

TRENDS IN CIGARETTE SMOKING IN THE UNITED STATES

The Epidemiology of Tobacco Use

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Cigarette smoking is now the chief avoidable cause of illness and death in the United States, responsible for one of every five deaths, or 435,000 total deaths, each year in this country (Fig. 1). In 1989, approximately 28% of adult Americans smoked. This is a significant decline from the early 1960s, when approximately 41% of all adults smoked. However, the current smoking prevalence rate of 28% still represents an enormous population of about 50 million American smokers. Moreover, the decline in cigarette smoking over the last 25 years has not been equal across all segments of our population. Young people, women, and blacks are lagging behind other groups in their rates of decline. This article reviews current trends in cigarette smoking, including rates of smoking initiation and cessation, and makes predictions for smoking rates in the United States through the year 2000.

THE HISTORY OF TOBACCO USE IN THE UNITED STATES

Although tobacco products have been consumed in the United States for many centuries, cigarette smoking was an uncommon behavior at the beginning of this century. In 1900, approximately 7 pounds of tobacco were consumed for every adult in the United States.¹⁶ Of

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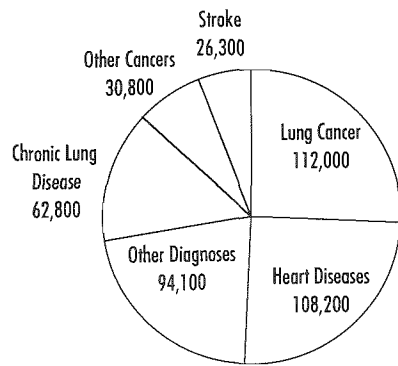


Figure 1. The number of deaths attributable to cigarette smoking per year for various diseases in the United States in 1988. (From the U.S. Department of Health and Human Services: Reducing the health consequences of smoking: 25 years of progress. A Report of the Surgeon General. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Pub. No. (CDC)89-8411, 1989.)

this, most was consumed as chewing tobacco and snuff, with less than 1 pound of tobacco per person consumed as cigars or cigarettes. By 1918, however, cigarette consumption had surpassed all other forms of tobacco use, and the epidemic of cigarette smoking had begun.

According to per capita consumption data from the US Department of Agriculture,¹⁷ approximately 50 cigarettes were smoked in 1900 by each adult aged 18 and older. Per capita consumption increased rapidly during the first half of this century, at a rate of 5% to 15% per year (see Fig. 1 in Bierer and Rigotti's article in this issue). This rate of increase slowed during the 1950s, when the first scientific reports linking cigarette smoking to lung cancer were published.^{5, 14, 24} Consumption peaked in 1963, when approximately 4300 cigarettes were consumed for every adult in the United States. Since 1964, adult consumption has declined by about one third, to 2800 cigarettes for every US adult in 1990.

TRENDS IN CIGARETTE SMOKING

Overall and by Sex

Per capita consumption provides an overall estimate of cigarette use for the US population as a whole but no information regarding the different smoking rates among various segments of society.^{10, 11, 19} Since 1955, the United States has periodically conducted surveys on the rates of smoking to provide a more accurate description of cigarette use.

The first of these surveys, the National Cancer Institute's 1955 Current Population Survey, showed that approximately 39% of all adults (aged 20 and older) smoked, and twice as many men as women smoked (53% and 24%, respectively).¹⁰ One decade later, the 1965 and 1966 National Health Interview Surveys (NHIS) demonstrated that overall smoking prevalence had risen to its highest recorded rate of 41% of the adult population.²⁰ This increase in prevalence was almost exclusively the result of an increase in smoking among women, which

rose from 24% in 1955 to 34% by 1965. In contrast, smoking among men remained essentially the same over this time period and was measured at 52% in 1965.

Data from the NHIS have shown that the overall prevalence of smoking has declined since 1965 at a slow but steady rate of about 0.5 percentage point per year, falling from 40.4% in 1965 to 29.1% in 1987 (Table 1).³ This decline has not been equal in both sexes. Among women, smoking has declined at a rate of only 0.21 percentage point per year, falling from 31.9% in 1965 to 26.8% in 1987 (Table 1). For men, the rate of decline has been four times that for women: 0.84 percentage point per year, from 50.2% in 1965 to 31.7% in 1987 (Table 1). If current trends continue, differences in smoking prevalence between the sexes will disappear during the 1990s.

Race and Ethnic Origin

There are significant differences in smoking prevalence between different racial and ethnic groups in the United States. The most detailed information regarding these differences is available for black and white Americans.

Since the early 1960s, smoking prevalence rates have consistently been higher among blacks than among whites.¹⁸ Among blacks overall, the rate has declined from 43.0% in 1965 to 34.0% in 1987. Among whites overall, the rate has declined from 40.0% in 1965 to 28.8% in 1987 (Table 1). The *rate* of decline per year, however, has not been significantly different between the two races over the last 25 years.³ Since 1965, smoking among blacks has declined at a rate of 0.39 percentage point per year and smoking among whites has declined at a rate of 0.50 percentage point per year. For rates to equalize between the races, the decline among blacks must accelerate relative to that among whites.

Whereas smoking prevalence has been consistently higher among blacks than whites, the proportion of heavier smokers (more than 20 cigarettes per day) among black smokers has been consistently lower than among whites. The 1985 NHIS found that approximately 21% of white smokers reported smoking more than 20 cigarettes per day, but only 10% of black smokers reported smoking more than 20 cigarettes per day.¹⁸

Smoking prevalence among Hispanics in the United States has consistently been lower than that observed among whites and blacks. These differences between race and ethnic groups, however, are narrowing and are noted primarily among Hispanic females. According to data from the NHIS, the prevalence rate among Hispanic men had fallen to 30% by 1987, a rate not markedly different from the overall male rate of 32%. Among Hispanic females, the rate in 1987 was 18%, markedly lower than the rate of 27% reported for women overall.

Table 1. TRENDS IN SMOKING PREVALENCE (%), NATIONAL HEALTH INTERVIEW SURVEYS, UNITED STATES, 1965 TO 1987, ADULTS AGED 20 YEARS AND OLDER

Year	Overall Population	Sex		Race		Educational Level ^a			
		Males	Females	Whites	Blacks	Less Than High School Graduate	High School Graduate	Some College	College Graduate
1965 ^b	40.4	50.2	31.9	40.0	43.0	---	---	---	---
1966	40.7	50.8	32.0	40.4	42.9	36.5	41.1	42.5	33.7
1970	37.0	44.3	30.8	36.5	41.4	34.8	38.3	36.7	28.1
1976	36.1	42.1	31.3	35.6	41.2	35.8	37.8	36.4	27.4
1977	35.6	40.9	31.4	34.9	41.8	35.8	38.4	35.2	25.6
1978	34.0	39.0	31.3	33.6	38.2	35.3	36.5	32.7	23.8
1979	33.5	38.4	29.6	33.2	36.8	34.9	35.4	33.3	23.4
1980	33.3	38.5	29.0	32.9	37.2	35.5	35.7	31.2	24.6
1983	31.8	35.5	28.7	31.4	36.6	34.7	35.6	30.0	19.9
1985	30.4	33.2	28.0	29.9	36.0	35.7	34.2	28.1	18.4
1987 ^b	29.1	31.7	26.8	28.8	34.0	35.7	33.1	26.1	16.3
Trend information (1965–1985)									
Change/year ^c	–0.50	–0.84	–0.21	–0.50	–0.39	–0.06	–0.32	–0.70	–0.76
Standard error	0.03	0.04	0.03	0.03	0.08	0.03	0.05	0.07	0.08
R ²	0.97	0.98	0.81	0.97	0.74	NA ^d	0.87	0.94	0.93

^aFor 1965, data stratified by education were not available.

^bProvisional data only.

^cIn percentage points.

^dThe slope of the regression line was not significantly different from zero, making the R² computation inappropriate.

From US Department of Health and Human Services: Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No (CDC)89-8411, 1989.

Educational Status

At the time of the release of the first Surgeon General's Report in 1964,²¹ small differences were noted in smoking rates across educational groups. Using data from the 1966 NHIS, the smoking rate was 36.5% among high school drop-outs (less than 12 years of education), 41.1% among high school graduates (exactly 12 years of education), 42.5% among persons with some college education (13 to 15 years of education), and 33.7% among college graduates (16 or more years of education).¹³ By 1987, these differences had widened dramatically (Table 1). In 1987, the prevalence rate had fallen only slightly among high school drop-outs (from 36.5% to 35.7%; -0.06 percentage point per year) and among high school graduates (from 41.1% to 33.1%; -0.32 percentage point per year). In contrast, among persons with some college education, smoking prevalence declined 0.70 percentage point per year, from 42.5% in 1965 to 26.1% by 1987. Among college graduates, smoking prevalence declined an impressive 0.76 percentage point per year, from 33.7% in 1965 to 16.3% by 1987. Educational status has replaced gender as the sociodemographic variable most highly predictive of differences in smoking prevalence rates.

Number of Cigarettes Smoked per Day

Since 1974, the NHIS has asked smokers the number of cigarettes smoked per day. The percentage of smokers who report that they are "heavy smokers" (20 or more cigarettes per day) has changed little from a reported 26.0% of smokers in 1974 to 27.1% of smokers in 1985.¹⁸

Smoking Initiation

Reliable, representative data regarding the rate of smoking initiation among the total population of young Americans have not been collected on a regular basis. It is known, however, that for most individuals, experimentation with cigarettes begins at a very early age. Among those who go on to become regular smokers, about 50% of both men and women report that they started smoking regularly by age 18; about 90% report that they started by age 21.¹⁸ Because 90% of Americans start to smoke by the age of 20,⁹ prevalence of smoking among people aged 20 to 24 has been used as an indicator for smoking initiation.^{3, 18} The NHIS over the last 25 years have collected information on smoking prevalence among people aged 20 to 24, and this information has been used to estimate rates of smoking initiation.

Smoking initiation has declined at a rate of 0.80 percentage point per year, from 47.8% in 1965 to 29.5% by 1987 (Table 2). The rate of decline for women overall was a modest 0.40 percentage point per year, falling from 40.5% in 1965 to 28.1% in 1987 (Table 3). In contrast,

Table 2. TRENDS IN SMOKING INITIATION, NATIONAL HEALTH INTERVIEW SURVEYS, UNITED STATES, 1965 TO 1987

Smoking Prevalence (%), Ages 20–24										
Year	Overall Population	Sex		Race			Educational Level			
		Males	Females	Race			High School Graduate or Less		Some College or More	
				Whites	Blacks		Males	Females	Males	Females
1965	47.8	56.3	40.5	47.5	50.8		63.6	42.6	42.7	34.5
1966	47.7	57.7	39.5	48.2	45.5		65.1	41.3	43.5	34.7
1970	41.5	48.5	35.8	41.2	40.2		60.0	45.2	33.2	26.8
1974	39.5	44.3	35.4	38.6	47.1		52.7	40.1	34.7	26.4
1976	39.6	45.9	34.2	39.5	42.3		54.1	41.0	34.4	23.0
1977	38.8	40.4	37.4	38.5	41.5		52.2	43.0	24.0	27.5
1978	35.4	38.5	32.5	35.7	34.8		46.8	39.3	25.9	21.1
1979	35.8	37.7	34.0	35.6	36.7		47.1	41.9	23.8	22.1
1980	36.1	40.0	32.5	35.9	37.9		50.1	40.3	20.1	19.4
1983	36.9	36.9	37.0	36.8	38.7		49.1	45.5	16.2	22.9
1985	31.8	31.0	32.5	32.5	28.2		43.0	43.6	15.5	17.2
1987 ^a	29.5	31.1	28.1	30.5	25.6		43.8	37.6	16.3	15.1
Trend information (1965–1985)										
Change/year ^b	–0.69	–1.19	–0.28	–0.68	–0.79		–1.00	0.10	–1.51	–0.72
Standard error	0.09	0.10	0.12	0.09	0.17		0.13	0.10	0.13	0.15
R ²	0.86	0.94	0.40	0.85	0.71		0.87	NA ^c	0.95	0.75

^aProvisional data only.^bIn percentage points.

The slope of the regression line was not significantly different from zero, making the R^2 computation inappropriate.

The slope of the regression line was not significantly different from zero, indicating that the 111 computation is inappropriate.

From US Department of Health and Human Services: Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No. (CDD)89-8411. 1989.

Table 3. TRENDS IN SMOKING QUIT RATIO (%), NATIONAL HEALTH INTERVIEW SURVEYS, UNITED STATES, 1965 TO 1987, ADULTS AGED 20 YEARS AND OLDER

Year	Overall Population	Sex		Race		Less Than High School Graduate	Educational Level ^a		
		Males	Females	Whites	Blacks		High School Graduate	Some College	College Graduate
1965 ^a	29.6	31.4	24.6	30.5	22.8	—	—	—	—
1966	29.5	31.4	24.2	30.4	22.6	33.3	28.0	28.7	39.7
1970	35.3	37.9	29.2	36.7	23.2	38.1	33.6	34.9	48.2
1974	36.3	39.3	30.8	38.0	21.8	38.0	35.2	36.6	47.9
1976	37.1	39.9	32.1	38.4	26.3	39.5	35.0	37.2	46.1
1977	36.8	40.3	31.3	38.2	24.8	38.3	34.0	36.8	48.6
1978	38.5	41.3	33.8	39.9	27.5	38.7	36.3	41.0	49.7
1979	39.0	41.5	34.0	40.3	28.0	40.8	36.7	37.5	50.6
1980	39.0	41.5	34.0	40.4	27.7	39.4	36.5	40.6	48.7
1983	41.8	44.1	37.6	43.3	29.3	42.1	38.7	41.2	54.9
1985	45.0	49.0	40.0	46.7	31.8	41.3	40.5	46.0	61.1
1987 ^b	44.8	48.7	40.1	46.4	31.5	39.7	40.9	46.9	61.4
Trend information (1965–1985)									
Change/year ^c	+0.68	+0.73	+0.73	+0.72	+0.43	+0.41	+0.57	+0.73	+0.85
Standard error (±)	0.05	0.06	0.05	0.06	0.07	0.06	0.07	0.10	0.16
R ²	0.95	0.94	0.96	0.94	0.82	0.85	0.89	0.88	0.78

NOTE: Quit ratio = (Former Smokers/Current + Former Smokers)

^aFor 1965, data stratified by education were not available.

^bProvisional data only.

^cIn percentage points.

From US Department of Health and Human Services: Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No (CDC)89-8411, 1989.

the rate of decline among men (1.27 percentage points per year) was more than three times that observed for women, falling from 56.3% in 1965 to 31.1% by 1987 (see Table 2). This slower decline in the rate of smoking initiation among women is a main contributor to the gradual convergence in smoking prevalence rates between the sexes over the last 25 years.

Among blacks, smoking initiation declined at a rate of 1.13 percentage points per year, falling from 50.8% in 1965 to 25.6% by 1987 (see Table 2). In contrast, the rate of smoking initiation among whites fell at a rate of only 0.75 percentage point per year, from 47.5% in 1965 to 30.5% in 1987 (see Table 2). If this lower rate of smoking initiation among blacks continues through the 1990s, the decline in smoking prevalence for blacks overall will accelerate faster than that of whites.

Among educational groups, the rates of smoking initiation mirror the rates of smoking prevalence overall. By 1987, smoking initiation among people with a twelfth-grade education or less fell only slightly, to 43.8% among men and 37.6% among women (see Table 2). In contrast, for people with at least some college education, the rate of smoking initiation fell markedly by 1987, to 16.3% for men and 15.1% for women (see Table 2). The differences in smoking initiation rates based on educational status explain a large part of the increasing gap in overall smoking prevalence rates observed over the last 25 years.

Smoking Cessation

Various parameters have been used to measure smoking cessation behavior.¹⁸ The "quit ratio," defined as the proportion of people who ever smoked ("ever smokers") who are now former smokers, has been used in recent Surgeon General's Reports on Smoking and Health to measure "quit behavior." Other measures, such as the percentage of former smokers in the entire population and the smoking continuum, have also been used as a measure of quitting behavior.¹⁸

The NHIS provide data that permit the calculation of the quit ratio (the proportion of ever smokers who are now former smokers) over time (Table 3). The quit ratio among adult Americans overall has increased markedly over the last quarter century, from 29.6% in 1965 to 44.8% by 1987 (Table 3). By 1987, almost half of all Americans who had ever smoked had successfully quit.

This pattern of quitting smoking was similar for both sexes (Table 3). Among males, the quit ratio increased at a rate of 0.88 percentage point per year, from 31.4% in 1965 to 48.7% in 1987. Among females, the quit ratio increased at a similar rate of 0.81 percentage point per year, from 24.6% in 1965 to 40.1% by 1987.

The quit ratios varied among racial groups. The ratio for whites increased at a rate of 0.81 percentage point per year, from 30.5% in 1965 to 46.4% by 1987. In contrast, the quit ratio for blacks increased at a slower rate of 0.45 percentage point per year, from 22.8% in 1965

to 31.5% by 1987 (Table 3). This lower rate of change in the quit ratio among blacks has contributed to the continuing gap in smoking prevalence rates between blacks and whites overall in the United States.

Across educational groups, the quit ratio mirrors the overall prevalence rates for these subpopulations.¹³ For high school drop-outs, the quit ratio increased at a rate of 0.42 percentage point per year over the last quarter century, from 33.3% to 39.7% in 1987 (Table 3). Among high school graduates, the quit ratio increased at a rate of 0.65 percentage point per year, from 28.0% to 40.9%. Among those with some college education, the quit ratio increased at a rate of 0.91 percentage point per year, from 28.7% to 46.9%. Finally, among college graduates, the quit ratio increased at a rate of 1.13 percentage points per year, from 39.7% to 61.4%. That is, more than 60% of living college-educated persons who had ever smoked had quit by 1987. This high quit ratio, combined with the low rate of smoking initiation among college graduates, is responsible for the extremely low overall smoking prevalence rate (16.3% in 1987) observed in this sociodemographic subpopulation. In contrast, the low quit ratio combined with the high rate of smoking initiation among high school drop-outs is responsible for the extremely high overall smoking prevalence rate (35.7% in 1987) observed in this group.

Types of Cigarettes Smoked

In 1950, less than 1% of the cigarettes sold in the United States had filters.² Since that time, the proportion of filter cigarettes in the United States has steadily increased, to 19% by 1955, 51% by 1960, 64% by 1965, 80% by 1970, 87% by 1975, 92% by 1980, and 95% by 1988.

Additionally, the sales-weighted average yield of tar and nicotine for machine cigarettes sold in the United States has steadily decreased since the 1960s. For tar, the sales-weighted average yield has fallen from 35 mg in 1957 to 13 mg in 1987, with the proportion of "low tar" (15 mg or less) cigarettes sold in this country increasing from 2% in 1967 to 54% by 1988.^{2, 18} For nicotine, the sales-weighted average yield declined from 1.3 mg in 1968 to 1.0 mg in 1987. For both tar and nicotine, most of the observed decline occurred during the 1960s and 1970s as a result of modifications in the design of cigarettes. For both tar and nicotine, the sales-weighted average yield leveled off during the 1980s. Smokers have tended to compensate for changes in average cigarette yield by changing the number of cigarettes smoked per day, by puffing more frequently or more deeply, and by making other compensatory changes in smoking behavior.²³

Cigar and Pipe Smoking

Unlike cigarette smoking, cigar and pipe smoking has remained primarily a male behavior. The 1986 Adult Use of Tobacco Survey

(AUTS) reported that 8.7% of males and 0.3% of females were current cigar and/or pipe users and that 41.8% of males and 4.5% of females were former cigar and/or pipe users.¹⁸ The AUTS data since the early 1960s have indicated that there was an 80% decline in the prevalence of cigar and pipe smoking among men from 1964 to 1986: Smoking among men declined from 29.7% to 6.2%, whereas pipe smoking decreased from 18.7% to 3.8%.⁴

Smokeless Tobacco Use

During most of this century, the use of smokeless tobacco products (chewing tobacco and oral snuff) was concentrated among rural residents and particular occupational groups such as miners and agricultural workers.^{8, 15} Observed prevalence was highest among people over the age of 50 years.²² During the 1970s and 1980s, however, the use of smokeless tobacco products increased markedly among children and adolescents.²² This coincided with an increase in smokeless tobacco advertising by the tobacco industry geared toward adolescents.¹ Ironically, it also coincided with the publication of new biomedical and epidemiologic evidence that smokeless tobacco use causes oral cancers.^{7, 22}

Marcus and colleagues⁶ summarized data from the 1985 Current Population Survey (CPS) regarding chewing tobacco, snuff, and total smokeless tobacco use. They found that smokeless tobacco use varied considerably between regions of the United States, with the highest rates of smokeless tobacco use noted in the South and the lowest in the Northeast. Smokeless tobacco users were predominately male; about 5.5% of all males reported use of these products, compared with less than 1% of females. Moreover, more than 90% of all male smokeless tobacco users in 1985 were white. Smokeless tobacco use was also two to three times more prevalent among blue-collar workers than among white-collar workers.

These data from the 1985 CPS can be compared with the 1970 NHIS data (Table 4). This comparison highlights the enormous increase in smokeless tobacco use among adolescents over this time period. From 1970 to 1985, the use of snuff among 16 to 19 year olds increased nearly tenfold, from 0.3% to 2.9%, and the use of chewing tobacco increased from 1.2% to 3.0%.

These findings were substantiated by Novotny and colleagues,¹² who reviewed data from the 1986 AUTS. They reported current overall smokeless tobacco use among males aged 17 and older at 5.2%, with the highest reported prevalence among males aged 17 to 19 of 8.2%.

PROJECTIONS OF CIGARETTE SMOKING RATES TO THE YEAR 2000

Although the decline in smoking represents significant progress over the last quarter century, 28% of all adults in 1989, representing

Table 4. PREVALENCE (%) OF SMOKELESS TOBACCO USE AMONG MEN BY AGE, UNITED STATES, 1970 AND 1985

Age (yrs)	Snuff		Chewing Tobacco	
	1970	1985	1970	1985
16-19 ^a	0.3	2.9	1.2	3.0
20-29	0.6	2.7	1.9	4.2
30-39	0.7	1.8	2.8	3.7
40-49	1.2	1.5	3.0	3.3
50+	2.7	1.4	6.5	4.2

^aFor 1970, this age group was composed of 17 to 19 year olds.

From US Department of Health and Human Services: Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General. US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Publication No (CDC)89-8411, 1989.

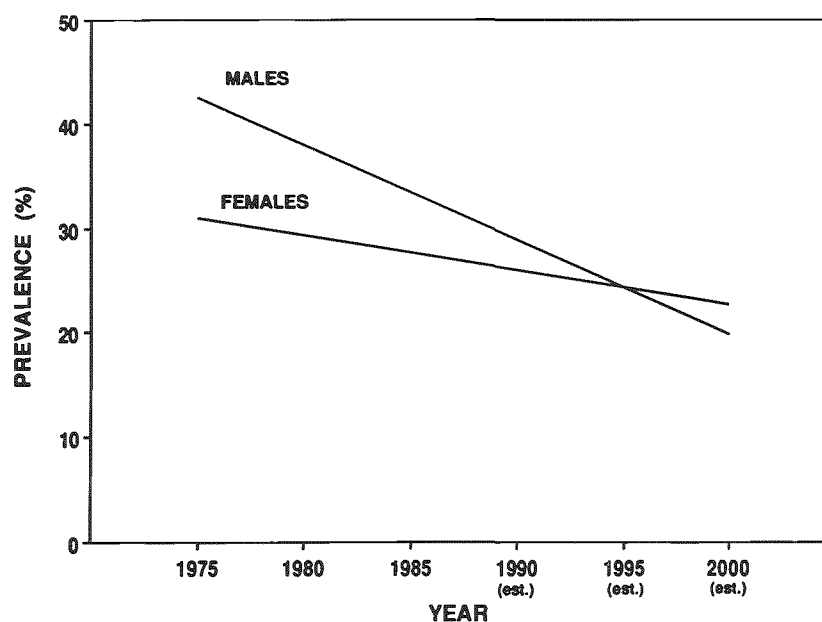


Figure 2. Trends in the prevalence of cigarette smoking for men and women with projections to the year 2000 for adults (aged 20 and older) in the United States. (From the U.S. Department of Health and Human Services: Reducing the health consequences of smoking: 25 years of progress. A Report of the Surgeon General. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Pub. No. (CDC)89-8411, 1989.)

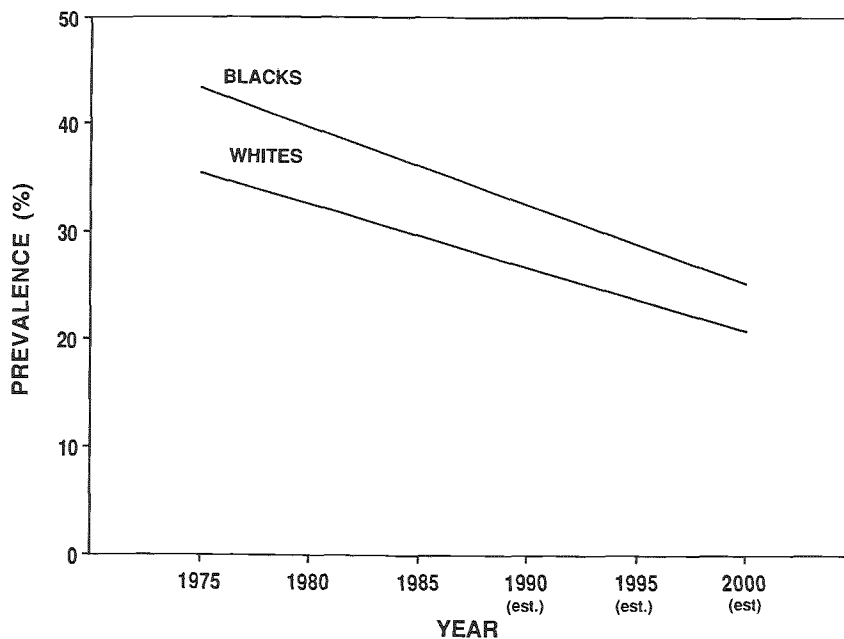


Figure 3. Trends in the prevalence of cigarette smoking for blacks and whites with projections to the year 2000 for adults (aged 20 and older) in the United States. (From the U.S. Department of Health and Human Services: Reducing the health consequences of smoking: 25 years of progress. A Report of the Surgeon General. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Pub. No. (CDC)89-8411, 1989.)

approximately 50 million Americans, still smoked.¹³ Investigators at the United States Office on Smoking and Health¹³ used data from the NHIS to project smoking rates through the year 2000. Using a linear regression analysis, they projected that smoking among adults overall in the United States will fall to 21.7% by the year 2000. This rate represents approximately 43 million adult smokers.

Cigarette smoking for men and women is projected to equalize by the mid-1990s, and thereafter women are projected to smoke in greater numbers than men. If current trends continue, the rate of cigarette smoking among women is projected to decline to about 22.7% by the year 2000, whereas the rate for men is projected to fall to only 19.9% (Fig. 2). Projections based on race suggest that smoking among blacks will fall to 24.5% and smoking among whites to about 21.5% by the year 2000 (Fig. 3).

The most dramatic differences in smoking rates are projected across educational groups. If current trends continue, the rate of cigarette smoking for the year 2000 is projected to decline to approximately 5% among college graduates, to 16% among those with some college education, to 30% among high school graduates, and to 31% among high school drop-outs (Fig. 4).

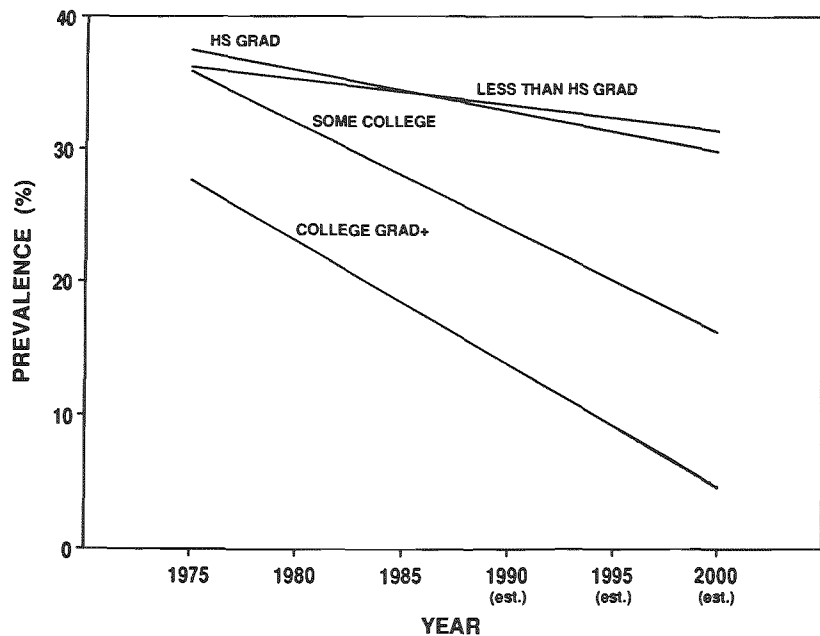


Figure 4. Trends in the prevalence of cigarette smoking by educational status with projections to the year 2000 for adults (aged 20 and older) in the United States. (From the U.S. Department of Health and Human Services: Reducing the health consequences of smoking: 25 years of progress. A Report of the Surgeon General. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. DHHS Pub. No. (CDC)89-8411, 1989.)

If these trends continue, cigarette smoking will increasingly be a behavior practiced predominantly by poorly educated and socioeconomically disadvantaged segments of our society. Effective prevention and cessation interventions must increasingly focus on less educated Americans to produce the greatest impact on smoking rates into the next century.

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