

# The NSDUH Report

February 9, 2007

## Cigarette Use among Pregnant Women and Recent Mothers

The Surgeon General's 2004 report on the health consequences of smoking indicates that smoking during pregnancy increases the risk of premature

delivery, low-birth-weight infants, and still-birth.<sup>1</sup> The same report cites studies suggesting that women who stop smoking by the first trimester give birth to infants with weight and body measurements comparable with those of infants of nonsmokers. Other studies cited by the Surgeon General suggest that smoking in the third trimester is particularly harmful. However, there are also health consequences associated with smoking after pregnancy. Children of parents who smoke are at an increased risk for respiratory illnesses, asthma, middle ear disease, and decreased lung function.<sup>2</sup>

The National Survey on Drug Use and Health (NSDUH) asks female respondents aged 12 to 44 whether they are currently pregnant and how many months pregnant they are. NSDUH also asks respondents about their past month use of cigarettes. This report examines cigarette use among three categories of women aged 15 to 44: (1) pregnant women, (2) recent mothers, and (3) women who were not pregnant and not recent mothers.<sup>3</sup> Pregnant women are defined as women who were pregnant at the time of the survey. Recent mothers are defined as women aged 15 to 44 who were not pregnant at the time of the survey but who gave birth during the prior year. Nonpregnant,

### In Brief

- In 2002-2005 among women aged 15 to 44, pregnant women (17.3 percent) and recent mothers (23.8 percent) were less likely to have smoked cigarettes in the past month than nonpregnant women who were not recent mothers (30.6 percent)
- Among pregnant women, recent mothers, and nonpregnant women who were not recent mothers, those with annual family incomes of less than \$20,000 were more likely than those with higher family incomes to have smoked cigarettes in the past month
- Pregnant women aged 15 to 44 were more likely to have smoked cigarettes during their first trimester (22.9 percent) than during their second (14.3 percent) or third (15.3 percent) trimesters

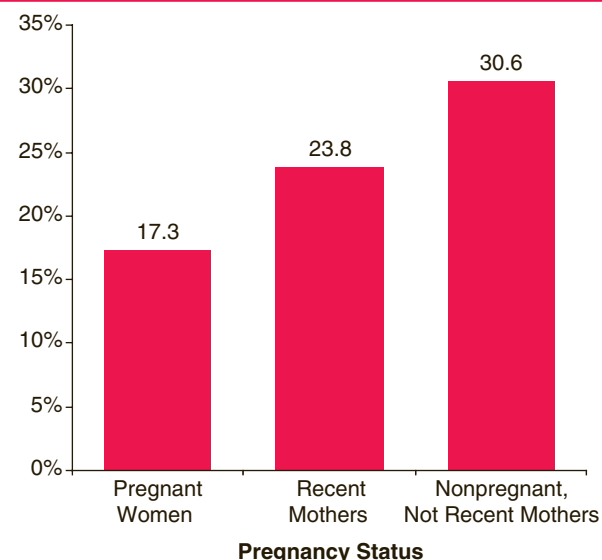
not recent mothers are defined as women aged 15 to 44 who were not pregnant at the time of the interview and who did not have a biological child under 1 year old in the household. All findings presented in this report are annual averages based on combined 2002 to 2005 NSDUH data.

## Prevalence of Cigarette Use

In 2002-2005 among women aged 15 to 44, pregnant women (17.3 percent) and recent mothers (23.8 percent) were less likely to have smoked cigarettes in the past month than nonpregnant women who were not recent mothers (30.6 percent) (Figure 1). Additionally, pregnant women were less likely than recent mothers to have smoked cigarettes in the past month. These data suggest a reduction in past month smoking during pregnancy and resumption in smoking after giving birth.

In each category of women aged 15 to 44, the majority of those who smoked cigarettes during the past month smoked daily. Among past month smokers, 64.6 percent of recent mothers, 62.2 percent of pregnant women, and 60.2 percent of nonpregnant women who were not recent mothers smoked every day of the month.

**Figure 1. Past Month Cigarette Use among Women Aged 15 to 44, by Pregnancy Status\*: 2002-2005**



Source: SAMHSA, 2002, 2003, 2004, and 2005 NSDUHs.

## Past Month Cigarette Use, by Demographic Characteristics

Pregnant women aged 15 to 17 (24.3 percent) and those aged 18 to 25 (27.1 percent) were more likely than those aged 26 to 44 (10.6 percent) to have smoked cigarettes in the past month (Table 1). This is also true for recent mothers, with 33.4 percent of those aged 15 to 17, 37.3 percent of those aged 18 to 25, and 15.9 percent of those aged 26 to 44 smoking in the past month. However, among nonpregnant women who were not recent mothers, women aged 18 to 25 were more likely than women aged 15 to 17 or those aged 26 to 44 to have smoked in the past month.

In each of the three categories, white women were more likely than black or Hispanic women to have smoked cigarettes in the past month, and women with annual family incomes of less than \$20,000 were more likely than those with higher family incomes to have done so.

## Prevalence of Cigarette Use, by Trimester

Pregnant women aged 15 to 44 were more likely to have smoked cigarettes

**Table 1. Past Month Cigarette Use among Women Aged 15 to 44, by Pregnancy Status\* and Demographic Characteristics: 2002-2005**

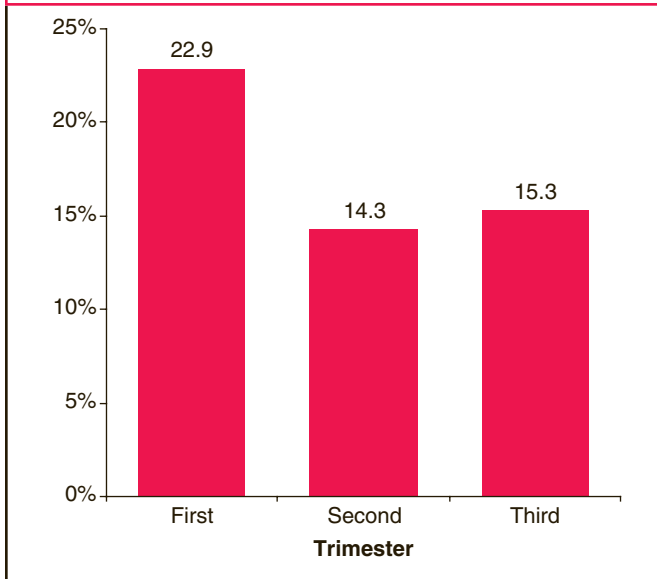
Demographic Characteristic	Pregnancy Status					
	Pregnant		Recent Mothers		Nonpregnant, Not Recent Mothers	
	Percent	SE	Percent	SE	Percent	SE
<b>Age in Years</b>						
15-17	24.3	3.02	33.4	3.59	19.4	0.36
18-25	27.1	1.06	37.3	1.00	36.4	0.35
26-44	10.6	1.15	15.9	1.04	30.2	0.39
<b>Race/Ethnicity**</b>						
White	23.2	1.23	28.4	1.03	35.4	0.33
Black	12.3	1.55	22.3	2.07	24.6	0.71
Hispanic	7.0	1.16	13.4	1.55	20.4	0.65
<b>Income</b>						
Less Than \$20,000	28.8	1.68	37.5	1.74	39.3	0.58
\$20,000-\$49,999	17.9	1.34	26.9	1.29	33.3	0.43
\$50,000-\$74,999	13.5	1.92	15.2	1.53	27.3	0.61
\$75,000 or Higher	5.9	1.12	10.6	1.28	20.9	0.48
<i>SE = Standard Error</i>						

Source: SAMHSA, 2002, 2003, 2004, and 2005 NSDUHs.

during their first trimester (22.9 percent) than during their second (14.3 percent) or third (15.3 percent) trimesters (Figure 2).<sup>4</sup> In the first trimester of pregnancy, women aged 18 to 25 were more likely than those aged 26 to 44 to have smoked cigarettes in

the past month (Table 2). During the second trimester, women aged 15 to 17 and women aged 18 to 25 were more likely than those aged 26 to 44 to have smoked cigarettes in the past month. However, during the third trimester, past month cigarette use was similar

**Figure 2. Past Month Cigarette Use among Pregnant Women\* Aged 15 to 44, by Trimester\*\*\*: 2002-2005**



Source: SAMHSA, 2002, 2003, 2004, and 2005 NSDUHs.

among pregnant women aged 15 to 17 (13.1 percent) and those aged 26 to 44 (10.3 percent), while those aged 18 to 25 (23.9 percent) had the highest rate of past month cigarette use.

White women who were pregnant were more likely to have smoked cigarettes during each trimester than pregnant women who were black or Hispanic. Past month cigarette use by trimester generally declined with higher income. For example, 26.3 percent of pregnant women with annual family incomes of less than \$20,000 smoked cigarettes during the third trimester of pregnancy compared with 3.9 percent of pregnant women with annual incomes of \$75,000 or more. Among women aged 18 to 44, pregnant women with a college education were less likely to have smoked cigarettes during each trimester than pregnant women with less education.

**End Notes**

<sup>1</sup> U.S. Department of Health and Human Services. (2004). *The health consequences of smoking: A report of the Surgeon General*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. [Available at [http://www.cdc.gov/tobacco/sgr/sgr\\_2004/index.htm](http://www.cdc.gov/tobacco/sgr/sgr_2004/index.htm)]

<sup>2</sup> U.S. Department of Health and Human Services. (2006). *The health consequences of involuntary exposure to tobacco smoke*. Atlanta, GA: Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. [Available at <http://www.surgeongeneral.gov/library/secondhandsmoke/report/>]

<sup>3</sup> Except for women who had been pregnant for less than 1 month, the information on past month cigarette use indicates past month use during pregnancy. However, these estimates are conservative and represent a lower bound estimate of the rate of any cigarette use at any time during pregnancy. The estimates of past month cigarette use are for those women who were pregnant at the time of the survey, not for all women who were pregnant from 2002 to 2005. Past year use among women aged 15 to 44 who were pregnant at the time of the survey (29.4 percent) represents the upper bound estimate of cigarette use during pregnancy.

<sup>4</sup> Pregnant women aged 15 to 44 not reporting trimester data were excluded from analyses.

**Table 2. Cigarette Use in the Past Month among Pregnant Women\* Aged 15 to 44, by Trimester\*\*\* and Demographic Characteristics: 2002-2005**

Demographic Characteristic	Trimester					
	First		Second		Third	
	Percent	SE	Percent	SE	Percent	SE
<b>Age in Years</b>						
15-17	+	+	25.5	5.03	13.1	3.89
18-25	33.9	2.09	24.2	1.65	23.9	1.74
26-44	14.9	2.25	7.0	1.42	10.3	2.05
<b>Race/Ethnicity**</b>						
White	29.6	2.34	18.5	1.61	22.0	2.23
Black	18.0	3.25	9.8	2.29	9.6	2.67
Hispanic	11.9	3.08	6.2	1.87	4.2	1.24
<b>Education Status**</b>						
Less Than High School	34.1	3.91	24.9	2.84	25.7	3.90
High School Graduate	29.7	3.56	22.2	2.60	22.1	2.94
Some College	28.8	4.07	9.2	1.99	15.5	2.95
College Graduate	6.2	1.79	1.9	1.00	1.1	0.72
<b>Income</b>						
Less Than \$20,000	34.7	3.09	25.7	2.55	26.3	3.05
\$20,000-\$49,999	24.1	2.73	14.8	1.78	16.1	2.42
\$50,000-\$74,999	22.0	4.19	8.7	2.33	11.0	3.54
\$75,000 or Higher	9.8	2.25	4.5	1.90	3.9	1.33
<i>SE = Standard Error</i>						

Source: SAMHSA, 2002, 2003, 2004, and 2005 NSDUHs.

**Figure and Table Notes**

\* Pregnant women are defined as women aged 15 to 44 who were pregnant at the time of the survey. Recent mothers are defined as women aged 15 to 44 who were not pregnant at the time of the survey but who gave birth during the prior year. Nonpregnant, not recent mothers are defined as women aged 15 to 44 who were not pregnant at the time of the interview and who did not have a biological child under 1 year old in the household.

\*\* The estimates for American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and Asian respondents are not shown because of small sample sizes.

\*\*\* Pregnant women aged 15 to 44 not reporting trimester data were excluded from analyses.

+ Low precision; no estimate reported.

\*\* Education status includes only females aged 18 to 44.

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Research findings from the SAMHSA 2002-2005 National Surveys on Drug Use and Health (NSDUHs)

## Cigarette Use among Pregnant Women and Recent Mothers

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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). Prior to 2002, this survey was called the National Household Survey on Drug Abuse (NHSDA). The 2002, 2003, 2004, and 2005 data used in this report are based on information obtained from 97,628 women aged 15 to 44, including 4,394 pregnant women, 6,245 recent mothers, and 86,989 nonpregnant women who were not recent mothers. 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 NSDUH used in compiling data for this report is available in the following publications:

Office of Applied Studies. (2006). *Results from the 2005 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 06-4194, NSDUH Series H-30). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2005). *Results from the 2004 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 05-4062, NSDUH Series H-28). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2004). *Results from the 2003 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 04-3964, NSDUH Series H-25). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of Applied Studies. (2003). *Results from the 2002 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 03-3836, NSDUH Series H-22). Rockville, MD: Substance Abuse and Mental Health Services Administration.

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

Because of improvements and modifications to the 2002 NSDUH, estimates from the 2002, 2003, 2004, and 2005 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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