

## Cigarette Smoking Among Adults—United States, 1988

In 1964, the first Surgeon General's report on smoking focused on the health hazards associated with cigarette smoking [1]. From 1965 through 1987, the overall prevalence of cigarette smoking among adults in the United States declined by approximately 0.5 percentage points per year [1,2]. To determine the prevalence of smoking among adults in the United States in 1988, the Occupational Health Supplement (OHS) of CDC's National Health Interview Survey collected information on cigarette smoking from a representative sample of the U.S. civilian, non-institutionalized population aged  $\geq 18$  years.

For 1988, the OHS included the following questions on smoking behavior: 'Have you smoked at least 100 cigarettes in your entire life?' and 'Do you smoke cigarettes now?' Among persons who reported smoking at least 100 cigarettes, current smokers were defined as those who reported being a smoker at the time of the interview, and former smokers, as those who were not current smokers. Both current and former smokers were classified as ever smokers. The proportion of persons who had stopped smoking was defined as the number of former smokers divided by the number of ever smokers. Current smokers were asked, 'On the average, about how many cigarettes a day do you smoke?' Data were available on cigarette smoking status for approximately 44 000 persons aged  $\geq 18$  years and were weighted to provide national estimates. Ninety-five percent confidence intervals (CIs) were calculated using SESUDAAN [3].

Based on the survey, in 1988 an estimated 91.1 million (51.9%) adults in the United States were ever smokers, and 49.4 million (28.1%) were current smokers. Current smokers included 30.8% of all men (25.6 million) and 25.7% of all women (23.7 million). In all age groups except 18–24-year-olds, the prevalence of smoking was higher among men than women; smoking was most prevalent among persons 25–64 years of age

(Table 1). The overall prevalence of smoking was higher among blacks (31.7%) than whites (27.8%), and lowest among persons of other races (23.8%). The overall prevalence also was higher among non-Hispanics (28.4%) than Hispanics (23.5%). The prevalence of smoking was highest among persons with less than a high school education (34.0%) and with only a high school education (32.0%) (Table 1).

The prevalence of smoking was significantly higher among separated and divorced persons (42.6% [95% CI = 41.3–44.0%]) than among persons in other marital categories: married (27.4% [95% CI = 26.7–28.1%]), never married (26.5% [95% CI = 25.2–27.7%]), and widowed (19.5% [95% CI = 18.3–20.6%]).

In 1988, 41.8 million (45.8%) ever smokers were former smokers. The proportion of men (49.0% [95% CI = 47.8–50.1%]) who had stopped smoking was higher than that of women (42.0% [95% CI = 40.8–43.1%]), and the proportion of whites (47.6% [95% CI = 46.8–48.4%]) who had stopped smoking was higher than that of blacks (32.4% [95% CI = 30.2–34.6%]). The proportion of Hispanics who had stopped smoking (44.9% [95% CI = 41.7–48.1%]) was similar to that for non-Hispanics (45.9% [95% CI = 45.1–46.7%]). The proportions of adults with less than a high school education who had stopped smoking (41.1% [95% CI = 39.6–42.7%]) and of adult high school graduates who had stopped smoking (41.3% [95% CI = 40.0–42.6%]) were lower than those for persons with some college education (47.7% [95% CI = 46.1–49.3%]) and for college graduates (63.1% [95% CI = 61.3–64.9%]).

Overall, the mean number of cigarettes smoked per day by current smokers in 1988 was 21.3 (Table 2). In general, the mean number of cigarettes smoked by men was higher than the number smoked by women. Whites smoked more cigarettes per day than did blacks and persons of other races, and

**Table 1. Percentage of adults who were current cigarette smokers<sup>a</sup>, by sex, age, race, Hispanic origin, and level of education – United States, 1988.**

Category	Men		Women		Total	
	%	(95% CI) <sup>b</sup>	%	(95% CI)	%	(95% CI)
<b>Age</b>						
18–24	25.5	(23.1–27.8)	26.3	(24.3–28.2)	25.9	(24.3–27.4)
25–44	36.3	(35.1–37.5)	29.7	(28.6–30.8)	32.9	(32.1–33.8)
45–64	31.3	(29.7–32.9)	27.7	(26.3–29.1)	29.4	(28.4–30.4)
65–74	21.4	(19.5–23.4)	16.7	(15.3–18.2)	18.8	(17.6–20.1)
≥ 75	11.4	( 9.0–13.7)	7.3	( 6.2– 8.3)	8.8	( 7.7– 9.8)
<b>Race</b>						
White	30.1	(29.2–31.0)	25.7	(25.0–26.4)	27.8	(27.2–28.4)
Black	36.5	(34.0–38.9)	27.8	(25.9–29.8)	31.7	(30.1–33.2)
Other	31.1	(25.9–36.3)	16.7	(13.7–19.6)	23.8	(20.5–27.1)
<b>Hispanic origin</b>						
Hispanic	29.1	(26.4–31.9)	18.7	(16.8–20.7)	23.5	(22.1–25.0)
Non-Hispanic	30.9	(30.1–31.8)	26.2	(25.4–26.9)	28.4	(27.9–29.0)
<b>Education</b>						
Less than high school diploma	39.9	(38.3–41.5)	28.9	(27.6–30.3)	34.0	(32.9–35.1)
High school diploma	35.4	(34.0–36.8)	29.4	(28.3–30.4)	32.0	(31.1–32.9)
Some college	27.5	(26.0–29.1)	23.5	(22.3–24.8)	25.4	(24.5–26.4)
College degree	16.9	(15.7–18.1)	14.6	(13.3–15.9)	15.9	(15.0–16.7)
<b>Total</b>	<b>30.8</b>	<b>(30.0–31.6)</b>	<b>25.7</b>	<b>(25.0–26.3)</b>	<b>28.1</b>	<b>(27.6–28.6)</b>

<sup>a</sup>Persons ≥ 18 years of age who reported having smoked at least 100 cigarettes and who were currently smoking.

<sup>b</sup>Confidence interval.

non-Hispanics smoked more cigarettes per day than did Hispanics. In 1988, 27.0% (95% CI = 26.0–27.9%) of smokers smoked 25 or more cigarettes per day.

**Editorial Note:** The findings in this report indicate that, from 1987 to 1988, the overall prevalence of smoking among adults ≥ 18 years of age declined from 28.8% [2] to 28.1% — approximately 0.7 percentage points. In addition, in 1988, the proportion of ever smokers who were former smokers was 45.8%, compared with 44.2% in 1987 [4].

The higher rates of cigarette smoking among separated and divorced persons ap-

pear to reflect higher rates of smoking initiation before the usual age of marriage [5]. In addition, separated and divorced persons were less likely to have quit smoking than married persons [5]. Social support provided in marriage may increase the probability of cessation [5], while stress (which has been associated with difficulty in quitting [6]) from marital discord may decrease the likelihood of quitting.

Cigarette smoking is the single most important preventable cause of death in the United States [7]. One of the national health objectives for the year 2000 (objective 3.4) is to reduce the prevalence of cigarette smoking

**Table 2. Mean number of cigarettes smoked daily by current smokers<sup>a</sup>, by sex, age, race, Hispanic origin, and level of education – United States, 1988.**

Category	Men		Women		Total	
	No.	(95% CI)	No.	(95% CI)	No.	(95% CI)
<b>Age (yrs)</b>						
18–24	18.5	(17.2–19.8)	16.9	(15.5–18.2)	17.7	(16.7–18.6)
25–44	23.3	(22.6–24.0)	19.9	(19.3–20.6)	21.7	(21.3–22.2)
45–64	25.2	(24.2–26.2)	20.8	(20.0–21.6)	23.0	(22.4–23.7)
65–74	20.5	(19.0–22.0)	18.4	(17.1–19.8)	19.5	(18.4–20.5)
≥ 75	16.3	(13.6–18.9)	15.4	(12.7–18.1)	15.8	(13.9–17.7)
<b>Race</b>						
White	23.9	(23.3–24.5)	20.2	(19.8–20.7)	22.1	(21.8–22.5)
Black	17.5	(16.1–19.0)	14.7	(13.6–15.8)	16.1	(15.2–17.1)
Other	17.8	(15.1–20.6)	18.5	(13.2–23.8)	18.1	(15.3–20.8)
<b>Hispanic</b>						
Hispanic	16.1	(14.0–18.1)	15.2	(12.4–17.9)	15.7	(14.0–17.3)
Non-Hispanic	23.4	(22.8–23.9)	19.7	(19.3–20.2)	21.6	(21.2–22.0)
<b>Education</b>						
Less than high school diploma	22.9	(22.0–23.8)	20.4	(19.6–21.2)	21.8	(21.2–22.3)
High school diploma	22.8	(22.0–23.6)	19.7	(19.1–20.3)	21.2	(20.7–21.7)
Some college	23.6	(22.2–25.0)	18.9	(17.7–20.0)	21.3	(20.4–22.1)
College degree	22.3	(20.8–23.8)	17.6	(16.3–18.9)	20.4	(19.3–21.4)
<b>Total</b>	<b>22.9</b>	<b>(22.4–23.4)</b>	<b>19.5</b>	<b>(19.1–19.9)</b>	<b>21.3</b>	<b>(20.9–21.6)</b>

<sup>a</sup>Persons ≥ 18 years of age who reported having smoked at least 100 cigarettes and who were currently smoking.

<sup>b</sup>Confidence interval.

among adults to no more than 15% [8]. To achieve this goal, the current rate of decline must be doubled.

Health-care providers and public health agencies must increase efforts to prevent the initiation of smoking and, for smokers, to support attempts to quit and maintain cessation. Persons with less than a high school education and in low socioeconomic groups are at especially high risk for becoming smokers [1,9]. In addition to directing interventions toward these groups, smoking control and prevention efforts will require intensified public health education, increased emphasis on school health education, and enactment and enforcement of effective health-promoting policies and laws.

## References

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## Cigarette Smoking Among Reproductive-Aged Women—Behavioral Risk Factor Surveillance System, 1989

Women who smoke cigarettes are at increased risk not only for chronic diseases (e.g. lung cancer and chronic obstructive pulmonary disease) but—if they use oral contraceptives—also for myocardial infarction [1]. In addition, cigarette smoking during pregnancy increases the risk for low birth weight and premature infants, miscarriage, stillbirth, sudden infant death syndrome, and infant mortality [2]. Because of these risks and other health problems associated with cigarette smoking, one of the national health objectives for the year 2000 is to reduce the prevalence of smoking to 12% among reproductive-aged women (18–44 years of age) [3]. This report summarizes data from the 1989 Behavioral Risk Factor Surveillance System (BRFSS) on the prevalence of smoking among reproductive-aged women.

In 1989, health departments in 39 participating states and the District of Columbia used a standard questionnaire to conduct telephone interviews of adults aged  $\geq 18$  years [4]. Current smokers were defined as persons who had smoked at least 100 cigarettes and who reported being a smoker at the time of the interview. Individual responses were weighted to provide estimates representative of the adult population of each participating state. To compare smoking prevalences between states, weighted state-specific prevalences were standardized for the distribution of the 1980 US population by age, race, and educational level. Smoking prevalences for

sub groups (age, race, educational level, and pregnancy status) were standardized by adjusting for the other variables.

In 1989, weighted crude prevalences of cigarette smoking among reproductive-aged women varied from 17% in Utah to 32% in Kentucky and Rhode Island (median: 26.5%) (Table 1). Standardized smoking prevalences ranged from 21% in Texas to 37% in Wisconsin. In general, standardized smoking prevalences were highest in the midwestern states and lowest in the Rocky Mountain and mid-central states.

Older women and women with less than a high school education were more likely to smoke (Table 2). Pregnant women were less likely than nonpregnant women to smoke. Smoking prevalences did not vary substantially between white and black women, the only racial groups for which rates could be calculated because the numbers of respondents of other racial/ethnic groups were too small to provide stable estimates.

Among reproductive-aged women who smoked, 84% smoked fewer than 25 cigarettes per day (Table 3). Women aged 35–44 years tended to be heavier smokers than younger women. Approximately 44% of all women who were current smokers had attempted to quit smoking (i.e. quitting for at least 1 week) in the previous year. Women aged 35–44 years were substantially less likely than younger women to have attempted quitting.