

# The NSDUH Report

October 6, 2011

## State Estimates of Adult Mental Illness

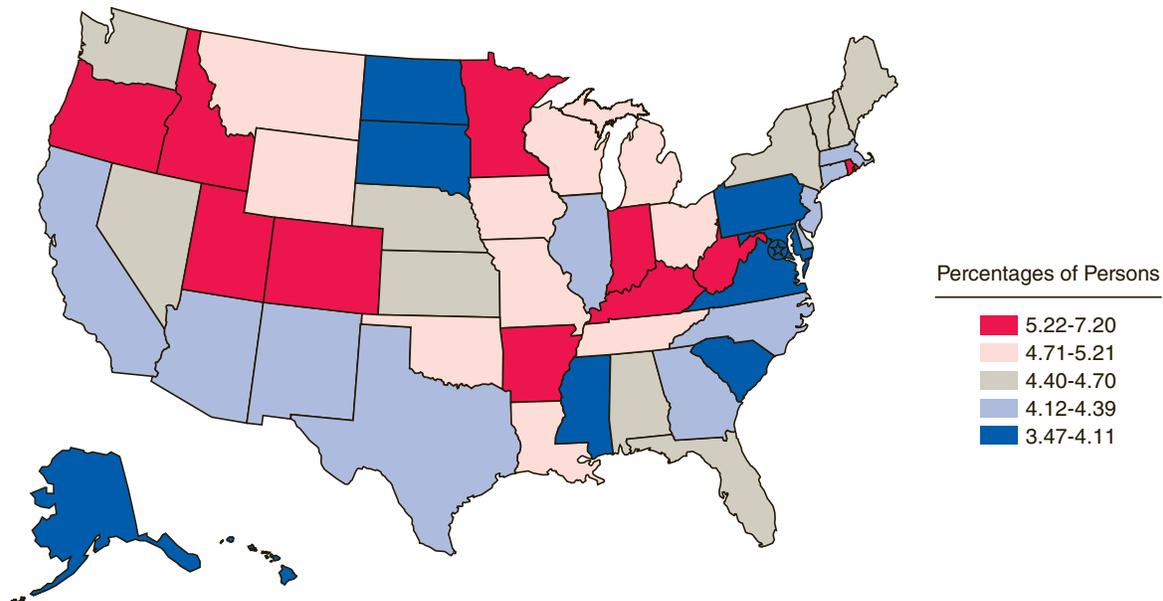
### In Brief

- Mental illness is one of the leading causes of disability in the United States. New State-level data produced by SAMHSA will advance our understanding of the nature and extent of mental illness, which is critical in the planning and implementation of effective programs and services in communities to improve the lives of individuals with mental illness and the families of these individuals
- Nationally, 44.5 million adults aged 18 or older experienced any mental illness in the past year, corresponding to a rate of 19.7 percent of the adult population. Among States, the highest rate occurred in Rhode Island (24.2 percent) while the lowest rate occurred in Maryland (16.7 percent)
- Among adults aged 18 or older, the rate of serious mental illness (SMI) in the past year ranged from 3.5 percent in Hawaii and South Dakota to 7.2 percent in Rhode Island. Nationally, the rate was 4.6 percent, which equates to 10.4 million Americans with SMI

Mental illness is a major public health concern in the United States; it is a primary cause of disability and carries a high financial cost.<sup>1</sup> Information on the prevalence of mental illness is critically needed to help guide the provision of effective treatment and prevention programs to restore lives and to reduce economic and societal costs. The Substance Abuse and Mental Health Services Administration (SAMHSA) provides block grant funding to States in support of programs and services for adults with mental illness with the goal to improve the capacity of these adults to live and work in the communities of their choice.<sup>2</sup>

SAMHSA defines mental illness based on diagnostic criteria in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*.<sup>3</sup> “Any mental illness” among adults aged 18 or older is the presence of any mental, behavioral, or emotional disorder in the past year that met DSM-IV criteria. Among adults with a disorder, those adults whose disorder caused substantial

**Figure 1. Serious Mental Illness (SMI) in Past Year among Persons Aged 18 or Older, by Location: Percentages, Annual Averages Based on 2008 and 2009 NSDUHs**



Source: 2008 and 2009 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

functional impairment (i.e., substantially interfered with or limited one or more major life activities) are defined as having serious mental illness (SMI) and the most urgent need for treatment.<sup>4</sup> Nationally, only 60 percent of adults (6.6 million people) with SMI had received mental health treatment in the past 12 months.<sup>4</sup>

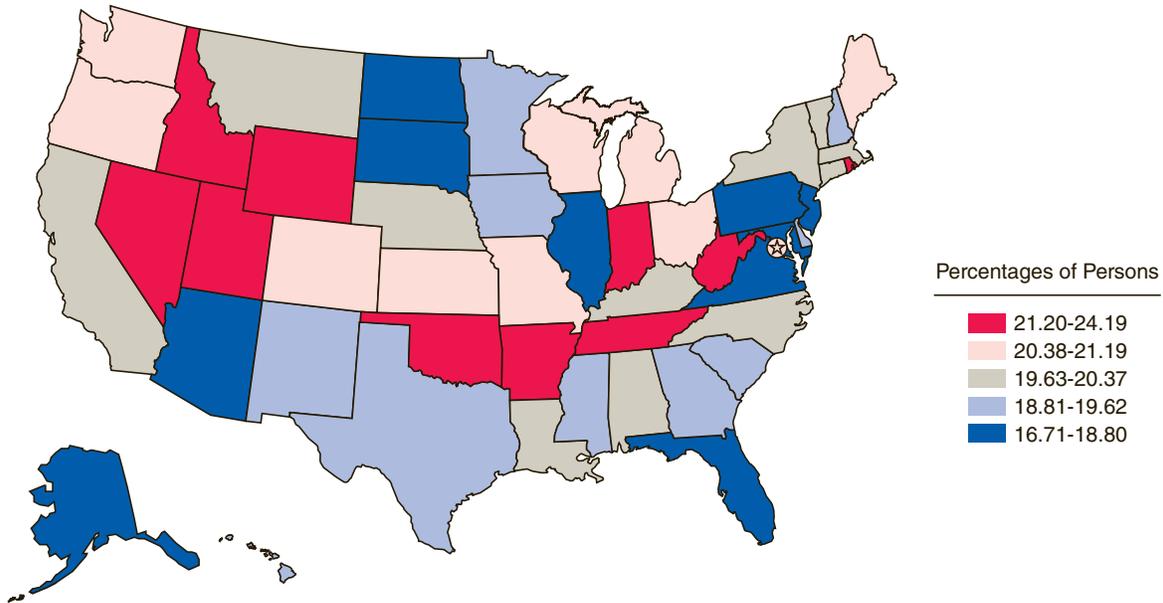
This issue of *The NSDUH Report* presents State-level estimates of SMI based on data collected from 92,233 adults aged 18 or older from the combined 2008 and 2009 National Surveys on Drug Use and Health (NSDUHs) and 68,936 adults aged 18 or older for estimates of any mental illness (only half of the 2008 sample was available for creating estimates of any mental illness). Estimates are displayed in two tables and on two U.S. maps. In the tables, State estimates are listed alphabetically for easy reference. To produce the maps, State estimates were first rank ordered from lowest to highest and then divided into quintiles (fifths). States with the lowest estimates (i.e., the lowest fifth) are assigned to the bottom quintile and are shown in dark blue. States with the highest estimates are assigned to

the top quintile and are shown in red. All other States are assigned to one of three quintiles between the lowest and highest quintiles.<sup>5,6</sup> These estimates, available for the first time at the State level, are the result of an expanded mental health component in the NSDUH that will generate State estimates of various mental health indicators annually.

## Serious Mental Illness

Nationally among adults aged 18 or older, the rate of SMI was 4.6 percent, which equates to 10.4 million Americans. Among individual States, the percentage of adults aged 18 or older with SMI ranged from 3.5 percent in Hawaii and South Dakota to 7.2 percent in Rhode Island. Hawaii and South Dakota share the lowest quintile with the District of Columbia and Pennsylvania (each with a rate of 3.8 percent) and Maryland and North Dakota (each with a rate of 3.6 percent among others) (Figure 1, Table 1). Along with Rhode Island, States with high SMI rates include Arkansas (6.9 percent), Indiana (6.0

**Figure 2. Any Mental Illness in Past Year among Persons Aged 18 or Older, by Location: Percentages, Annual Averages Based on 2008 and 2009 NSDUHs**



Source: 2008 and 2009 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

percent), and Utah and West Virginia (each with a rate of 6.2 percent), among others. States with high and low rates of SMI occurred in all regions of the United States, with no notable regional clustering of high and low rates.

### Any Mental Illness

Nationally, 44.5 million adults aged 18 or older experienced any mental illness in the past year, corresponding to a rate of 19.7 percent. Among States, the highest rate occurred in Rhode Island (24.2 percent), while the lowest rate occurred in Maryland (16.7 percent) (Figure 2, Table 2). Along with Rhode Island, the States with the highest rates include Indiana (22.0 percent), Idaho (22.5 percent), Utah (24.1 percent), and West Virginia (22.0 percent). Including Maryland, States with the lowest rates include Illinois, Florida, and South Dakota (each with a rate of 18.1 percent), North Dakota (18.0 percent), and Pennsylvania (17.7 percent). Similar to SMI, high and low rates of any mental illness occurred in all regions of the United States.

### Discussion

Arkansas, Idaho, Rhode Island, Utah, and West Virginia had the highest rates for both SMI and any mental illness. Alaska, Maryland, North Dakota, Pennsylvania, South Dakota, and Virginia had the lowest rates across both measures. States with high and low rates of SMI and any mental illness are located in all regions of the United States. Factors that potentially contribute to the variation are not well understood and need further study. As data from the 2010 and subsequent NSDUHs are accumulated, more in-depth analysis of these data will provide insight into the patterns of mental illness in the United States, such as variations by age and gender within each State, as well as co-occurring substance use disorders and substate area differences.

SAMHSA plans to update these estimates annually so that trends can be tracked and data users will have current estimates.

**Table 1. Serious Mental Illness (SMI) in Past Year among Persons Aged 18 or Older, by Location: Percentages, Annual Averages Based on 2008 and 2009 NSDUHs**

Location	Serious Mental Illness (%)	95% Confidence Interval	Location	Serious Mental Illness (%)	95% Confidence Interval
Nation	4.6	(4.4-4.8)	Missouri	5.2	(4.1-6.5)
Alabama	4.5	(3.6-5.7)	Montana	5.0	(4.0-6.3)
Alaska	4.1	(3.2-5.3)	Nebraska	4.7	(3.7-5.9)
Arizona	4.2	(3.2-5.5)	Nevada	4.6	(3.6-5.9)
Arkansas	6.9	(5.5-8.7)	New Hampshire	4.6	(3.6-5.8)
California	4.3	(3.7-5.0)	New Jersey	4.1	(3.2-5.3)
Colorado	5.2	(4.1-6.7)	New Mexico	4.4	(3.4-5.6)
Connecticut	4.4	(3.4-5.6)	New York	4.5	(3.9-5.3)
Delaware	4.4	(3.4-5.6)	North Carolina	4.3	(3.4-5.5)
District of Columbia	3.8	(3.0-4.8)	North Dakota	3.6	(2.8-4.6)
Florida	4.7	(4.0-5.5)	Ohio	5.2	(4.5-6.0)
Georgia	4.1	(3.2-5.3)	Oklahoma	5.1	(4.0-6.4)
Hawaii	3.5	(2.7-4.6)	Oregon	5.4	(4.3-6.8)
Idaho	5.8	(4.6-7.1)	Pennsylvania	3.8	(3.1-4.5)
Illinois	4.4	(3.8-5.1)	Rhode Island	7.2	(5.6-9.2)
Indiana	6.0	(4.8-7.4)	South Carolina	4.1	(3.2-5.3)
Iowa	4.9	(4.0-6.1)	South Dakota	3.5	(2.7-4.5)
Kansas	4.4	(3.5-5.6)	Tennessee	5.0	(4.0-6.3)
Kentucky	5.4	(4.3-6.8)	Texas	4.3	(3.7-5.0)
Louisiana	4.8	(3.8-6.0)	Utah	6.2	(5.0-7.6)
Maine	4.7	(3.7-5.9)	Vermont	4.7	(3.7-6.0)
Maryland	3.6	(2.8-4.7)	Virginia	3.9	(3.0-5.0)
Massachusetts	4.2	(3.3-5.4)	Washington	4.7	(3.7-5.9)
Michigan	5.2	(4.5-6.0)	West Virginia	6.1	(4.9-7.7)
Minnesota	5.3	(4.3-6.7)	Wisconsin	5.0	(3.9-6.2)
Mississippi	4.1	(3.2-5.3)	Wyoming	5.2	(4.1-6.4)

Source: 2008 and 2009 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

## End Notes

<sup>1</sup> National Institute of Mental Health. (2008, June). *The numbers count: Mental disorders in America*. Retrieved July 1, 2011 from <http://wwwapps.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america.shtml>.

<sup>2</sup> Public Law No. 102-321, the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) Reorganization Act of 1992, established a block grant for States within the United States to fund community mental health services for adults with serious mental illness. The law required States to include prevalence estimates in their annual applications for block grant funds. This legislation also required the Substance Abuse and Mental Health Services Administration (SAMHSA) to develop an operational definition of serious mental illness. Information about SAMHSA's block grant programs can be found at <http://www.samhsa.gov/grants/blockgrant/>.

<sup>3</sup> American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (DSM-IV) (4th ed.). Washington, DC: Author.

<sup>4</sup> A discussion of the methodology used to generate serious mental illness and any mental illness estimates can be found in Appendix B of the report listed here. For information on mental illness and mental health service utilization, please see chapter 2 in Substance Abuse and Mental Health Services Administration. (2010). *Results from the 2009 National Survey on Drug Use and Health: Mental health findings* (HHS Publication No. SMA 10-4609, NSDUH Series H-39). Rockville, MD: Substance Abuse and Mental Health Administration, Office of Applied Studies. [Available as a PDF at <http://www.oas.samhsa.gov/NSDUH/2k9NSDUH/MH/2K9MHRResults.pdf>]

<sup>5</sup> In this report, State estimates are discussed in terms of their observed rankings because it provides a useful context. When it is indicated that a State has the highest or lowest rate, it does not imply that the State's rate is significantly higher or lower than the rate of the next highest or lowest State. When comparing two State prevalence rates, two overlapping 95

**Table 2. Any Mental Illness in Past Year among Persons Aged 18 or Older, by Location: Percentages, Annual Averages Based on 2008 and 2009 NSDUHs**

Location	Any Mental Illness (%)	95% Confidence Interval	Location	Any Mental Illness (%)	95% Confidence Interval
Nation	19.7	(19.1-20.3)	Missouri	20.9	(18.3-23.7)
Alabama	20.3	(17.8-23.0)	Montana	20.2	(17.7-23.0)
Alaska	18.8	(16.4-21.4)	Nebraska	20.4	(17.9-23.0)
Arizona	18.8	(16.2-21.7)	Nevada	21.6	(18.7-24.7)
Arkansas	21.3	(18.6-24.3)	New Hampshire	19.6	(17.1-22.3)
California	19.6	(18.0-21.4)	New Jersey	18.3	(15.8-21.0)
Colorado	20.8	(18.1-23.7)	New Mexico	19.0	(16.6-21.6)
Connecticut	19.7	(17.1-22.5)	New York	19.9	(18.2-21.6)
Delaware	19.6	(17.2-22.3)	North Carolina	19.6	(17.2-22.4)
District of Columbia	21.0	(18.4-23.8)	North Dakota	18.0	(15.8-20.5)
Florida	18.1	(16.6-19.8)	Ohio	20.4	(18.8-22.1)
Georgia	19.3	(16.7-22.1)	Oklahoma	21.6	(18.8-24.7)
Hawaii	19.5	(16.9-22.4)	Oregon	20.6	(17.9-23.6)
Idaho	22.5	(19.9-25.3)	Pennsylvania	17.7	(16.2-19.4)
Illinois	18.1	(16.6-19.7)	Rhode Island	24.2	(21.1-27.5)
Indiana	22.0	(19.5-24.8)	South Carolina	18.9	(16.5-21.5)
Iowa	19.0	(16.7-21.5)	South Dakota	18.1	(15.8-20.7)
Kansas	20.6	(18.0-23.5)	Tennessee	21.5	(18.9-24.4)
Kentucky	20.0	(17.5-22.8)	Texas	19.6	(18.0-21.2)
Louisiana	19.7	(17.4-22.3)	Utah	24.1	(21.4-27.0)
Maine	20.9	(18.3-23.7)	Vermont	19.7	(17.2-22.5)
Maryland	16.7	(14.4-19.3)	Virginia	18.5	(16.1-21.0)
Massachusetts	20.2	(17.7-22.9)	Washington	21.2	(18.7-24.0)
Michigan	20.5	(19.0-22.2)	West Virginia	22.0	(19.2-25.1)
Minnesota	19.1	(16.7-21.8)	Wisconsin	21.2	(18.5-24.1)
Mississippi	19.5	(17.0-22.2)	Wyoming	21.8	(19.2-24.6)

Source: 2008 and 2009 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

percent confidence intervals do not imply that the State prevalence rates are statistically equivalent at the 5 percent level of significance. For details on a more accurate test to compare State prevalence rates, please see Section A.12 in Appendix A of Substance Abuse and Mental Health Services Administration. (2010). *Results from the 2009 National Survey on Drug Use and Health: Mental health findings* (HHS Publication No. SMA 10-4609, NSDUH Series H-39). Rockville, MD: Substance Abuse and Mental Health Administration, Office of Applied Studies. [Available as a PDF at <http://www.oas.samhsa.gov/NSDUH/2k9NSDUH/MH/2K9MHRResults.pdf>]

<sup>6</sup> Model-based State estimates are presented in this short report using small area estimation methodology, which provides more precise estimates at the State level. The full report containing these estimates, along with other measures of substance use and mental disorders, can be found at Substance Abuse and Mental Health Services Administration. (2011). *State estimates of substance use and mental disorders from the 2008-2009 National Surveys on Drug Use and Health* (HHS Publication No. SMA 11-

4641, NSDUH Series H-40). Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Retrieved from <http://www.oas.samhsa.gov/2k9State/toc.cfm>.

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Findings from SAMHSA's 2008 and 2009 National Surveys on Drug Use and Health (NSDUHs)

## State Estimates of Adult Mental Illness

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- Nationally, 44.5 million adults aged 18 or older experienced any mental illness in the past year, corresponding to a rate of 19.7 percent of the adult population. Among States, the highest rate occurred in Rhode Island (24.2 percent) while the lowest rate occurred in Maryland (16.7 percent)
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The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The 2008 and 2009 data used in this report are based on information obtained from 92,233 adults aged 18 or older for estimates of serious mental illness and 68,936 adults aged 18 or older for estimates of any mental illness (only half of the 2008 sample was available for creating estimates of any mental illness).

*The NSDUH Report* is prepared by the Center for Behavioral Health Statistics and Quality (CBHSQ), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a trade name of Research Triangle Institute.)

Information on the most recent NSDUH is available in the following two-volume publication:

Office of Applied Studies. (2010). *Results from the 2009 National Survey on Drug Use and Health: Volume I. Summary of national findings* (HHS Publication No. SMA 10-4586Findings, NSDUH Series H-38A). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2010). *Results from the 2009 National Survey on Drug Use and Health: Volume II. Technical appendices and selected prevalence tables* (HHS Publication No. SMA 10-4586Appendices, NSDUH Series H-38B). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Also available online: <http://oas.samhsa.gov>.



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