

The NSDUH Report

June 19, 2008

Nonmedical Use of Pain Relievers in Substate Regions: 2004 to 2006

Misuse of prescription drugs is second only to marijuana as the nation's most prevalent drug problem, and the annual average number of people using pain relievers nonmedically for the first time in the

past 12 months has exceeded the number of new marijuana users since 2002.¹ Accordingly, misuse of prescription pain relievers has been cited as a growing public health problem.^{2,3} Data on geographic variation in the nonmedical use of pain relievers (as well as other drugs) is important for developing targeted prevention and treatment programs. Previous research has shown that nonmedical use of pain relievers varies across States.¹ A new Substance Abuse and Mental Health Services Administration (SAMHSA) report provides data on substance use within smaller geographic areas within States. Data in this issue of *The NSDUH Report* highlight substate estimates of the nonmedical use of prescription pain relievers. They were extracted from a larger report entitled *Substate Estimates from the 2004-2006 National Surveys on Drug Use and Health*.⁴

The National Survey on Drug Use and Health (NSDUH) asks persons aged 12 or older questions related to their use of nonmedical pain relievers during the past year.⁵ Nonmedical use is defined as the use of prescription-type drugs not prescribed for the respondent by a physician or used only for the experience or feeling they

In Brief

- Data from the 2004 to 2006 NSDUHs indicate that past year nonmedical use of pain relievers ranged from a low of 2.48 percent in a ward of the District of Columbia to a high of 7.92 percent in northwest Florida
- Of the 15 substate regions with the highest rates of nonmedical use of pain relievers, 10 were in southern States and 5 substate regions were in States in the West
- Of the 15 substate regions with the lowest rates of nonmedical use of pain relievers, 7 substate regions were in southern States, 4 substate regions were in midwestern States, 3 substate regions were in northeastern States, and 1 substate region was in a western State

caused; over-the-counter drugs are not included. Findings in this report are based on combined 2004 to 2006 NSDUH data and present estimates of past year nonmedical use of pain relievers for 345 substate regions within the 50 States and the District of Columbia.

Methodology

Estimates presented in this report and the full report are derived from a hierarchical Bayes model-based small area estimation (SAE) procedure in which NSDUH data at the substate level are combined with local-area county and census block group/tract-level data from the area to provide more precise estimates of substance use. The same methodology is used to produce State estimates from NSDUH.

Substate regions were defined collaboratively by staff at SAMHSA and State substance abuse treatment representatives. The State officials made the final decisions on the geographic boundaries.

In most States, the substate regions are defined in terms of counties or groups of counties; in some States, the regions are defined in terms of census tracts. For each of the 23 measures presented in the complete report, estimates for the substate regions were ranked from lowest to highest and grouped into 7 categories.⁶ With 3 years of NSDUH combined, the sample sizes in the substate regions ranged from a minimum of 200 persons to a high of more than 4,000 persons.⁷

Nonmedical Use of Pain Relievers at the Substate Level

Nationally, 4.9 percent of all persons aged 12 or older had used pain relievers nonmedically in the past year. Estimates ranged from 2.48 percent in Ward 7 of the District of Columbia⁸ to 7.92 percent in Circuit 1 in northwest Florida⁹ (Figure 1). Of the 15 substate regions with the highest rates of nonmedical use of pain relievers, 10 substate regions were in southern States (Arkansas, Florida, Kentucky, Louisiana, Oklahoma, Tennessee, and West Virginia) and 5 substate regions were in States in the West (Idaho, Montana, Utah, and Washington). Oklahoma, Tennessee, Utah, and West Virginia all had more than 1 of their substate regions in the top 15.

Of the 15 substate regions with the lowest rates of nonmedical use of pain relievers, 7 substate regions were in southern States (District of Columbia and

Maryland), 4 substate regions were in midwestern States (South Dakota and Iowa), 3 substate regions were in northeastern States (Pennsylvania and New Jersey), and 1 substate region was in a western State (Hawaii). The District of Columbia, South Dakota, Pennsylvania, and Maryland all had more than 1 of their substate regions in the bottom 15.

Complete Report

The full report with estimates for 23 measures of substance use and mental health problems is available online at <http://oas.samhsa.gov/substate.cfm>. In addition to nonmedical use of pain relievers, estimates are presented for 22 other measures of substance use and mental health problems among persons aged 12 or older, including alcohol use, illicit drug use, tobacco use, substance dependence or abuse, needing but not receiving treatment, and serious psychological distress. National maps for all measures for the 345 substate regions, detailed tables for the substate regions, and definitions and population counts for the substate regions also are provided. The complete report gives a detailed description of the methodology used to generate the model-based estimates.

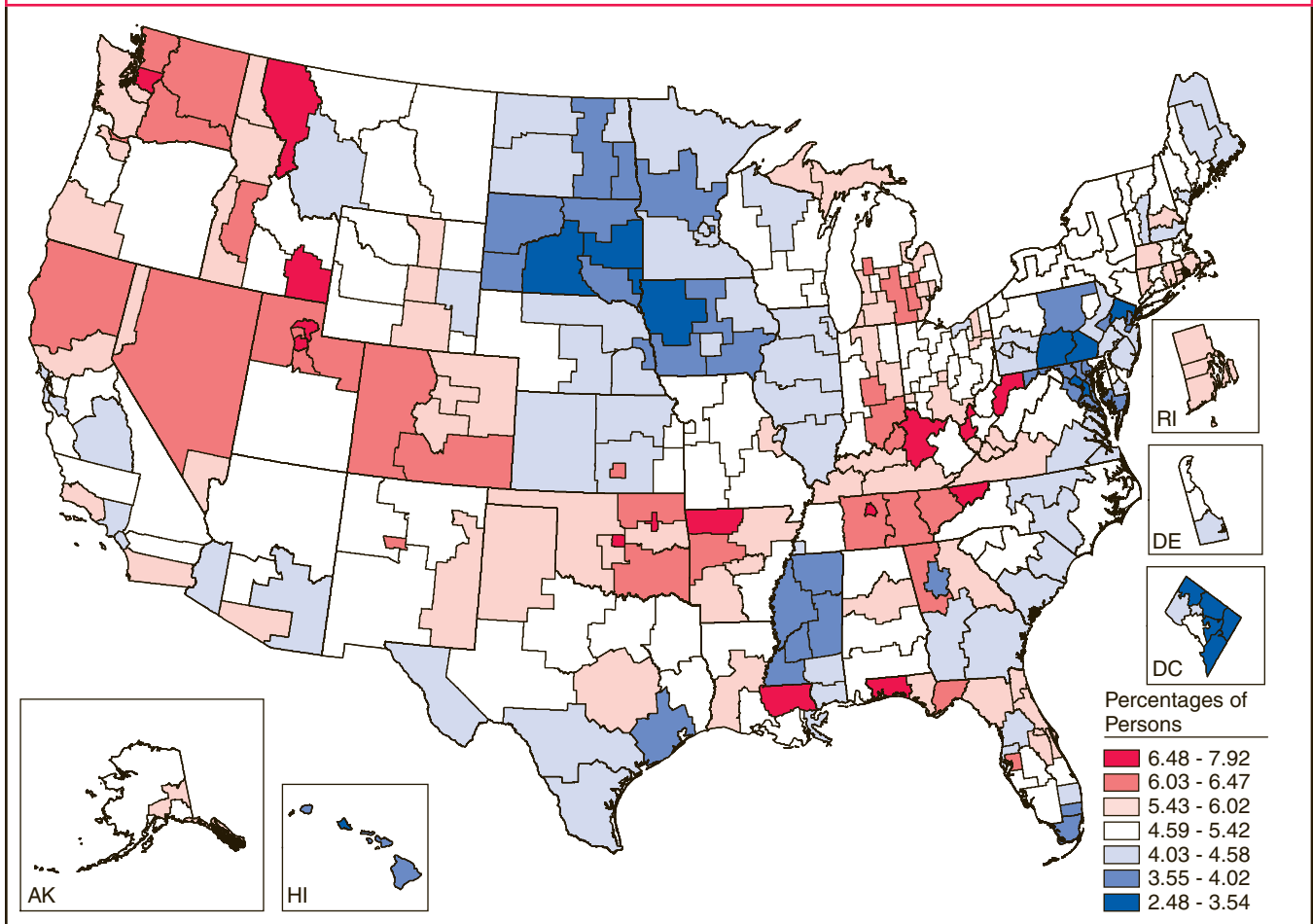
Importance

Data in this *NSDUH Report* and in the full report highlight that substance use varies between and within States. These data can be used to refine and focus substance abuse prevention and treatment strategies and to help States effectively allocate funds for prevention and treatment programs.

End Notes

- 1 Colliver, J. D., Kroutil, L. A., Dai, L., & Gfroerer, J. C. (2006). *Misuse of prescription drugs: Data from the 2002, 2003, and 2004 National Surveys on Drug Use and Health* (DHHS Publication No. SMA 06-4192, Analytic Series A-28). Rockville, MD: Substance Abuse and Mental Health Services Administration.
- 2 National Drug Intelligence Center. (2006, January). *National drug threat assessment 2006* (Report No. 2006-Q0317-001). Johnstown, PA: Author. [Available at <http://www.usdoj.gov/ndic/pubs11/18862/index.htm>]
- 3 Compton, W. M., & Volkow, N. D. (2006). Major increases in opioid analgesic abuse in the United States: Concerns and strategies. *Drug and Alcohol Dependence, 81*, 103-107.
- 4 Office of Applied Studies. (2008). *Substate estimates from the 2004-2006 National Surveys on Drug Use and Health*. Rockville, MD: Substance Abuse and Mental Health Services Administration. [Available at <http://oas.samhsa.gov/substate.cfm>]
- 5 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

Figure 1. Nonmedical Use of Pain Relievers in the Past Year among Persons Aged 12 or Older, by Substate Region*: Percentages, Annual Averages Based on 2004, 2005, and 2006 NSDUHs



Source: SAMHSA, 2004, 2005, and 2006 NSDUHs.

relievers pill card: (1) Darvocet®, 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 (no picture); and (21) Ultram®. 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.

⁶ In the national maps, the third of the substate regions with the lowest prevalence rates are presented in blue (ranging from dark to light blue), the middle third of the regions in white, and the highest third of the regions in red (ranging from light to dark red). The darkest shades represent the 15 regions with the lowest (dark blue) and highest (dark red) prevalence rates. The medium shades represent the next 30 lowest and highest regions, and the light shades designate the next 65 lowest and highest regions.

⁷ Because the estimates in this report are derived from a Bayes hierarchical model that uses sample data, they are subject to both sampling variability and model bias; consequently, some variation in estimates and the resulting rankings could be expected with different samples. The tables in the full report, referenced in end note 4, display prediction intervals reflecting the combined effects of variability from both sources. For example, the estimate of 7.92 percent using pain relievers nonmedically in Florida's Circuit 1 has a 95 percent

prediction interval from 6.05 to 10.29 percent. This means that it can be inferred with 95 percent confidence that the true percentage for that region lies within the range from 6.05 to 10.29 percent.

⁸ The District of Columbia's Ward 7 includes census tracts primarily in the eastern part of the District of Columbia; it should be noted that Ward 7 includes nonadjacent tracts.

⁹ Florida's Circuit 1 includes the counties of Escambia, Okaloosa, Santa Rosa, and Walton.

Figure Note

* For definitions of substate regions, see Section D of the report on *Substate Estimates from the 2004-2006 National Surveys on Drug Use and Health*, available at <http://oas.samhsa.gov/substate.cfm>.

Suggested Citation

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Research findings from the SAMHSA 2004, 2005, and 2006 National Surveys on Drug Use and Health (NSDUHs)

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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 2004 to 2006 data used in this report are based on information obtained from 203,870 persons aged 12 or older. 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 Office of Applied Studies (OAS), 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:

Office of Applied Studies. (2007). *Results from the 2006 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 07-4293, NSDUH Series H-32). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Information for earlier NSDUHs is available in the following publications:

2005 NSDUH: (DHHS Publication No. SMA 06-4194, NSDUH Series H-30)

2004 NSDUH: (DHHS Publication No. SMA 05-4062, NSDUH Series H-28)

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

Because of improvements and modifications to the 2002 NSDUH, estimates from the 2002 through 2006 surveys should not be compared with estimates from the 2001 or earlier versions of the survey to examine changes over time.



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