

**MICHIGAN DEPARTMENT OF COMMUNITY HEALTH  
OFFICE OF DRUG CONTROL POLICY**

**Substance Abuse Data for Michigan  
2004-2006 National Surveys on Drug Use and Health**

Overview

The Substance Abuse and Mental Health Services Administration (SAMHSA) recently 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 ([www.samhsa.gov/StatesInBrief/2009/MICHIGAN\\_508.pdf](http://www.samhsa.gov/StatesInBrief/2009/MICHIGAN_508.pdf)) provides annual treatment admission data for alcohol, cocaine, marijuana, heroin and other opiates for years 1992-2006. 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.

A 2008 SAMHSA report, entitled *State Estimates of Substance Use from the 2005-2006 National Surveys on Drug Use and Health (NSDUH)*, provided a comparison of changes in the rates for adults (aged 18 or older) in each state by comparing fiscal year (FY) 2004/05 NSDUH data with FY 2005/06 ([www.oas.samhsa.gov/2k6/State/adultTabs.htm](http://www.oas.samhsa.gov/2k6/State/adultTabs.htm)). This report shows that there was a significant ( $p < 0.05$ ) increase in the rate, for Michigan during FY 2005/06, of those who reported illicit drug use other than marijuana in the past month and of those who reported alcohol use in the past month. It also shows a significant decrease in the rate, for Michigan during FY 2005/06, of those who indicated a perception of great risk of smoking marijuana once a month. There were no other significant changes in adult rates for Michigan in the remaining twenty measures.

In June 2008, SAMHSA released a report entitled *Substate Estimates from the 2004-2006 National Surveys on Drug Use and Health* ([www.oas.samhsa.gov/substate2k8/toc.cfm](http://www.oas.samhsa.gov/substate2k8/toc.cfm)). This report provides state-level estimates of substance use for four age groups: the entire state population aged 12 or older, those aged 12 to 17, those aged 18-25, and those aged 26 or older. The report is an update by SAMHSA of the substate estimates from the 2002-2004 NSDUH and presents an estimate of the prevalence of substance use or mental health problems during 2004-2006. Substance estimates of underage alcohol use among persons aged 12 to 20 and binge alcohol use are also included in this report. Substate areas 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 16 regional substance abuse coordinating agencies (CAs). To see a list of current CAs and the counties they serve, go to [www.michigan.gov/mdch-bsaas](http://www.michigan.gov/mdch-bsaas).

Key Facts

**State Estimates Compared to Federal Estimates**

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 2004-2006 NSDUH report 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, on cocaine use in past year, on 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 2004-2006 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 2006 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 (51.01%) of Americans aged 12 or older reported past month use of alcohol in 2004-2006; in Michigan the rate was significantly higher at 54.78% for an estimated 4,664,000 persons ([Table C4](#)).
- 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 hours of each other) on at least one day in the 30 days prior to the survey. Binge alcohol use was reported by 22.84% of persons in the United States aged 12 or older; in Michigan the rate of binge drinking was significantly higher at 25.15% or an estimated 2,141,000 persons ([Table C4](#)).
- The perceived risk in the United States of having five or more drinks of alcohol once or twice a week was 41.45%; for Michigan, the perceived risk was significantly lower at 37.68% or an estimated 3,208,000 persons ([Table C4](#)).
- For persons aged 12 to 20, the national rate of those who used alcohol in the past month was 28.27% with 18.95% reporting binge alcohol use during that time period; in Michigan, the rate for persons aged 12 to 20 who used alcohol during the last month was slightly higher at 29.01%, for an estimated 385,000 persons, and the rate of those who reported binge alcohol use was also slightly higher at 19.97%, for an estimated 265,000 persons (or about 1 out of every 5 persons aged 12 to 20) ([Table C5](#)).

### **Illicit Drugs**

- During 2004-2006, 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 8.99% and reflects an estimated 765,000 persons ([Table C1](#)).
- Nationally, 3.68% of persons aged 12 or older used an illicit drug other than marijuana during the past month; in Michigan the rate was 3.93% or an estimated 335,000 persons ([Table C1](#)). Illicit drugs other than marijuana include cocaine (and crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used non-medically.

- Marijuana is 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 2004-2006, 6.05% of persons aged 12 or older in the United States used marijuana in the past month, and 10.47% used marijuana some time during the past year; in Michigan, these rates were 6.79% and 12.07% respectively, both were significantly higher than the national rates. These rates reflect an estimated 578,000 persons aged 12 or older used marijuana sometime during the past month ([Table C2](#)), and an estimated 1,028,000 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, 39.15% perceived a great risk of using marijuana once a month during 2004-2006; in Michigan the perception of great risk of using marijuana once a month was significantly lower at 35.97% ([Table C2](#)). Most first users of marijuana were aged 12 to 25. Less than 2% (1.65%) of persons aged 12 or older in the United States used marijuana for the first time during 2004-2006; in Michigan the rate of persons aged 12 or older who used marijuana for the first time was significantly higher at 1.96% or an estimated 167,000 persons ([Table C2](#)).
- The national prevalence rate for the use of cocaine in the past year among all persons aged 12 or older was 2.38%; in Michigan this rate was slightly lower at 2.25% or an estimated 192,000 persons ([Table C3](#)).
- During the 2004-2006 period, 4.89% 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 5.57% or an estimated 474,000 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, 3.40% of the population showed alcohol dependence during the past year and 1.98% showed some illicit drug dependence; in Michigan, the rates were slightly higher, 3.57%, or 304,000 persons, showed alcohol dependence in the past year and 2.19%, or 186,000 persons, showed dependence on an illicit drug ([Table C7](#)).
- In the United States, 7.69% of the population was classified as being dependent on or having abused alcohol in the past year; for illicit drugs the rate was 2.91%; in Michigan

the rates were slightly higher with 8.01%, or an estimated 682,000 persons, indicated being dependent or having abused alcohol in the past year and 3.08%, or 262,000 persons, indicated being dependent or having abused illicit drugs during the past year ([Table C8](#)).

- For those who indicate either dependence or abuse, nationally, 9.24% of the population aged 12 or older indicated being dependent on or having abused alcohol or an illicit drug some time during the past year; in Michigan the rate is slightly higher at 9.70% for an estimated 826,000 persons ([Table C8](#)). The majority of these persons indicated being dependent on or having abused alcohol. These estimates are used in Michigan to calculate the number of persons in need of treatment services.

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 or dependence on 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 2004-2006, 7.33% of persons in the United States aged 12 or older needed treatment for alcohol use during the past year but did not receive it; in Michigan, 7.56%, or an estimated 644,000 persons, needed treatment for alcohol use but did not receive it ([Table C9](#)). Nationally, 2.61% of persons with an illicit drug use problem in the past year did not receive treatment services; in Michigan, 2.73%, or 232,000 persons, 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.
- Detroit's rate of 4.76%, for those needing but not receiving treatment for illicit drug use in the past year, was the highest rate in the nation and represented an estimated 35,000 persons ([Table C9](#)); this was an increase from the 3.73% rate found in 2002-2004 that represented 27,000 persons.

## Tobacco

- Tobacco is the second most commonly used substance in the United States next to alcohol. About 29.49% of persons in the United States aged 12 or older used tobacco in the past month; in Michigan, the rate of those who used tobacco in the past month was 32.25%, for an estimated 2,746,000 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, 27.87%, or about 2,373,000 persons, indicated cigarette use in the past month, significantly higher than the national rate of 25.00% ([Table C6](#)). Although, there was no detail regarding the amount of tobacco use, the survey indicated that 74.13% of those aged 12 or older in the United States perceived great risk for smoking one or more packs of cigarettes per day. Michigan's rate for perceived risk was significantly lower at 72.33% or about 6,159,000 persons ([Table C6](#)).

**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 (Substate Abuse Regional Coordinating Agencies - CAs)	Census 2006 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	7.94 - 8.35			3.68	3.55 - 3.81		
<b>Michigan</b>	8,514,856	8.99	8.36 - 9.66	765,000	712,000 - 823,000	3.93	3.54 - 4.35	335,000	301,000 - 370,000
Detroit Dept. of Health	728,807	11.96	9.87 - 14.43	87,000	72,000 - 105,000	3.57	2.63 - 4.82	26,000	19,000 - 35,000
Genesee County CMH	368,450	10.87	8.70 - 13.50	40,000	32,000 - 50,000	4.83	3.61 - 6.44	18,000	13,000 - 24,000
Kalamazoo CMH	456,569	8.22	6.74 - 9.98	38,000	31,000 - 46,000	3.57	2.74 - 4.64	16,000	13,000 - 21,000
Lakeshore Coord. Council	592,903	7.80	6.37 - 9.52	46,000	38,000 - 56,000	3.97	3.04 - 5.16	24,000	18,000 - 31,000
Macomb County CMH	707,482	9.04	7.41 - 10.99	64,000	52,000 - 78,000	4.26	3.20 - 5.66	30,000	23,000 - 40,000
Mid-South Sub Abuse Com.	902,111	9.32	7.76 - 11.15	84,000	70,000 - 101,000	3.94	3.10 - 4.99	36,000	28,000 - 45,000
network180	491,015	8.30	6.73 - 10.19	41,000	33,000 - 50,000	3.81	2.87 - 5.06	19,000	14,000 - 25,000
Northern MI S.A. Srv.	744,839	7.35	5.95 - 9.04	55,000	44,000 - 67,000	3.11	2.33 - 4.14	23,000	17,000 - 31,000
Oakland County Health Div.	1,024,018	9.47	8.03 - 11.14	97,000	82,000 - 114,000	3.93	3.14 - 4.92	40,000	32,000 - 50,000
Pathways to Healthy Living	177,570	9.46	7.18 - 12.35	17,000	13,000 - 22,000	3.71	2.64 - 5.20	7,000	5,000 - 9,000
Riverhaven Coord. Agency	303,086	7.87	6.15 - 10.02	24,000	19,000 - 30,000	3.55	2.58 - 4.86	11,000	8,000 - 15,000
Saginaw County Health Dpt.	174,019	8.39	6.31 - 11.07	15,000	11,000 - 19,000	3.69	2.58 - 5.26	6,000	4,000 - 9,000
SE MI Community Alliance	1,032,627	8.84	7.43 - 10.47	91,000	77,000 - 108,000	4.57	3.67 - 5.68	47,000	38,000 - 59,000
St. Clair County Hlth. Dpt.	263,671	7.19	5.48 - 9.39	19,000	14,000 - 25,000	3.62	2.59 - 5.05	10,000	7,000 - 13,000
Washtenaw Cmnty.Hlth.Org.	451,127	9.40	7.66 - 11.48	42,000	35,000 - 52,000	4.39	3.34 - 5.74	20,000	15,000 - 26,000
Western UP S.A. Srv.	96,562	7.31	5.37 - 9.88	7,000	5,000 - 10,000	3.34	2.34 - 4.74	3,000	2,000 - 5,000

<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> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

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

**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 2006 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>		6.05	5.88 - 6.23			1.65	1.60 - 1.70			39.15	38.75 - 39.56		
<b>Michigan</b>	8,514,856	6.79	6.25 - 7.37	578,000	532,000 - 628,000	1.96	1.82 - 2.12	167,000	155,000 - 181,000	35.97	34.63 - 37.34	3,063,000	2,949,000 - 3,179,000
Detroit Dept. of Health	728,807	9.75	7.94 - 11.91	71,000	58,000 - 87,000	2.00	1.62 - 2.46	15,000	12,000 - 18,000	42.85	39.10 - 46.69	312,000	285,000 - 340,000
Genesee County CMH	368,450	7.75	6.12 - 9.76	29,000	23,000 - 36,000	1.87	1.46 - 2.40	7,000	5,000 - 9,000	33.87	29.72 - 38.29	125,000	110,000 - 141,000
Kalamazoo CMH	456,569	6.36	5.10 - 7.89	29,000	23,000 - 36,000	2.23	1.80 - 2.76	10,000	8,000 - 13,000	36.29	32.53 - 40.23	166,000	149,000 - 184,000
Lakeshore Coord. Council	592,903	5.42	4.34 - 6.76	32,000	26,000 - 40,000	1.87	1.52 - 2.31	11,000	9,000 - 14,000	39.03	35.13 - 43.08	231,000	208,000 - 255,000
Macomb County CMH	707,482	6.27	5.01 - 7.82	44,000	35,000 - 55,000	1.88	1.52 - 2.33	13,000	11,000 - 16,000	32.78	29.23 - 36.55	232,000	207,000 - 259,000
Mid-South Sub Abuse Com. network180	902,111	7.15	5.90 - 8.64	65,000	53,000 - 78,000	2.34	1.91 - 2.85	21,000	17,000 - 26,000	33.07	29.78 - 36.54	298,000	269,000 - 330,000
Northern MI S.A. Srv.	491,015	6.17	4.88 - 7.78	30,000	24,000 - 38,000	1.90	1.52 - 2.38	9,000	7,000 - 12,000	35.20	31.11 - 39.52	173,000	153,000 - 194,000
Oakland County Health Div.	744,839	5.87	4.62 - 7.42	44,000	34,000 - 55,000	1.88	1.54 - 2.30	14,000	11,000 - 17,000	37.57	33.77 - 41.53	280,000	252,000 - 309,000
Pathways to Healthy Living	1,024,018	7.93	6.59 - 9.51	81,000	67,000 - 97,000	1.75	1.45 - 2.11	18,000	15,000 - 22,000	31.32	28.26 - 34.56	321,000	289,000 - 354,000
Riverhaven Coord. Agency	177,570	7.41	5.46 - 10.00	13,000	10,000 - 18,000	2.02	1.49 - 2.74	4,000	3,000 - 5,000	35.05	29.87 - 40.55	62,000	53,000 - 72,000
Saginaw County Health Dpt.	303,086	5.48	4.15 - 7.22	17,000	13,000 - 22,000	1.58	1.22 - 2.06	5,000	4,000 - 6,000	38.36	33.92 - 43.00	116,000	103,000 - 130,000
SE MI Community Alliance	174,019	6.71	4.92 - 9.09	12,000	9,000 - 16,000	2.03	1.49 - 2.75	4,000	3,000 - 5,000	37.17	31.98 - 42.66	65,000	56,000 - 74,000
St. Clair County Hlth. Dpt.	1,032,627	5.91	4.88 - 7.14	61,000	50,000 - 74,000	1.81	1.51 - 2.16	19,000	16,000 - 22,000	39.49	36.11 - 42.98	408,000	373,000 - 444,000
Washtenaw Cmnty.Hlth.Org	263,671	5.31	3.91 - 7.18	14,000	10,000 - 19,000	1.73	1.29 - 2.30	5,000	3,000 - 6,000	38.32	33.27 - 43.64	101,000	88,000 - 115,000
Western UP S.A. Srv.	451,127	7.17	5.70 - 8.98	32,000	26,000 - 41,000	2.82	2.22 - 3.57	13,000	10,000 - 16,000	29.17	25.57 - 33.06	132,000	115,000 - 149,000
	96,562	5.38	3.86 - 7.46	5,000	4,000 - 7,000	1.75	1.27 - 2.42	2,000	1,000 - 2,000	37.43	31.90 - 43.31	36,000	31,000 - 42,000

<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. The associated Markov Chain Monte Carlo chains were used to calculate the posterior variance.

<sup>A</sup> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.



**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 2006 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>		10.47	10.24	10.69			2.38	2.26	2.49			4.89	4.75	5.03		
<b>Michigan</b>	8,514,856	12.07	11.37	12.82	1,028,000	968,000 - 1,092,000	2.25	1.96	2.58	192,000	167,000 - 220,000	5.57	5.11	6.06	474,000	435,000 - 516,000
Detroit Dept. of Health	728,807	15.19	12.78	17.96	111,000	93,000 - 131,000	2.43	1.56	3.78	18,000	11,000 - 28,000	4.31	3.35	5.53	31,000	24,000 - 40,000
Genesee County CMH	368,450	12.96	10.62	15.72	48,000	39,000 - 58,000	2.85	2.03	4.01	11,000	7,000 - 15,000	6.47	5.12	8.14	24,000	19,000 - 30,000
Kalamazoo CMH	456,569	10.50	8.79	12.51	48,000	40,000 - 57,000	2.14	1.57	2.91	10,000	7,000 - 13,000	5.85	4.66	7.33	27,000	21,000 - 33,000
Lakeshore Coord. Council	592,903	9.54	7.95	11.40	57,000	47,000 - 68,000	2.01	1.50	2.70	12,000	9,000 - 16,000	5.60	4.49	6.98	33,000	27,000 - 41,000
Macomb County CMH	707,482	12.35	10.27	14.77	87,000	73,000 - 104,000	2.27	1.66	3.12	16,000	12,000 - 22,000	5.91	4.73	7.36	42,000	33,000 - 52,000
Mid-South Sub Abuse Com network180	902,111	13.37	11.52	15.45	121,000	104,000 - 139,000	2.27	1.74	2.96	20,000	16,000 - 27,000	6.25	5.10	7.64	56,000	46,000 - 69,000
Northern MI S.A. Srv.	491,015	12.18	10.12	14.59	60,000	50,000 - 72,000	2.39	1.74	3.28	12,000	9,000 - 16,000	5.12	4.01	6.51	25,000	20,000 - 32,000
Oakland County Health Div	744,839	10.37	8.69	12.34	77,000	65,000 - 92,000	1.76	1.27	2.44	13,000	9,000 - 18,000	4.95	3.97	6.16	37,000	30,000 - 46,000
Pathways to Healthy Living	1,024,018	13.83	11.99	15.89	142,000	123,000 - 163,000	2.28	1.74	3.00	23,000	18,000 - 31,000	5.56	4.55	6.77	57,000	47,000 - 69,000
Riverhaven Coord. Agency	177,570	12.01	9.48	15.10	21,000	17,000 - 27,000	2.28	1.61	3.21	4,000	3,000 - 6,000	5.44	4.07	7.23	10,000	7,000 - 13,000
Saginaw County Health Dpt	303,086	9.84	7.73	12.47	30,000	23,000 - 38,000	1.89	1.36	2.61	6,000	4,000 - 8,000	5.52	4.32	7.02	17,000	13,000 - 21,000
SE MI Community Alliance	174,019	11.81	9.13	15.13	21,000	16,000 - 26,000	2.17	1.47	3.20	4,000	3,000 - 6,000	4.80	3.56	6.45	8,000	6,000 - 11,000
St. Clair County Hlth. Dpt.	1,032,627	11.04	9.49	12.79	114,000	98,000 - 132,000	2.41	1.85	3.14	25,000	19,000 - 32,000	5.95	4.98	7.10	61,000	51,000 - 73,000
Washtenaw Cmnty.Hlth.Org	263,671	9.60	7.46	12.28	25,000	20,000 - 32,000	2.03	1.42	2.90	5,000	4,000 - 8,000	5.23	3.93	6.92	14,000	10,000 - 18,000
Western UP S.A. Srv.	451,127	13.74	11.62	16.18	62,000	52,000 - 73,000	2.49	1.82	3.39	11,000	8,000 - 15,000	6.07	4.86	7.54	27,000	22,000 - 34,000
	96,562	9.35	7.05	12.29	9,000	7,000 - 12,000	1.94	1.36	2.77	2,000	1,000 - 3,000	5.46	4.08	7.29	5,000	4,000 - 7,000

<sup>A</sup> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.

**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 2006 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>		51.01	50.44 - 51.58			22.84	22.52 - 23.16			41.45	41.06 - 41.84		
<b>Michigan</b>	8,514,856	54.78	53.39 - 56.17	4,664,000	4,546,000 - 4,783,000	25.15	24.06 - 26.28	2,141,000	2,049,000 - 2,238,000	37.68	36.39 - 38.99	3,208,000	3,099,000 - 3,320,000
Detroit Dept. of Health	728,807	39.72	35.76 - 43.83	289,000	261,000 - 319,000	21.73	18.85 - 24.92	158,000	137,000 - 182,000	51.09	47.45 - 54.72	372,000	346,000 - 399,000
Genesee County CMH	368,450	52.44	47.65 - 57.19	193,000	176,000 - 211,000	24.25	20.92 - 27.93	89,000	77,000 - 103,000	38.18	34.43 - 42.08	141,000	127,000 - 155,000
Kalamazoo CMH	456,569	53.15	48.79 - 57.46	243,000	223,000 - 262,000	24.39	21.53 - 27.49	111,000	98,000 - 126,000	37.53	33.96 - 41.25	171,000	155,000 - 188,000
Lakeshore Coord. Council	592,903	51.78	47.44 - 56.10	307,000	281,000 - 333,000	24.18	21.34 - 27.26	143,000	127,000 - 162,000	38.64	35.32 - 42.07	229,000	209,000 - 249,000
Macomb County CMH	707,482	59.12	55.06 - 63.06	418,000	390,000 - 446,000	27.04	24.01 - 30.30	191,000	170,000 - 214,000	35.06	31.79 - 38.47	248,000	225,000 - 272,000
Mid-South Sub Abuse Com network180	902,111	54.95	51.16 - 58.70	496,000	462,000 - 530,000	26.72	24.00 - 29.64	241,000	217,000 - 267,000	34.13	31.06 - 37.34	308,000	280,000 - 337,000
Northern MI S.A. Srv.	491,015	55.14	50.50 - 59.69	271,000	248,000 - 293,000	23.69	20.63 - 27.05	116,000	101,000 - 133,000	36.86	33.13 - 40.76	181,000	163,000 - 200,000
Oakland County Health Div	744,839	53.60	49.37 - 57.77	399,000	368,000 - 430,000	26.08	23.04 - 29.37	194,000	172,000 - 219,000	35.45	32.10 - 38.95	264,000	239,000 - 290,000
Pathways to Healthy Living	1,024,018	61.57	58.15 - 64.88	630,000	595,000 - 664,000	25.20	22.67 - 27.90	258,000	232,000 - 286,000	36.58	33.45 - 39.82	375,000	343,000 - 408,000
Riverhaven Coord. Agency	177,570	57.21	50.66 - 63.53	102,000	90,000 - 113,000	30.80	26.30 - 35.69	55,000	47,000 - 63,000	34.54	30.17 - 39.19	61,000	54,000 - 70,000
Saginaw County Health Dpt	303,086	51.69	46.31 - 57.04	157,000	140,000 - 173,000	25.72	22.30 - 29.45	78,000	68,000 - 89,000	33.86	30.01 - 37.93	103,000	91,000 - 115,000
SE MI Community Alliance	174,019	54.25	47.97 - 60.39	94,000	83,000 - 105,000	22.85	19.07 - 27.14	40,000	33,000 - 47,000	36.39	32.04 - 40.97	63,000	56,000 - 71,000
St. Clair County Hlth. Dpt.	263,671	56.14	52.55 - 59.66	148,000	139,000 - 157,000	24.74	22.26 - 27.41	65,000	59,000 - 72,000	38.05	35.02 - 41.17	100,000	92,000 - 109,000
Washtenaw Cmnty.Hlth.Org	1,032,627	58.17	52.23 - 63.89	601,000	539,000 - 660,000	26.95	22.83 - 31.51	278,000	236,000 - 325,000	37.25	32.81 - 41.93	385,000	339,000 - 433,000
Western UP S.A. Srv.	451,127	63.30	59.04 - 67.37	286,000	266,000 - 304,000	26.09	23.03 - 29.40	118,000	104,000 - 133,000	36.35	32.85 - 39.99	164,000	148,000 - 180,000
	96,562	52.49	45.62 - 59.27	51,000	44,000 - 57,000	25.86	21.90 - 30.26	25,000	21,000 - 29,000	33.11	28.47 - 38.11	32,000	27,000 - 37,000

<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> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.



**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 2006 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>		28.27	27.86 - 28.68			18.95	18.60 - 19.30		
<b>Michigan</b>	1,326,804	29.01	27.84 - 30.20	385,000	369,000 - 401,000	19.97	18.95 - 21.04	265,000	251,000 - 279,000
Detroit Dept. of Health	133,071	19.05	16.40 - 22.02	25,000	22,000 - 29,000	10.96	8.98 - 13.32	15,000	12,000 - 18,000
Genesee County CMH	56,717	27.69	24.15 - 31.53	16,000	14,000 - 18,000	19.00	16.05 - 22.34	11,000	9,000 - 13,000
Kalamazoo CMH	66,027	29.56	26.15 - 33.22	20,000	17,000 - 22,000	20.38	17.37 - 23.76	13,000	11,000 - 16,000
Lakeshore Coord. Council	97,032	28.87	25.55 - 32.43	28,000	25,000 - 31,000	19.90	17.16 - 22.97	19,000	17,000 - 22,000
Macomb County CMH	96,256	31.98	28.61 - 35.56	31,000	28,000 - 34,000	21.71	18.81 - 24.92	21,000	18,000 - 24,000
Mid-South Sub Abuse Com.	146,266	32.18	29.05 - 35.49	47,000	42,000 - 52,000	23.26	20.57 - 26.18	34,000	30,000 - 38,000
network180	80,229	30.26	26.88 - 33.87	24,000	22,000 - 27,000	20.51	17.45 - 23.96	16,000	14,000 - 19,000
Northern MI S.A. Srv.	109,569	29.13	25.98 - 32.49	32,000	28,000 - 36,000	21.34	18.46 - 24.55	23,000	20,000 - 27,000
Oakland County Health Div.	147,049	30.03	27.21 - 32.99	44,000	40,000 - 49,000	20.03	17.53 - 22.80	29,000	26,000 - 34,000
Pathways to Healthy Living	44,779	34.19	29.38 - 39.35	15,000	13,000 - 18,000	26.17	21.89 - 30.96	12,000	10,000 - 14,000
Riverhaven Coord. Agency	41,803	31.08	26.85 - 35.65	13,000	11,000 - 15,000	22.18	18.65 - 26.17	9,000	8,000 - 11,000
Saginaw County Health Dpt.	28,201	29.63	25.04 - 34.67	8,000	7,000 - 10,000	19.51	15.76 - 23.91	6,000	4,000 - 7,000
SE MI Community Alliance	163,381	28.58	25.88 - 31.43	8,000	7,000 - 8,000	20.19	17.70 - 22.93	5,000	5,000 - 6,000
St. Clair County Hlth. Dpt.	26,515	30.64	26.29 - 35.36	50,000	43,000 - 58,000	21.43	17.65 - 25.77	35,000	29,000 - 42,000
Washtenaw Cmnty.Hlth.Org.	75,642	31.52	27.85 - 35.45	24,000	21,000 - 27,000	20.95	17.59 - 24.76	16,000	13,000 - 19,000
Western UP S.A. Srv.	14,267	30.33	25.24 - 35.95	4,000	4,000 - 5,000	23.01	18.76 - 27.88	3,000	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> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.

**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 2006 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>		25.00	24.53 - 25.48			29.49	29.02 - 29.96			74.13	73.70 - 74.56		
<b>Michigan</b>	8,514,856	27.87	26.70 - 29.08	2,373,000	2,273,000 - 2,476,000	32.25	31.01 - 33.51	2,746,000	2,640,000 - 2,853,000	72.33	71.16 - 73.48	6,159,000	6,059,000 - 6,257,000
Detroit Dept. of Health	728,807	29.10	25.94 - 32.49	212,000	189,000 - 237,000	32.77	29.55 - 36.16	239,000	215,000 - 264,000	74.11	71.16 - 76.87	540,000	519,000 - 560,000
Genesee County CMH	368,450	30.15	26.56 - 34.00	111,000	98,000 - 125,000	34.03	30.30 - 37.97	125,000	112,000 - 140,000	71.14	67.76 - 74.31	262,000	250,000 - 274,000
Kalamazoo CMH	456,569	28.42	25.38 - 31.67	130,000	116,000 - 145,000	33.77	30.45 - 37.25	154,000	139,000 - 170,000	71.09	67.95 - 74.03	325,000	310,000 - 338,000
Lakeshore Coord. Council	592,903	26.50	23.61 - 29.60	157,000	140,000 - 175,000	31.19	28.07 - 34.49	185,000	166,000 - 204,000	71.73	68.64 - 74.63	425,000	407,000 - 442,000
Macomb County CMH	707,482	30.88	27.90 - 34.02	218,000	197,000 - 241,000	34.90	31.67 - 38.28	247,000	224,000 - 271,000	69.26	66.15 - 72.20	490,000	468,000 - 511,000
Mid-South Sub Abuse Com network180	902,111	27.99	25.22 - 30.93	253,000	228,000 - 279,000	32.87	30.01 - 35.87	297,000	271,000 - 324,000	71.83	69.04 - 74.47	648,000	623,000 - 672,000
Northern MI S.A. Srv.	491,015	26.18	23.31 - 29.26	129,000	114,000 - 144,000	29.70	26.57 - 33.04	146,000	130,000 - 162,000	72.32	69.15 - 75.28	355,000	340,000 - 370,000
Oakland County Health Div	744,839	27.29	24.32 - 30.47	203,000	181,000 - 227,000	31.67	28.53 - 34.99	236,000	213,000 - 261,000	72.18	69.13 - 75.04	538,000	515,000 - 559,000
Pathways to Healthy Living	1,024,018	24.86	22.42 - 27.47	255,000	230,000 - 281,000	28.44	25.81 - 31.23	291,000	264,000 - 320,000	75.24	72.53 - 77.77	770,000	743,000 - 796,000
Riverhaven Coord. Agency	177,570	31.18	27.11 - 35.56	55,000	48,000 - 63,000	36.44	32.03 - 41.09	65,000	57,000 - 73,000	71.06	67.19 - 74.65	126,000	119,000 - 133,000
Saginaw County Health Dpt	303,086	29.87	26.37 - 33.62	91,000	80,000 - 102,000	35.06	31.03 - 39.32	106,000	94,000 - 119,000	38.47	64.81 - 71.91	117,000	196,000 - 218,000
SE MI Community Alliance	174,019	29.08	25.10 - 33.40	51,000	44,000 - 58,000	33.78	29.53 - 38.31	59,000	51,000 - 67,000	70.47	66.51 - 74.51	123,000	116,000 - 130,000
St. Clair County Hlth. Dpt.	263,671	29.05	26.39 - 31.87	77,000	70,000 - 84,000	33.89	31.04 - 36.86	89,000	82,000 - 97,000	73.27	70.67 - 75.72	193,000	186,000 - 200,000
Washtenaw Cmnty.Hlth.Org	1,032,627	29.61	25.80 - 33.72	306,000	266,000 - 348,000	34.06	29.80 - 38.59	352,000	308,000 - 398,000	69.35	65.33 - 73.09	716,000	675,000 - 755,000
Western UP S.A. Srv.	451,127	23.34	20.69 - 26.22	105,000	93,000 - 118,000	27.62	24.68 - 30.77	125,000	111,000 - 139,000	75.74	72.70 - 78.54	342,000	328,000 - 354,000
	96,562	27.04	23.05 - 31.44	26,000	22,000 - 30,000	32.23	27.77 - 37.04	31,000	27,000 - 36,000	70.92	66.80 - 74.72	68,000	65,000 - 72,000

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

<sup>A</sup> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.

**2002-2004 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

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

State / Substate Region (Substate Abuse Regional Coordinating Agencies - CAs)	Census 2006 Estimates For Persons Aged 12 and Older <sup>A</sup>	Alcohol Dependence in Past Year				Any Illicit Drug Dependence in Past Year <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>		3.40	3.26	3.54			1.98	1.88	2.09		
<b>Michigan</b>	8,514,856	3.57	3.17	4.01	304,000	270,000 - 341,000	2.19	1.93	2.49	186,000	164,000 - 212,000
Detroit Dept. of Health	728,807	5.10	3.72	6.94	37,000	27,000 - 51,000	3.80	2.70	5.34	28,000	20,000 - 39,000
Genesee County CMH	368,450	3.56	2.63	4.81	13,000	10,000 - 18,000	2.63	1.90	3.63	10,000	7,000 - 13,000
Kalamazoo CMH	456,569	3.43	2.55	4.62	16,000	12,000 - 21,000	2.00	1.46	2.73	9,000	7,000 - 12,000
Lakeshore Coord. Council	592,903	3.51	2.68	4.59	21,000	16,000 - 27,000	1.92	1.40	2.61	11,000	8,000 - 15,000
Macomb County CMH	707,482	3.33	2.47	4.46	24,000	17,000 - 32,000	1.86	1.39	2.50	13,000	10,000 - 18,000
Mid-South Sub Abuse Com.	902,111	3.56	2.77	4.57	32,000	25,000 - 41,000	1.91	1.43	2.54	17,000	13,000 - 23,000
network180	491,015	3.97	3.00	5.25	19,000	15,000 - 26,000	2.52	1.87	3.38	12,000	9,000 - 17,000
Northern MI S.A. Srv.	744,839	2.92	2.21	3.84	22,000	16,000 - 29,000	1.44	1.01	2.05	11,000	8,000 - 15,000
Oakland County Health Div.	1,024,018	3.48	2.67	4.51	36,000	27,000 - 46,000	2.56	1.98	3.31	26,000	20,000 - 34,000
Pathways to Healthy Living	177,570	3.70	2.64	5.15	7,000	5,000 - 9,000	1.95	1.35	2.79	3,000	2,000 - 5,000
Riverhaven Coord. Agency	303,086	3.43	2.50	4.69	10,000	8,000 - 14,000	1.87	1.32	2.64	6,000	4,000 - 8,000
Saginaw County Health Dpt.	174,019	3.37	2.38	4.75	6,000	4,000 - 8,000	1.90	1.29	2.78	3,000	2,000 - 5,000
SE MI Community Alliance	263,671	3.30	2.51	4.32	9,000	7,000 - 11,000	1.89	1.44	2.47	5,000	4,000 - 7,000
St. Clair County Hlth. Dpt.	1,032,627	3.26	2.33	4.56	34,000	24,000 - 47,000	1.79	1.26	2.54	18,000	13,000 - 26,000
Washtenaw Cmnty.Hlth.Org	451,127	3.53	2.66	4.66	16,000	12,000 - 21,000	2.28	1.69	3.09	10,000	8,000 - 14,000
Western UP S.A. Srv.	96,562	3.37	2.40	4.71	3,000	2,000 - 5,000	1.87	1.29	2.69	2,000	1,000 - 3,000

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

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

<sup>A</sup> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.

**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 2006 Estimates For Persons Aged 12 and Older <sup>A</sup>	Alcohol Dependence or Abuse in Past Year				Any Illicit Drug Dependence or Abuse in Past Year <sup>1</sup>				Dependence on or Abuse of Any Illicit Drug or Alcohol in Past Year <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>		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>		7.69	7.51 - 7.87			2.91	2.80 - 3.02			9.24	9.02 - 9.46		
<b>Michigan</b>	8,514,856	8.01	7.41 - 8.64	682,000	631,000 - 736,000	3.08	2.76 - 3.43	262,000	235,000 - 292,000	9.70	9.05 - 10.40	826,000	771,000 - 886,000
Detroit Dept. of Health	728,807	7.87	6.33 - 9.76	57,000	46,000 - 71,000	4.74	3.51 - 6.36	35,000	26,000 - 46,000	10.70	8.88 - 12.84	78,000	65,000 - 94,000
Genesee County CMH	368,450	8.06	6.52 - 9.92	30,000	24,000 - 37,000	3.79	2.83 - 5.05	14,000	10,000 - 19,000	10.75	8.87 - 12.97	40,000	33,000 - 48,000
Kalamazoo CMH	456,569	7.98	6.52 - 9.72	36,000	30,000 - 44,000	2.65	1.99 - 3.51	12,000	9,000 - 16,000	9.25	7.75 - 11.01	42,000	35,000 - 50,000
Lakeshore Coord. Council	592,903	8.42	7.00 - 10.09	50,000	42,000 - 60,000	2.90	2.25 - 3.73	17,000	13,000 - 22,000	9.83	8.33 - 11.57	58,000	49,000 - 69,000
Macomb County CMH	707,482	7.91	6.57 - 9.49	56,000	46,000 - 67,000	3.00	2.29 - 3.93	21,000	16,000 - 28,000	9.79	8.23 - 11.62	69,000	58,000 - 82,000
Mid-South Sub Abuse Com network180	902,111	8.08	6.79 - 9.58	73,000	61,000 - 86,000	2.87	2.22 - 3.70	26,000	20,000 - 33,000	9.58	8.17 - 11.21	86,000	74,000 - 101,000
Northern MI S.A. Srv.	491,015	8.45	6.97 - 10.20	41,000	34,000 - 50,000	3.32	2.53 - 4.34	16,000	12,000 - 21,000	10.31	8.65 - 12.24	51,000	42,000 - 60,000
Oakland County Health Div.	744,839	7.35	6.07 - 8.88	55,000	45,000 - 66,000	2.31	1.73 - 3.09	17,000	13,000 - 23,000	8.49	7.07 - 10.17	63,000	53,000 - 76,000
Pathways to Healthy Living	1,024,018	8.29	6.99 - 9.80	85,000	72,000 - 100,000	3.43	2.69 - 4.35	35,000	28,000 - 45,000	10.14	8.77 - 11.70	104,000	90,000 - 120,000
Riverhaven Coord. Agency	177,570	8.39	6.62 - 10.59	15,000	12,000 - 19,000	2.79	1.99 - 3.90	5,000	4,000 - 7,000	9.94	8.01 - 12.28	18,000	14,000 - 22,000
Saginaw County Health Dpt	303,086	8.08	6.47 - 10.05	24,000	20,000 - 30,000	2.77	2.01 - 3.81	8,000	6,000 - 12,000	9.20	7.48 - 11.27	28,000	23,000 - 34,000
SE MI Community Alliance	174,019	7.60	5.89 - 9.74	13,000	10,000 - 17,000	2.85	2.02 - 4.01	5,000	4,000 - 7,000	9.05	7.15 - 11.39	16,000	12,000 - 20,000
St. Clair County Hlth. Dpt.	1,032,627	7.92	6.67 - 9.40	82,000	69,000 - 97,000	2.62	2.06 - 3.33	27,000	21,000 - 34,000	9.49	8.13 - 11.06	98,000	84,000 - 114,000
Washtenaw Cmnty.Hlth.Org	263,671	7.53	5.93 - 9.52	20,000	16,000 - 25,000	2.57	1.83 - 3.60	7,000	5,000 - 9,000	8.70	6.91 - 10.91	23,000	18,000 - 29,000
Western UP S.A. Srv.	451,127	8.33	6.91 - 10.02	38,000	31,000 - 45,000	3.14	2.38 - 4.12	14,000	11,000 - 19,000	9.88	8.24 - 11.81	45,000	37,000 - 53,000
	96,562	7.07	5.42 - 9.17	7,000	5,000 - 9,000	2.63	1.89 - 3.65	3,000	2,000 - 4,000	8.74	6.90 - 11.02	8,000	7,000 - 11,000

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

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

None of the CA percentages differed significantly (p<0.05) from the state percentage.

<sup>A</sup> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.

This and other statistical reports are available at: [www.michigan.gov/odccp](http://www.michigan.gov/odccp), along the left side choose "Reports and Statistics".

**2004-2006 SubState Report of Substance Use**  
**Section C: Tables of Model-Based Estimates for Substate Regions**

**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 2006 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>		7.33	7.14 - 7.53			2.61	2.51 - 2.72		
<b>Michigan</b>	8,514,856	7.56	6.97 - 8.20	644,000	593,000 - 698,000	2.73	2.45 - 3.04	232,000	209,000 - 259,000
Detroit Dept. of Health	728,807	7.12	5.69 - 8.87	52,000	41,000 - 65,000	4.76	3.52 - 6.42	35,000	26,000 - 47,000
Genesee County CMH	368,450	7.67	6.16 - 9.50	28,000	23,000 - 35,000	3.24	2.42 - 4.32	12,000	9,000 - 16,000
Kalamazoo CMH	456,569	7.45	6.14 - 9.01	34,000	28,000 - 41,000	2.23	1.66 - 2.99	10,000	8,000 - 14,000
Lakeshore Coord. Council	592,903	8.00	6.62 - 9.65	47,000	39,000 - 57,000	2.54	1.92 - 3.35	15,000	11,000 - 20,000
Macomb County CMH	707,482	7.30	5.99 - 8.87	52,000	42,000 - 63,000	2.56	1.95 - 3.35	18,000	14,000 - 24,000
Mid-South Sub Abuse Com.	902,111	7.76	6.51 - 9.23	70,000	59,000 - 83,000	2.50	1.92 - 3.26	23,000	17,000 - 29,000
network180	491,015	7.94	6.49 - 9.70	39,000	32,000 - 48,000	2.95	2.23 - 3.91	14,000	11,000 - 19,000
Northern MI S.A. Srv.	744,839	7.08	5.80 - 8.61	53,000	43,000 - 64,000	2.08	1.54 - 2.81	15,000	11,000 - 21,000
Oakland County Health Div.	1,024,018	7.84	6.60 - 9.29	80,000	68,000 - 95,000	2.99	2.34 - 3.82	31,000	24,000 - 39,000
Pathways to Healthy Living	177,570	7.98	6.29 - 10.08	14,000	11,000 - 18,000	2.40	1.67 - 3.44	4,000	3,000 - 6,000
Riverhaven Coord. Agency	303,086	7.67	6.13 - 9.56	23,000	19,000 - 29,000	2.35	1.68 - 3.28	7,000	5,000 - 10,000
Saginaw County Health Dpt.	174,019	7.14	5.51 - 9.20	12,000	10,000 - 16,000	2.49	1.75 - 3.51	4,000	3,000 - 6,000
SE MI Community Alliance	263,671	7.43	6.24 - 8.83	20,000	16,000 - 23,000	2.31	1.80 - 2.96	6,000	5,000 - 8,000
St. Clair County Hlth. Dpt.	1,032,627	7.18	5.58 - 9.18	74,000	58,000 - 95,000	2.15	1.51 - 3.05	22,000	16,000 - 31,000
Washtenaw Cmnty.Hlth.Org	451,127	8.15	6.65 - 9.95	37,000	30,000 - 45,000	2.65	1.97 - 3.55	12,000	9,000 - 16,000
Western UP S.A. Srv.	96,562	6.82	5.24 - 8.83	7,000	5,000 - 9,000	2.33	1.65 - 3.28	2,000	2,000 - 3,000

<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> 2006 census estimates provided by Library of Michigan, State Demographer, Ken Darga.

<sup>B</sup> Substance Abuse estimated percentages, annual averages are calculated from research provided by SAMHSA, Office of Applied Studies, National Survey on Drug Use and Health (NSDUH) - 2004, 2005, and 2006. <http://www.oas.samhsa.gov/substate2k8/substate.pdf>

<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.