

**MICHIGAN DEPARTMENT OF COMMUNITY HEALTH, MENTAL HEALTH AND SUBSTANCE ABUSE ADMINISTRATION**  
**BUREAU OF SUBSTANCE ABUSE AND ADDICTION SERVICES**

**State and Substate Estimates of Substance Use in Michigan**  
**2006-2008 National Surveys on Drug Use and Health**

Overview

In 2009, the Substance Abuse and Mental Health Services Administration (SAMHSA) published a States in Brief series entitled *Substance Abuse and Mental Health Issues At-A-Glance; A Short Report from the Office of Applied Studies*. The report for Michigan provides annual treatment admission data for alcohol, cocaine, marijuana, heroin and other opiates for years 1992-2006 ([www.samhsa.gov/StatesInBrief/2009/MICHIGAN\\_508.pdf](http://www.samhsa.gov/StatesInBrief/2009/MICHIGAN_508.pdf)). During those years, while Michigan showed a steady decrease in the percentage of admissions mentioning alcohol, it also showed an increase in the percentage of admissions mentioning marijuana, heroin and opiates other than heroin.

In April 2006, SAMHSA also published a report entitled *Substate Estimates from the 2002-2004 National Surveys on Drug Use and Health* that provided data on the prevalence of substance use and mental health problems for each state and for each of their substate regions ([www.oas.samhsa.gov/substate2k6/substate.pdf](http://www.oas.samhsa.gov/substate2k6/substate.pdf)). This report presents an estimate of the prevalence of substance use or mental health problems during 2002-2004 for those aged 12 or older in each of the state's substate regions based on the NSDUH. Estimates of underage alcohol use among persons aged 12 to 20 and binge alcohol use also are included in this report. The survey data compiled for this report has been aggregated for three consecutive years so that the sample size for each of these substate regions is large enough to accurately reflect the actual prevalence rates in those regions. Substate regions are defined by each state and are typically based on the planning areas specified in the Substance Abuse Prevention and Treatment (SAPT) Block Grant administered by SAMHSA. For Michigan, these substate regions are the sixteen regional substance abuse coordinating agencies (CAs). To see a list of CAs and the counties they serve, go to [www.michigan.gov/mdch-bsaas](http://www.michigan.gov/mdch-bsaas).

In June 2008, SAMHSA released an update of the NSDUH reports giving state and substate estimates from the 2004-2006 national surveys ([www.oas.samhsa.gov/substate2k8/substate.pdf](http://www.oas.samhsa.gov/substate2k8/substate.pdf)). The most current version of that report, *Substate Estimates from the 2006-2008 National Surveys on Drug Use and Health*, was published by SAMHSA in July 2010 ([oas.samhsa.gov/substate2k10/TOC.htm](http://oas.samhsa.gov/substate2k10/TOC.htm)).

While the state prevalence rates showed no statistically significant changes in any of the three substate reports, there are trends that can be observed. For example, looking at NSDUH reports for 2002-2004, 2004-2006, and 2006-2008, it can be observed that cocaine use has decreased from 2.56% in 2002-2004 to 2.25% in 2004-2006 to 2.09% in 2006-2008. At the same time the nonmedical use of pain relievers has increased from 5.33% in 2004-2004 to 5.57% in 2004-2006 to 5.63% in 2006-2008.

This report summarizes the findings for Michigan from the most recent 2006-2008 NSDUH report. It also uses 2008 regional census data to translate the percent estimates into population estimates. It should be noted that in this report the data for Pathways and Western Upper Peninsula Substance Abuse Services were combined due to the low number of samples taken.

Comparisons can be made in this report between each of the regional rates and the state rate. For example, in the 2006-2008 estimates, Detroit has a significantly higher rate than the state for illicit drug use in the past month ([Table C1](#)) and for marijuana use both in the past month ([Table C2](#)) and the past year ([Table C3](#)). However, Detroit is significantly lower than the state rate for alcohol use in the past month ([Table C4](#)); of particular interest is the binge drinking rate among persons aged 12 to 20 ([Table C5](#)). Alcohol use for Detroit remains significantly lower than the state rate while the rates for Mid-South, Pathways, and Western UP are significantly higher.

## Key Facts

### Michigan Compared to the U.S.

The *Substance Abuse and Mental Health Issues At-A-Glance* report introduction notes that since NSDUH state estimates were first established in 2002-2003, Michigan has ranked at or above the national rates for past illicit drug use, past year non-medical use of pain relievers, and both past month and past year marijuana use for all age groups. The 2006-2008 NSDUH estimates for Michigan show significantly higher rates than the national rates for alcohol use, binge drinking, illicit drugs, marijuana, and cigarette use in the past month as well as non-medical use of pain relievers, and marijuana use during the past year. It shows significantly lower rates for perceptions of great risk of binge drinking and smoking marijuana. It does not show any significant differences for alcohol use by those aged 12 to 20, for cocaine use in past year, for any alcohol or illicit drug abuse and dependence measures during the past year, or for any estimates of persons needing but not receiving treatment.

### National, State and Substate Estimates

The data provided in the remainder of the 2006-2008 NSDUH report reflects state and substate prevalence and population estimates corresponding to the 95% confidence intervals for the nine substance abuse related items in the survey. The 2008 county census estimates of those aged 12 or older were used to calculate the state and CA population estimates in this report.

### Alcohol

- Alcohol was the most commonly used substance in the United States. Nationally, about half (51.23%) of Americans aged 12 or older reported past month use of alcohol in 2006-2008. In Michigan, the rate was significantly higher at 55.01% for an estimated 4,661,000 persons ([Table C4](#)).
- Binge alcohol use is defined as drinking five or more drinks on one occasion (i.e., at the same time or within a couple hours of each other) on at least one day in the 30 days prior to the survey. Binge alcohol use was reported by 23.26% of persons in the United States aged 12 or older. In Michigan, the rate of binge drinking was significantly higher at 24.96% or an estimated 2,115,000 persons ([Table C4](#)).

- The perceived risk in the United States of having five or more drinks of alcohol once or twice a week was 41.95%. In Michigan, the perceived risk was significantly lower at 37.68% or an estimated 3,193,000 persons ([Table C4](#)).
- For persons aged 12 to 20 the national rate of those who used alcohol in the past month was 27.53% with 18.31% who reported binge alcohol use during that period. In Michigan, the percent of persons aged 12 to 20 who used alcohol during the past month was slightly higher at 28.91% for an estimated 375,000 persons. The percent of those who reported binge alcohol use was also slightly higher at 18.69% for an estimated 242,000 persons (or about one out of every five persons aged 12 to 20) ([Table C5](#)).
- Nationwide among all sub-state regions, Detroit had the lowest rate of underage binge drinking during the past month with 9.67%

### Illicit Drugs

- During 2006-2008, 8.14% of persons in the United States aged 12 or older had used an illicit drug in the past month. In Michigan, this rate was significantly higher at 9.03% and reflected an estimated 765,000 persons ([Table C1](#)).
- Nationally, 3.71% of persons aged 12 or older used an illicit drug other than marijuana during the past month. In Michigan, the rate was 3.74% or an estimated 317,000 persons ([Table C1](#)). Illicit drugs other than marijuana include cocaine (and crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used non-medically.
- Marijuana was the most commonly used illicit drug, and many areas that had a high rate of illicit drug use reported similarly high rates of marijuana use. In 2006-2008, 5.99% of persons aged 12 or older in the United States used marijuana in the past month, and 10.29% used marijuana sometime during the past year. In Michigan, these percents were 6.91% and 11.70% respectively, both were significantly higher than the national rates. These rates reflected an estimated 585,000 persons aged 12 or older used marijuana sometime during the past month ([Table C2](#)), and an estimated 991,000 persons used marijuana sometime during the past year (about 1 out of every 8 persons) ([Table C3](#)).
- Among persons aged 12 or older in the United States, 38.31% perceived a great risk of using marijuana once a month during 2006-2008; in Michigan the perception of great risk of using marijuana once a month was significantly lower at 34.39% ([Table C2](#)). Most first time users of marijuana during the past year were under age 18. Less than 2% (1.64%) of persons aged 12 or older in the United States had used marijuana for the first time during 2006-2008. In Michigan, the rate of persons aged 12 or older who used marijuana for the first time was significantly higher at 1.94% or an estimated 164,000 persons ([Table C2](#)).
- The national prevalence rate for the use of cocaine in the past year among all persons aged 12 or older was 2.32%. In Michigan, this rate was lower at 2.09% or an estimated 177,000 persons ([Table C3](#)).

- During the 2006-2008 period, 5.00% of all persons aged 12 or older in the United States had used a pain reliever for non-medical use within the past year. In Michigan, the rate was significantly higher at 5.63% or an estimated 477,000 persons ([Table C3](#)).

### **Substance Dependence, Abuse, and Treatment Need**

NSDUH includes a series of questions to assess the prevalence of substance use disorders (i.e., dependence on or abuse of a substance) in the past 12 months. Substances include alcohol, illicit drugs (such as marijuana, cocaine, heroin, hallucinogens, and inhalants), and the non-medical use of prescription-type psychotherapeutic drugs. These questions are used to classify persons as being dependent on or abusing specific substances based on criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> edition (DSM-IV)* (American Psychiatric Association [APA], 1994). The questions on dependence ask about health and emotional problems, attempts to cut down on use, tolerance, withdrawal, and other symptoms associated with substances used. The questions on abuse ask about problems at work, home, and school; problems with family or friends; physical danger; and trouble with the law due to substance use. Dependence reflects a more severe substance problem than abuse, and persons are classified with abuse of a particular substance only if they are not dependent on that substance.

- Nationally, 3.47% of the population showed alcohol dependence during the past year and 1.95% showed some illicit drug dependence. In Michigan, the rates were slightly higher, 3.50% or 297,000 persons showed alcohol dependence in the past year and 2.02% or 171,000 persons showed dependence on an illicit drug ([Table C7](#)).
- In the United States, 7.53% of the population was classified with being dependent on or having abused alcohol in the past year and for illicit drugs the rate was 2.82%. In Michigan, the rates were slightly higher with 7.79%, or an estimated 660,000 persons, indicated being dependent on or having abused alcohol in the past year and 2.88%, or 244,000 persons, indicated being dependent on or having abused illicit drugs during the past year ([Table C8](#)).
- For those who indicated either dependence or abuse, nationally, 9.07% of the population aged 12 or older indicated being dependent on or having abused alcohol or an illicit drug sometime during the past year. In Michigan, the rate was slightly higher at 9.41% for an estimated 798,000 persons ([Table C8](#)). The majority of these persons indicated being dependent on or having abused alcohol.

The definition of a person needing but not receiving treatment for an alcohol or illicit drug use problem is that the person meets the criteria for abuse of or dependence a substance according to the DSM-IV, but has not received specialty treatment in the past year. Specialty treatment is treatment received at a drug and alcohol rehabilitation facility (inpatient or outpatient), hospital (inpatient only), or mental health center.

- In 2006-2008, 7.16% of persons in the United States aged 12 or older needed treatment for alcohol use during the past year and did not receive it. In Michigan, there was a slightly higher rate of 7.41%, or an estimated 628,000 persons, needed treatment for alcohol use but did not receive it ([Table C9](#)). Nationally, 2.53% of persons with an illicit

drug use problem in the past year did not receive treatment services. In Michigan, the rate was about the same with 2.52%, or 214,000 persons, who needed treatment for illicit drug use but did not receive it ([Table C9](#)). Neither of these rates in Michigan was significantly higher than the national rates.

## **Tobacco**

- Tobacco is the second most commonly used substance in the United States next to alcohol. About 24.55% of persons in the United States aged 12 or older used tobacco in the past month. In Michigan, the rate of those using tobacco in the past month was 26.14%, for an estimated 2,215,000 persons ([Table C6](#)). This rate was significantly higher than the national rate.
- Because cigarettes are the major tobacco product, most of the areas with high tobacco use also had high rates of cigarette use. In Michigan, 30.75%, or about 2,605,000 persons, indicated cigarette use in the past month, significantly higher than the national rate of 29.03% ([Table C6](#)). Although, there was no detail regarding the amount of tobacco use, the survey indicated that 73.65% of those aged 12 or older in the United States perceived great risk in smoking one or more packs of cigarettes per day. Michigan's rate for perceived risk was significantly lower at 71.60% or about 6,067,000 persons ([Table C6](#)).

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**Table C1. Any Illicit Drug Use in Past Month and Any Illicit Drug Use Other Than Marijuana in Past Month among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Any Illicit Drug Use in Past Month <sup>1</sup>				Any Illicit Drug Use Other Than Marijuana in Past Month <sup>2</sup>			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		8.14	7.93 - 8.35			3.71	3.58 - 3.86		
<b>Michigan</b>	8,473,100	9.03	8.42 - 9.69	765,000	713,000 - 821,000	3.74	3.34 - 4.18	317,000	283,000 - 354,000
Detroit Dept. of Health	762,656	12.91	10.79 - 15.38	98,000	82,000 - 117,000	3.45	2.61 - 4.57	26,000	20,000 - 35,000
Genesee County CMH	359,001	10.25	8.28 - 12.63	37,000	30,000 - 45,000	4.04	3.07 - 5.29	15,000	11,000 - 19,000
Kalamazoo CMH	572,258	8.86	7.27 - 10.76	51,000	42,000 - 62,000	3.70	2.86 - 4.79	21,000	16,000 - 27,000
Lakeshore Coord. Council	592,474	8.54	7.02 - 10.34	51,000	42,000 - 61,000	3.95	3.05 - 5.11	23,000	18,000 - 30,000
Macomb County CMH	705,802	8.30	6.82 - 10.06	59,000	48,000 - 71,000	3.85	2.99 - 4.95	27,000	21,000 - 35,000
Mid-South Sub Abuse Com	781,175	9.84	8.42 - 11.48	77,000	66,000 - 90,000	4.28	3.43 - 5.32	33,000	27,000 - 42,000
network180	496,376	7.81	6.32 - 9.61	39,000	31,000 - 48,000	3.70	2.85 - 4.80	18,000	14,000 - 24,000
Northern MI S.A. Srv.	733,132	8.01	6.56 - 9.74	59,000	48,000 - 71,000	3.30	2.56 - 4.25	24,000	19,000 - 31,000
Oakland County Health Div.	1,020,373	8.75	7.36 - 10.37	89,000	75,000 - 106,000	3.58	2.83 - 4.51	37,000	29,000 - 46,000
Pathways to Healthy Living	176,488	9.30	7.33 - 11.74	16,000	13,000 - 21,000	3.61	2.74 - 4.74	6,000	5,000 - 8,000
Riverhaven Coord. Agency	297,747	7.63	5.91 - 9.81	23,000	18,000 - 29,000	3.53	2.63 - 4.73	11,000	8,000 - 14,000
Saginaw County Health Dpt	170,575	8.86	6.92 - 11.28	15,000	12,000 - 19,000	3.76	2.79 - 5.04	6,000	5,000 - 9,000
SE MI Community Alliance	998,514	8.23	7.00 - 9.66	82,000	70,000 - 96,000	3.74	2.99 - 4.67	37,000	30,000 - 47,000
St. Clair County Hlth. Dpt.	258,878	7.44	5.66 - 9.71	19,000	15,000 - 25,000	3.54	2.61 - 4.77	9,000	7,000 - 12,000
Washtenaw Cmnty.Hlth.Org	452,974	9.93	8.09 - 12.14	45,000	37,000 - 55,000	4.03	3.06 - 5.29	18,000	14,000 - 24,000
Western UP S.A. Srv.	94,677	9.30	7.33 - 11.74	9,000	7,000 - 11,000	3.61	2.74 - 4.74	3,000	3,000 - 4,000

<sup>1</sup> 'Any Illicit Drug' includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

<sup>2</sup> 'Any Illicit Drug Other Than Marijuana' includes cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.

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**Table C2. Marijuana Use in Past Month, Average Annual Rate of First Use of Marijuana, and Perceptions of Great Risk of Smoking Marijuana Once a Month among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Marijuana Use in Past Month				Average Annual Rate of First Use of Marijuana <sup>1</sup>				Perceptions of Great Risk of Smoking Marijuana Once a Month			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		5.99	5.82 - 6.17			1.64	1.59 - 1.69			38.31	37.86 - 38.75		
<b>Michigan</b>	8,473,100	6.91	6.38 - 7.48	585,000	541,000 - 634,000	1.94	1.79 - 2.09	164,000	152,000 - 177,000	34.39	33.07 - 35.73	2,914,000	2,802,000 - 3,027,000
Detroit Dept. of Health	762,656	10.78	8.81 - 13.13	82,000	67,000 - 100,000	2.12	1.77 - 2.55	16,000	13,000 - 19,000	39.89	36.08 - 43.82	304,000	275,000 - 334,000
Genesee County CMH	359,001	7.62	6.03 - 9.59	27,000	22,000 - 34,000	1.83	1.47 - 2.28	7,000	5,000 - 8,000	34.32	30.24 - 38.64	123,000	109,000 - 139,000
Kalamazoo CMH	572,258	6.83	5.37 - 8.64	39,000	31,000 - 49,000	1.75	1.42 - 2.15	10,000	8,000 - 12,000	34.11	30.45 - 37.98	195,000	174,000 - 217,000
Lakeshore Coord. Council	592,474	6.29	4.96 - 7.94	37,000	29,000 - 47,000	2.09	1.72 - 2.53	12,000	10,000 - 15,000	37.66	33.81 - 41.66	223,000	200,000 - 247,000
Macomb County CMH	705,802	5.81	4.59 - 7.33	41,000	32,000 - 52,000	1.57	1.30 - 1.91	11,000	9,000 - 13,000	34.77	31.28 - 38.44	245,000	221,000 - 271,000
Mid-South Sub Abuse Com	781,175	7.56	6.25 - 9.11	59,000	49,000 - 71,000	2.35	2.01 - 2.75	18,000	16,000 - 21,000	32.53	29.48 - 35.74	254,000	230,000 - 279,000
network180	496,376	5.76	4.48 - 7.38	29,000	22,000 - 37,000	1.68	1.36 - 2.09	8,000	7,000 - 10,000	33.37	29.30 - 37.69	166,000	145,000 - 187,000
Northern MI S.A. Srv.	733,132	6.33	5.05 - 7.91	46,000	37,000 - 58,000	2.05	1.68 - 2.49	15,000	12,000 - 18,000	30.92	27.40 - 34.67	227,000	201,000 - 254,000
Oakland County Health Div	1,020,373	6.86	5.71 - 8.22	70,000	58,000 - 84,000	1.86	1.58 - 2.19	19,000	16,000 - 22,000	31.54	28.42 - 34.82	322,000	290,000 - 355,000
Pathways to Healthy Living	176,488	7.46	5.65 - 9.79	13,000	10,000 - 17,000	2.03	1.60 - 2.56	4,000	3,000 - 5,000	34.33	29.62 - 39.37	61,000	52,000 - 69,000
Riverhaven Coord. Agency	297,747	5.49	4.06 - 7.40	16,000	12,000 - 22,000	1.50	1.16 - 1.93	4,000	3,000 - 6,000	37.80	32.82 - 43.05	113,000	98,000 - 128,000
Saginaw County Health Dpt	170,575	6.95	5.14 - 9.33	12,000	9,000 - 16,000	2.18	1.70 - 2.78	4,000	3,000 - 5,000	35.53	30.85 - 40.50	61,000	53,000 - 69,000
SE MI Community Alliance	998,514	6.01	4.98 - 7.24	60,000	50,000 - 72,000	1.74	1.48 - 2.03	17,000	15,000 - 20,000	37.22	34.08 - 40.47	372,000	340,000 - 404,000
St. Clair County Hlth. Dpt.	258,878	5.81	4.27 - 7.85	15,000	11,000 - 20,000	1.72	1.33 - 2.22	4,000	3,000 - 6,000	34.98	30.26 - 40.02	91,000	78,000 - 104,000
Washtenaw Cmnty.Hlth.Org	452,974	7.55	5.96 - 9.52	34,000	27,000 - 43,000	2.72	2.18 - 3.37	12,000	10,000 - 15,000	28.27	24.33 - 32.58	128,000	110,000 - 148,000
Western UP S.A. Srv.	94,677	7.46	5.65 - 9.79	7,000	5,000 - 9,000	2.03	1.60 - 2.56	2,000	2,000 - 2,000	34.33	29.62 - 39.37	33,000	28,000 - 37,000

<sup>1</sup> Average Annual Rate = 100 \* [(Number of Marijuana Initiates in past 24 months)/((Number of Marijuana Initiates in past 24 months \* 0.5) + Number of persons who never used marijuana)]/2. Both the computation components, Number of Marijuana Initiates in past 24 months and Number of persons who never used marijuana, are based on a survey-weighted hierarchical Bayes estimation approach. Note that the age group is based on a respondent's age at the time of the interview, not his or her age at first use. The prediction intervals for Average Annual Rate of First Use of Marijuana use a simultaneous solution for First Use of Marijuana and Never Used Marijuana outcomes, which had random effects that were allowed to be correlated across the two outcomes.

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.

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**Table C3. Marijuana Use in Past Year, Cocaine Use in Past Year, and Nonmedical Use of Pain Relievers in Past Year among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Marijuana Use in Past Year				Cocaine Use in Past Year				Nonmedical Use of Pain Relievers in Past Year			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		10.29	10.06 - 10.57			2.32	2.21 - 2.43			5.00	4.85 - 5.15		
<b>Michigan</b>	8,473,100	11.70	10.98 - 12.45	991,000	930,000 - 1,055,000	2.09	1.80 - 2.42	177,000	153,000 - 205,000	5.63	5.13 - 6.17	477,000	435,000 - 523,000
Detroit Dept. of Health	762,656	15.87	13.48 - 18.59	121,000	103,000 - 142,000	2.19	1.44 - 3.30	17,000	11,000 - 25,000	4.44	3.48 - 5.65	34,000	27,000 - 43,000
Genesee County CMH	359,001	12.20	10.03 - 14.76	44,000	36,000 - 53,000	2.41	1.72 - 3.37	9,000	6,000 - 12,000	6.01	4.78 - 7.53	22,000	17,000 - 27,000
Kalamazoo CMH	572,258	10.84	9.04 - 12.94	62,000	52,000 - 74,000	2.20	1.60 - 3.01	13,000	9,000 - 17,000	5.91	4.77 - 7.30	34,000	27,000 - 42,000
Lakeshore Coord. Council	592,474	11.20	9.42 - 13.26	66,000	56,000 - 79,000	2.04	1.50 - 2.77	12,000	9,000 - 16,000	5.89	4.74 - 7.31	35,000	28,000 - 43,000
Macomb County CMH	705,802	10.55	8.88 - 12.48	74,000	63,000 - 88,000	2.21	1.65 - 2.96	16,000	12,000 - 21,000	6.07	4.93 - 7.44	43,000	35,000 - 53,000
Mid-South Sub Abuse Com	781,175	12.96	11.26 - 14.87	101,000	88,000 - 116,000	2.16	1.63 - 2.86	17,000	13,000 - 22,000	6.85	5.68 - 8.24	54,000	44,000 - 64,000
network180	496,376	10.83	8.92 - 13.09	54,000	44,000 - 65,000	2.31	1.68 - 3.16	11,000	8,000 - 16,000	5.24	4.13 - 6.62	26,000	21,000 - 33,000
Northern MI S.A. Srv.	733,132	10.88	9.13 - 12.90	80,000	67,000 - 95,000	2.00	1.50 - 2.67	15,000	11,000 - 20,000	5.36	4.32 - 6.65	39,000	32,000 - 49,000
Oakland County Health Div	1,020,373	11.54	10.01 - 13.26	118,000	102,000 - 135,000	1.80	1.36 - 2.38	18,000	14,000 - 24,000	5.23	4.30 - 6.36	53,000	44,000 - 65,000
Pathways to Healthy Living	176,488	11.44	9.24 - 14.08	20,000	16,000 - 25,000	2.34	1.37 - 3.26	4,000	2,000 - 6,000	5.29	4.12 - 6.77	9,000	7,000 - 12,000
Riverhaven Coord. Agency	297,747	8.95	7.13 - 11.19	27,000	21,000 - 33,000	1.84	1.30 - 2.62	5,000	4,000 - 8,000	5.28	4.09 - 6.79	16,000	12,000 - 20,000
Saginaw County Health Dpt	170,575	12.51	9.98 - 15.57	21,000	17,000 - 27,000	2.03	1.42 - 2.88	3,000	2,000 - 5,000	5.58	4.35 - 7.14	10,000	7,000 - 12,000
SE MI Community Alliance	998,514	10.93	9.50 - 12.54	109,000	95,000 - 125,000	1.94	1.48 - 2.54	19,000	15,000 - 25,000	5.50	4.61 - 6.54	55,000	46,000 - 65,000
St. Clair County Hlth. Dpt.	258,878	9.92	7.74 - 12.64	26,000	20,000 - 33,000	1.98	1.39 - 2.83	5,000	4,000 - 7,000	6.25	4.87 - 7.99	16,000	13,000 - 21,000
Washtenaw Cmnty.Hlth.Org	452,974	13.36	11.18 - 15.89	61,000	51,000 - 72,000	2.23	1.64 - 3.03	10,000	7,000 - 14,000	5.80	4.65 - 7.20	26,000	21,000 - 33,000
Western UP S.A. Srv.	94,677	11.44	9.24 - 14.08	11,000	9,000 - 13,000	2.34	1.67 - 3.26	2,000	2,000 - 3,000	5.29	4.12 - 6.77	5,000	4,000 - 6,000

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.



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**Table C4. Alcohol Use in Past Month, Binge Alcohol Use in Past Month, and Perceptions of Great Risk of Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Alcohol Use in Past Month				Binge Alcohol Use in Past Month <sup>1</sup>				Perceptions of Great Risk of Having Five or More Drinks of an Alcoholic Beverage Once or Twice a Week			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		51.23	50.76 - 51.71			23.26	22.92 - 23.61			41.95	41.51 - 42.38		
<b>Michigan</b>	8,473,100	55.01	53.65 - 56.37	4,661,000	4,546,000 - 4,776,000	24.96	23.90 - 26.05	2,115,000	2,025,000 - 2,207,000	38.36	37.11 - 39.62	3,250,000	3,144,000 - 3,357,000
Detroit Dept. of Health	762,656	39.93	36.04 - 43.95	305,000	275,000 - 335,000	21.11	18.47 - 24.01	161,000	141,000 - 183,000	51.09	47.45 - 54.72	390,000	362,000 - 417,000
Genesee County CMH	359,001	51.08	46.58 - 55.55	183,000	167,000 - 199,000	22.39	19.47 - 25.60	80,000	70,000 - 92,000	38.18	34.43 - 42.08	137,000	124,000 - 151,000
Kalamazoo CMH	572,258	53.86	49.31 - 58.34	308,000	282,000 - 334,000	25.14	22.15 - 28.39	144,000	127,000 - 162,000	37.53	33.96 - 41.25	215,000	194,000 - 236,000
Lakeshore Coord. Council	592,474	54.11	50.04 - 58.11	321,000	296,000 - 344,000	23.92	21.05 - 27.04	142,000	125,000 - 160,000	38.64	35.32 - 42.07	229,000	209,000 - 249,000
Macomb County CMH	705,802	57.76	53.99 - 61.44	408,000	381,000 - 434,000	25.28	22.60 - 28.17	178,000	160,000 - 199,000	35.06	31.79 - 38.47	247,000	224,000 - 272,000
Mid-South Sub Abuse Com network180	781,175	57.38	53.77 - 60.91	448,000	420,000 - 476,000	28.02	25.44 - 30.75	219,000	199,000 - 240,000	34.13	31.06 - 37.34	267,000	243,000 - 292,000
network180	496,376	52.07	47.59 - 56.52	258,000	236,000 - 281,000	24.39	21.34 - 27.73	121,000	106,000 - 138,000	36.86	33.13 - 40.76	183,000	164,000 - 202,000
Northern MI S.A. Srv.	733,132	55.92	51.91 - 59.85	410,000	381,000 - 439,000	24.74	21.96 - 27.74	181,000	161,000 - 203,000	35.45	32.10 - 38.95	260,000	235,000 - 286,000
Oakland County Health Div.	1,020,373	60.68	57.35 - 63.92	619,000	585,000 - 652,000	24.47	22.05 - 27.06	250,000	225,000 - 276,000	36.58	33.45 - 39.82	373,000	341,000 - 406,000
Pathways to Healthy Living	176,488	59.52	53.84 - 64.96	105,000	95,000 - 115,000	29.15	25.46 - 33.13	51,000	45,000 - 58,000	34.54	30.17 - 39.19	61,000	53,000 - 69,000
Riverhaven Coord. Agency	297,747	53.83	48.40 - 59.17	160,000	144,000 - 176,000	26.33	22.89 - 30.08	78,000	68,000 - 90,000	33.86	30.01 - 37.93	101,000	89,000 - 113,000
Saginaw County Health Dpt.	170,575	54.76	49.08 - 60.31	93,000	84,000 - 103,000	25.74	22.14 - 29.70	44,000	38,000 - 51,000	36.39	32.04 - 40.97	62,000	55,000 - 70,000
SE MI Community Alliance	998,514	54.99	51.67 - 58.26	549,000	516,000 - 582,000	25.05	22.73 - 27.50	250,000	227,000 - 275,000	38.05	35.02 - 41.17	380,000	350,000 - 411,000
St. Clair County Hlth. Dpt.	258,878	56.60	50.83 - 62.20	147,000	132,000 - 161,000	26.31	22.53 - 30.47	68,000	58,000 - 79,000	37.25	32.81 - 41.93	96,000	85,000 - 109,000
Washtenaw Cmnty.Hlth.Org	452,974	61.91	57.39 - 66.24	280,000	260,000 - 300,000	25.76	22.74 - 29.03	117,000	103,000 - 131,000	36.35	32.85 - 39.99	165,000	149,000 - 181,000
Western UP S.A. Srv.	94,677	59.52	53.84 - 64.96	56,000	51,000 - 62,000	29.15	25.46 - 33.13	28,000	24,000 - 31,000	33.11	28.47 - 38.11	31,000	27,000 - 36,000

<sup>1</sup> 'Binge Alcohol Use' is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.

Copies of this and other statistical reports available at: [www.michigan.gov/mdch-bsaas](http://www.michigan.gov/mdch-bsaas), along the left side choose "Reports and Statistics".

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**Table C5. Alcohol Use in Past Month and Binge Alcohol Use in Past Month among Persons Aged 12 to 20,**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 to 20 <sup>A</sup>	Alcohol Use in Past Month				Binge Alcohol Use in Past Month <sup>1</sup>			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		27.53	27.01 - 28.05			18.31	17.88 - 18.75		
<b>Michigan</b>	1,296,159	28.91	27.76 - 30.08	375,000	360,000 - 390,000	18.69	17.68 - 19.76	242,000	229,000 - 256,000
Detroit Dept. of Health	125,315	19.05	16.53 - 21.85	24,000	21,000 - 27,000	9.67	7.90 - 11.77	12,000	10,000 - 15,000
Genesee County CMH	55,047	24.98	21.65 - 28.63	14,000	12,000 - 16,000	14.66	11.86 - 17.99	8,000	7,000 - 10,000
Kalamazoo CMH	88,262	30.61	27.19 - 34.25	27,000	24,000 - 30,000	20.31	17.13 - 23.91	18,000	15,000 - 21,000
Lakeshore Coord. Council	94,569	28.26	25.00 - 31.77	27,000	24,000 - 30,000	17.50	14.63 - 20.79	17,000	14,000 - 20,000
Macomb County CMH	96,973	28.74	25.65 - 32.03	28,000	25,000 - 31,000	18.35	15.70 - 21.34	18,000	15,000 - 21,000
Mid-South Sub Abuse Com	124,406	35.10	32.23 - 38.09	44,000	40,000 - 47,000	25.87	22.92 - 29.06	32,000	29,000 - 36,000
network180	79,523	26.54	23.32 - 30.03	21,000	19,000 - 24,000	20.51	17.45 - 23.96	16,000	14,000 - 19,000
Northern MI S.A. Srv.	104,634	32.68	29.31 - 36.24	34,000	31,000 - 38,000	21.24	18.21 - 24.63	22,000	19,000 - 26,000
Oakland County Health Div.	146,999	27.82	25.19 - 30.60	41,000	37,000 - 45,000	17.22	14.92 - 19.80	25,000	22,000 - 29,000
Pathways to Healthy Living	23,729	36.36	31.95 - 41.01	9,000	8,000 - 10,000	26.44	22.31 - 31.04	6,000	5,000 - 7,000
Riverhaven Coord. Agency	41,256	31.11	26.76 - 35.82	13,000	11,000 - 15,000	20.65	16.94 - 24.94	9,000	7,000 - 10,000
Saginaw County Health Dpt	27,556	30.64	26.41 - 35.23	8,000	7,000 - 10,000	19.93	16.34 - 24.08	5,000	5,000 - 7,000
SE MI Community Alliance	161,984	27.34	24.86 - 29.97	44,000	40,000 - 49,000	18.36	16.08 - 20.90	30,000	26,000 - 34,000
St. Clair County Hlth. Dpt.	37,299	29.30	25.13 - 33.86	11,000	9,000 - 13,000	19.36	15.58 - 23.80	7,000	6,000 - 9,000
Washtenaw Cmnty.Hlth.Org	75,105	34.37	30.36 - 38.62	26,000	23,000 - 29,000	21.91	18.20 - 26.13	16,000	14,000 - 20,000
Western UP S.A. Srv.	13,502	36.36	31.95 - 41.01	5,000	4,000 - 6,000	26.44	22.31 - 31.04	4,000	3,000 - 4,000

<sup>1</sup> 'Binge Alcohol Use' is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.

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**Table C6. Cigarette Use in Past Month, Any Tobacco Product Use in Past Month, and Perceptions of Great Risk of Smoking One or More Packs of Cigarettes Per Day among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Cigarette Use in Past Month				Any Tobacco Product Use in Past Month <sup>1</sup>				Perceptions of Great Risk of Smoking One or More Packs of Cigarettes Per Day			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		24.55	24.16 - 24.95			29.03	28.62 - 29.45			73.65	73.28 - 74.03		
<b>Michigan</b>	8,473,100	26.14	24.98 - 27.34	2,215,000	2,117,000 - 2,317,000	30.75	29.59 - 31.94	2,605,000	2,507,000 - 2,706,000	71.60	70.40 - 72.78	6,067,000	5,965,000 - 6,167,000
Detroit Dept. of Health	762,656	25.79	22.83 - 29.00	197,000	174,000 - 221,000	29.02	25.92 - 32.33	221,000	198,000 - 247,000	73.34	70.58 - 75.92	559,000	538,000 - 579,000
Genesee County CMH	359,001	27.93	24.58 - 31.54	100,000	88,000 - 113,000	32.31	28.91 - 35.90	116,000	104,000 - 129,000	70.93	67.77 - 73.90	255,000	243,000 - 265,000
Kalamazoo CMH	572,258	27.00	23.84 - 30.42	155,000	136,000 - 174,000	32.06	28.84 - 35.47	183,000	165,000 - 203,000	70.03	66.93 - 72.95	401,000	383,000 - 417,000
Lakeshore Coord. Council	592,474	28.58	25.53 - 31.84	169,000	151,000 - 189,000	33.16	29.90 - 36.60	196,000	177,000 - 217,000	71.76	68.69 - 74.64	425,000	407,000 - 442,000
Macomb County CMH	705,802	27.33	24.29 - 30.59	193,000	171,000 - 216,000	31.52	28.47 - 34.73	222,000	201,000 - 245,000	71.08	68.10 - 73.89	502,000	481,000 - 522,000
Mid-South Sub Abuse Com	781,175	27.80	25.19 - 30.57	217,000	197,000 - 239,000	32.90	30.06 - 35.86	257,000	235,000 - 280,000	70.86	68.12 - 73.46	554,000	532,000 - 574,000
network180	496,376	24.20	21.15 - 27.53	120,000	105,000 - 137,000	27.06	24.02 - 30.33	134,000	119,000 - 151,000	72.50	69.41 - 75.39	360,000	345,000 - 374,000
Northern MI S.A. Srv.	733,132	27.91	25.01 - 30.99	205,000	183,000 - 227,000	33.29	30.17 - 36.56	244,000	221,000 - 268,000	69.76	66.88 - 72.49	511,000	490,000 - 531,000
Oakland County Health Div	1,020,373	21.95	19.67 - 24.42	224,000	201,000 - 249,000	26.75	24.21 - 29.44	273,000	247,000 - 300,000	74.20	71.59 - 76.65	757,000	730,000 - 782,000
Pathways to Healthy Living	176,488	28.70	25.01 - 32.69	51,000	44,000 - 58,000	34.61	30.64 - 38.81	61,000	54,000 - 68,000	69.20	65.64 - 72.53	122,000	116,000 - 128,000
Riverhaven Coord. Agency	297,747	30.46	26.59 - 34.63	91,000	79,000 - 103,000	35.53	31.61 - 39.65	106,000	94,000 - 118,000	66.68	62.86 - 70.30	199,000	187,000 - 209,000
Saginaw County Health Dpt	170,575	26.05	22.42 - 30.04	44,000	38,000 - 51,000	31.06	27.22 - 35.17	53,000	46,000 - 60,000	70.55	66.87 - 73.98	120,000	114,000 - 126,000
SE MI Community Alliance	998,514	25.65	23.24 - 28.21	256,000	232,000 - 282,000	30.22	27.69 - 32.88	302,000	276,000 - 328,000	72.61	70.13 - 74.96	725,000	700,000 - 748,000
St. Clair County Hlth. Dpt.	258,878	27.28	23.38 - 31.56	71,000	61,000 - 82,000	33.40	29.37 - 37.69	86,000	76,000 - 98,000	68.58	64.89 - 72.05	178,000	168,000 - 187,000
Washtenaw Cmnty.Hlth.Org	452,974	23.34	20.69 - 26.22	106,000	94,000 - 119,000	25.31	22.23 - 28.65	115,000	101,000 - 130,000	74.16	71.10 - 77.00	336,000	322,000 - 349,000
Western UP S.A. Srv.	94,677	28.70	25.01 - 32.69	27,000	24,000 - 31,000	34.61	30.64 - 38.81	33,000	29,000 - 37,000	69.20	65.64 - 72.53	66,000	62,000 - 69,000

<sup>1</sup> 'Any Tobacco product' includes cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco.

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.

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**Table C7. Alcohol Dependence in Past Year and Any Illicit Drug Dependence in Past Year among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Alcohol Dependence in Past Year <sup>1</sup>				Any Illicit Drug Dependence in Past Year <sup>1,2</sup>			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		3.47	3.34 - 3.61			1.95	1.86 - 2.04		
<b>Michigan</b>	8,473,100	3.50	3.12 - 3.92	297,000	264,000 - 332,000	2.02	1.75 - 2.32	171,000	148,000 - 197,000
Detroit Dept. of Health	762,656	4.46	3.37 - 5.86	34,000	26,000 - 45,000	3.80	2.67 - 5.39	29,000	20,000 - 41,000
Genesee County CMH	359,001	3.57	2.70 - 4.71	13,000	10,000 - 17,000	2.61	1.79 - 3.77	9,000	6,000 - 14,000
Kalamazoo CMH	572,258	3.44	2.62 - 4.51	20,000	15,000 - 26,000	1.66	1.14 - 2.42	9,000	7,000 - 14,000
Lakeshore Coord. Council	592,474	3.42	2.61 - 4.46	20,000	15,000 - 26,000	2.01	1.40 - 2.88	12,000	8,000 - 17,000
Macomb County CMH	705,802	2.89	2.20 - 3.80	20,000	16,000 - 27,000	1.72	1.23 - 2.39	12,000	9,000 - 17,000
Mid-South Sub Abuse Com	781,175	3.91	3.13 - 4.88	31,000	24,000 - 38,000	2.02	1.49 - 2.73	16,000	12,000 - 21,000
network180	496,376	3.92	3.00 - 5.12	19,000	15,000 - 25,000	1.95	1.34 - 2.85	10,000	7,000 - 14,000
Northern MI S.A. Srv.	733,132	3.08	2.36 - 4.00	23,000	17,000 - 29,000	1.45	1.01 - 2.08	11,000	7,000 - 15,000
Oakland County Health Div	1,020,373	3.53	2.75 - 4.51	36,000	28,000 - 46,000	2.04	1.51 - 2.74	21,000	15,000 - 28,000
Pathways to Healthy Living	176,488	3.52	2.64 - 4.66	6,000	5,000 - 8,000	1.95	1.35 - 2.79	3,000	2,000 - 5,000
Riverhaven Coord. Agency	297,747	3.25	2.42 - 4.35	10,000	7,000 - 13,000	1.68	1.14 - 2.49	5,000	3,000 - 7,000
Saginaw County Health Dpt	170,575	3.32	2.44 - 4.49	6,000	4,000 - 8,000	1.98	1.29 - 3.03	3,000	2,000 - 5,000
SE MI Community Alliance	998,514	3.35	2.66 - 4.21	33,000	27,000 - 42,000	1.68	1.25 - 2.25	17,000	12,000 - 22,000
St. Clair County Hlth. Dpt.	258,878	3.13	2.35 - 4.16	8,000	6,000 - 11,000	1.94	1.28 - 2.91	5,000	3,000 - 8,000
Washtenaw Cmnty.Hlth.Org	452,974	3.38	2.35 - 4.16	15,000	11,000 - 19,000	1.71	1.17 - 2.52	8,000	5,000 - 11,000
Western UP S.A. Srv.	94,677	3.52	2.64 - 4.66	3,000	2,000 - 4,000	2.03	1.40 - 2.93	2,000	1,000 - 3,000

<sup>1</sup> Dependence is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

<sup>2</sup> 'Any Illicit Drug' includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.

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**Table C8. Alcohol Dependence or Abuse in Past Year, Any Illicit Drug Dependence or Abuse in Past Year, and Dependence on or Abuse of Any Illicit Drug or Alcohol in Past Year among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Alcohol Dependence or Abuse in Past Year <sup>1</sup>				Any Illicit Drug Dependence or Abuse in Past Year <sup>1,2</sup>				Dependence on or Abuse of Any Illicit Drug or Alcohol in Past Year <sup>1,2</sup>			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		7.53	7.34 - 7.73			2.82	2.72 - 2.93			9.07	8.86 - 9.29		
<b>Michigan</b>	8,473,100	7.79	7.19 - 8.43	660,000	609,000 - 714,000	2.88	2.57 - 3.23	244,000	218,000 - 274,000	9.41	8.78 - 10.08	797,000	744,000 - 854,000
Detroit Dept. of Health	762,656	7.92	6.36 - 9.82	60,000	49,000 - 75,000	4.66	3.47 - 6.25	36,000	26,000 - 48,000	10.81	8.86 - 13.12	82,000	68,000 - 100,000
Genesee County CMH	359,001	7.59	6.11 - 9.40	27,000	22,000 - 34,000	3.46	2.46 - 4.86	12,000	9,000 - 17,000	9.78	8.01 - 11.89	35,000	29,000 - 43,000
Kalamazoo CMH	572,258	8.00	6.56 - 9.71	46,000	38,000 - 56,000	2.31	1.63 - 3.25	13,000	9,000 - 19,000	9.11	7.47 - 11.08	52,000	43,000 - 63,000
Lakeshore Coord. Council	592,474	8.25	6.83 - 9.94	49,000	40,000 - 59,000	3.02	2.24 - 4.07	18,000	13,000 - 24,000	10.45	8.76 - 12.43	62,000	52,000 - 74,000
Macomb County CMH	705,802	6.76	5.54 - 8.23	48,000	39,000 - 58,000	2.66	2.01 - 3.51	19,000	14,000 - 25,000	8.00	6.62 - 9.64	56,000	47,000 - 68,000
Mid-South Sub Abuse Com network180	781,175	8.75	7.47 - 10.24	68,000	58,000 - 80,000	3.03	2.36 - 3.89	24,000	18,000 - 30,000	10.33	8.85 - 12.03	81,000	69,000 - 94,000
Northern MI S.A. Srv.	496,376	8.45	6.97 - 10.20	42,000	35,000 - 51,000	2.80	2.04 - 3.82	14,000	10,000 - 19,000	9.59	7.91 - 11.58	48,000	39,000 - 57,000
Oakland County Health Div	733,132	7.26	5.96 - 8.82	53,000	44,000 - 65,000	2.44	1.79 - 3.30	18,000	13,000 - 24,000	8.65	7.16 - 10.42	63,000	52,000 - 76,000
Pathways to Healthy Living	1,020,373	7.81	6.51 - 9.35	80,000	66,000 - 95,000	2.80	2.17 - 3.62	29,000	22,000 - 37,000	9.34	7.95 - 10.96	95,000	81,000 - 112,000
Riverhaven Coord. Agency	176,488	8.05	6.49 - 9.95	14,000	11,000 - 18,000	3.07	2.16 - 4.35	5,000	4,000 - 8,000	10.00	8.05 - 12.36	18,000	14,000 - 22,000
Saginaw County Health Dpt	297,747	7.57	6.06 - 9.42	23,000	18,000 - 28,000	2.43	1.69 - 3.48	7,000	5,000 - 10,000	8.48	6.73 - 10.64	25,000	20,000 - 32,000
SE MI Community Alliance	170,575	7.72	6.11 - 9.70	13,000	10,000 - 17,000	2.98	2.05 - 4.30	5,000	3,000 - 7,000	9.18	7.25 - 11.55	16,000	12,000 - 20,000
St. Clair County Hlth. Dpt.	998,514	7.53	6.39 - 8.85	75,000	64,000 - 88,000	2.45	1.91 - 3.13	24,000	19,000 - 31,000	9.00	7.72 - 10.47	90,000	77,000 - 105,000
Washtenaw Cmnty.Hlth.Org	258,878	7.33	5.79 - 9.24	19,000	15,000 - 24,000	2.63	1.81 - 3.81	7,000	5,000 - 10,000	8.46	6.61 - 10.76	22,000	17,000 - 28,000
Western UP S.A. Srv.	452,974	8.19	6.75 - 9.90	37,000	31,000 - 45,000	2.61	1.89 - 3.59	12,000	9,000 - 16,000	9.68	7.98 - 11.69	44,000	36,000 - 53,000
	94,677	8.05	6.49 - 9.95	8,000	6,000 - 9,000	3.07	2.16 - 4.35	3,000	2,000 - 4,000	10.00	8.05 - 12.36	9,000	8,000 - 12,000

<sup>1</sup> Dependence is based on the definition found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*.

<sup>2</sup> 'Any Illicit Drug' includes marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used nonmedically.

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.

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**Table C9. Needing But Not Receiving Treatment for Alcohol Use in Past Year and Needing But Not Receiving Treatment for Illicit Drug Use in Past Year among Persons Aged 12 or Older**

State / Substate Region (Substance Abuse Regional Coordinating Agencies - CAs)	Census 2008 Estimates For Persons Aged 12 and Older <sup>A</sup>	Needing But Not Receiving Treatment for Alcohol Use in Past Year <sup>1</sup>				Needing But Not Receiving Treatment for Illicit Drug Use in Past Year <sup>2</sup>			
		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>		Percent of Population <sup>B</sup>		Estimated Population <sup>C</sup>	
		Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval	Point Estimate	95% Confidence Interval
<b>National</b>		7.16	6.98 - 7.35			2.53	2.43 - 2.62		
<b>Michigan</b>	8,473,100	7.41	6.84 - 8.02	628,000	580,000 - 680,000	2.52	2.25 - 2.83	214,000	191,000 - 240,000
Detroit Dept. of Health	762,656	7.40	5.91 - 9.23	56,000	45,000 - 70,000	4.43	3.27 - 5.99	34,000	25,000 - 46,000
Genesee County CMH	359,001	7.31	5.88 - 9.05	26,000	21,000 - 32,000	2.79	2.00 - 3.87	10,000	7,000 - 14,000
Kalamazoo CMH	572,258	7.54	6.13 - 9.23	43,000	35,000 - 53,000	1.92	1.37 - 2.67	11,000	8,000 - 15,000
Lakeshore Coord. Council	592,474	7.89	6.50 - 9.55	47,000	39,000 - 57,000	2.50	1.80 - 3.45	15,000	11,000 - 20,000
Macomb County CMH	705,802	6.38	5.20 - 7.80	45,000	37,000 - 55,000	2.25	1.69 - 2.98	16,000	12,000 - 21,000
Mid-South Sub Abuse Com	781,175	8.41	7.19 - 9.83	66,000	56,000 - 77,000	2.68	2.09 - 3.43	21,000	16,000 - 27,000
network180	496,376	7.89	6.46 - 9.62	39,000	32,000 - 48,000	2.50	1.80 - 3.45	12,000	9,000 - 17,000
Northern MI S.A. Srv.	733,132	7.04	5.82 - 8.49	52,000	43,000 - 62,000	2.22	1.63 - 3.03	16,000	12,000 - 22,000
Oakland County Health Div.	1,020,373	7.42	6.17 - 8.90	76,000	63,000 - 91,000	2.40	1.86 - 3.09	24,000	19,000 - 32,000
Pathways to Healthy Living	176,488	7.69	6.15 - 9.58	14,000	11,000 - 17,000	2.68	1.89 - 3.80	5,000	3,000 - 7,000
Riverhaven Coord. Agency	297,747	7.13	5.62 - 9.02	21,000	17,000 - 27,000	2.14	1.47 - 3.10	6,000	4,000 - 9,000
Saginaw County Health Dpt	170,575	7.11	5.65 - 8.93	12,000	10,000 - 15,000	2.50	1.71 - 3.63	4,000	3,000 - 6,000
SE MI Community Alliance	998,514	6.97	5.90 - 8.21	70,000	59,000 - 82,000	2.15	1.67 - 2.77	21,000	17,000 - 28,000
St. Clair County Hlth. Dpt.	258,878	6.98	5.52 - 8.81	18,000	14,000 - 23,000	2.26	1.56 - 3.25	6,000	4,000 - 8,000
Washtenaw Cmnty.Hlth.Org	452,974	8.07	6.62 - 9.80	37,000	30,000 - 44,000	2.25	1.60 - 3.16	10,000	7,000 - 14,000
Western UP S.A. Srv.	94,677	7.69	6.15 - 9.58	7,000	6,000 - 9,000	2.68	1.89 - 3.80	3,000	2,000 - 4,000

<sup>1</sup> 'Needing But Not Receiving Treatment' refers to respondents classified as needing treatment for alcohol, but not receiving treatment for an alcohol problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

<sup>2</sup> 'Needing But Not Receiving Treatment' refers to respondents classified as needing treatment for illicit drugs, but not receiving treatment for an illicit drug problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers). Illicit Drugs include marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or prescription-type psychotherapeutic (nonmedical use).

<sup>A</sup> 2008 census estimates provided by NCHS at <http://wonder.cdc.gov/population.html>. Detroit estimates for these ages are based on percentage split of Wayne County and City of Detroit for all ages.

<sup>B</sup> Estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Surveys on Drug Use and Health (NSDUH) - 2006, 2007, and 2008, <http://oas.samhsa.gov/substate2k10/TOC.htm>. Note: The data for Pathways and Western UP were combined due to the low number of samples taken.

<sup>C</sup> Population estimates are rounded to nearest 1,000.

NOTE: Percentage estimates are based on a survey-weighted hierarchical Bayes estimation approach, and the 95 percent prediction (credible) intervals are generated by Markov Chain Monte Carlo techniques.