

The NSDUH Report

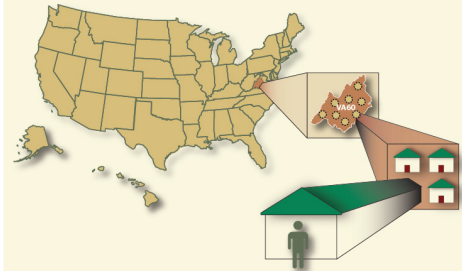
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State Estimates of Nonmedical Use of Prescription Pain Relievers

Misuse of prescription drugs is second only to marijuana as the Nation's most prevalent illicit drug problem¹ and is a public health concern, with approximately 22 million persons initiating nonmedical pain reliever use since 2002.² Data on geographic variation in the nonmedical use of pain relievers (as well as other drugs) are important for developing targeted prevention and treatment programs. This issue of *The NSDUH Report* highlights State estimates of the nonmedical use (i.e., misuse) of prescription pain relievers.

The National Survey on Drug Use and Health (NSDUH) asks persons aged 12 or older questions related to their nonmedical use of prescription pain relievers during the past year. Nonmedical use of prescription pain relievers is defined as use of these drugs without a prescription or use that occurred simply for the experience or feeling the drug caused; over-the-counter (OTC) use and legitimate use of prescription pain relievers are not included.³ Estimates of past year nonmedical use of pain relievers among persons aged 12 or older in each of the 50 States and the District of Columbia are included in this issue of *The NSDUH Report*. Model-based State estimates using the combined 2010 and 2011 NSDUHs are presented.⁴ This small area estimation methodology provides more precise estimates at the State level than standard direct estimation methods.

The results for pain relievers were extracted from a set of tables covering a variety of measures of substance use and mental disorders.⁵ Estimates are displayed in two tables. The first table shows estimates for persons aged 12 or older and lists States in rank order from highest to lowest and divided into quintiles (fifths).⁶ In the second table, estimates for three age groups are included along with estimates for persons aged 12 or older; States are listed alphabetically for easy reference.



IN BRIEF

Combined 2010 and 2011 data indicate that the rate of past year nonmedical use of prescription pain relievers among those aged 12 or older was 4.6 percent nationally and ranged from 3.6 percent in Iowa to 6.4 percent in Oregon

Of the 10 States with the highest rates of past year nonmedical use of prescription pain relievers in 2010 and 2011, 7 were in the West region; of the 10 States with the lowest rates, 4 were in the Midwest region, and 4 were in the Southern region

Comparisons of combined 2009 and 2010 data with combined 2010 and 2011 data showed that past year nonmedical use of prescription pain relievers among persons aged 12 or older decreased in 10 States (Kentucky, Louisiana, Massachusetts, Mississippi, New Hampshire, New York, Ohio, Oklahoma, Rhode Island, and West Virginia), and did not increase in any State

State Estimates of Nonmedical Use of Prescription Pain Relievers

Combined 2010 and 2011 (hereafter “2010-2011”) data indicate that about 1 in 22 (4.6 percent) persons aged 12 or older nationwide reported having used pain relievers nonmedically in the past year, which was lower than the rate using combined 2009 and 2010 (hereafter “2009-2010”) data (4.9 percent). The 2010-2011 rates of nonmedical pain reliever use ranged from 3.6 percent in Iowa to 6.4 percent in Oregon (Table 1). Arkansas,

Colorado, Oregon, and Washington were ranked in the top fifth of States for this measure in age groups 12 to 17, 18 to 25, and 26 or older, as well as for the total population aged 12 or older. Georgia was ranked in the lowest fifth in each of these age groups (Table 2).

Of the 10 States with the highest rates of past year nonmedical pain reliever use within the total population aged 12 or older, 7 were in the West region (Arizona, Colorado, Idaho, Nevada, New Mexico, Oregon, and Washington), 2 were in the South

Table 1. Nonmedical Use of Prescription Pain Relievers in the Past Year among Persons Aged 12 or Older, by Quintile and State: 2010-2011

Quintile and State	Percent	95% Confidence Interval	Quintile and State	Percent	95% Confidence Interval
States with Rates between 5.33 and 6.37			States with Rates between 4.08 and 4.45		
Oregon	6.37	5.25-7.71	Mississippi	4.45	3.67-5.39
Colorado	6.00	4.96-7.24	Alabama	4.43	3.64-5.39
Washington	5.75	4.76-6.92	Connecticut	4.38	3.52-5.45
Idaho	5.73	4.74-6.91	Texas	4.33	3.84-4.89
Indiana	5.68	4.68-6.89	Utah	4.33	3.55-5.27
Arizona	5.66	4.60-6.94	Massachusetts	4.27	3.51-5.19
Nevada	5.62	4.57-6.89	Pennsylvania	4.20	3.72-4.74
Delaware	5.61	4.61-6.82	Nebraska	4.18	3.42-5.10
Arkansas	5.55	4.60-6.68	Maine	4.15	3.37-5.11
New Mexico	5.45	4.47-6.64	New Jersey	4.14	3.39-5.06
States with Rates between 4.80 and 5.32			States with Rates between 3.62 and 4.07		
Alaska	5.32	4.41-6.42	Illinois	4.07	3.58-4.62
Oklahoma	5.19	4.26-6.30	Florida	4.05	3.57-4.59
Rhode Island	5.18	4.26-6.27	North Carolina	4.00	3.23-4.93
Vermont	5.13	4.24-6.19	New York	3.98	3.48-4.56
Michigan	5.11	4.57-5.72	Hawaii	3.90	3.09-4.90
Ohio	5.00	4.49-5.56	Maryland	3.89	3.14-4.81
Tennessee	5.00	4.14-6.02	North Dakota	3.84	3.11-4.73
Louisiana	4.87	4.09-5.80	Georgia	3.79	3.10-4.64
Montana	4.84	4.02-5.80	South Dakota	3.69	2.92-4.65
Missouri	4.83	4.03-5.78	Iowa	3.62	2.92-4.49
States with Rates between 4.46 and 4.79			NOTE: Estimates are shown in rank order so that the distribution and range of estimates can be more easily seen both within and across quintiles. Caution is advised against making statements such as “Oregon’s rate is higher than Colorado’s rate” or other similar statements as the difference between the rates may not be statistically significant. No significance tests were conducted between any two States.		
West Virginia	4.79	3.97-5.75	Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2010 (Revised March 2012) and 2011.		
California	4.68	4.13-5.30			
District of Columbia	4.68	3.79-5.76			
Wyoming	4.68	3.85-5.68			
South Carolina	4.62	3.81-5.59			
Virginia	4.60	3.79-5.58			
Minnesota	4.57	3.79-5.49			
New Hampshire	4.57	3.77-5.53			
Kansas	4.56	3.77-5.50			
Wisconsin	4.51	3.68-5.52			
Kentucky	4.48	3.70-5.41			

Table 2. Nonmedical Use of Prescription Pain Relievers in the Past Year among Persons Aged 12 or Older, by Age Group and State: 2009-2010 and 2010-2011

State	12 or Older		12 to 17		18 to 25		26 or Older	
	2009-2010	2010-2011	2009-2010	2010-2011	2009-2010	2010-2011	2009-2010	2010-2011
Total United States	4.89^a	4.57	6.43^a	6.09	11.54^a	10.43	3.53	3.37
Alabama	4.62	4.43	7.29	6.56	11.08	10.09	3.18	3.18
Alaska	5.41	5.32	6.71	6.89	11.36	10.69	4.05	4.06
Arizona	6.31 ^b	5.66	7.58	8.04	12.68	11.49	5.07	4.36
Arkansas	5.51	5.55	7.48	7.81	12.39	12.89	4.13	4.02
California	4.95	4.68	6.61	6.06	9.68	9.35	3.82	3.62
Colorado	6.23	6.00	7.23	7.40	13.51	14.01	4.86	4.44
Connecticut	4.12	4.38	5.00	4.70	11.08	10.73	2.88	3.32
Delaware	5.56	5.61	6.19	5.95	13.70	14.26	4.14	4.13
District of Columbia	4.29	4.68	4.67	4.23	8.23	8.35	3.39	3.88
Florida	4.37	4.05	6.00	5.50	9.76 ^a	8.59	3.38	3.21
Georgia	4.27 ^b	3.79	6.04	5.37	10.47 ^b	8.76	2.95	2.70
Hawaii	4.22	3.90	5.35	5.69	9.25	8.19	3.30	3.04
Idaho	6.09	5.73	7.52	7.15	13.20	11.98	4.59	4.37
Illinois	3.94	4.07	5.47	5.16	10.04	10.19	2.64	2.86
Indiana	5.73	5.68	7.57	6.97	14.75	14.41	3.93	3.97
Iowa	3.69	3.62	6.41	5.81	9.10	9.12	2.39	2.37
Kansas	4.71	4.56	6.81	6.23	11.15	10.25	3.20	3.26
Kentucky	5.36 ^a	4.48	7.54	6.67	13.67 ^a	10.82	3.78 ^b	3.17
Louisiana	5.67 ^a	4.87	6.39	6.46	13.93 ^a	11.60	4.00	3.40
Maine	4.51	4.15	6.01	5.72	13.81 ^a	11.29	3.03	2.96
Maryland	4.23	3.89	5.80 ^a	4.63	10.17	9.13	3.03	2.93
Massachusetts	5.07 ^a	4.27	5.61	4.94	13.12 ^a	10.65	3.58	3.07
Michigan	5.53 ^b	5.11	6.40	6.35	13.41 ^a	11.74	4.06	3.81
Minnesota	4.09	4.57	5.73	6.20	10.79	11.34	2.74	3.23
Mississippi	5.10 ^a	4.45	8.52 ^a	6.86	11.06	9.59	3.51	3.16
Missouri	5.13	4.83	6.77	6.77	13.22	11.74	3.57	3.41
Montana	5.07	4.84	7.09	7.62	12.31 ^b	10.68	3.58	3.51
Nebraska	3.91	4.18	5.61	5.11	9.38	9.24	2.64	3.12
Nevada	5.96	5.62	7.74	7.79	13.22	11.94	4.62	4.34
New Hampshire	5.38 ^a	4.57	6.20	6.11	14.90 ^a	12.31	3.78	3.16
New Jersey	4.15	4.14	4.95	5.14	11.97	11.00	2.85	2.98
New Mexico	5.78	5.45	8.29	8.60	11.17	11.22	4.47	4.02
New York	4.45 ^a	3.98	5.26	4.70	11.55 ^a	8.90	3.09	3.04
North Carolina	4.54 ^b	4.00	6.89	6.28	10.58 ^b	8.96	3.25	2.89
North Dakota	4.11	3.84	6.66 ^b	5.54	9.05	7.84	2.66	2.74
Ohio	5.48 ^a	5.00	7.62	7.12	13.59 ^a	11.84	3.89	3.61
Oklahoma	7.01 ^a	5.19	7.94	7.04	15.65 ^a	11.11	5.30 ^a	3.86
Oregon	6.68	6.37	7.86	7.36	14.71	15.00	5.26	4.86
Pennsylvania	4.40	4.20	5.75	6.00	11.55	10.80	3.07	2.90
Rhode Island	5.93 ^a	5.18	6.29	5.33	14.64 ^a	12.30	4.24	3.80
South Carolina	5.06	4.62	6.06	5.94	12.30 ^b	10.67	3.74	3.44
South Dakota	3.64	3.69	6.08	5.55	8.48	7.78	2.45	2.72
Tennessee	4.44 ^b	5.00	6.19	6.94	11.90	13.07	3.05	3.46
Texas	4.62	4.33	6.10	6.03	10.60 ^a	9.21	3.26	3.16
Utah	4.92 ^b	4.33	6.57	5.62	10.31 ^a	8.23	3.31	3.18
Vermont	4.85	5.13	6.00	6.47	13.34	13.00	3.26	3.59
Virginia	5.13 ^b	4.60	6.97	5.95	12.48	11.39	3.62	3.25
Washington	6.20	5.75	7.48	7.44	14.44	13.40	4.70	4.28
West Virginia	5.61 ^a	4.79	7.25	7.21	14.39 ^a	12.35	4.11 ^b	3.38
Wisconsin	4.56	4.51	7.12	6.09	11.64	10.55	3.01	3.27
Wyoming	4.56	4.68	7.05	6.60	10.61	9.89	3.15	3.51

^a Difference between the 2009-2010 estimate and the 2010-2011 estimate is statistically significant at the .05 level.

^b Difference between the 2009-2010 estimate and the 2010-2011 estimate is statistically significant at the .10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2009, 2010 (Revised March 2012), and 2011.

(Arkansas and Delaware), and 1 was in the Midwest (Indiana).⁷ Of the States with the lowest rates of past year nonmedical pain reliever, 4 were in the Midwest region (Illinois, Iowa, North Dakota, and South Dakota), 1 was in the Northeast (New York), 4 were in the South (Florida, Georgia, Maryland, and North Carolina), and 1 was in the West (Hawaii).

Changes over Time

The national rate for the total population declined between 2009-2010 and 2010-2011 (from 4.9 to 4.6 percent).⁸ This rate also decreased nationally among persons aged 12 to 17 (from 6.4 to 6.1 percent), and among those 18 to 25 (from 11.5 to 10.4 percent); however, the rate remained unchanged for persons aged 26 or older. Between 2009-2010 and 2010-2011, past year nonmedical use of pain relievers among persons aged 12 or older decreased in Kentucky, Louisiana, Massachusetts, Mississippi, New Hampshire, New York, Ohio, Oklahoma, Rhode Island, and West Virginia. Among 12 to 17 year olds, Maryland's and Mississippi's rates decreased between these time periods (from 5.8 to 4.6 percent and from 8.5 to 6.9 percent, respectively). Among persons aged 18 to 25, the rates of past year nonmedical use of pain relievers declined in 14 States (Florida, Kentucky, Louisiana, Maine, Massachusetts, Michigan, New Hampshire, New York, Ohio, Oklahoma, Rhode Island, Texas, Utah, and West Virginia). Among persons aged 26 or older, Oklahoma's rate decreased from 5.3 to 3.9 percent. There were no other changes at the State level in any of the age groups.

Availability of Additional Tables and Information

Complete 2010-2011 NSDUH State results will be available online at <http://www.samhsa.gov/data/NSDUH/2k11State/NSDUHsae2011/Index.aspx>. In addition to nonmedical use of pain relievers included in this short report, estimates for 24 other measures of substance use and mental health problems will be available, including use of illicit drugs, alcohol, and tobacco; substance dependence or abuse; serious mental illness; depression; and suicidal thoughts. National maps for all 25 measures and detailed tables including percentages for each State, census region, and the Nation by age will also be provided. In 2013, additional detailed tables for the 25 measures will be released, including comparisons of the 2009-2010 and the 2002-2003 State estimates to the 2010-2011 estimates by age for each State, census region, and the Nation.

Discussion

Nonmedical use of prescription pain relievers is a health concern for the citizens of every State and the District of Columbia. Data in this issue of *The NSDUH Report* highlight that use of these substances varies between States. These findings suggest that efforts to reduce the nonmedical use of pain relievers have resulted in some progress, although this progress has not been uniform across all States. Highlighting the prevalence of the nonmedical use of pain relievers in each State, as well as monitoring changes, will help State and Federal policymakers to refine and focus substance abuse prevention and treatment strategies designed to reduce the burden of pain reliever misuse on the Nation's health and health care system.

End Notes

1. National Drug Intelligence Center. (2011, August). *National drug threat assessment 2011* (Product No. 2011-Q0317-001). Johnstown, PA: Author. Retrieved from <http://www.justice.gov/archive/ndic/>
2. Center for Behavioral Health Statistics and Quality. (2012). *Results from the 2011 National Survey on Drug Use and Health: Summary of national findings* (NSDUH Series H-44, HHS Publication No. SMA 12-4713). Rockville, MD: Substance Abuse and Mental Health Services Administration. The approximate number of persons (22 million) initiating nonmedical pain reliever use since 2002 can be determined directly from the Table 7.36A in the detailed tables supporting the 2011 summary of national findings (<http://www.samhsa.gov/data/NSDUH/2011SummNatFindDetTables/NSDUH-DetTabsPDFWHTML2011/2k11DetailedTabs/Web/HTML/NSDUH-DetTabsSect7peTabs1to45-2011.htm#Tab7.36A>).
3. Respondents were shown a “pill card” displaying the names and color photographs of specific pain relievers and asked to indicate which, if any, they had ever used without a doctor’s prescription or simply for the feeling of experience the drug caused. The following drugs were listed on the pain relievers pill card: (1) Darvocet-N®, Darvon®, or Tylenol® with codeine; (2) Percocet®, Percodan®, or Tylox®; and (3) Vicodin®, Lortab®, or Lorcet®/Lorcet Plus®. Additional drugs were (4) codeine; (5) Demerol®; (6) Dilaudid®; (7) Fioricet®; (8) Fiorinal®; (9) hydrocodone; (10) methadone; (11) morphine; (12) OxyContin®; (13) Phenaphen® with codeine; (14) propoxyphene; (15) SK-65®; (16) Stadol® (no picture); (17) Talacen®; (18) Talwin®; (19) Talwin® NX; (20) tramadol; and (21) Ultram®. The “pill card” used is at <http://www.samhsa.gov/data/2k12/NSDUH2009MRB/Volume%20I/2k9Pillcards.pdf>. Respondents also were asked about their nonmedical use of any other pain relievers not included in this list and were asked to specify the names of the drugs that they used nonmedically.
4. All estimates in this report are based on a small area estimation (SAE) methodology in which State-level NSDUH data are combined with local-area county and census block group/tract-level data from

the State. This model-based methodology provides more precise estimates of substance use and mental disorders at the State level than those based solely on the sample, particularly for smaller States. The precision of the SAE estimates, particularly for States with smaller sample sizes, can be improved significantly by combining data across 2 years (i.e., 2010 to 2011).

5. The data for this report along with other measures of substance use and mental disorders will be available at <http://www.samhsa.gov/data/NSDUH/2k11State/NSDUHsae2011/Index.aspx>. Additional tables, including those comparing 2009-2010 with 2010-2011 estimates, will be posted to this Web page in early 2013.
6. Estimates were divided into quintiles for ease of presentation and discussion, but differences between States and quintiles were not tested for statistical significance. In some instances, more than 10 or fewer than 10 States were assigned to each quintile because of ties in the estimated prevalence rates.
7. The West has 13 States: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, and WY. The South has 16 States plus the District of Columbia: AL, AR, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, and WV. The Northeast has 9 States: CT, MA, ME, NH, NJ, NY, PA, RI, and VT. The Midwest has 12 States: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, and WI.
8. All changes discussed in this report are statistically significant at the .05 level. Table 2 also show changes that are statistically significant at the .10 level (defined here as a level greater than .05 but less than or equal to .10) to highlight other possible changes that may be of interest despite not quite reaching statistical significance.

Suggested Citation

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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 survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence.

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 publication:

Center for Behavioral Health Statistics and Quality. (2012). *Results from the 2011 National Survey on Drug Use and Health: Summary of national findings* (HHS Publication No. SMA 12-4713, NSDUH Series H-44). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Also available online: <http://www.samhsa.gov/data/NSDUH.aspx>.



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