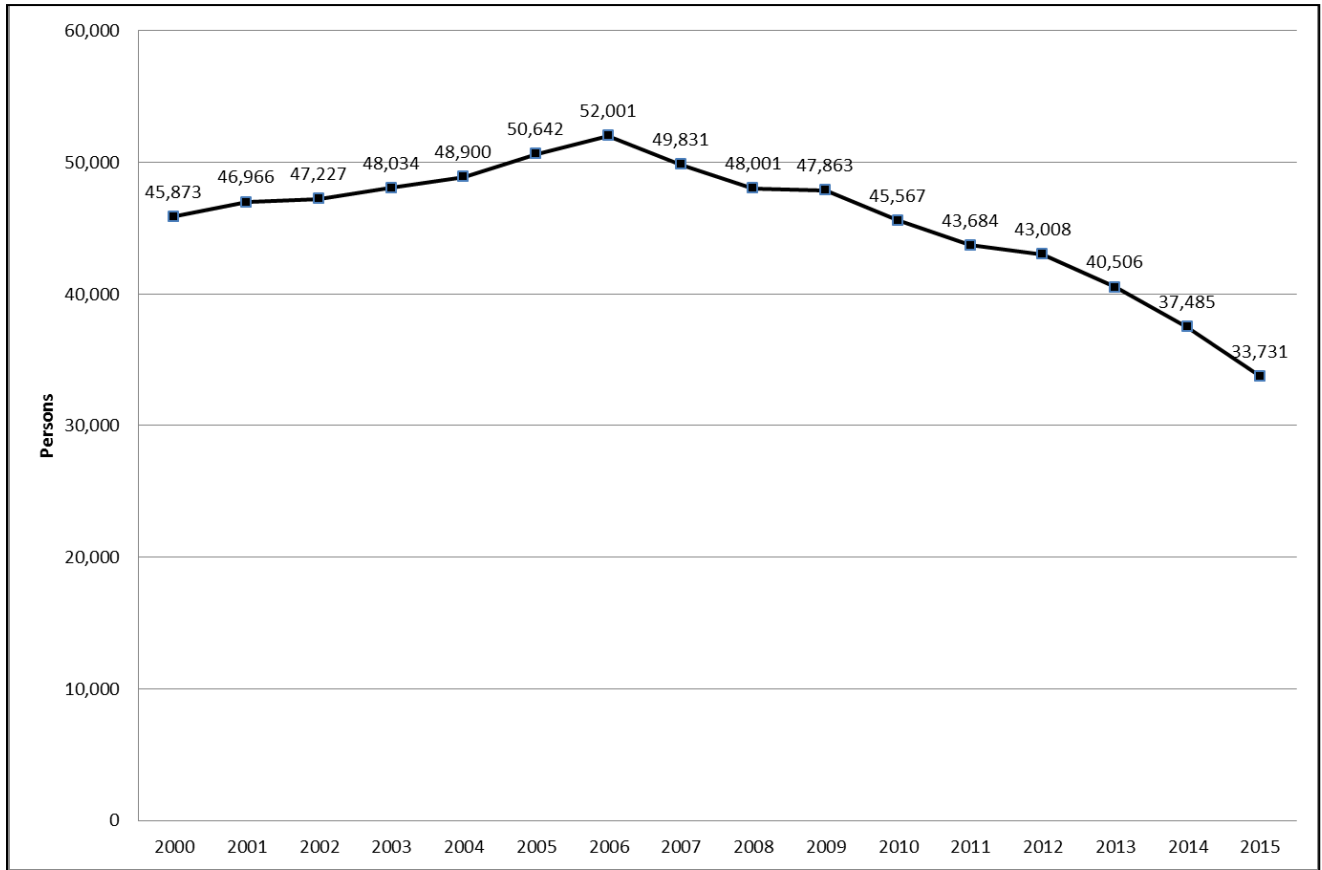
- Meeting eligibility requirements.
- Adequate financial resources.
- Insurance coverage policies.
- Personal motivation, self-awareness of one's own needs.
- Availability of services in the geographic area.
- Capacity of the local service system.

Even when a person becomes enrolled in services, there exists a range of secondary problems with access to needed services such as a lack of available staff.

### **Substance Use Services and Gaps**

Figure 53 shows the number of individuals receiving county-authorized or subsidized SUD services (for alcohol or other drug addiction) continued to decline at a rate of about 6 percent each year. Reasons may include flat, reduced, or limited public funding resulting from the economic recessions that occurred during the 2000s and the perception that county-authorized services are only there as a safety net or to provide legally mandated services (confirmed by referral source data where 67 percent of service recipients are ordered to obtain treatment). Therefore, vigorous outreach cannot or may not be a priority under this program. According to Wisconsin sample data from the National Survey on Drug Use and Health, the prevalence of substance addiction in Wisconsin may be declining at a rate of about one-half of a percentage point each year, which may also factor into this decline in services.

**Figure 53: County-Authorized Individuals Served Having a Substance Use Disorder**



Source: Program Participation System, DHS.

What is the gap between individuals needing treatment for an alcohol or drug addiction and individuals receiving treatment? In a recent study that combined and analyzed three principal sources of Wisconsin county-level substance use treatment data, approximately 22 percent of individuals needing treatment received treatment. Table 37 compares the prevalence of alcohol or drug addiction with the number of individuals receiving treatment services in a sample of 45 Wisconsin counties.<sup>viii</sup> The three sources of treatment data used should approximate at least 85 percent of the universe of formal community addiction treatment occurring in Wisconsin. Self-pay and employers who self-insure are not reported. The Wisconsin treatment gap, or the rate of individuals not receiving addiction treatment that need it, is estimated to be approximately 78 percent. About 17 percent of the county-authorized clients are also included in the Medicaid client data. It is unknown how many county-authorized clients are included in the commercial insurance client data.

<sup>viii</sup> Complete data from the three sources were not available for every county.

**Table 37: Estimated Wisconsin Substance Use Disorder Treatment Gap**

(Data were obtained from the three principal sources of Wisconsin Substance Use Disorder Treatment)

County	2010 Population Age 12 and Over	Substance Addiction Prevalence Rate	Substance Addiction Prevalence Persons	2015 County- authorized Persons Served	2015 Medicaid- reimbursed Persons Served	2015 Commercial Insurance Persons Served	Sum of All Persons Served	Treatment Gap (Percent)
Adams	18,739	0.0945	1,771	74	38			
Ashland	13,701	0.0892	1,222	41	130			
Barron	39,246	0.0999	3,921	169	64	291	524	86.6
Bayfield	13,239	0.0892	1,181	27	66			
Brown	206,743	0.0893	18,462	218	668			
Buffalo	11,676	0.0999	1,166	5	15			
Burnett	13,536	0.0999	1,352	6	58			
Calumet	40,223	0.0893	3,592	29	48	231	308	91.4
Chippewa	52,589	0.0999	5,254	52	134	646	832	84.2
Clark	27,857	0.0999	2,783	137	47	325	509	81.7
Columbia	48,192	0.0945	4,554	68	99	1,729	1,896	58.4
Crawford	14,281	0.0945	1,350	46	49			
Dane	416,283	0.0945	39,339	1272	1551	10,985	13,808	64.9
Dodge	76,141	0.0945	7,195	275	255	1,418	1,948	72.9
Door	24,645	0.0893	2,201	51	34	167	252	88.5
Douglas	37,963	0.0999	3,793	65	96	496	657	82.7
Dunn	37,901	0.0999	3,786	134	102	306	542	85.7
Eau Claire	84,971	0.0999	8,489	47	224	853	1,124	86.8
Florence	3,954	0.0892	353	17	3			
Fond du Lac	86,703	0.0893	7,743	837	413	590	1,840	76.2
Forest	8,031	0.0892	716	64	42			
Grant	44,051	0.0945	4,163	219	93			
Green	30,981	0.0945	2,928	151	82	698	931	68.2
Green Lake	16,162	0.0893	1,443	101	26	122	249	82.7
Iowa	19,743	0.0945	1,866	98	62	381	541	71.0
Iron	5,361	0.0892	478	39	15			
Jackson	17,405	0.0999	1,739	16	56			
Jefferson	70,649	0.0869	6,139	308	158	1,510	1,976	67.8
Juneau	23,009	0.0945	2,174	157	121	411	689	68.3
Kenosha	138,560	0.0869	12,041	70	262	912	1,244	89.7
Kewaunee	17,445	0.0893	1,558	55	26	148	229	85.3
La Crosse	98,633	0.0999	9,853	39	498	1,429	1,966	80.0
Lafayette	13,977	0.0945	1,321	70	31			
Langlade	17,324	0.0892	1,545	101	173	200	474	69.3
Lincoln	24,985	0.0892	2,229	144	136	527	807	63.8
Manitowoc	69,954	0.0893	6,247	55	128	581	764	87.8
Marathon	112,788	0.0892	10,061	649	512			

**Table 37: Estimated Wisconsin Substance Use Disorder Treatment Gap, Continued.**

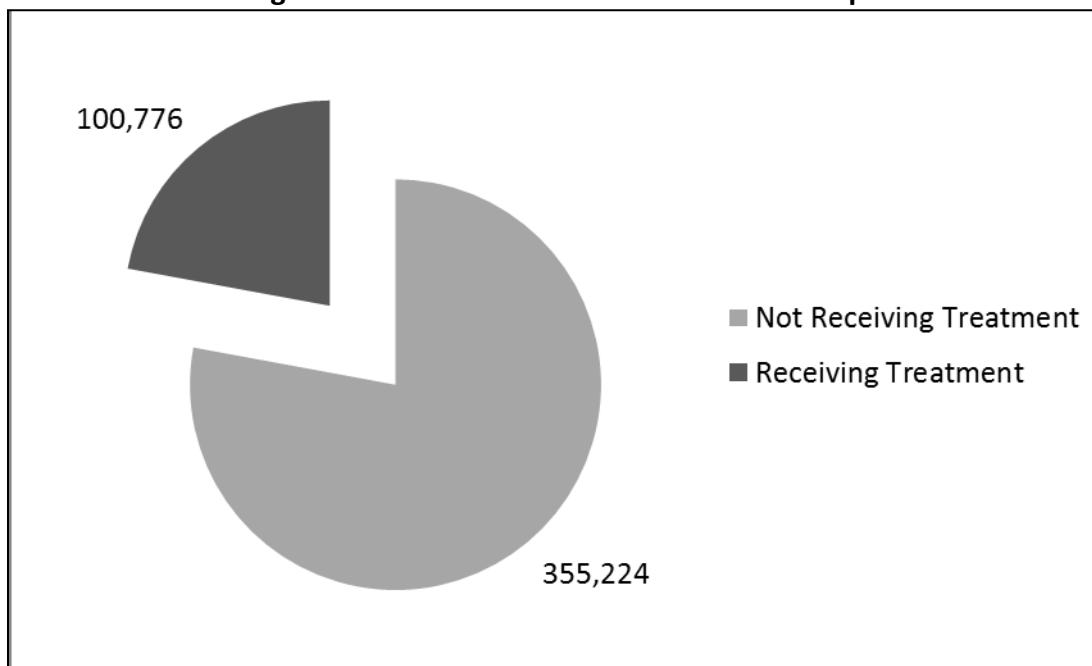
(Data were obtained from the three principal sources of Wisconsin Substance Use Disorder Treatment)

County	2010 Population Age 12 and Over	Substance Addiction Prevalence Rate	Substance Addiction Prevalence Persons	2015 County- authorized Persons Served	2015 Medicaid- reimbursed Persons Served	2015 Commercial Insurance Persons Served	Sum of All Persons Served	Treatment Gap (Percent)
Marinette	36,310	0.0893	3,242	294	117	360	771	76.2
Marquette	13,410	0.0893	1,198	118	25			
Menominee	3,315	0.0893	296	87	66			
Milwaukee	788,352	0.1086	85,615	1449	3612			
Monroe	36,886	0.0999	3,685	90	156	409	655	82.2
Oconto	32,333	0.0893	2,887	114	39	250	403	86.0
Oneida	31,915	0.0892	2,847	257	227	427	911	68.0
Outagamie	147,616	0.0893	13,182	246	438	1,046	1,730	86.9
Ozaukee	73,738	0.0869	6,408	150	36	629	815	87.3
Pepin	6,366	0.0999	636	3	18			
Pierce	35,020	0.0999	3,498	125	39	334	498	85.8
Polk	37,535	0.0999	3,750	289	142	459	890	76.3
Portage	60,567	0.0892	5,403	58	197	783	1,038	80.8
Price	12,494	0.0892	1,114	22	38			
Racine	163,765	0.0869	14,231	369	502	1,488	2,359	83.4
Richland	15,209	0.0945	1,437	102	78			
Rock	134,093	0.0945	12,672	337	759	2,984	4,080	67.8
Rusk	12,697	0.0999	1,268	5	65			
St. Croix	68,869	0.0999	6,880	288	127	857	1,272	81.5
Sauk	52,343	0.0945	4,946	111	197	1,533	1,841	62.8
Sawyer	14,321	0.0892	1,277	143	198			
Shawano	35,786	0.0893	3,196	207	100	258	565	82.3
Sheboygan	97,613	0.0893	8,717	157	196	800	1,153	86.8
Taylor	17,341	0.0892	1,547	80	29			
Trempealeau	24,195	0.0999	2,417	34	51	263	348	85.6
Vernon	24,534	0.0945	2,318	27	82	268	377	83.7
Vilas	19,063	0.0892	1,700	153	363			
Walworth	86,512	0.0869	7,518	183	195	904	1,282	82.9
Washburn	13,837	0.0999	1,382	23	90			
Washington	110,861	0.0869	9,634	244	77	1,055	1,376	85.7
Waukesha	331,074	0.0869	28,770	553	424			
Waupaca	44,912	0.0893	4,011	14	145	554	713	82.2
Waushara	21,442	0.0893	1,915	250	85	146	481	74.9
Winnebago	143,170	0.0893	12,785	219	477			
Wood	63,914	0.0892	5,701	357	364	1,135	1,856	67.4
<b>Statewide Estimate</b>								<b>77.9</b>

Sources: United States Census Bureau; 2012-2014 National Survey on Drug Use and Health, Wisconsin sample; DHS (Program Participation System, Medicaid fee-for-service and managed care claims databases); and Wisconsin Health Information Organization.

Figure 54 displays the estimated 78 percent treatment gap as the number of individuals needing but not receiving addiction treatment in Wisconsin.

**Figure 54: Wisconsin Addiction Treatment Gap**



Sources: National Survey on Drug Use and Health, DHS (Program Participation System and Medicaid claims database), and Wisconsin Health Information Organization.

### **Service Availability, Waiting List Issues, and Unmet Service Needs**

Each year DHS surveys county government agencies administering or providing substance use services and collects data on waiting lists and unavailable services. In 2015, 11 county agencies indicated that there were individuals who either couldn't get services (114 individuals) or that waited at least two weeks to access services (662 individuals). Services may not be available nearby or county funds were not sufficient. Unavailable services included residential, intensive outpatient counseling, or narcotic treatment.

Studies show that substance-use clients from waiting lists are at higher risk of not starting treatment or withdrawing early from treatment. A wait-list person is anyone having to wait at least 14 days to start treatment. In 2015, the average wait time from first contact to start of services was 19.9 days among a sample of seven county agencies who reported this data. The 2012 national average wait time was three days.

Through the above-mentioned county agency survey, 30 county agencies identified unmet service needs; if funding were available, they would offer those services. Services and number of counties identifying the unmet service need in parentheses include:

- Buprenorphine prescriber and/or treatment (9).
- Residential treatment (9).

- Detox/withdrawal management for alcohol and/or opioids (9).
- Sober housing (5).
- Expand regular outpatient counseling (4).
- Youth-specific counseling (3).
- Intensive outpatient counseling (3).
- Case management (3).
- Transportation (3).

Other unmet needs identified include:

- In-jail treatment.
- Drug court.
- Psychiatrist.
- Child care.
- Outreach.
- Expanding prevention services.

For each dollar invested in substance use prevention, there is a benefit of \$7.65 realized in reduced health care and social services, reduced public assistance, reduced crime, and increased potential earnings.<sup>31</sup> Wisconsin employs a regional model for much of its substance abuse prevention services. Also, every Wisconsin county receives Substance Abuse Prevention and Treatment Block Grant funds, at least 20 percent of this funding must be spent on prevention. These amounts range from \$2,000 to \$480,000 depending largely upon the size of the resident population in the county. The average amount available to a county is \$27,000. At the very least, every county has a grassroots prevention coalition, multi-agency or organization collaboration, or public awareness activities in place addressing locally identified prevention needs. Counties with relatively higher levels of prevention resources available typically will have one or more of the following prevention services in place (arranged from most to least frequently used).

- Grassroots coalition
- Community public awareness activities
- Public service announcements or media campaigns such as Parents Who Host, Lose The Most
- Speakers bureau
- School presentations and discussions
- Evidence-based school prevention program, such as Peer-Led, All Stars, and Too Good for Drugs
- Evidence-based screening and intervention programs, such as Student Assistance Program and Screening, Brief Intervention, Referral, Treatment
- Small group discussions and activities for youth
- Trauma-informed care initiative
- Medication drop-off sites
- Communitywide alcohol or drug-free activities for youth
- Teen leadership activities

- Life skills training for youth
- Strengthening Families or other parenting programs
- Services targeted to children of substance users
- Community-based program for justice-involved individuals, such as Prime For Life
- Youth restorative justice program or drug court
- Underage drinking/drug use intervention
- Crisis or help line
- Evidence-based community prevention program, such as Communities Mobilizing for Change on Alcohol

### **Service Participants' Perspective on Barriers to Substance Use Treatment**

National and Wisconsin surveys provide information on the service participants' perspective about service barriers. These surveys indicate that a lack of perceived need for treatment on the part of the individual affected, the inability to afford treatment, service times that conflict with important activities, and transportation top the list of barriers to treatment. More information on this topic will be presented in *Section IX: Quality and Appropriateness of Services*.

### **Are There Disparities in Substance Use Treatment or Prevention Services?**

Data on the proportion of services received by population groups can shed light on whether certain population groups have access to services or are underserved. White males, people living in urban areas, and those having an alcohol use disorder generally make up a large percentage of individuals receiving substance use services. Table 38 describes the relative distribution of county-authorized services provided to select population groups (by gender, age, race, and ethnicity) compared to their substance addiction prevalence. Females and youth under age 18 are underserved relative to their substance addiction prevalence. For example, 33 percent of people with a substance addiction across Wisconsin are female, but only 31 percent of individuals receiving county-authorized treatment in Wisconsin are female.



**Table 38: Substance Addiction Prevalence in Wisconsin and County-Authorized Substance Addiction Treatment Clients Served in Wisconsin, 2015**

	Substance Addiction Prevalence		County-Authorized Substance Addiction Clients Served, 2015	
	Number	Percent	Number	Percent
<b>Female</b>	152,304	33%	10,128	31%
<b>Male</b>	303,696	67%	22,739	69%
<b>Total</b>	456,000	100%	32,867	100%
<b>Ages under 18</b>	40,700	9%	657	2%
<b>Ages 18-59</b>	401,850	88%	30,567	93%
<b>Ages 60 and over</b>	13,450	3%	1,643	5%
<b>Total</b>	456,000	100%	32,867	100%
<b>White</b>	394,896	87%	25,636	78%
<b>Black</b>	27,360	6%	3,944	12%
<b>Hispanic</b>	25,992	6%	1,972	6%
<b>American Indian</b>	4,104	1%	986	3%
<b>Asian</b>	3,648	<1%	329	1%
<b>Total</b>	456,000	100%	32,867	100%

Sources: United States Census Bureau, National Survey on Drug Use and Health, and DHS (Program Participation System).

DHS collects information from county and other local prevention providers funded under the Substance Abuse Prevention and Treatment Block Grant through the Substance Abuse Prevention Services Information System. Table 39 shows the number of individuals reached with substance use prevention program services in 2015 compared to their distribution in the general population. The data show that prevention programs are achieving good parity with respect to reaching cultural groups.

**Table 39: Race and Ethnicity Distribution: General Population versus Individuals Reached, Wisconsin, 2015**

Race or Ethnicity	Percent of General Population	Percent of Individuals Reached Through Prevention Programs
<b>American Indian or Alaska Native</b>	1.1%	1.2%
<b>Asian</b>	2.8%	2.6%
<b>African American</b>	6.6 %	8.8%
<b>Hispanic/Latino</b>	6.6%	6.4%
<b>White</b>	84.5%	81.9%

Sources: United States Census Bureau, 2015 and DHS (Substance Abuse Prevention Services Information System).

## Access to Substance Use Services for Deaf and Hard of Hearing Individuals

According to a survey taken by the National Center for Health Statistics and endorsed by Gallaudet University, 8.6 percent (347,013 individuals) of the general population are deaf or hard of hearing; 0.5 percent are deaf and cannot hear any speech (deaf and late-deafened), and 8.1 percent are hard of hearing. Twelve percent or 2,850 Wisconsin deaf individuals have a substance use disorder and are in need of treatment, and 32,700 hard of hearing individuals are in need of substance use treatment.

Deaf describes both a hearing status and a cultural affiliation. Individuals who are deaf from an early age typically use sign language (usually American Sign Language) as a primary means of communication rather than speech and hearing. Individuals who are late-deafened experience deafness later in life and may or may not know or use sign language. Individuals who are hard of hearing typically use speech, limited hearing, and *speech reading* (sometimes called lip reading) for communication (often with the assistance of hearing aids). Deaf-blindness means a hearing disability coupled with a visual disability, the combination of which causes severe communication problems.

Culturally, deaf individuals tend to be distinct from those who are hard of hearing. Deaf individuals typically prefer to be treated by or with other deaf people as opposed to mainstream programs in *hearing* culture. People who are deaf tend not to identify with the typical medical model of treatment, which doesn't emphasize abilities within the deaf community, abiding their own language and values. Substance use counseling through an interpreter mediating spoken English and American Sign Language can lead to barriers in effective communication and impede the important relational component with the therapist or peers.

Hard of hearing individuals may seek treatment from mainstream programs, although there are communication barriers for them as well. Programs that have assistive listening devices available and communication strategies that address coping with the hearing loss are most successful. Strategies as simple as having adequate lighting and face-to-face orientation so that the person who is hard of hearing can get cues from facial expression and speech read can be vital.

The data provided in Tables 40 and 41 represent county-authorized deaf or hard of hearing individuals receiving substance use treatment. Approximately 93 such individuals have been reported as receiving county-authorized substance use services during a recent annual period. The data presented is based upon the 93 clients reported.

**Table 40: Deaf or Hard of Hearing Individuals Receiving Substance Use Services Provisional  
Location of Services, Wisconsin**

<b>County</b>	<b>Individuals Served</b>
Ashland	<5
Bayfield	<5
Columbia	<5
Douglas	<5
Dunn	<5
Fond du Lac	7
Forest/Oneida/Vilas	10
Green Lake	<5
Jefferson	16
Juneau	<5
La Crosse	<5
Kenosha	6
Langlade/Lincoln/Marathon	29
Marinette	<5
Monroe	<5
Oconto	<5
Polk	10
Racine	<5
Sawyer	<5
St. Croix	<5
Sheboygan	<5
Taylor	<5
Waushara	<5
Vernon	<5

Source: Program Participation System, DHS.

Notes: For privacy reasons, data by location cannot be reported in numbers less than five. These data should be considered provisional. Several counties including Dane, Milwaukee, Waukesha, and others have not submitted complete data as of the publication of this report.

**Table 41: Deaf or Hard of Hearing Individuals Receiving Substance Use Disorder Services  
Provisional Demographic Data, Wisconsin**

	<b>Percent of Individuals Served (n=93)</b>
<b>GENDER</b>	
<b>Male</b>	77%
<b>Female</b>	23%
<b>AGE GROUP</b>	
<b>0-17</b>	0%
<b>18-25</b>	5%
<b>26-35</b>	15%
<b>36-45</b>	13%
<b>46-55</b>	19%
<b>56-65</b>	22%
<b>66+</b>	26%
<b>ETHNICITY</b>	
<b>American Indian</b>	3%
<b>Asian</b>	3%
<b>African American</b>	0%
<b>Hispanic</b>	3%
<b>White</b>	91%

Source: Program Participation System, DHS.

### **Need for Continuing Community Substance Use Services after Prison Release**

Studies indicate that at least 40 percent of individuals booked into jails have a substance addiction. This rate is even higher (70 percent) among state prison inmates. The effectiveness of substance use treatment provided during a period of incarceration is ensured through continuing treatment in the community after release. Department of Corrections data show, in 2015, 3,770 individuals received SUD treatment during state prison incarceration and 2,930 individuals with SUD treatment needs were released and in need of continuing care in the communities they will reside in.

## VIII. Service Workforce and Capacity

This section examines available information on the size of the workforce in the substance use services system as an indication of its capacity to meet the needs of individuals across the state. Information on the type and volume of services and strategies provided in Wisconsin, the number of providers of these services, and some characteristics of this workforce are presented. This, combined with additional information on county expenditures on SUD services, helps to examine if the capacity of the system is appropriately aligned with service needs and if services provided are cost effective. Due to the limits of some workforce data, service utilization data is used as a proxy for the size and distribution of the workforce.

### Wisconsin’s Substance Use Services System under the Substance Abuse Prevention and Treatment Block Grant

The Wisconsin public substance use services system under the federal Substance Abuse Prevention and Treatment Block Grant is administered by the state and operated by the county. County human services departments are the primary vehicle to provide or contract for substance use services under state and federal aids and grants. Wisconsin Stat. § 51.42 requires county agencies to provide services within the limits of available state, federal, and matched county funds. In addition, substance use prevention services are delivered through five Alliance for Wisconsin Youth regional prevention centers and community coalitions.

Table 42 gives a snapshot of the types of county and other local prevention services provided across the state in 2015.

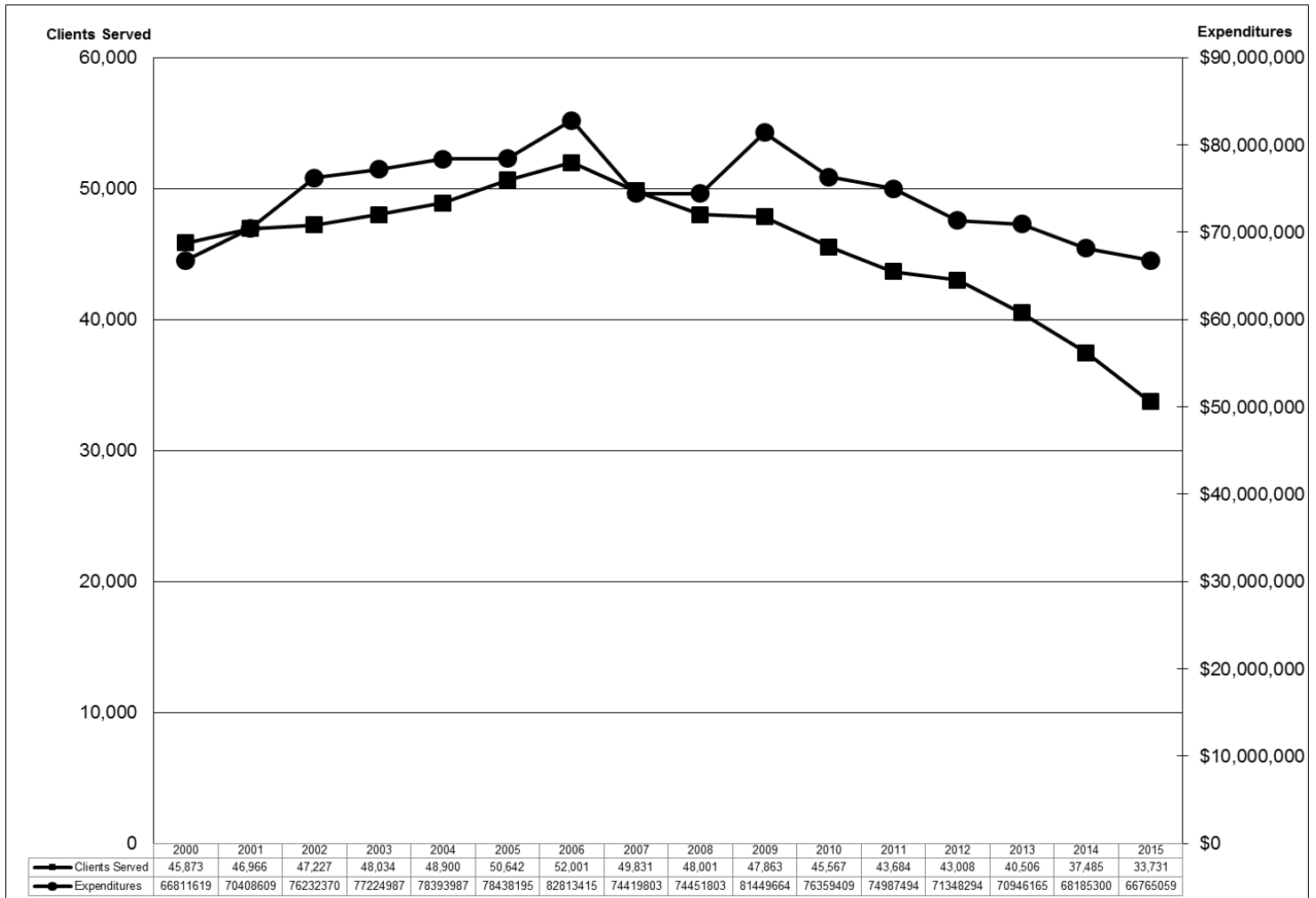
**Table 42: Types of Prevention Programs, Wisconsin, 2015**

<b>Prevention Program Type</b>	<b>Percent of Prevention Programs (n=210)</b>
<b>Population Risk Level Classification</b>	
Universal Indirect (coalitions, policies)	42%
Universal Direct (general population, unknown risk)	36%
Selective (at-risk populations)	11%
Indicated (substance users, high risk populations)	11%
<b>Most Common Kinds of Activities</b>	
Multi-agency coordination and collaboration, coalitions	26%
Ongoing classroom and/or small group sessions	18%
Education programs for youth groups	9%
Presentations to community groups	7%
Drug-free dances, parties, and social events	5%
Other	35%

Source: Substance Abuse Prevention Services Information System, DHS

County human services departments submit client-level demographic and service data to the Program Participation System for the substance use services they authorize. The county-authorized services data in this section include all services—assessments, detox, residential treatment, outpatient counseling, case management, and other recovery supports. Expenditures for substance use services are reported somewhat independently of the client-level data. These county data represent about one-third of the reported addiction services provided in the state. The other two-thirds of individuals receiving reported addiction services are recorded in the Medicaid or commercial health insurance databases. Self-pay and employers who self-insure are not reported. Figure 55 shows annual trends in the number of individuals receiving county-authorized substance use services along with county expenditures for substance use services. The declines were discussed in Section VII: Access to Services.

**Figure 55: County Authorized Individuals Served and Expenditures, Substance Use Services, Wisconsin**



Source: Program Participation System, DHS.

Studies show that for each dollar invested in substance use treatment services, there is a return benefit of \$6.35 to communities in increased employment income, reduced health care costs, and reduced costs of crime.<sup>32</sup> Table 43 displays the overall county agency cost per substance use client. County-level per client costs are an indicator of the service system’s resource capacity. Lower per client costs may indicate that resources are stretched too thin. On average, county agencies expend about \$1,975 per substance use client. There are several counties, such as Bayfield, Buffalo, Chippewa, Outagamie, and Sheboygan that have unusually high cost per client figures.

**Table 43: County-Authorized Substance Use Services, Wisconsin, 2015**

<b>Cost Per Person Served</b>			
<b>County</b>	<b>2015 Substance Use Services Expenditures</b>	<b>2015 Persons Served Substance Use Services</b>	<b>2015 Cost Per Person Served</b>
Adams	\$515,008	160	\$3,219
Ashland	\$144,558	62	\$2,332
Barron	\$393,495	181	\$2,174
Bayfield	\$295,250	53	\$5,571
Brown	\$1,317,341	1,602	\$822
Buffalo	\$50,460	6	\$8,410
Burnett	\$365,255	124	\$2,946
Calumet	\$193,564	169	\$1,145
Chippewa	\$759,417	56	\$13,561
Clark	\$195,970	194	\$1,010
Columbia	\$187,620	202	\$929
Crawford	\$136,071	92	\$1,479
Dane	\$7,997,684	3,175	\$2,519
Dodge	\$1,301,279	623	\$2,089
Door	\$320,515	132	\$2,428
Douglas	\$372,046	156	\$2,385
Dunn	\$528,775	164	\$3,224
Eau Claire	\$1,102,647	336	\$3,282
Florence	\$40,523	17	\$2,384
Fond du Lac	\$834,484	1,250	\$668
Forest	\$256,826	116	\$2,214
Grant	\$340,059	362	\$939
Green	\$550,708	267	\$2,063
Green Lake	\$292,124	117	\$2,497
Iowa	\$157,103	167	\$941
Iron	\$70,452	54	\$1,305
Jackson	\$160,215	162	\$989
Jefferson	\$856,880	738	\$1,161
Juneau	\$329,839	240	\$1,374
Kenosha	\$1,717,451	814	\$2,110
Kewaunee	\$159,329	133	\$1,198
La Crosse	\$1,258,306	633	\$1,988
Lafayette	\$170,753	149	\$1,146
Langlade	\$424,201	205	\$2,069
Lincoln	\$611,002	289	\$2,114
Manitowoc	\$696,703	385	\$1,810
Marathon	\$2,856,530	1,368	\$2,088



**Table 43: County-Authorized Substance Use Services, 2015, Continued.**

<b>Cost Per Person Served</b>			
<b>County</b>	<b>2015 Substance Use Services Expenditures</b>	<b>2015 Persons Served Substance Use Services</b>	<b>2015 Cost Per Person Served</b>
Marinette	\$945,014	422	\$2,239
Marquette	\$220,725	197	\$1,120
Menominee	\$234,756	137	\$1,714
Milwaukee	\$14,268,713	4,720	\$3,023
Monroe	\$448,347	442	\$1,014
Oconto	\$261,796	227	\$1,153
Oneida	\$992,663	448	\$2,216
Outagamie	\$2,343,858	427	\$5,489
Ozaukee	\$395,632	454	\$871
Pepin	\$3,523	2	\$1,762
Pierce	\$389,970	272	\$1,434
Polk	\$448,992	437	\$1,027
Portage	\$454,029	565	\$804
Price	\$95,707	67	\$1,428
Racine	\$1,277,641	1,393	\$917
Richland	\$126,237	144	\$877
Rock	\$1,580,187	1,652	\$957
Rusk	\$65,017	84	\$774
St. Croix	\$771,006	491	\$1,570
Sauk	\$420,833	165	\$2,551
Sawyer	\$745,671	247	\$3,019
Shawano	\$224,966	462	\$487
Sheboygan	\$1,853,351	164	\$11,301
Taylor	\$201,244	148	\$1,360
Trempealeau	\$125,997	151	\$834
Vernon	\$63,492	35	\$1,814
Vilas	\$592,188	268	\$2,210
Walworth	\$1,174,427	698	\$1,683
Washburn	\$103,949	27	\$3,850
Washington	\$844,075	748	\$1,128
Waukesha	\$3,346,483	752	\$4,450
Waupaca	\$236,778	260	\$911
Waushara	\$363,535	315	\$1,154
Winnebago	\$1,993,789	1,491	\$1,337
Wood	\$1,035,979	626	\$1,655
<b>State Summary</b>	<b>\$66,611,013</b>		<b>\$1,975</b>

Source: Program Participation System, DHS.

Because publicly supported services are intended for low-income individuals, it may be useful to examine those served in the context of Medicaid substance use treatment data and poverty levels. Table 44 compares 2015 county-level data on poverty rates as well as individuals in substance use services and individuals served per 1,000 population that were either county authorized or Medicaid reimbursed. These three rate indicators are strongly correlated. That is, county agencies having higher poverty rates are serving more publicly supported substance use individuals per capita. Conversely, county agencies having lower poverty rates are serving fewer publicly supported substance use individuals per capita.

**Table 44: Publically-Supported Substance Use Services, Wisconsin, 2015**

County	Person Served Per Capita					
	2010 General Population	Percent of Population Living in Poverty	County-authorized Persons Served Substance Use Services	County-authorized Persons Served Per 1,000 Population	Medicaid-reimbursed Persons Served Substance Use Services	Medicaid-reimbursed Persons Served Per 1,000 Population
Adams	20,875	17.8%	160	7.7	38	1.8
Ashland	16,157	14.9%	62	3.8	130	8.0
Barron	45,870	13.7%	181	3.9	64	1.4
Bayfield	15,014	13.6%	53	3.5	66	4.4
Brown	248,007	12.0%	1,602	6.5	668	2.7
Buffalo	13,587	10.5%	5	0.4	15	1.1
Burnett	15,457	16.5%	25	1.6	58	3.8
Calumet	48,971	5.9%	169	3.5	48	1.0
Chippewa	62,415	10.7%	56	0.9	134	2.1
Clark	34,690	16.0%	194	5.6	47	1.4
Columbia	56,833	8.8%	202	3.6	99	1.7
Crawford	16,644	14.7%	92	5.5	49	2.9
Dane	488,073	13.4%	3,175	6.5	1551	3.2
Dodge	88,759	9.9%	623	7.0	255	2.9
Door	27,785	11.0%	132	4.8	34	1.2
Douglas	44,159	13.9%	156	3.5	96	2.2
Dunn	43,857	13.9%	164	3.7	102	2.3
Eau Claire	98,736	14.4%	162	1.6	224	2.3
Florence	4,423	12.8%	17	3.8	3	0.7
Fond du Lac	101,633	9.9%	1,250	12.3	413	4.1
Forest	9,304	16.5%	116	12.5	42	4.5
Grant	51,208	16.6%	362	7.1	93	1.8
Green	36,842	8.7%	267	7.2	82	2.2
Green Lake	19,051	11.3%	117	6.1	26	1.4
Iowa	23,687	9.8%	167	7.1	62	2.6
Iron	5,916	15.6%	54	9.1	15	2.5
Jackson	20,449	14.0%	162	7.9	56	2.7
Jefferson	83,686	10.6%	738	8.8	158	1.9
Juneau	26,664	13.1%	240	9.0	121	4.5
Kenosha	166,426	15.4%	814	4.9	262	1.6
Kewaunee	20,574	8.9%	133	6.5	26	1.3
La Crosse	114,638	12.6%	633	5.5	498	4.3
Lafayette	16,836	11.7%	149	8.9	31	1.8
Langlade	19,977	14.5%	205	10.3	173	8.7
Lincoln	28,743	11.1%	289	10.1	136	4.7
Manitowoc	81,442	10.8%	385	4.7	128	1.6
Marathon	134,063	10.9%	1,368	10.2	512	3.8

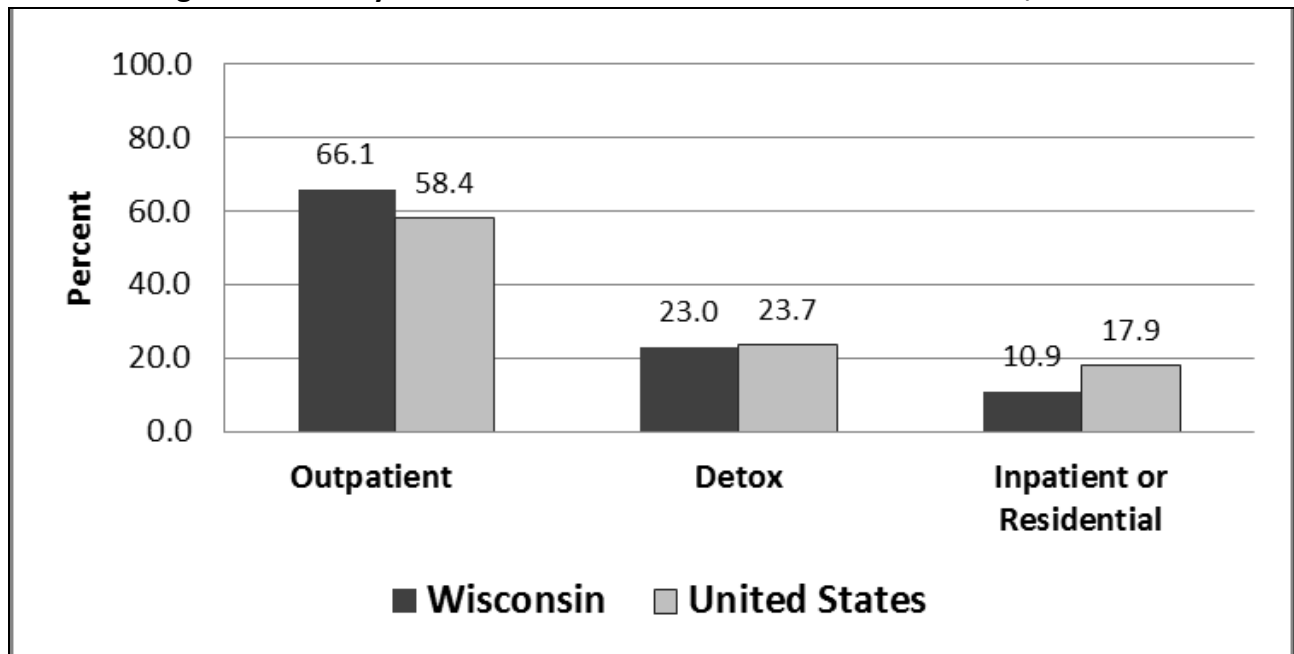
**Table 44: Publically-Supported Substance Use Services, Wisconsin, 2015, Continued.**

County	Person Served Per Capita					
	2010 General Population	Percent of Population Living in Poverty	County-authorized Persons Served Substance Use Services	County-authorized Persons Served Per 1,000 Population	Medicaid-reimbursed Persons Served Substance Use Services	Medicaid-reimbursed Persons Served Per 1,000 Population
Marinette	41,749	13.4%	422	10.1	117	2.8
Marquette	15,404	13.0%	197	12.8	25	1.6
Menominee	4,232	29.1%	137	32.4	66	15.6
Milwaukee	947,735	22.0%	4,720	5.0	3612	3.8
Monroe	44,673	14.4%	442	9.9	156	3.5
Oconto	37,660	10.5%	227	6.0	39	1.0
Oneida	35,998	10.7%	448	12.4	227	6.3
Outagamie	176,695	10.0%	341	1.9	438	2.5
Ozaukee	86,395	5.0%	454	5.3	36	0.4
Pepin	7,469	12.1%	2	0.3	18	2.4
Pierce	41,019	10.8%	272	6.6	39	1.0
Polk	44,205	11.2%	437	9.9	142	3.2
Portage	70,019	15.4%	565	8.1	197	2.8
Price	14,159	13.0%	67	4.7	38	2.7
Racine	195,408	13.1%	1,393	7.1	502	2.6
Richland	18,021	13.5%	144	8.0	78	4.3
Rock	160,331	14.9%	1,652	10.3	759	4.7
Rusk	14,755	16.9%	84	5.7	65	4.4
St. Croix	84,345	4.9%	491	5.8	127	1.5
Sauk	61,976	11.9%	165	2.7	197	3.2
Sawyer	16,557	17.0%	247	14.9	198	12.0
Shawano	41,949	11.2%	462	11.0	100	2.4
Sheboygan	115,507	9.1%	164	1.4	196	1.7
Taylor	20,689	11.7%	148	7.2	29	1.4
Trempealeau	28,816	12.2%	151	5.2	51	1.8
Vernon	29,773	18.0%	35	1.2	82	2.8
Vilas	21,430	13.3%	268	12.5	363	16.9
Walworth	102,228	13.7%	698	6.8	195	1.9
Washburn	15,911	13.4%	27	1.7	90	5.7
Washington	131,887	5.9%	748	5.7	77	0.6
Waukesha	389,891	5.8%	752	1.9	424	1.1
Waupaca	52,410	10.4%	260	5.0	145	2.8
Waushara	24,496	13.9%	315	12.9	85	3.5
Winnebago	166,994	12.1%	1,491	8.9	477	2.9
Wood	74,749	11.3%	626	8.4	364	4.9
<b>State Summary</b>	5,686,986			5.9		2.9

## Wisconsin and National Service Array Comparison

Figure 56 compares Wisconsin's substance use services distribution (individuals served) with the average distribution of services across the U.S. Wisconsin continues to provide a smaller percentage of residential and intensive outpatient treatment services (and a larger percentage of regular outpatient services) than the national average.

**Figure 56: County-Authorized Substance Use Services Distribution, 2015**



Source: Treatment Episode Data Set, Substance Abuse and Mental Health Services Administration.

Under Medicaid, substance use services (individuals served) can be grouped into three slightly different categories: ambulatory (includes in-home, narcotic treatment, day treatment, and outpatient), detox and inpatient, and emergency department. In 2015, services were distributed as follows:

- Ambulatory (58 percent)
- Detox and inpatient (15 percent)
- Emergency department (27 percent)

Table 45 provides a detailed count of county-authorized individuals served, by service and by county. The table data are useful for assessing county availability of services and limitations. Individuals are counted only once (unduplicated) within a service category or grouping regardless of how many times they received that service. However, an individual may be counted in more than one service category or grouping. For example, if they received both medication management services and individual counseling services, they would be counted once for each type of service received.

**Table 45: Individuals Served, County-Authorized Substance Use Services, Wisconsin, 2015**

County	Community Support Programs	Comprehensive Community Services	Community Recovery Services	Crisis Intervention / Emergency Outpatient	Detoxification Services	Inpatient Services	Residential Services	Partial Day Services	Intake Assessment	Case Management	Outpatient Services	Medication Treatment	Supportive Services	Other Services
<b>Statewide</b>	34	161	22	417	4144	72	1883	327	16269	9103	11322	266	1498	213
Adams	32	0	0	0	8	2	0	0	125	0	73	0	0	0
Ashland	0	4	0	0	4	19	12	0	24	0	17	0	14	0
Barron	0	1	0	0	5	0	25	0	123	17	153	0	2	1
Bayfield	0	0	12	0	2	0	13	0	16	20	14	2	4	0
Brown	0	12	0	2	0	0	7	0	1356	58	218	3	39	0
Buffalo	0	1	0	0	0	0	4	0	0	0	1	0	0	0
Burnett	0	0	0	0	0	0	5	0	0	21	1	0	0	0
Calumet	0	0	0	0	5	0	13	0	136	33	19	0	4	0
Chippewa	0	4	0	0	1	0	26	0	0	0	38	0	0	0
Clark	1	0	0	0	1	0	4	0	139	0	134	0	0	0
Columbia	0	5	0	32	24	1	2	0	99	5	65	3	5	0
Crawford	0	0	0	0	0	0	8	0	55	0	41	0	0	0
Dane	0	0	0	0	1244	0	176	73	648	1179	1107	0	31	0
Dodge	0	0	0	0	54	0	4	0	403	320	269	10	33	0
Door	0	0	0	0	0	0	0	0	85	2	49	4	0	0
Douglas	0	0	0	0	70	0	4	0	71	12	39	23	8	0
Dunn	0	6	0	0	1	0	64	15	26	1	79	0	19	0
Eau Claire	0	0	0	0	16	7	18	0	2	84	28	0	60	0
Florence	0	0	0	0	0	0	0	0	1	0	17	0	0	0
Fond du Lac	0	0	0	69	108	0	19	0	475	0	834	0	0	0
Forest/Oneida/Vilas	0	3	0	0	63	7	161	0	376	180	343	0	46	0
Grant/Iowa	0	0	0	0	18	2	6	0	305	0	315	0	0	0
Green	0	0	0	0	1	0	0	0	191	0	150	4	0	0
Green Lake	0	1	0	1	0	0	0	0	37	26	100	9	0	0
Iron	0	0	0	0	0	0	2	0	25	0	38	0	0	0
Jackson	0	0	0	1	0	0	9	0	1	121	7	1	0	1
Jefferson	0	0	0	0	68	0	17	0	575	352	269	140	0	0
Juneau	0	0	0	0	19	0	8	0	198	1	152	5	0	0
Kenosha	0	1	0	23	146	0	34	0	597	2	57	0	54	0
Kewaunee	0	0	0	1	0	0	0	0	100	115	53	0	5	0
La Crosse	0	25	0	0	1	0	14	0	553	45	25	0	0	0
Lafayette	0	41	0	102	154	4	0	56	1337	0	880	0	0	0
Lang/Lincoln/Marathon	1	0	0	1	5	0	1	1	119	0	70	0	0	0
Manitowoc	0	0	0	1	31	1	49	0	310	0	6	0	0	0
Marinette	0	0	0	0	0	0	0	0	204	2	294	0	0	0
Marquette	0	0	0	14	8	0	0	0	123	0	118	0	5	0
Menominee	0	0	0	3	0	0	1	0	109	0	87	0	0	0
Milwaukee	0	28	10	0	1689	0	577	49	0	3224	900	12	689	0
Monroe	0	0	0	0	0	11	8	0	262	253	67	14	332	0
Oconto	0	0	0	0	0	0	0	0	157	0	112	14	0	0
Outagamie	0	0	0	0	0	0	165	7	22	329	80	0	2	0
Ozaukee	0	0	0	0	0	0	0	0	385	12	143	0	41	4
Pepin	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pierce	0	4	0	0	2	0	11	0	172	0	119	0	0	0
Polk	0	1	0	0	1	0	3	0	343	0	290	0	18	0
Portage	0	0	0	0	0	0	30	0	353	184	39	0	1	0
Price	0	0	0	2	0	0	5	0	49	27	16	0	9	0
Racine	0	0	0	0	0	0	0	0	237	1284	362	0	0	207
Richland	0	1	0	15	0	0	0	0	68	0	102	0	0	0
Rock	0	0	0	6	207	0	27	0	922	0	314	19	28	0

**Table 45: Individuals Served, County-Authorized Substance Use Services, Wisconsin, 2015  
Continued.**

County	Community Support Programs (CSP)	Comprehensive Community Services (CCS)	Community Recovery Services (CRS)	Crisis Intervention / Emergency Outpatient	Detoxification Services	Inpatient Services	Residential Services	Partial Day Services	Intake Assessment	Case Management	Outpatient Services	Medication Treatment	Supportive Services	Other Services
Rusk	0	1	0	8	0	0	2	0	74	41	3	0	0	0
Sauk	0	13	0	49	51	0	20	1	1	3	98	0	0	0
Sawyer	0	0	0	1	2	0	9	0	146	0	141	2	0	0
Shawano	0	0	0	57	0	0	0	0	280	0	207	0	0	0
Sheboygan	0	1	0	0	0	0	59	0	0	1	126	0	0	0
St. Croix	0	0	0	0	3	0	26	0	260	0	273	0	0	0
Taylor	0	0	0	1	1	0	3	0	107	12	76	0	0	0
Trempealeau	0	0	0	0	1	0	13	0	136	0	23	1	0	0
Vernon	0	8	0	0	0	0	3	0	0	9	24	0	0	0
Walworth	0	0	0	16	78	0	0	0	500	0	183	0	0	0
Washburn	0	0	0	0	1	0	1	0	0	4	23	0	0	0
Washington	0	0	0	0	36	0	32	67	472	54	195	0	0	0
Waukesha	0	0	0	0	6	0	17	0	447	14	543	0	4	0
Waupaca	0	0	0	5	2	0	0	0	241	40	9	0	0	0
Waushara	0	0	0	0	0	0	9	0	130	0	247	0	0	0
Winnebago	0	0	0	7	2	17	120	0	1118	1016	112	0	0	0
Wood	0	0	0	0	5	1	37	58	443	0	335	0	45	0

Source: Program Participation System, DHS.

### Opioid Treatment Programs

There are opioid treatment programs in 13 counties. Table 51 shows the number of opioid injection drug users receiving county-authorized services in 2014-2015 alongside counties having opioid treatment programs. Columbia, Dodge, Douglas, Grant, Jefferson, Kenosha, Manitowoc, Marinette, Monroe, Oneida, Ozaukee, Portage, St. Croix, Sauk, Walworth, Washington, Waushara, and Wood counties all have elevated numbers of injection drug users receiving county-authorized substance use services in the absence of a local opioid treatment program. It is important to note that the counts in Table 46 represent only one-third of the reported individuals who received substance use treatment and there were many more individuals receiving injection drug use treatment under Medicaid, private insurance, self-pay, and employers who self-insure.

**Table 46: Opioid Injection County-Authorized Services Received and Opioid Treatment Program Availability**

County	County-authorized Opioid Injection Drug Users Served 2014-2015	Methadone Treatment Available within County Borders	County	County-authorized Opioid Injection Drug Users Served 2014-2015	Methadone Treatment Available within County Borders
Adams	4		Marinette	15	
Ashland	1		Marquette	10	
Barron	4		Menominee	0	
Bayfield	0		Milwaukee	878	Y
Brown	18	Y	Monroe	27	
Buffalo	1		Oconto	9	
Burnett	1		Oneida	18	
Calumet	6		Outagamie	48	Y
Chippewa	1		Ozaukee	22	
Clark	5		Pepin	0	
Columbia	18		Pierce	0	
Crawford	7		Polk	4	
Dane	287	Y	Portage	33	
Dodge	38		Price	1	
Door	4		Racine	32	Y
Douglas	13		Richland	3	
Dunn	9		Rock	77	Y
Eau Claire	13	Y	Rusk	0	
Florence	3		St. Croix	18	
Fond Du Lac	99	Y	Sauk	21	
Forest	5		Sawyer	1	
Grant	21		Shawano	4	
Green	12		Sheboygan	22	Y
Green Lake	7		Taylor	1	
Iowa	10		Trempealeau	2	
Iron	3		Vernon	5	
Jackson	2		Vilas	11	
Jefferson	49		Walworth	30	
Juneau	7		Washburn	0	
Kenosha	52		Washington	86	
Kewaunee	6		Waukesha	134	Y
La Crosse	46	Y	Waupaca	0	
Lafayette	4		Waushara	17	
Langlade	6		Winnebago	100	Y
Lincoln	9		Wood	27	
Manitowoc	15				
Marathon	41	Y			

Source: Program Participation System, DHS.

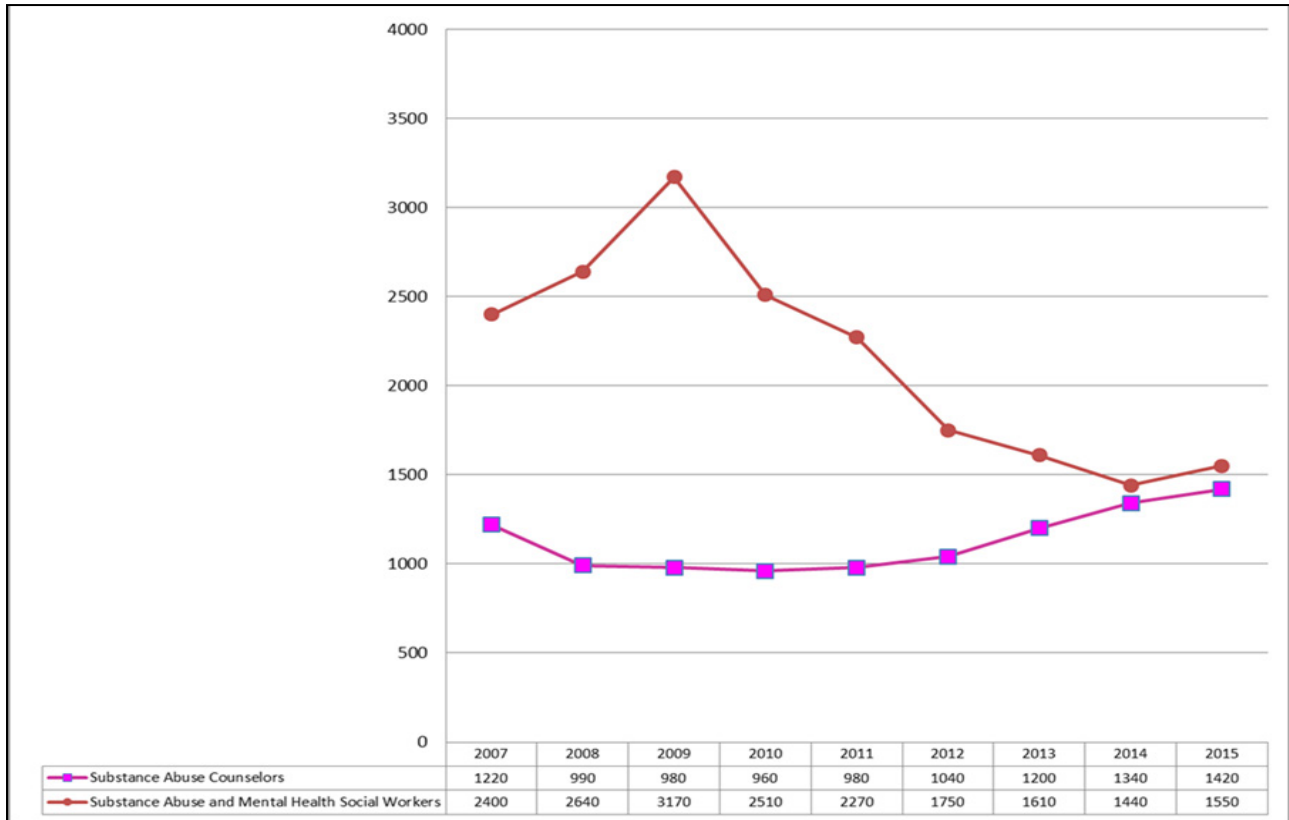


## **Substance Use Treatment Workforce Data**

As a profession, substance abuse counselors perform a critical function in society as they work to reclaim lives that have been adversely impacted by alcohol and other drug addiction. They may not receive the same recognition as teachers, nurses, or police officers, but collectively they help reduce the negative social, health, and economic impact that substance abuse has on families, workplaces, and communities in general. A specific example of this positive impact can be seen in the substance abuse counselor's role in Wisconsin's highway safety through the assessments, referrals, and treatment they provide. Prior to 1982 and the creation of a program requiring individuals convicted of operating a motor vehicle while intoxicated (OWI) to receive education or treatment, on average there were 27,000 alcohol-related traffic crashes and 540 alcohol-related traffic fatalities each year (statistics compiled from the Wisconsin Department of Transportation). In 2015, there were 5,200 alcohol-related traffic crashes and 190 alcohol-related traffic fatalities. Another testament to Wisconsin's substance abuse counselors' dedication and effectiveness are Wisconsin survey results showing that 95 percent of the general public view addiction as being treatable and individuals with an addiction can recover through treatment (2005 Wisconsin Behavioral Risk Factor Surveillance Survey).

There are an estimated 2,025 individuals in Wisconsin who are credentialed as substance abuse counselors. There are additional individuals who are dually credentialed in mental health and substance abuse that are not counted in this number. The U.S. Bureau of Labor Statistics estimates that there are 1,420 Wisconsin substance abuse counselors and 1,550 substance abuse and mental health social workers. In Figure 57 the Bureau of Labor Statistics is forecasting increases in both categories of Wisconsin professionals and projects a 33 percent increase in future need for Wisconsin substance abuse professionals.

**Figure 57: Substance Abuse Workforce Trend Estimates, Wisconsin**



Source: U.S. Bureau of Labor Statistics; <https://www.bls.gov/oes/tables.htm>.

Addressing substance abuse professional workforce needs is complex and challenging. A 2012 substance abuse counselor survey and anecdotal reports from many substance use treatment agencies found that:

- Over half (55 percent) of Wisconsin substance use professionals are over age 50 and will “age out” of the workforce within 10 years.
- Compared to the national average of 2.5 per 10,000 population, Wisconsin has 1.7 substance abuse counselors per 10,000 population.
- Compared to the national average of 3.7 per 10,000 population, Wisconsin has 4.0 mental health and substance abuse social workers per 10,000 population.
- There is a net need of about 275 more Wisconsin substance abuse professionals in order to match the national average.

A labor market where there are many more job vacancies than individuals to fill the positions has a negative effect on staff retention. Many agencies report extreme difficulty in filling counselor vacancies and expanding services.

On the other hand, there are viable approaches that can improve the availability of qualified substance use professionals:

- Using Medicaid and private insurance coverage to make it easier for provider agencies to employ interns (counselors-in-training).
- Developing residency and internship programs for all behavioral health professionals.
- Having regular meetings of workforce stakeholder groups.
- Organizing a peer-to-peer recruitment program and workshop that begins in high school and includes job shadowing.
- Addressing the problem created by having low entry-level substance use counselor wages and the high costs for counselor education and credentialing. Specifically, the Wisconsin Technical College System's outcomes report for 2017 Graduates<sup>33</sup> noted that those with a two-year specialized associate degree (40 graduates in 2016) earn a median wage of only \$16 per hour or \$33,444 annually (down from the 2015 report of \$16.30 and \$33,599 respectively). At some technical colleges, a human services associate degree includes a specialty sub-focus on substance use disorder (or alcohol and other drug abuse) counseling. The report indicates 304 such graduates in 2016, with a median wage of \$14 per hour or \$28,078 annually. Those with a one-year technical diploma (18 graduates in 2016) earn \$15 per hour or \$30,449 annually (no comparison reported in 2015).

## **Buprenorphine Prescribers**

Opioid addiction occurs in every Wisconsin county. The use of medications such as naltrexone, buprenorphine, and methadone to supplement psychosocial addiction treatment is an evidence-based approach to care. In mid-2017 there were about 520 federally approved prescribers of buprenorphine in Wisconsin. They are approved for varying caseloads of 30, 100, and 275 patients each with a total capacity of 32,000 patients. Even with this capacity, the availability of slots and prescribers for this medication continues to impede efforts to provide or expand opioid treatment in many areas of Wisconsin. Table 47, from the National Registry of Buprenorphine Prescribers, contains counts of these prescribers by county. Seventeen (24 percent) of Wisconsin's 72 counties do not have access to a buprenorphine prescriber and some medium-sized cities face the same dilemma.

**Table 47: Buprenorphine Prescriber Availability by Wisconsin County**

County	# of Credentialed Prescribers	County	# of Credentialed Prescribers
Adams		Marinette	3
Ashland	3	Marquette	1
Barron	2	Menominee	1
Bayfield	3	Milwaukee	185
Brown	13	Monroe	5
Buffalo		Oconto	1
Burnett	2	Oneida	7
Calumet		Outagamie	8
Chippewa	5	Ozaukee	20
Clark		Pepin	1
Columbia	4	Pierce	1
Crawford		Polk	
Dane	103	Portage	8
Dodge	9	Price	2
Door	3	Racine	17
Douglas	3	Richland	1
Dunn	2	Rock	16
Eau Claire	7	Rusk	
Florence		St. Croix	1
Fond Du Lac	13	Sauk	2
Forest	1	Sawyer	
Grant	2	Shawano	1
Green		Sheboygan	6
Green Lake	1	Taylor	
Iowa		Trempealeau	
Iron		Vernon	1
Jackson		Vilas	1
Jefferson	4	Walworth	8
Juneau	1	Washburn	1
Kenosha	1	Washington	8
Kewaunee		Waukesha	44
La Crosse	22	Waupaca	2
Lafayette		Waushara	2
Langlade	1	Winnebago	13
Lincoln	1	Wood	9
Manitowoc	4		
Marathon	4		

Source: National Registry of Buprenorphine Prescribers

## Peer Recovery Coaching Services

Peer support services broadly describe services delivered by trained people who share a common lived experience of having an SUD and/or an MHD. With a focus on empowerment in recovery, evidence-based peer support services encourage self-determination, partnership, choice, and hope.<sup>34, 35</sup> Historically, peer support has been included as a key component of many addiction treatment and recovery approaches, including 12-step programs, community reinforcement, and therapeutic communities.<sup>36</sup>

While peer support services do not replace formal treatment or supervisory oversight (as peer support specialists typically do not have the level of addiction and mental health training needed to manage psychiatric conditions or critical risk events), they provide many benefits to people with SUDs as an important member of the treatment team.<sup>37</sup> To date, recovery coaching services in Wisconsin have been limited to psychosocial treatment services under Medicaid, some hospitals, health insurers, and the Department of Corrections. Recommended by the Governor's Task Force on Opioid Abuse, a continuum of recovery coaching services is being implemented in Wisconsin under a grant from the Substance Abuse and Mental Health Services Administration.

## IX. Quality and Appropriateness of Services

This section will answer questions such as:

- Do people receive appropriate preventative, treatment, or supportive services?
- Are the services, strategies, supports, or treatment of desired quality?
- Are the services or strategies safe, participant-centered, efficient, equitable, evidence-based, effective, or otherwise proven to work?

### Many Avenues to Service Quality and Appropriateness

One element in the assessment of service quality is facility review and certification under Wis. Admin. Code ch. DHS 75, which contains a minimum set of treatment and prevention quality and safety standards. Similarly, professional credentialing occurs through Wis. Admin. Code chs. SPS 160-168. Another element is dissemination of and competency-building for evidence-based practices such as motivational interviewing, integrated dual disorder treatment, trauma-informed care, Seeking Safety, drug courts, recovery coaching, peer crisis/respice, Teen Intervene, or Communities Mobilizing for Change on Alcohol. The widespread use of uniform patient placement criteria, such as the American Society of Addiction Medicine, can help assure that individuals seeking treatment are offered the most appropriate services based on their needs.

DHS oversees hundreds of contracts with substance use provider agencies each year. Contract administration functions include site visits, client record reviews, technical assistance, and performance management, all of which contribute to service quality improvement. Each year DHS sponsors independent peer review site visits at up to seven substance use treatment centers across the state. These visits, conducted by credentialed substance use professionals, review the quality (Does the service meet accepted standards and practices that will improve the clients' health, safety, and recovery?) and appropriateness (Does the service provide treatment consistent with the individual's identified clinical needs and level of functioning?) of the service by evaluating and making recommendations about:

- Admission criteria and intake processes.
- Assessment approach.
- Treatment planning, including making appropriate referrals.
- Documentation of the delivery of treatment services.
- Discharge and continuing care planning.
- Treatment outcomes.

The voluntary DHS Strengthening Treatment Access and Retention-Quality Improvement program (STAR-QI) assists over 40 community substance use and mental health service centers each year with improving the quality of their services. Staff with the Center for Health Enhancement Systems Studies at UW-Madison are trained in the evidence-based NIATx quality improvement approach and each agency implements a quality improvement project. Since its inception, the program has significantly reduced service wait times and appointment no-shows

and has improved retention in treatment across the state. Strengthening Treatment Access and Retention-Quality Improvement also has projects addressing revenue needs, treatment outcomes, and customer satisfaction in Wisconsin.

Equally important are the service quality and appropriateness perceptions of participants of services. Studies in service and customer-focused businesses and organizations point to an important principle about service quality and appropriateness, namely, involving the customer in assessing and implementing service quality improvements will result in the best chances for success.<sup>38</sup> As such, the principal source of Wisconsin substance use service quality and appropriateness data in this report section will be the feedback of customers. Two such data gathering efforts are described below.

### **Wisconsin Treatment Customer Experience Study Findings**

A 2015 Wisconsin study of county-authorized substance use outpatient counseling titled “Customer Experience Survey Findings” was published in 2015. The DHS-sponsored study conducted by the University of Wisconsin Survey Center obtained completed customer satisfaction surveys from 286 former substance use service clients representing 44 of Wisconsin’s 72 counties. Overall service satisfaction results showed the following:

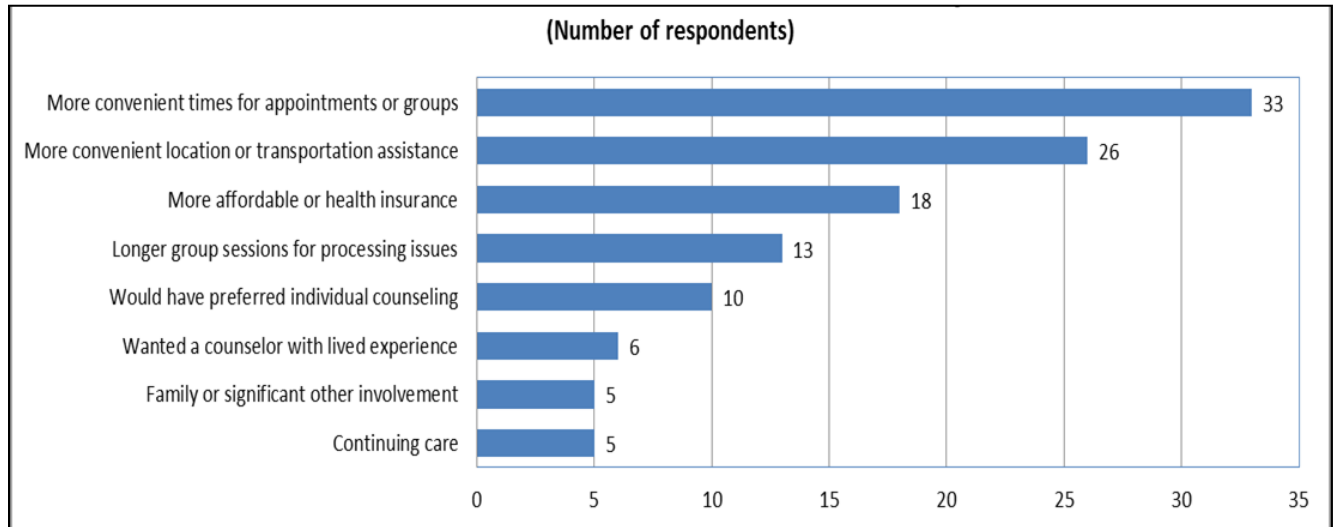
- Among survey respondents who completed substance use services, 86 percent indicated that the alcohol and drug counseling was a positive experience, 84 percent said they would recommend the services to others, and 78 percent said services helped them. An average of the three satisfaction indicators for service completers is 83 percent.
- Among survey respondents who did not complete substance use services, 66 percent indicated that the alcohol and drug counseling was a positive experience, 70 percent would recommend services to others, and 53 percent said services helped them. An average of the three satisfaction indicators for service non-completers is 63 percent.

Combined, the overall substance use service satisfaction rate among survey responders was 74 percent. There is an indication that the Wisconsin alcohol and drug service satisfaction rate may be on par with or slightly higher than those reported in published studies. In surveys by Zhang (2008)<sup>39</sup> and Carlson (2001),<sup>40</sup> rates of alcohol and drug service satisfaction ranged from 65 to 75 percent.

Eighty-two percent of female respondents were satisfied with services versus 81 percent of males; among racial or ethnic groups, satisfaction with services was 82 percent among Hispanic individuals, 100 percent among African Americans, 67 percent among American Indians, and 81 percent among Whites.

While most individuals receiving services said that services helped them, there is room for improvement. In particular, Figure 58 graphs those approaches respondents shared that would have made their counseling experience better.

**Figure 58: What would have made services better for you?**



Source: Customer experience survey findings, University of Wisconsin Survey Center.

A second 2016 study completed for DHS regarding the treatment for individuals with an opioid use disorder entitled “An Evaluation of County-Authorized Outpatient Opioid Treatment: Results of Qualitative Interviews with Service Recipients” interviewed 25 current or former service participants of county-authorized outpatient opioid treatment from 17 counties. Also conducted by University of Wisconsin Survey Center, the principal questions asked were:

- What brought them to seek services?
- What they expected from services?
- What would make services better?
- Why they discontinued services?
- What is important to maintaining a good quality of life?

The sample of individuals interviewed contained an equal number of males and female and individuals ranged in age from 25 to 65.

The largest group of individuals interviewed had become addicted to their prescribed pain medication for an injury or medical condition. These individuals were voluntarily seeking help with their recovery. Just three of the 25 individuals interviewed were court-ordered to seek treatment. Close to half of the respondents were receiving methadone while the others were receiving only counseling. One interviewee recounted:

*“I fell down and shattered my ankle, couldn’t work, and sought pain management. I needed more and more of the prescription. Then I had to start looking for more drugs illegally.”*



Client expectations about treatment were to:

- Get sober or get their addiction under control.
- Learn coping skills.
- Get help for the problems that led to their drug addiction.
- Get relief from their strong cravings for opioid drugs.
- Get help for medical conditions.

One respondent stated:

*“I couldn’t take the withdrawal symptoms when I tried quitting drugs and I always went back to using. So I wanted a way to avoid the withdrawal symptoms.”*

The most helpful aspects of treatment were the counseling, the coping skills they learned for self-directed recovery, medication assistance, the understanding and personal experience of the counselor, and being accountable to someone. Most clients felt listened to and had mutually agreed upon treatment goals. The effectiveness of Suboxone was particularly remarked upon—Suboxone enabled many to break the strong grip of dependence and avoid painful withdrawal symptoms. Others found learning how to avoid people and places that trigger illicit drug use and how to rebuild relationships to be very helpful aspects of treatment. Some interviewees also mentioned that the services helped them to rely on a higher power; taught them that addiction is a brain disease; and provided needed structure in their lives so they could address their addiction. Below is one respondent’s summary of their treatment experience:

*“The Suboxone program is helping and I’m weaning off of Suboxone now. It dealt with the withdrawal symptoms. It has helped me turn my life around. I was in jail for a while. Now I’m on probation and almost done with that. I have a job and a car.”*

Sixty percent of individuals interviewed were completely satisfied with their opioid treatment experience and wouldn’t change a thing about it. Even interviewees who had had a serious return to opioid use after a treatment episode attributed their ability to get back on track to the treatment services. Respondents, on the whole, were very satisfied with their counselors. They identified several ways in which their counselors met or exceeded their expectations, including being able to talk about what led up to their addiction; feelings of trust, openness with their counselors, and honesty with their counselors; and identifying and managing emotional triggers. Of special note is that several respondents spoke about the benefits of working with counselors with direct, personal experience of addiction.

*“My counselor helped me develop activities that would keep my mind off of the cravings. When the cravings came I would turn to the activities. She helped me realize that the cravings only last two to three minutes so if you do something else, the cravings would eventually go away.”*

Among those who offered improvements, the most frequently mentioned areas were about confusion over paying fees and insurance coverage policies, too many forms to fill out, and needing more individual counseling. The issues of convenient appointment times and transportation to appointments were also raised in this second study. Perhaps some low-cost creative approaches such as asking the client whether there might be any barriers to making the next appointment could be implemented. One respondent recalls their experience:

*“Ability to pay was a real issue for me. I was in treatment paid for by my private health insurance for a while but lost it and had to switch to medical assistance. Then the treatment center discharged me because they didn’t take medical assistance. I had to go and find another place. And there was a very long waiting list. The business aspects of treatment are not pretty. If you don’t have the necessary finances, what are you supposed to do?”*

Another improvement need expressed by individuals interviewed highlighted the helpfulness of recovery coaches, hotlines, or self-help group participation—interviewees would have liked to be able to call someone outside of scheduled appointments if they were in serious relapse trouble. Four interviewees stated that their treatment goals were not mutually agreed upon. A few others mentioned that counseling staff turnover was an issue for them. Among a few of the clients receiving Suboxone medication, better communication between the counselor and prescriber would have made services better for them. Permitting more venting or catharsis during counseling, more personalized service, and including significant others in treatment would have made services better as well.

Many of the interviewees were still receiving ongoing treatment at the time of their interview. Among those whose treatment had ended, most said they withdrew from treatment because they no longer felt they needed it. Others reported that their treatment concluded after a fixed number of weeks or that their counselor cut ties with them for missing appointments.

Interviewees uniformly reported a better quality of life as a result of the opioid treatment. Interviewees cited support from family and others; being able to self-direct or self-manage their recovery; having a better understanding or way of thinking about themselves and life in general; being free from cravings and withdrawal symptoms; avoiding drug use triggers—people, places and situations, having a good job or other productive daily activity or hobby that gives purpose to life; having better health care, better finances; and controlling emotions better. Respondents who spoke of negative influences on their quality of life mentioned health issues, job and financial issues, family issues, not having reliable transportation, not having enough individual time, and returning to old thinking patterns. One interviewee described what helps them stay in recovery:

*“I have a very good support system. My closest friend makes sure I attend my narcotics anonymous meetings. My parents are really good now, too. But it took a little while for them to be supportive. They didn’t understand at first why I would need the Suboxone to get off of the street drugs. But now they get it.”*

## Prevention Services Quality

Substance Abuse and Mental Health Services Administration has supported evidence-based primary prevention efforts, strategies, and programs by identifying types of strategies and audiences and by providing a listing of evidence-based practices.

**Table 48: Prevention Approaches**

Primary Prevention Strategies	Primary Prevention Target Audiences
<ul style="list-style-type: none"> <li>• <i>Information Dissemination</i> (for example, radio and TV public service announcements, speaking engagements)</li> <li>• <i>Education</i> (for example, classroom and small group sessions, parenting and family resiliency programs)</li> <li>• <i>Alternatives</i> (for example, drug-free dances and parties, youth/adult leadership activities)</li> <li>• <i>Environmental</i> (for example, review and modification of community or school alcohol, tobacco, and drug use policies; technical assistance to communities to maximize local enforcement)</li> <li>• <i>Community-Based Process</i> (for example, multi-agency coordination and collaboration, coalition-building)</li> <li>• <i>Early Problem Identification and Referral</i> (employee assistance programs, driving while under the influence education)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Universal Indirect</i> (general public or a whole population group)</li> <li>• <i>Universal Direct</i> (for example, schools, parents)</li> <li>• <i>Selective</i> (individuals or a subgroup of the population whose risk is developing, such as children of parents who have an addiction)</li> <li>• <i>Indicated</i> (individuals in high-risk environments that have detectable signs or symptoms foreshadowing addiction, such as neighborhoods with gangs)</li> </ul>

Substance Abuse and Mental Health Services Administration has also identified steps for developing and sustaining a prevention program:

1. Assess Needs: What is the problem and how can we learn more?
2. Build Capacity: What do we have to work with?
3. Plan: What should we do and how should we do it?
4. Implement: How can we put our plan into action?
5. Evaluate: Is our plan succeeding?

At the same time, survey researchers at the University of Michigan Institute for Social Research, Ann Arbor, have been conducting national drug use surveys of high school students for decades called “Monitoring the Future.” In addition to survey questions on illicit drug use (Figure 59), there are survey questions on perceptions of the harmfulness of illicit drug use and perceptions of the availability of illicit drugs. When illicit drug use was falling, perceptions of the harmfulness of illicit drugs were increasing and perceived availability of illicit drugs was decreasing. The opposite was true when drug use was increasing. This research is at the

foundation of effective prevention approaches. When a community prevention approach can meaningfully impact those two factors (demand and supply), drug use will decline.

**Figure 59: Any Illicit Drug Use in the Past Month among High School Seniors, U.S.**



Source: Monitoring the Future, University of Michigan Institute for Social Research

## X. Service Participant Outcomes

This section presents outcome data associated with prevention, intervention, and treatment services.

- What happened to the service participant as a result of the interventions, strategies, services, or supports?
- What is the impact?
- What is and is not achieved to ameliorate the condition, disorder, or problem?

Research and practice has demonstrated that substance use professionals who routinely measure client self-reported outcomes are able to proactively identify clients who are most at risk for treatment failure. Early identification of these at-risk individuals allows service providers to proactively work to keep the clients engaged in treatment, while evaluating future treatment options. Overall, counselors will achieve better treatment retention and significantly improved outcomes for at-risk clients when compared to similar clients treated by service providers who do not use client self-reported outcomes.<sup>41, 42, 43</sup>

Approximately 80 percent of the Substance Abuse Prevention and Treatment Block Grant is expended for treatment and recovery support services. In 2015, a total of \$66,765,059 in block grant, county tax levy, county revenue, and other state and federal funds were expended by county agencies to provide substance use treatment and support services for 32,768 individuals.

In 2015, county agencies reported the following treatment service outcomes for individuals having substance use diagnoses (Table 49).

**Table 49: Wisconsin Addiction Treatment Outcomes**

<b>Outcome Measure</b>	<b>2015 Outcome</b>
Completed Treatment	52%
Drug-Free at Discharge*	82%
Employed at Discharge*	67%
Not Rearrested at Discharge*	96%

Source: Program Participation System, DHS.

Note: Includes data on individuals completing treatment only.

## Retention in Treatment

The Washington Circle Group (Tom McLellan), Comprehensive Assessment and Treatment Outcome Research (CATOR) studies (Norman Hoffmann), and three decades of research have supported the use of treatment retention measures in evaluating treatment outcomes. Why? Because clients who receive a sufficient dose of treatment have a better chance of attaining self-directed recovery and because retention in treatment is correlated with post discharge social functioning outcomes.<sup>44, 45, 46, 47, 48</sup> Table 50 tracks two treatment retention measures among individuals receiving county-authorized substance use treatment. Nearly 80 percent of Wisconsin substance use treatment services are provided in an outpatient setting.

**Table 50: Wisconsin County-Authorized Substance Use Treatment Retention Trends**

<b>Retention Indicator</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Percent completing outpatient treatment</b>	52%	51%	52%
<b>Percent Receiving at least 90 days of treatment (all treatment services included)</b>	72.1%	74.9%	74.7%

Source: Program Participation System, DHS.

Table 51 compares county-level data on these two treatment retention measures for 2015 from Program Participation System. One-third of the counties' data show a very weak correlation between the two retention measures causing the overall correlation to be weak. Two-thirds of the counties' data show a very strong correlation. Additional investigation into reasons why the two measures across all counties are not strongly correlated is warranted. Data quality issues such as incomplete data, improper recording of discharge date, or improper coding of discharge reason may have contributed to this weak correlation finding.

**Table 51: County-Authorized Substance Use Treatment Retention, Wisconsin, 2015**

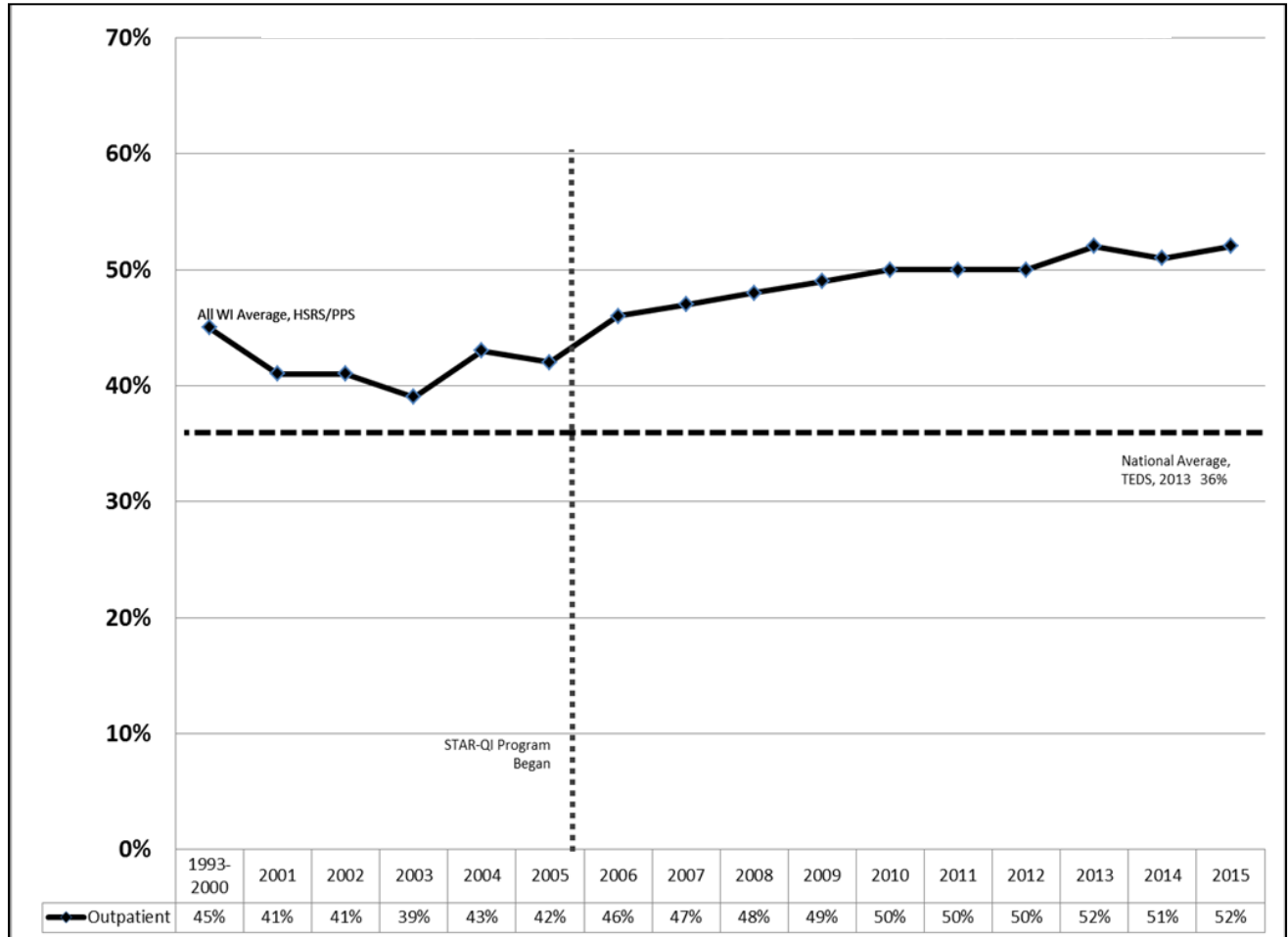
County	Percent Completing Treatment	Percent Receiving at Least 90 Days of Treatment (all treatment services included)	County	Percent Completing Treatment	Percent Receiving at Least 90 Days of Treatment (all treatment services included)
Adams	71.8	78.4	Marinette	45.8	60.9
Ashland	83.0	66.7	Marquette	45.3	74.2
Barron	45.5	96.7	Menominee	64.9	53.8
Bayfield	53.3	60.0	Milwaukee	50.3	69.5
Brown	51.0	84.3	Monroe	69.0	60.5
Buffalo	50.0	60.0	Oconto	53.1	85.3
Burnett	71.4	100.0	Oneida	60.6	68.2
Calumet	44.8	70.0	Outagamie	65.1	36.1
Chippewa	43.2	71.4	Ozaukee	64.4	82.1
Clark	75.0	65.9	Pepin	N.A.	N.A.
Columbia	47.5	68.6	Pierce	72.4	69.6
Crawford	75.5	75.0	Polk	28.0	72.7
Dane	51.3	59.5	Portage	66.7	20.0
Dodge	36.2	81.2	Price	79.5	70.0
Door	50.0	N.A.	Racine	57.8	95.3
Douglas	57.1	100.0	Richland	N.A.	N.A.
Dunn	52.5	36.8	Rock	48.9	81.2
Eau Claire	40.0	N.A.	Rusk	75.0	50.0
Florence	40.0	45.5	St. Croix	70.9	86.1
Fond Du Lac	26.2	94.3	Sauk	41.8	69.4
Forest	60.6	68.2	Sawyer	42.6	33.3
Grant	51.3	54.8	Shawano	60.7	75.4
Green	84.2	95.0	Sheboygan	37.7	54.5
Green Lake	37.6	75.8	Taylor	53.3	89.9
Iowa	51.3	54.8	Trempealeau	50.9	55.2
Iron	35.7	68.6	Vernon	35.3	76.5
Jackson	63.2	26.7	Vilas	60.6	68.2
Jefferson	31.9	98.9	Walworth	60.3	N.A.
Juneau	58.9	35.1	Washburn	41.9	63.6
Kenosha	56.3	33.3	Washington	57.1	65.0
Kewaunee	38.0	95.7	Waukesha	49.0	86.1
La Crosse	24.7	29.0	Waupaca	71.4	N.A.
Lafayette	58.9	60.0	Waushara	53.7	73.4
Langlade	61.3	69.7	Winnebago	55.3	91.0
Lincoln	61.3	69.7	Wood	48.1	88.8
Manitowoc	46.2	50.0			
Marathon	61.3	69.7			

Source: Program Participation System, DHS.

Figure 60 tracks Wisconsin county-authorized outpatient substance abuse treatment completion rates over the past 20 years (among the approximately 14,000-18,000 service participants discharged from substance abuse outpatient treatment statewide each year). The increase in treatment completion seen in 2006 and the years that follow is a result of the DHS Strengthening Treatment Access and Retention-Quality Improvement program, which consists of over 40 substance abuse and mental health treatment providers pursuing various service quality improvement projects each year. While there are over 120 providers who report this data to the state, the impact of 40 participating Strengthening Treatment Access and Retention-

Quality Improvement program providers on the statewide treatment completion rates is remarkable. The national outpatient treatment completion average in 2013, depicted by the dashed line, was 36 percent.

**Figure 60: Substance Use Outpatient Treatment Completion Rate**



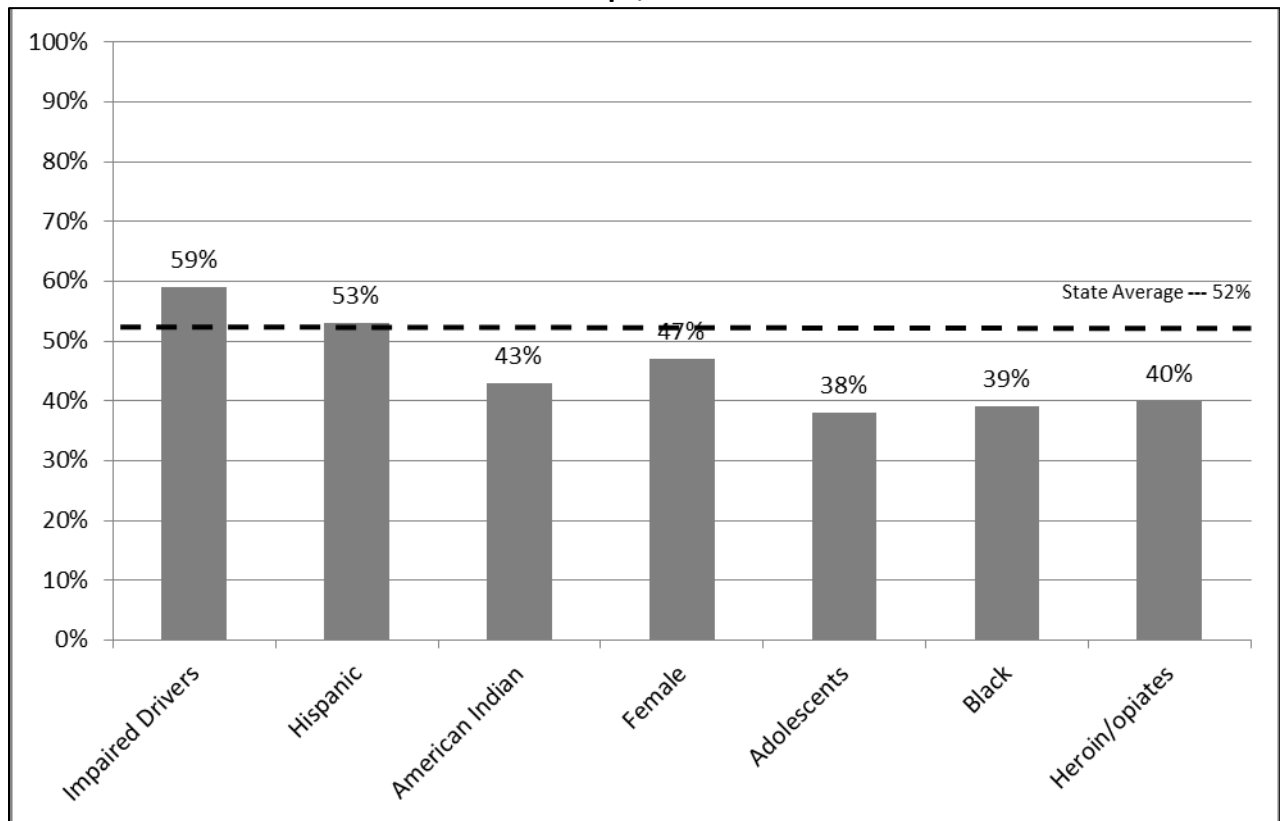
Sources: Human Services Reporting System and Program Participation System, DHS.

Note: Among approximately 14,000-18,000 service participants discharged from substance abuse outpatient treatment statewide each year.

While the overall statewide rate of outpatient treatment completion in Wisconsin exceeds the national average, some disparities in treatment completion rates exist among several Wisconsin population groups for which data are available. Treatment completion rates in 2013 fall below the state average of 52 percent (dotted line in Figure 61) for African Americans, American Indians, females, adolescents, and opiate abusing clients.



**Figure 61: Substance Abuse Outpatient Treatment Completion Rates among Population Groups, 2013**

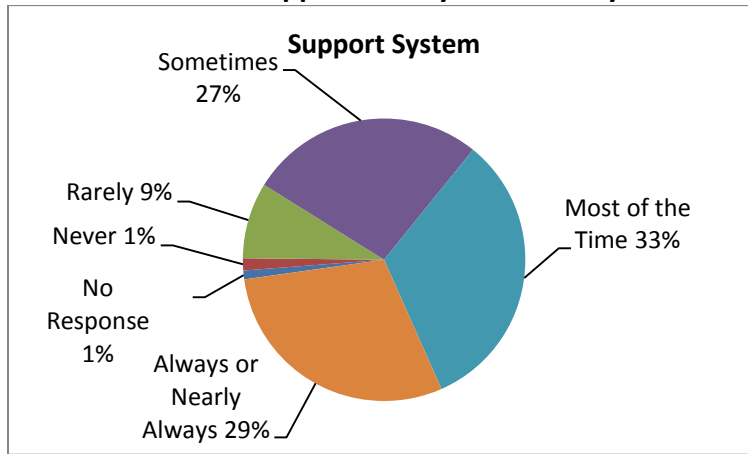


Source: Human Services Reporting System and Program Participation System, DHS.

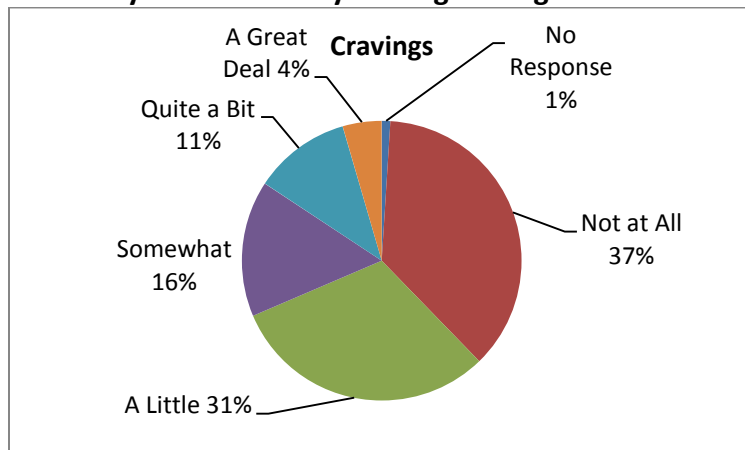
### Client Outcome Survey

The previously presented 2015 Wisconsin study of county-authorized substance use outpatient counseling also collected data on self-reported outcomes of services. The DHS-sponsored study conducted by University of Wisconsin Survey Center obtained completed customer surveys from 286 former county-authorized outpatient substance use service clients representing 44 of Wisconsin's 72 counties. Clients had been discharged from services for three to nine months. The mail survey included several questions about the outcomes of services and the unadjusted findings are included in the following figures.

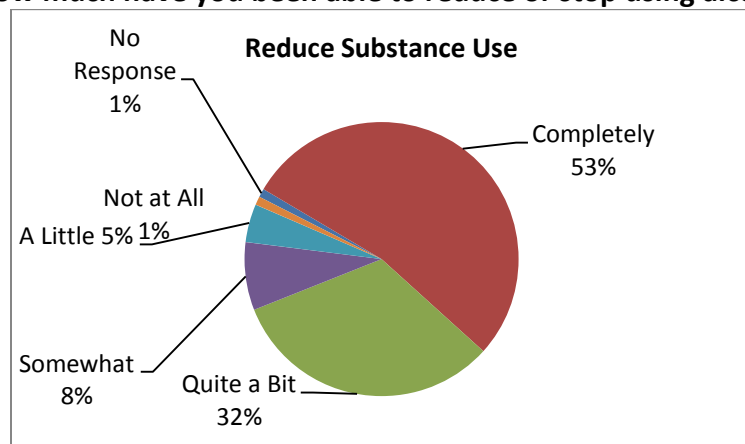
**Figure 62: How often are you spending time with family members, friends, or support groups who are supportive of your recovery?**



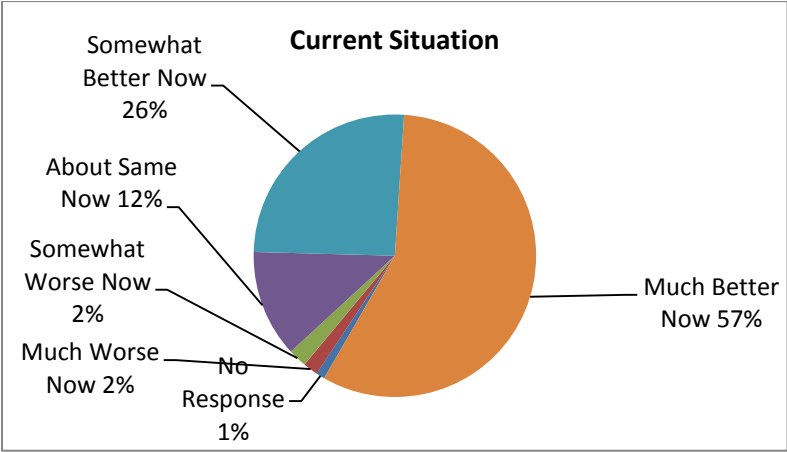
**Figure 63: How much are you bothered by cravings or urges to drink alcohol or use drugs?**



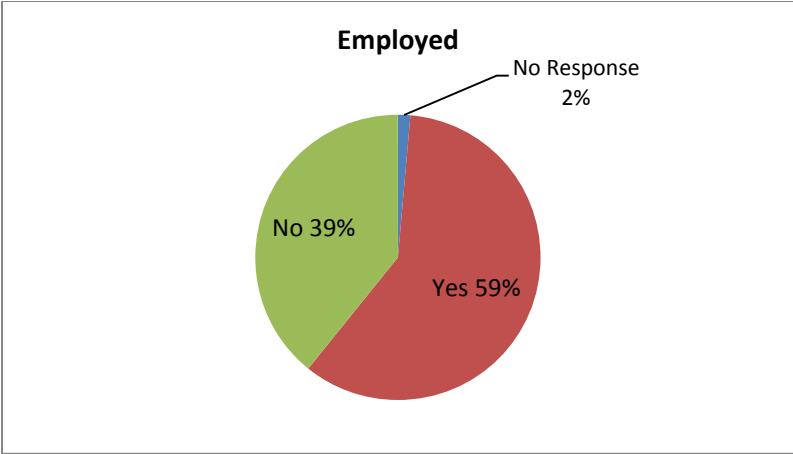
**Figure 64: How much have you been able to reduce or stop using alcohol or drugs?**



**Figure 65: Compared to before you started receiving alcohol or drug use counseling services, how would you rate your situation now? Would you say you are...**



**Figure 66: Are you currently employed, either full-time or part-time?**



## Intoxicated Driver Program

The single largest proportion (46 percent) of all individuals receiving county-authorized substance use services are participants in the Intoxicated Driver Program, which was created in 1982. Alcohol-related traffic crashes, injuries, and deaths have been dramatically reduced. DHS plays an important role in this program by providing oversight of county and tribal assessment, referral, and treatment services for individuals with an operating while intoxicated. A 2004 five-year follow-up study by the Wisconsin Department of Transportation showed that 86 percent of operating while intoxicated individuals completing treatment did not reoffend and 84 percent of all operating while intoxicated individuals completing their education or treatment driver safety plans did not reoffend. A similar 2017 study by the University of Wisconsin Population Health Institute found 81 percent of all operating while intoxicated individuals completing their education or treatment driver safety plans did not reoffend within a five-year period versus 66 percent among those operating while intoxicated individuals who bypassed the entire Intoxicated Driver Program process by not complying with the court order for an assessment and education or treatment.<sup>49</sup>

In addition to traffic crashes and deaths (displayed in previous Figure 44), two measures of the outcome of this program are presented here. Individuals convicted of an operating while intoxicated are court ordered to complete an assessment and driver safety plan. County or tribal Intoxicated Driver Program assessment agencies play a part in ensuring that offenders complete the assessment quickly, as this increases the remedial driver safety plan's effectiveness. Driver safety plans may include education, treatment, or both. Completing the recommended driver safety plan program is also a useful indicator of this program's success. Table 52 depicts recent statewide trends on these two indicators.

**Table 52: Wisconsin Intoxicated Driver Program Trends**

	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Percent Completing the Assessment</b>	69.1%	68.7%	67.4%
<b>Percent Completing the Driver Safety Plan</b>	76.6%	75.8%	74.7%

Source: Wisconsin Department of Transportation.

Table 53 compares county-level data on these two Intoxicated Driver Program outcome indicators for 2015.

**Table 53: Wisconsin Intoxicated Driver Program, 2015**

County	Percent Completing the Assessment	Percent Completing the Driver Safety Plan	County	Percent Completing the Assessment	Percent Completing the Driver Safety Plan
ADAMS	59.8	78.8	MARINETTE	61.4	73.7
ASHLAND	71.5	72.7	MARQUETTE	64.7	73.3
BARRON	64.1	74.4	MENOMINEE	57.5	64.3
BAYFIELD	67.0	65.1	MILWAUKEE	63.5	79.3
BROWN	67.9	77.2	MONROE	64.7	73.7
BUFFALO	65.9	77.8	OCONTO	69.8	88.3
BURNETT	75.7	57.7	ONEIDA	52.3	71.7
CALUMET	68.3	82.9	OUTAGAMIE	67.5	84.8
CHIPPEWA	65.7	84.0	OZAUKEE	82.3	79.2
CLARK	67.7	78.5	PEPIN	57.1	50.0
COLUMBIA	69.6	70.9	PIERCE	67.5	74.7
CRAWFORD	67.9	80.0	POLK	63.3	59.7
DANE	67.9	73.7	PORTAGE	76.8	82.0
DODGE	71.2	67.5	PRICE	53.1	74.4
DOOR	71.3	68.8	RACINE	68.2	77.8
DOUGLAS	63.1	56.3	RICHLAND	69.8	64.8
DUNN	71.8	60.8	ROCK	58.6	71.3
EAU CLAIRE	66.6	75.6	RUSK	52.7	65.3
FLORENCE	71.4	60.0	ST CROIX	61.1	56.5
FOND DU LAC	65.0	70.1	SAUK	72.3	78.0
FOREST	52.3	71.7	SAWYER	72.6	57.7
GRANT	68.0	77.2	SHAWANO	74.6	81.7
GREEN	74.2	63.9	SHEBOYGAN	69.9	78.3
GREEN LAKE	59.8	83.6	TAYLOR	68.5	57.9
IOWA	74.7	70.5	TREMPEALEAU	63.5	63.4
IRON	63.9	65.2	VERNON	74.3	83.1
JACKSON	67.2	50.4	Vilas	52.3	71.7
JEFFERSON	63.8	73.6	WALWORTH	68.7	82.7
JUNEAU	64.1	79.5	WASHBURN	67.3	62.5
KENOSHA	62.6	56.0	WASHINGTON	73.0	80.8
KEWAUNEE	68.3	73.2	WAUKESHA	75.3	77.5
LA CROSSE	65.8	81.3	WAUPACA	65.3	77.0
LAFAYETTE	69.2	76.2	WAUSHARA	70.2	75.8
LANGLADE	64.6	57.8	WINNEBAGO	70.5	80.6
LINCOLN	67.3	67.3	WOOD	69.9	72.4
MANITOWOC	67.9	75.5	<b>STATE TOTALS</b>	<b>67.4</b>	<b>74.7</b>
MARATHON	76.0	55.4			

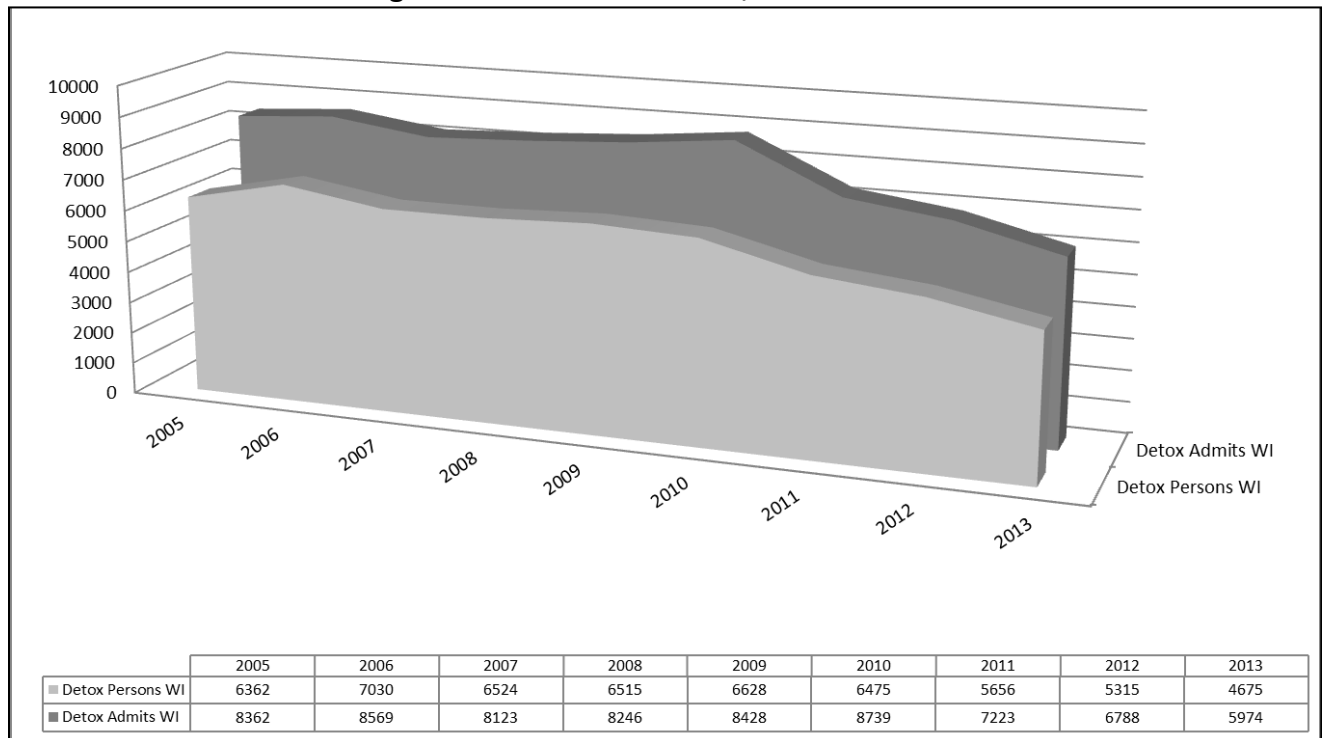
Source: Wisconsin Department of Transportation.

## Detoxification Services

Alcohol and certain other drug withdrawal can be life threatening. Detoxification services provide a protective environment for the safe withdrawal of alcohol and other drugs from the

body and an opportunity for the client to get connected with continuing treatment. Detox is a medically necessary service. In some instances, repeated detox episodes can be prevented. The decline in county-authorized detox services (seen in Figure 67) includes a slight decrease in repeat detox episodes from an average of 1.35 admissions per person (8,739 admits among 6,475 individuals) in 2010 to 1.28 admissions per person in 2011 through 2013.

**Figure 67: Detox Admissions, Wisconsin**



Sources: Human Services Reporting System and Program Participation System, DHS.

Wisconsin Medicaid tracks a similar detox outcome measure, namely the percentage of detox patients who had a return or readmission to detox within one year. In 2015, 33 percent of detox or inpatient patients (1,429 of 4,368 patients) had a readmission within one year under Medicaid.

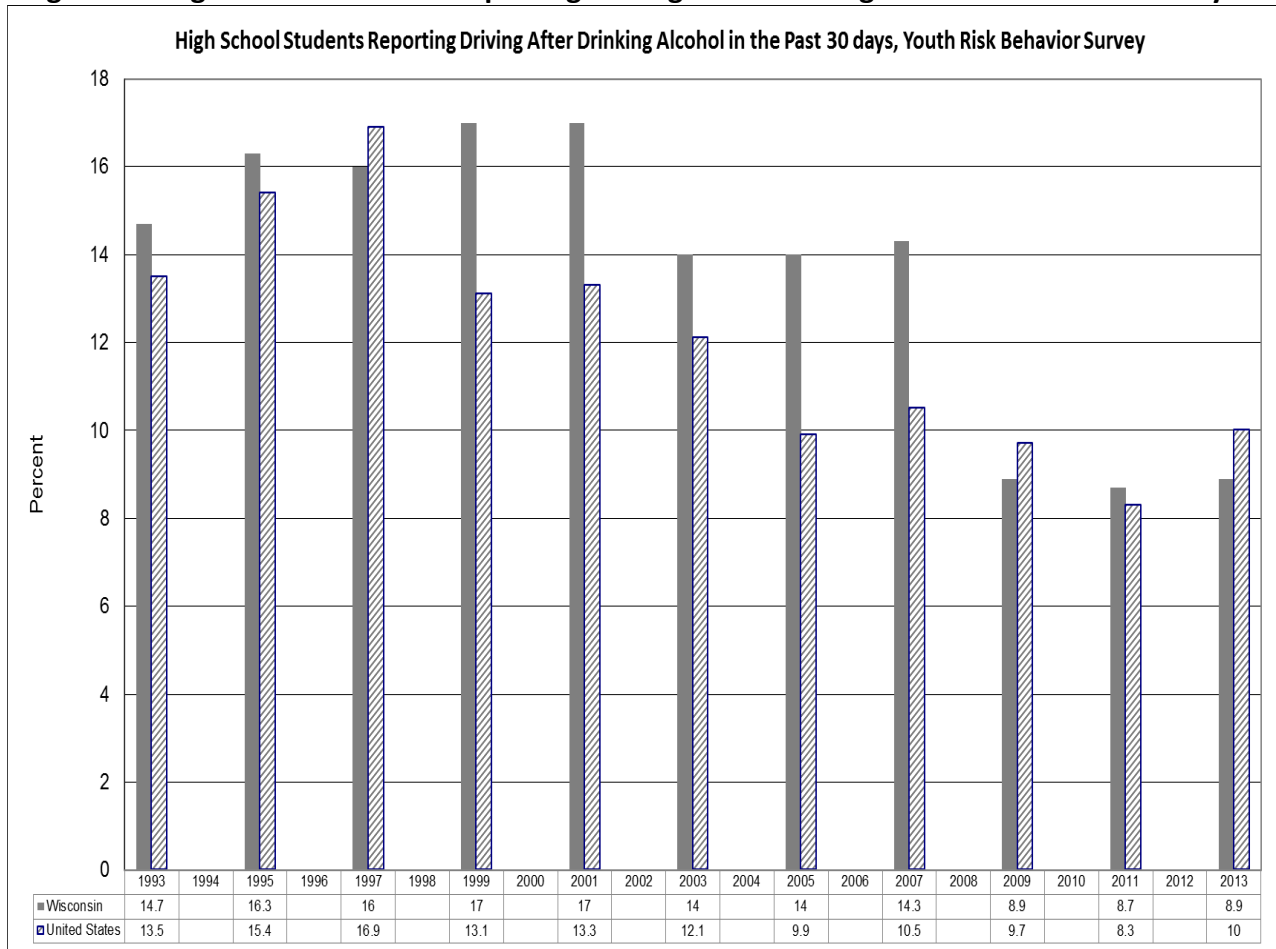
### **Substance Abuse Prevention Effectiveness**

Unlike prevention programs that focus on reducing domestic violence, falls, sexually transmitted diseases, or traffic crashes, measuring the outcome of community substance abuse prevention strategies, programs, and activities is challenging and costly. Sometimes the planning and implementation of substance abuse prevention activities precede the development of measures of the program outcome measures. However, it is essential that prevention program stakeholders agree on reasonable and meaningful outcomes or targets and set up ongoing measurement procedures before undertaking prevention activities. Basic measures may include implementing a prevention program with fidelity to the original model, a brief questionnaire of personal attitudes toward alcohol or drug use or self-reported skill

competency, or participants will report that they enjoyed the activity and can identify at least one positive thing they plan to do as a result.

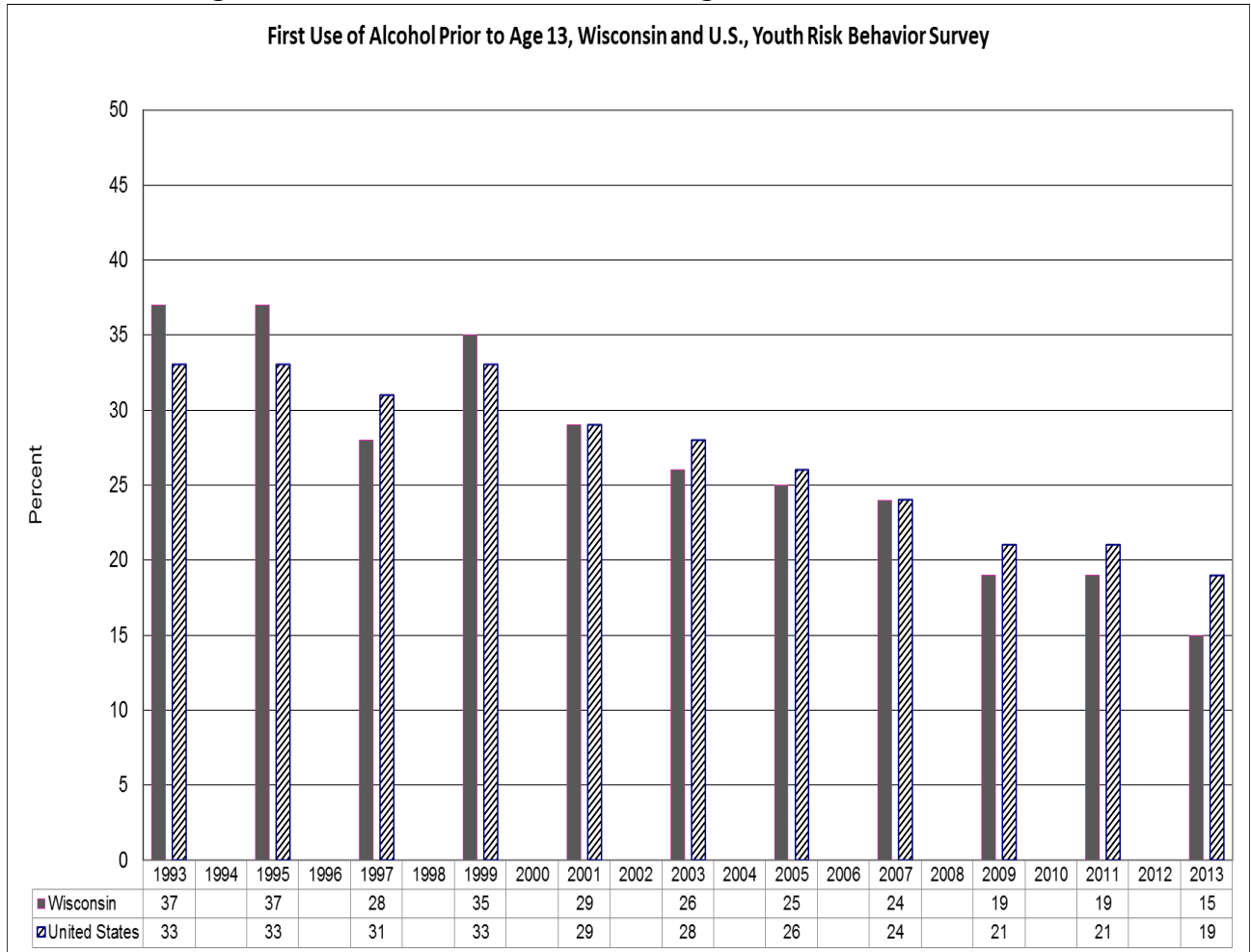
Figures 68 and 69 provide an update on two indicators of the effectiveness of Wisconsin prevention programs and strategies. Reported driving after drinking among Wisconsin high school students fell markedly after 2007 and remains below the national average in 2013. The percent of Wisconsin youth who report having their first full drink of alcohol before age 13 has dropped steadily since 1999 (along with the percent among U.S. youth) and has remained at or below the national average since 2001.

**Figure 68: High School Students Reporting Driving after Drinking Alcohol in the Past 30 days**



Source: Wisconsin Youth Risk Behavior Survey, Centers for Disease Control and Prevention.

**Figure 69: First Use of Alcohol Prior to Age 13, Wisconsin and U.S.**



Source: Wisconsin Youth Risk Behavior Survey, Centers for Disease Control and Prevention.

Previous Tables 27, 28, and 34, as well as Figure 43 portray the rate of substance misuse among youth ages 12-17 years old. Wisconsin’s rate of youth alcohol/drug addiction or dependence exceeds the national rate by 1.3 percentage points. The percent of Wisconsin youth who report consuming five or more drinks during an occasion of drinking in the past 30 days (binge drinking) has been declining and the difference between Wisconsin and the U.S. rate has narrowed considerably.

Much of Wisconsin’s substance use prevention is carried out by dedicated local coalitions. A snapshot of prevention accomplishments and outcomes is illustrated in poster boards created by 14 of these coalitions that were displayed at the 2017 Wisconsin Substance Abuse Prevention Training conference:

- More than three quarters (78 percent) had developed strong partnerships with law enforcement agencies, schools, municipal and county government, chambers of commerce, public health departments, businesses, and youth-serving agencies and groups.
- Over half (64 percent) provided communitywide medication disposal activities and events.



- Over half (57 percent) provided broad community education and awareness activities.
- Nearly half (43 percent) had sponsored “Parents Who Host, Lose The Most” youth alcohol access campaigns.
- About a third (29 percent) provided youth leadership, life skills, or merchant underage alcohol compliance check activities.
- Nearly one quarter (21 percent) provided the “Strengthening Families” parenting skills and family resiliency program.
- Eight coalitions reported a 16 percentage point reduction in alcohol use among high school students over a seven-year average period of time.
- Six coalitions reported a 6 percentage point reduction in marijuana use among high school students over a six-year average period of time.
- Four coalitions reported a 12 percentage point reduction in nonmedical prescription drug use among high school students over a five-year average period of time.
- Seven coalitions reported a 10 percentage point reduction in tobacco use among high school students over a seven-year average period of time.
- Four coalitions reported a 9 percentage point reduction in heavy occasion alcohol use (binge drinking) among high school students over a seven-year average period of time.

### **Strategic Prevention Framework Partnership for Success Project**

In 2015, the Substance Abuse and Mental Health Services Administration awarded Wisconsin a grant for up to five years to address prescription drug misuse among individuals 12-25 years old and underage drinking among individuals 12-20 years old. This grant program is primarily prevention focused. It is designed to prevent the onset and reduce the progression of substance use and its related problems while strengthening prevention capacity and infrastructure at the state, tribal, and community levels. DHS subcontracted with regional organizations for the implementation of evidence-based prevention efforts in high-need counties or tribes. In 2015, oversight, training, and technical assistance were provided by the Alliance for Wisconsin Youth’s regional prevention centers.

Specific local activities included public awareness; targeted education about the misuse of habit-forming prescription medications; Wisconsin Prescription Drug Monitoring Program training; safe medication disposal; surveillance of community substance-related data; and collaborative activities with health care providers, schools, and law enforcement. Tribes also participated through the coordinating efforts of the Great Lakes Inter-Tribal Council.

Prevention strategies were initially selected by state program staff and further developed by local workgroups comprised of the county or tribal staff who would be conducting the work. Strategies were focused in four core priority areas: education (including prescriber education), tracking and monitoring, enforcement, and medication collection and disposal. In 2015, the University of Wisconsin Population Health Institute tracked several preliminary outcomes. The first was adherence to the Strategic Prevention Framework model that was evident at the state and community levels. This model consisted of five key activities including assessment,

capacity, planning, implementation, and evaluation. Sustainability and cultural competence were guiding principles that were demonstrated through all steps. The second was a community education campaign that was implemented in all subcontracted communities. Some highlights of the efforts made through this included:

- Training a total of 238 educators and education-related professionals from eight communities in the Drug Impairment Training for Education Professionals.
- Airing radio and television public service announcements to more than 220,000 households.
- Community education materials and presentations reaching an estimated:
  - 42,042 older adults.
  - 266,121 parents.
  - 7,464 students.
  - 2,788 educators and education-related professionals.
  - 226 pharmacies.
  - 332 pharmacists.
- Addressing prescriber education and practices by eight of the 11 communities, which reached 831 prescribers with materials or education and, among these eight communities, two are offering continuing education credits for the educational presentations that were developed.

The third was the achievement of success in efforts to enforce applicable laws including:

- A 47 percent increase in drug recognition expert (DRE)-trained officers in these areas, with a total of 18 officers trained.
- A doubling of law enforcement officers trained in Advanced Roadside Impaired Driving Enforcement (ARIDE), allowing for the increase in the total of subcontracted counties from 55 to 116.
- Collection and safe disposal of habit-forming medications with the establishment of 37 permanent and secure medication drop-boxes and the collection of 6.5 tons of medication.

The fourth was improved outcomes among the subcontracted communities including:<sup>ix</sup>

- A 30 percent decrease in the number of drug-related incidents resulting in suspensions and expulsions in school districts.
- A 22 percent decrease in the rate of drug-related motor vehicle fatalities, bringing the rate from 2.7 (2010-2012) to 2.1 fatalities per 100,000 (2012-2014).
- A 22 percent decrease in the rate of drug-related motor vehicle injuries, bringing the rate from 10.2 (2011) to 8 (2014) injuries per 100,000 population.
- A 14 percent decrease in the rate of drug arrests.

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<sup>ix</sup> None of the following outcomes across subcontracted communities collected between 2010 and 2014 can be directly attributed to this prevention program.

# Appendix I: Mental Health Service Participants Served by Service Type and County/Region, Calendar Year 2015

County/Region	Community Support Programs	Comprehensive Community Services	Community Recovery Services	Coordinated Services Teams	Crisis Intervention / Emergency Outpatient	Emergency Detention	Inpatient Services	Residential Services	Partial Day Services	Court Services	Medication Management	Intake Assessment	Case Management	Outpatient Services	Supportive Services	Other Services
<b>Statewide</b>	<b>6357</b>	<b>3566</b>	<b>304</b>	<b>1359</b>	<b>25354</b>	<b>4001</b>	<b>2424</b>	<b>1684</b>	<b>297</b>	<b>875</b>	<b>14069</b>	<b>5386</b>	<b>12588</b>	<b>23088</b>	<b>1729</b>	<b>104</b>
Adams	299	53	0	8	167	13	0	0	0	0	290	246	2	321	0	0
Ashland	42	68	0	12	7	7	52	33	0	0	13	54	8	5	31	6
Barron	56	23	0	12	598	6	30	56	1	57	7	63	66	11	31	4
Bayfield	34	33	3	24	3	2	8	6	0	0	4	7	35	6	1	0
Brown	26	73	0	21	3181	252	353	80	0	60	594	15	399	280	81	0
Buffalo	0	2	1	5	57	2	7	2	0	0	1	0	3	1	2	0
Burnett	27	0	0	3	180	0	3	2	0	0	1	0	36	1	0	0
Calumet	32	41	0	15	0	0	27	5	0	93	201	0	331	353	24	2
Chippewa	38	42	4	13	691	11	16	27	0	0	0	0	3	3	1	3
Clark	30	11	0	33	240	0	29	0	0	1	351	248	11	300	0	0
Columbia	70	59	1	18	588	74	86	26	0	0	8	24	105	21	2	0
Crawford	13	0	0	8	104	1	8	8	0	22	194	90	54	156	4	3
Dane	517	0	137	0	1072	0	110	101	154	36	0	11	1851	724	197	0
Dodge	58	43	0	28	272	0	10	0	0	0	532	246	828	449	28	0
Door	42	9	0	21	0	3	0	0	0	0	168	0	97	27	0	0
Douglas	0	0	0	8	55	0	2	4	0	0	0	8	69	3	28	0
Dunn	36	14	0	9	5	2	18	17	0	0	0	17	70	310	0	0
Eau Claire	2	1	0	122	1	1	15	38	8	0	121	0	344	68	66	17
Florence	0	0	0	2	5	1	0	0	0	0	20	0	2	53	1	1
Fond du Lac	29	28	0	27	305	284	100	36	28	2	1390	0	155	1589	66	18
Forest/Oneida/Vilas	40	64	14	16	648	209	28	46	0	0	477	154	287	218	18	1
Grant/Iowa	40	0	0	25	358	71	2	9	5	0	0	0	41	957	2	4
Green	71	45	0	17	0	30	3	0	0	0	122	1	0	140	0	0
Green Lake	11	21	0	14	224	15	6	5	0	0	181	62	69	202	0	0
Iron	20	1	0	14	2	2	3	1	0	0	1	0	125	153	0	0
Jackson	0	0	0	0	177	2	3	12	1	0	3	1	3	4	3	0
Jefferson	154	111	7	41	701	110	2	74	0	0	551	0	487	467	5	0
Juneau	75	35	7	10	256	40	2	1	0	0	230	0	70	211	0	0
Kenosha	173	242	0	208	1091	0	7	127	0	0	1	158	172	32	51	0
Kewaunee	17	45	0	20	123	0	7	0	7	9	124	33	132	92	13	0
La Crosse	135	334	29	25	971	116	10	16	0	0	202	0	124	186	1	1
Lafayette	36	10	0	5	110	9	10	1	0	0	187	4	5	213	2	0
Lang/Lincoln/Marathon	53	571	3	42	1125	381	394	0	3	0	1666	1808	16	1347	0	0
Manitowoc	46	32	0	7	0	1	121	53	0	0	27	12	1	360	0	0
Marinette	75	76	0	47	0	29	10	0	0	0	325	0	34	734	0	0
Marquette	11	0	0	18	157	0	27	4	0	1	0	0	39	334	11	1
Menominee	1	0	0	4	51	15	9	0	0	0	29	37	24	40	1	0
Milwaukee	2268	171	14	0	1262	812	0	15	23	0	1		1341	219	2	0
Monroe	0	0	0	7	424	186	9	12	0	7	143	87	104	97	496	0
Oconto	0	0	0	11	329	29	19	2	0	0	204	0	3	247	0	0
Outagamie	108	188	0	0	835	0	115	127	0	1	822	0	151	1109	116	0
Ozaukee	45	15	0	31	611	0	0	0	0	0	460	0	52	277	0	0
Pepin	1	6	1	7	45	0	1	5	1	1	1	0	16	6	0	0
Pierce	21	25	0	4	230	17	2	14	0	0	192	0	24	158	1	0
Polk	27	14	0	0	134	11	18	31	0	4	387	328	77	313	7	2
Portage	0	60	11	37	64	13	13	2	0	0	374	0	238	139	1	0
Price	42	0	0	11	101	16	10	8	0	3	2	1	73	9	12	1

County/Region	Community Support Programs	Comprehensive Community Services	Community Recovery Services	Coordinated Services Teams	Crisis Intervention / Emergency Outpatient	Emergency Detention	Inpatient Services	Residential Services	Partial Day Services	Court Services	Medication Management	Intake Assessment	Case Management	Outpatient Services	Supportive Services	Other Services
Price	42	0	0	11	101	16	10	8	0	3	2	1	73	9	12	1
Racine	118	60	0	10	1716	130	19	35	0	0	790	0	1093	1103	1	0
Richland	0	5	8	6	70	0	0	0	0	0	0	92	0	156	0	0
Rock	249	59	0	43	985	305	142	0	0	0	480	231	93	490	0	0
Rusk	3	4	0	0	102	0	1	5	0	0	2	111	185	8	2	0
Sauk	151	116	0	19	460	98	70	19	1	0	439	9	20	600	3	0
Sawyer	56	0	0	10	2	13	17	12	0	0	1	15	7	1	0	0
Shawano	50	44	0	30	577	143	0	1	0	4	0	0	55	596	7	3
Sheboygan	42	125	7	25	234	0	80	126	10	0	32	10	570	478	172	24
St. Croix	74	0	0	18	142	1	32	17	0	2	560	1	56	560	5	4
Taylor	1	6	0	0	18	6	15	15	0	0	114	45	90	66	7	1
Trempealeau	52	0	0	18	0	0	6	12	0	0	3	8	19	7	2	0
Vernon	66	24	0	20	22	2	4	18	1	28	1	0	26	65	23	0
Walworth	51	6	0	8	59	60	0	10	0	65	67	0	12	141	0	1
Washburn	19	0	0	30	0	1	5	9	4	1	31	0	50	34	0	0
Washington	63	84	14	18	1016	0	217	81	46	101	91	0	37	1337	52	0
Waukesha	182	132	24	7	52	0	60	82	4	360	12	276	264	572	80	3
Waupaca	38	0	0	61	308	76	12	47	0	9	16	22	242	334	21	3
Waushara	42	40	0	11	135	4	0	7	0	8	202	0	11	342	13	1
Winnebago	123	160	0	0	1824	91	32	175	0	0	0	584	1567	2365	0	0
Wood	156	135	19	15	72	298	7	7	0	0	621	267	14	888	36	0

Sources: Human Services Reporting System and Program Participation System, DHS.

Note: Service participants are counted only once (unduplicated) within a service category or grouping regardless of how many times they received that service. However, an individual service participant may be counted in more than one service category or grouping. For example, if a service participant received both medication management services and individual counseling services, he/she would be counted once for each type of these services received.

## Appendix II: Other Stakeholder Information on Services Needs and Priorities

### Comments from Service Participant Advocacy Agencies (as expressed directly by each)

#### *Wisconsin Voices for Recovery*

Wisconsin Voices for Recovery serves as a voice of recovery in Wisconsin and garners information from over 7,400 members and member organizations to provide a summary of the feedback and the top responses received from members and other Wisconsin citizens on the state of addiction and recovery supports in Wisconsin.

The following is a list of common solutions to advancing recovery gathered by Wisconsin Voices for Recovery from its members and other Wisconsin citizens:

- Networking and collaboration between traditional treatment providers and outside community supports.
- Drug and treatment courts, combined with medication-assisted treatment.
- Self-help groups and paid recovery coaches.
- Partnerships between criminal justice and recovery supports (for example, The Cops Assisting Addiction Recovery program in Greenfield and Cephass House in the Waukesha area).
- Supportive employment, stable housing, and recovery supports provided from places such as Step Industries in Neenah and Milwaukee.
- Continued contact after treatment (e.g., Connections Counseling Mentor Program in Madison), wraparound programs, and peer specialist or recovery coach involvement.
- Providing treatment and recovery support instead of promoting criminal justice involvement.

Wisconsin Voices for Recovery and its members have also identified issues related to addictions that need to be prioritized and addressed in Wisconsin:

- Access and availability of treatment options, particularly for low-income individuals. Specifically:
  - Traditional treatment services are very limited in availability and accessibility. In particular, individuals in rural areas have few options for traditional treatment.
  - Comprehensive Community Services has been a great addition, but when people need to access treatment (including inpatient and intensive outpatient) there may not be any available options.
  - One family member noted: "...the needs of many struggling addicts go unmet due to no means to obtain treatment when they seek help."
- Accountability for treatment services. For instance, concern has been expressed about the quality of the treatment that is available and how treatment agencies are tracking their clients' outcomes and sharing this information.

- Availability and accessibility of recovery housing and other long-term aftercare options.
- More streamlined and simple process to find and access services for individuals seeking recovery and their family members who are assisting them in navigating the system.
- More access to medication-assisted treatment like Vivitrol.

### ***Grassroots Empowerment Project***

Grassroots Empowerment Project is a statewide nonprofit organization engaged in direct peer support services, wellness and recovery education and training, and advocacy whose mission is to create opportunities for people seeking mental health, recovery, and wellness to exercise power in their lives. They are an organization who prides themselves in being service-participant run. Grassroots Empowerment Project has identified three main priorities to focus its current efforts on. These include:

- Incorporate recovery, peer support, and trauma-informed care into college-level nursing, psychology, social work, and counseling programs.
- Infuse trauma-informed care into mental health and addiction programs statewide.
- Address racial disparities in local systems (social services, criminal justice, etc.) as these affect individuals with mental health and addiction needs.

### ***Disability Rights, Wisconsin***

Disability Rights, Wisconsin is a private nonprofit organization and is part of a national system of federally mandated independent disability agencies that helps people across Wisconsin gain access to services and opportunity through its advocacy and legal expertise. Disability Rights, Wisconsin regularly challenges systems and society to create positive change and improve the lives of people with disabilities. Disability Rights, Wisconsin priorities as they relate to mental health are:

- Elimination of abuse and neglect in mental health settings.
- Prevention of institution deaths due to abuse or neglect of individuals with a MHD.
- Support an individual's right to live and work and participate in integrated, inclusive, community settings.
- Adequate amount, scope, choice, and access to mental health services and supports.
- Address discrimination and enforce civil rights of individuals with a MHD.
- Support service participant self-advocacy.

### ***Mental Health America of Wisconsin***

Mental Health America of Wisconsin is an affiliate of the national organization of the same name. Mental Health America is a community-based nonprofit organization aimed at improving overall health and wellness for Americans by addressing several areas around mental health, including prevention, early identification, intervention, care integrations, and recovery. Some major priorities they espouse include:

- Evidence-based, recovery-oriented services.
- Integration of mental health treatment with health care.
- Mental health and wellness promotion and MHD prevention.
- Cultural and linguistic competency.

- Inclusion, client rights, and privacy.
- Access to mental health services and supports, including co-occurring services and peer support.
- Services for perinatal mental health, children, and families.
- Criminal, juvenile justice, and corrections reforms to improve policies and practices for individuals with a MHD.

### ***National Alliance on Mental Illness Wisconsin***

The National Alliance on Mental Illness, better known as NAMI, is the nation's largest grassroots mental health organization providing advocacy, education, support, and public awareness on MHDs. Serving as the state affiliate of the national-level NAMI, NAMI Wisconsin works with smaller affiliates throughout the state to promote the following goals and priorities:

- Provide access to affordable mental health treatment services through enforcing health insurance parity and improving the use of Medicaid in Wisconsin.
- Prevent people from entering and returning to jail and prison through expansion of community mental health services, educating law enforcement on mental health, and investing in treatment alternatives and diversion programs.
- Support youth mental health initiatives such as early identification and intervention for youth with mental health conditions including the First Episode Psychosis program and school-based initiatives.
- Promote avenues to recovery in the community through employment and peer services, such as individualized placement and support and certified peer specialist, as well as Community Support Programs and Comprehensive Community Services.

### ***Wisconsin United for Mental Health***

Wisconsin United for Mental Health is a coalition of individuals such as mental health professionals, individuals living with a MHD, family members of individuals living with a MHD, and other advocates. Wisconsin United for Mental Health aims to promote mental health awareness, eliminate discrimination for those diagnosed with a MHD, and foster best practices in the mental health system. Together, Wisconsin United for Mental Health prioritizes:

- Mental health friendly workplaces.
- Improved care for individuals with a MHD in the hospital emergency department setting.
- Prevention of bullying in schools.
- Faith communities that are caring places for individuals with a MHD.

### ***Wisconsin Coalition of Independent Living Centers***

Wisconsin Coalition of Independent Living Centers is a nonprofit, statewide association of eight independent living centers in Wisconsin. This association serves as a unified statewide voice for independent living centers across Wisconsin and strives to enhance opportunities for individuals living with disabilities to be active participants in their communities and live independently. For individuals with disabilities, their goals and priorities include:

- Services that promote full access to and inclusion in community life.
- Peer support.

- Independent living skills training.
- Prevention of institutionalization.
- Employment.

### ***Tribal Nations***

DHS staff attend various consultation sessions and meetings with Wisconsin tribal communities and representatives. During these sessions Wisconsin's tribes voiced concerns including a lack of communication about the Governor's Task Force on Opioid Abuse<sup>x</sup> and workforce shortages with tribal staff in agencies offering mental health and substance services due to:

- The necessary staff being less inclined to reside in northern rural areas of Wisconsin where many tribal people reside.
- A lack of minority-focused trainings for necessary staff in tribal and other underserved communities.
- High staff turnover among necessary clinical staff.
- Issues with licensures granted by the Wisconsin Department of Safety and Professional Services to mental health and substance use services centers.
- A lack of community youth centers for staff to work.
- Lack of knowledge and understanding of Comprehensive Community Services as a MHD, SUD, or dual diagnosis rehabilitation program.
- High needs for services due to increases in affected babies being born with drug addiction.
- High needs for services due to increases in prescription drug abuse.

### ***Southeast Asian Population***

The Wisconsin United Coalition of Mutual Assistance Associations plays a major role in assisting its members to gain leadership skills and works with other organizations at the state level to improve the quality of life for the Southeast Asian population in Wisconsin. In 2016, Wisconsin United Coalition of Mutual Assistance Associations funded a focus-group study to identify how substance abuse and mental health prevention and intervention programs could be used to address the needs of Wisconsin Hmong communities.<sup>50</sup> This study produced a list of problems and recommendations to address these problems for the Hmong population in Wisconsin:

- MHD, physical illness, and alcohol and other drug abuse are real, serious, interconnected problems in Hmong American communities.
- Special concerns exist with the:
  - Frequency of suicide among young adults and young unmarried people.
  - Abuse of alcohol.
  - Use of marijuana and crystal meth among adults under age 40.
  - Lack of local, state, and national data on current problems Hmong Americans face.
- Specific challenges that prevent individuals with mental health and SUD problems from seeking professional help and services including:
  - A lack of peer support in the help-seeking process.

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<sup>x</sup>A committee charged with advising and assisting the governor in a coordinated effort to combat the opioid crisis facing Wisconsin.



- A lack of bilingual and bicultural mental health professionals in the immediate communities of those seeking help.
- Specific stressors that contribute to problems with MHDs include:
  - Breakdown in the communication between spouses and between parents and children.
  - Extramarital affairs.
  - Abusive relationships and domestic violence.
  - Social isolation.
  - Social stigma.
  - Internalization.
  - Poverty.
- Specific stressors that lead to problems with alcohol and drug abuse include:
  - Strong peer pressure.
  - Spousal conflicts.
  - Poverty.
  - Unemployment.
  - Pre-existing health and physical conditions.
- Recommendations to address these problems:
  - Require health care professionals to provide affordable, transparent, and culturally competent services to Hmong patients.
  - Establish and use community assets including:
    - Female and male leaders in the community.
    - Traditional healers.
    - Hmong cultural specialists, such as wedding mediators, funeral directors, or clan leaders.
    - Mutual assistance organizations.
    - Health professionals and researchers of Hmong background.
  - Develop preventive mental health and alcohol and other drug abuse services in close partnership with the Wisconsin Hmong community.
  - Provide MHD and SUD outreach and education to Hmong community members and those serving the Hmong community.
  - Increase early intervention services across multiple domains, including schools and workplaces and especially intervention services to prevent suicides and the misuse or abuse of drugs among Hmong youth.
  - Expand Comprehensive Community Services to address Hmong needs, including mental health needs.
  - Hire and train bilingual and bicultural Hmong professionals to work within both the public and private sector workforce.
  - Provide federal and state funding for research studies focused on identifying health disparities in Hmong American communities.
  - Invest financial resources and human capital in Hmong communities in order to reduce poverty and increase Hmong families' standards of living.

### ***Veterans and Military Families***

The Veterans Outreach and Recovery Program ensured access to housing and treatment services through recovery supports for veterans and all former service members, regardless of discharge status, experiencing homelessness and mental and substance use disorders. Veterans Outreach and Recovery Program was a joint project of DHS and the Wisconsin Department of Veterans Affairs. This program was funded by a grant from Substance Abuse and Mental Health Services Administration. The program's case managers or outreach and recovery specialists worked with veterans and former service members enrolled in the program to support their health, home, purpose, and community. Concerns expressed by Wisconsin veterans participating in Veterans Outreach and Recovery Program included the following:

- Hoops and long waiting time for services, whether it be Veterans Administration services, county services, or private insurance services.
- Lack of alcohol detoxification services in many areas.
- Lack of opioid withdrawal management services in many areas.
- Lack of provider understanding of veterans' issues.
- County and private insurance service providers lack familiarity with Veterans Administration services available and eligibility policies—the Veterans Administration doesn't always provide behavioral health services for veterans.

## Appendix III: Special Population Group References

### Any Mental Illness Prevalence Rate References

<b>Female</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Rural</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Children Ages 5-17</b>	Centers for Disease Control (Centers for Disease Control and Prevention), 2015; <a href="https://www.cdc.gov/mmwr/preview/mmwrhtml/su6202a1.htm">https://www.cdc.gov/mmwr/preview/mmwrhtml/su6202a1.htm</a>
<b>Substance Use Disorder (SUD)</b>	National Survey on Drug Use and Health 2014; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf</a> NSDUH 2015: <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Poverty</b>	US Census, 2015; <a href="https://www.census.gov/quickfacts/table/IPE120215/55,00">https://www.census.gov/quickfacts/table/IPE120215/55,00</a>
<b>Youth Trauma</b>	NCSA II Wave 2 Report, 2012; Exhibit 12; CBCL score for children age 1.5-17 years; <a href="https://www.acf.hhs.gov/sites/default/files/opre/nscaw_report_w2_ch_wb_final_june_2014_final_report.pdf">https://www.acf.hhs.gov/sites/default/files/opre/nscaw_report_w2_ch_wb_final_june_2014_final_report.pdf</a>
<b>Ages 18-24</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Ages 65 and Over</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Lesbian, Gay, or Bisexual</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-SexualOrientation-2015/NSDUH-SexualOrientation-2015/NSDUH-SexualOrientation-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-SexualOrientation-2015/NSDUH-SexualOrientation-2015/NSDUH-SexualOrientation-2015.pdf</a>
<b>Corrections (Adults)</b>	U.S. Department of Justice, Bureau of Justice Statistics, 2004; <a href="https://www.bjs.gov/content/pub/pdf/mhppji.pdf">https://www.bjs.gov/content/pub/pdf/mhppji.pdf</a>
<b>Veterans</b>	National Survey on Drug Use and Health, 2002-2012; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DR-VeteranTrends-2016/NSDUH-DR-VeteranTrends-2016.htm">https://www.samhsa.gov/data/sites/default/files/NSDUH-DR-VeteranTrends-2016/NSDUH-DR-VeteranTrends-2016.htm</a>
<b>African American</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Hispanic</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Two or More Races</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Asian</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>

<b>American Indian</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>County Jails</b>	U.S. Department of Justice, Bureau of Justice Statistics, 2004; <a href="https://www.bjs.gov/content/pub/pdf/mhppji.pdf">https://www.bjs.gov/content/pub/pdf/mhppji.pdf</a>
<b>Homeless</b>	Mental Illness Policy.org, 2015 National Estimates; <a href="https://mentalillnesspolicy.org/consequences/homeless-mentally-ill.html">https://mentalillnesspolicy.org/consequences/homeless-mentally-ill.html</a>

### Occurrence of Substance Use Disorder Prevalence Rate References

<b>Female</b>	National Survey on Drug Use and Health, 2015; <a href="https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf">https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf</a>
<b>Mental Illness</b>	Substance Abuse and Mental Health Services Administration. (2012). Mental Health, United States, 2010. HHS Publication No. (SMA) 12-4681. Rockville, Maryland: Substance Abuse and Mental Health Services Administration.  U.S. Surgeon General (1999). Mental Health: A Report of the U.S. Surgeon General.
<b>Rural</b>	Centers for Disease Control and Prevention, 2015; <a href="https://www.cdc.gov/mmwr/preview/mmwrhtml/su6202a1.htm">https://www.cdc.gov/mmwr/preview/mmwrhtml/su6202a1.htm</a>
<b>Trauma</b>	Jacobsen, L., et al. (2001) Substance Use Disorders in Patients with Posttraumatic Stress Disorder: A Review of the Literature, American Journal of Psychiatry, 158:1184-1190.  Kessler R., et al. (1995) Posttraumatic stress disorder in the National Comorbidity Survey, Archives of General Psychiatry, 52(12):1048-60.
<b>Poverty</b>	Substance Abuse and Mental Health Services Administration (2000–2010), National Survey on Drug Use and Health, Rockville, Maryland
<b>County Jails</b>	Barlow, D. et al (1998) Substance Abuse and Need for Treatment Among Arrestees in Wisconsin, University of Wisconsin-Milwaukee, Criminal Justice Program.
<b>Corrections – Adults</b>	Wisconsin Department of Corrections (1995) Statistics provided by staff person based upon data from assessment at entry to institutions, Madison, Wisconsin.
<b>LGBTQQ</b>	Gates, G. (2011) How many people are lesbian, gay, bisexual, and transgender? The Williams Institute, UCLA School of Law, Los Angeles, California.  Substance Abuse and Mental Health Services Administration (2001) A Provider’s Introduction to Substance Abuse Treatment for Lesbian, Gay, Bisexual and Transgender Individuals, Rockville, Maryland.
<b>Ages 12-17</b>	Substance Abuse and Mental Health Services Administration (2000–2010), National Survey on Drug Use and Health, Rockville, Maryland.
<b>Black</b>	Substance Abuse and Mental Health Services Administration (2000–2010), National Survey on Drug Use and Health, Rockville, Maryland.
<b>Hispanic</b>	Substance Abuse and Mental Health Services Administration (2000–2010), National Survey on Drug Use and Health, Rockville, Maryland.

<b>Ages 65 and over</b>	Substance Abuse and Mental Health Services Administration (2000 – 2010), National Survey on Drug Use and Health, Rockville, Maryland.
<b>Pregnant</b>	Dold, L. (1998). Substance Abuse and Treatment Needs Among Pregnant Women in Wisconsin, Wisconsin University of Wisconsin Extension and Survey Research Laboratory, Madison, Wisconsin.
<b>Homeless</b>	U.S. Department of Housing and Urban Development (2010), Annual Homeless Assessment Report to Congress, Washington, DC.  Wisconsin Department of Administration (2010) Homelessness in Wisconsin & State Shelter Subsidy Grant Program, Division of Housing, Madison, Wisconsin.
<b>Returning Military</b>	Bray, R. et al. (2010), Substance use and mental health trends among U.S. military active duty personnel: key findings from the 2008 DOD Health Behavior Survey, Military Medicine, 175(6):390-399.
<b>American Indian</b>	Substance Abuse and Mental Health Services Administration (2000 – 2010), National Survey on Drug Use and Health, Rockville, Maryland.
<b>Asian</b>	Substance Abuse and Mental Health Services Administration (2000 – 2010), National Survey on Drug Use and Health, Rockville, Maryland.
<b>Deaf</b>	Buss, A. (1989). Incidence of Alcohol Use by People with Disabilities in Wisconsin, Department of Health and Social Services, Madison, Wisconsin.
<b>Corrections Juveniles</b>	Wisconsin Department of Corrections (1995). Statistics provided by staff person based upon data from assessment at entry to institutions, Madison, Wisconsin.

## Reference List

---

- <sup>1</sup> U.S. Census Bureau. (2015). *U.S. Census Estimates for 2015 from the American Community Survey One-Year Estimate data* [Data File, Release Date: March 2016]. Retrieved from <http://factfinder2.census.gov>
- <sup>2</sup> Diaz, D.R., Landsberger, S.A., Povlinski, J., Sheward, J., and Sculley, C. (2013). Psychiatric disorder prevalence among deaf and hard-of-hearing outpatients. *Comprehensive Psychiatry*, 54(7), 991-995.
- <sup>3</sup> U.S. Census Bureau. (2010). *Demographic Profile* [Data file]. Retrieved from <http://factfinder2.census.gov>
- <sup>4</sup> Wisconsin United Coalition of Mutual Assistance Associations (WUCMAA). (2014). *Hmong Suicide Survey* [Data file].
- <sup>5</sup> Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., and Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258.
- <sup>6</sup> Center for the Application of Prevention Technologies, Substance Abuse and Mental Health Services Administration. (2017, May 1). *Adverse Childhood Experiences*. Retrieved from <https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/adverse-childhood-experiences>
- <sup>7</sup> Kuah, T., Hunt A., and Slack, K.S. (2016, July). *The Influence of Adverse Childhood Experiences on the Health of Wisconsin Citizens in Adulthood (revised version)*. Child Abuse and Neglect Prevention Board. Retrieved from: [https://preventionboard.wi.gov/Documents/WisconsinACEBrief\(2011-13\)WEB\\_9.16.pdf](https://preventionboard.wi.gov/Documents/WisconsinACEBrief(2011-13)WEB_9.16.pdf)
- <sup>8</sup> Child Abuse and Neglect Prevention Board. (2014). *Wisconsin ACE Brief: 2011 and 2012 Data*. Retrieved from: <https://preventionboard.wi.gov/Documents/WisconsinACEsBrief%202011-2012.pdf>
- <sup>9</sup> Sacks, V., Murphey, D., and Moore, K. (2014). *Adverse Childhood Experiences: National and State Level Prevalence*. Child Trends Publication, 28. Retrieved from [https://childtrends-ciw49tixgw5lbab.stackpathdns.com/wp-content/uploads/2014/07/Brief-adverse-childhood-experiences\\_FINAL.pdf](https://childtrends-ciw49tixgw5lbab.stackpathdns.com/wp-content/uploads/2014/07/Brief-adverse-childhood-experiences_FINAL.pdf)
- <sup>10</sup> American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Washington, DC: American Psychiatric Association.
- <sup>11</sup> U.S. Department of Health and Human Services. (2004). *The health consequences of smoking: a report of the Surgeon General*. Atlanta, GA: Available at [http://www.cdc.gov/tobacco/data\\_statistics/sgr/sgr\\_2004/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/index.htm)
- <sup>12</sup> Centers for Disease Control and Prevention. (2013). Vital signs: current cigarette smoking among adults aged  $\geq 18$  years with mental illness—United States, 2009–2011. *MMWR. Morbidity and mortality weekly report*, 62(5), 81.
- <sup>13</sup> Drake, R. E., Essock, S. M., Shaner, A., Carey, K. B., Minkoff, K., Kola, L., et al. (2001). Implementing dual diagnosis services for clients with severe mental illness. *Psychiatric Services*, 52(4), 469-476.

- 
- <sup>14</sup> Druss, B.G. and Walker, E.R. (2011). *Mental disorders and Medical Comorbidity*. Research Synthesis Report, 21. Retrieved from: <http://www.ibhpartners.org/wp-content/uploads/2015/12/co-occurring-disorders-Druss.pdf>
- <sup>15</sup> Ziege, A. and Connor, T. (2009). "Linking Mental and Physical Health: Results from the Wisconsin Behavioral Risk Factor Survey." Wisconsin DHS, Division of Public Health, Bureau of Health Information and Policy.
- <sup>16</sup> Schulte, M.T. and Hser, Y.I. (2014). Substance Use and Associated Health Conditions throughout the Lifespan. *Public Health Reviews*, 35(2). Retrieved from: [https://web-beta.archive.org/web/20150206061220/http://www.publichealthreviews.eu/upload/pdf\\_files/14/00\\_Schulte\\_Hser.pdf](https://web-beta.archive.org/web/20150206061220/http://www.publichealthreviews.eu/upload/pdf_files/14/00_Schulte_Hser.pdf)
- <sup>17</sup> Fletcher, R. (2004). *Information on dual diagnosis*. Retrieved from <http://thenadd.org/resources/information-on-dual-diagnosis-2/>.
- <sup>18</sup> Morgan, V. A., Leonard, H., Bourke, J., and Jablensky, A. (2008). Intellectual disability co-occurring with schizophrenia and other psychiatric illness: population-based study. *The British Journal of Psychiatry*, 193(5), 364-372., doi: 10.1192/bjp.bp.107.044461
- <sup>19</sup> Ravesloot, C., Charles, L., Liston, B., and Thorsen, K. (2014). Psychiatric Symptoms Reported by a Population-Based Sample of Rural Adults with Physical and Sensory Impairments. *Health and Wellness*, 32. Retrieved from [http://scholarworks.umd.edu/ruralinst\\_health\\_wellness/32](http://scholarworks.umd.edu/ruralinst_health_wellness/32)
- <sup>20</sup> Walker, R. (2013). Child mental health and deafness. *Paediatrics and Child Health*, 23(10), 238-442.
- <sup>21</sup> Substance Abuse and Mental Health Services Administration. (2013). *Trauma, Center for Integrated Health Solutions*. Retrieved from: <http://www.integration.samhsa.gov/clinical-practice/trauma>
- <sup>22</sup> Middleton, W. (2012). Foreword to Adults Surviving Child Abuse in Kezelman, C.A., & Stavropoulos, P.A. *Practice Guidelines for Treatment of Complex Trauma and Trauma Informed Care and Service Delivery* (pp. x-xiv). Kirribilli, New South Wales, Australia: Adults Surviving Child Abuse.
- <sup>23</sup> Green B., Lyerla R., Stroup D.F., Azofeifa A., and High P.M. (2016). A Tool for Assessing a Community's Capacity for Substance Abuse Care. *Preventing Chronic Disease*. 13 (160190). <http://dx.doi.org/10.5888/pcd13.160190>
- <sup>24</sup> Hasin, D., et al. (2007) Prevalence, Correlates, Disability, and Comorbidity of DSM-IV Alcohol Abuse and Dependence in the United States: Results From the National Epidemiologic Survey on Alcohol and Related Conditions. *Archives of General Psychiatry*, 64(7), 830-842.
- <sup>25</sup> Gorman, D., et al. (2000). Using social indicators to inform community drug and alcohol prevention policy. *Journal of Public Health Policy*, 21(4), 428-46.
- <sup>26</sup> Ryan, J., et al. (1999). Social Indicators of Substance Abuse Prevention: A Need-Based Assessment. *Social Indicators Research*, 46(1), 23-60.
- <sup>27</sup> Shaffer, J.J., and Hall, M.N. (2001). Updating and refining prevalence estimates of disordered gambling behavior in the United States and Canada. *Canadian Journal Public Health*, 92(3), 168-172.
- <sup>28</sup> Gerstein, D., et al. (1999). Gambling impact and behavior study: Report to the national gambling impact study commission. Chicago, IL: National Opinion Research Center.

- 
- <sup>29</sup> Thompson, W., Gazel, R., and Rickman, R. (July, 1996). The Social Costs of Gambling in Wisconsin, Wisconsin Policy Research Institute Report, 9(6). Retrieved from <http://www.wpri.org/WPRI-Files/Special-Reports/Reports-Documents/Vol9no6.pdf>
- <sup>30</sup> Institute for Community Alliances. (July, 2016). *The State of Homelessness in Wisconsin: 2015 Homeless Management Information System (HMIS) Report*. Retrieved from <https://static1.squarespace.com/static/54ca7491e4b000c4d5583d9c/t/578fd14d893fc07c86007f82/1469043022865/2015+Wisconsin+Annual+Report+Booklet.pdf>
- <sup>31</sup> Miller, T.R. and Hendrie, D. (2008). *Substance Abuse Prevention Dollars and Cents: A Cost-Benefit Analysis*. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention. Retrieved from <https://www.samhsa.gov/sites/default/files/cost-benefits-prevention.pdf>
- <sup>32</sup> Holder, H. D., Lennox, R. D., and Blose, J. O. (1992). The economic benefits of alcoholism treatment: A summary of twenty years of research. *Journal of Employee Assistance Research*, 1(1), 63-82.
- <sup>33</sup> Wisconsin Technical College System. (May, 2017). *Outcomes Report for 2016 Graduates*. Retrieved from <http://www.wtcsystem.edu/wtcsexternal/cmsspages/getdocumentfile.aspx?nodeguid=40b10b3d-da2d-46ee-a956-4e00a7a0d02e>
- <sup>34</sup> Farkas, M., and Anthony, W. A. (2010). Psychiatric rehabilitation interventions: A review. *International Review of Psychiatry*, 22(2), 114-129.
- <sup>35</sup> Vayshenker, B., Mulay, A. L., Gonzales, L., West, M. L., Brown, I., and Yanos, P. T. (2016). Participation in peer support services and outcomes related to recovery. *Psychiatric rehabilitation journal*, 39(3), 274.
- <sup>36</sup> Tracy, K. and Wallace, S. P. (2016). Benefits of peer support groups in the treatment of addiction. *Substance Abuse and Rehabilitation*, 7, 143-154. doi: [10.2147/SAR.S81535](https://doi.org/10.2147/SAR.S81535)
- <sup>37</sup> Tracy, K., et al. (2011). Mentorship for Alcohol Problems (MAP): a peer to peer modular intervention for outpatients. *Alcohol and alcoholism*, 47(1), 42-47.
- <sup>38</sup> Gustafson, D. H., Sainfort, F., Eichler, M., Adams, L., Bisognano, M., and Steudel, H. (2003). Developing and testing a model to predict outcomes of organizational change. *Health services research*, 38(2), 751-776.
- <sup>39</sup> Zhang, Z., Gerstein, D. R. and Friedmann, P. D. (2008). Patient satisfaction and sustained outcomes of drug abuse treatment. *Journal of health psychology*, 13(3), 388-400.
- <sup>40</sup> Carlson, M. J. and Gabriel, R. M. (2001). Patient satisfaction, use of services, and one-year outcomes in publicly funded substance abuse treatment. *Psychiatric services*, 52(9), 1230-1236.
- <sup>41</sup> Crits-Christoph, P., Ring-Kurtz, S., Hamilton, J. L., Lambert, M. J., Gallop, R., McClure, B., and Rotrosen, J. (2012). A preliminary study of the effects of individual patient-level feedback in outpatient substance abuse treatment programs. *Journal of Substance Abuse Treatment*, 42(3), 301-309.
- <sup>42</sup> Lambert, M. J., Whipple, J. L., Smart, D. W., Vermeersch, D. A., Nielsen, S. L., and Hawkins, E. J. (2001). The effects of providing therapists with feedback on patient progress during psychotherapy: Are outcomes enhanced?. *Psychotherapy research*, 11(1), 49-68.



---

<sup>43</sup> Miller, S. D., Duncan, B. L., Brown, J., Sorrell, R., and Chalk, M. B. (2006). Using formal client feedback to improve retention and outcome: Making ongoing, real-time assessment feasible. *Journal of Brief Therapy*, 5(1), 5-22.

<sup>44</sup> Simpson, D. D. (September, 2002). Understanding Drug Treatment Processes to Improve Quality. *Institute of Behavioral Research at Texas Christian University Research Summary*. Retrieved from <http://ibr.tcu.edu/wp-content/uploads/2013/06/RS-TrtProc-02.pdf>

<sup>45</sup> Orwin, R. and Williams, V. (1999). The National Treatment Improvement Evaluation Study: Retention Analysis. Arlington, VA: Battelle Centers for Public Health Research and Evaluation.

<sup>46</sup> Hubbard, R., Simpson, D., and Grella, C. (2006). Internet website information entitled Drug Abuse Treatment Outcome Studies. Fort Worth, TX: Texas Christian University.

<sup>47</sup> Miller, W. R., Leckman, A. L., Delaney, H. D., and Tinkcom, M. (1992). Long-term follow-up of behavioral self-control training. *Journal of studies on alcohol*, 53(3), 249-261.

<sup>48</sup> Van Der Hyde, V.A. (November, 1995). *ADATSA Follow-Up Study of Extended Outpatient Care: A Comparison of 90 Days versus 180 Days of Outpatient Treatment for Clients of Washington State's Alcoholism and Drug Addiction Treatment and Support Act*. Olympia, WA: Washington State Department of Social and Health Services, Office of Research and Data Analysis. Retrieved from <http://files.eric.ed.gov/fulltext/ED394116.pdf>

<sup>49</sup> Moberg, D. and Kuo, D. (2017) Five Year Recidivism after Arrest for Operating While Intoxicated: A Large-scale Cohort Study. Retrieved from <https://www.dhs.wisconsin.gov/idp/idp-report.pdf>

<sup>50</sup> Xiong, Y.S. and Wisconsin United Coalition of Mutual Assistance Association. (2016). *Wisconsin Hmong Mental Health and Alcohol and Other Drug Abuse: An Analysis of Focus Group Findings*. Onalaska, WI: Wisconsin United Coalition of Mutual Assistance Association, Inc.