

Trends in Smoking, Alcohol Consumption, and Other Health Practices Among U.S. Adults, 1977 and 1983

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Introduction

The past decade has seen increasing recognition of the importance of personal health behaviors for the prevention of illness and disability. A pioneer work in this field was a study conducted in Alameda County, Calif., in the mid-1960's.¹ A decade later, longitudinal follow-up of the original 1965 cohort indicated that seven health habits were associated with subsequent favorable health status and reduced mortality.^{2,3} These habits were: never smoking, drinking fewer than five alcoholic beverages at one sitting, maintaining desirable weight for height, sleeping 7–8 hours a night, exercising, eating breakfast regularly, and avoiding snacks. In light of such evidence of the importance of personal practices for health,^{4,5} a national health promotion and disease prevention initiative was launched in the late 1970's.⁶ As an outgrowth of this initiative, broad national goals for reducing death and disability through health promotion activities were outlined,^{7,8} and specific quantified objectives for the year 1990 were delineated in 15 priority areas.⁹ Included among the prevention objectives were goals to reduce smoking and the misuse of alcohol, and to improve nutrition and physical fitness.

In 1977, at the outset of the prevention initiative, data were collected in the National Health Interview Survey (NHIS) on the prevalence of the seven health practices found to be associated with health status and mortality in the Alameda County study. In 1983, when implementation plans were well underway,¹⁰ data on a variety of personal health practices were collected by means of the Alcohol and Health Practices survey (AHPS), a component of NHIS. With the exception of those questions concerning alcohol (discussed below), the 1977 questions were repeated in the 1983 AHPS. The availability of

comparable data for 1977 and 1983 provides a unique opportunity to assess changes in behavior during a period of rapid growth in health promotion and disease prevention activities, including increases in media promotions of exercise and good eating habits and warnings of the dangers of cigarette smoking and excessive alcohol consumption.

This report presents 1983 prevalence estimates for seven health practices—hours of sleep, breakfast eating, snacking, physical activity level relative to contemporaries, smoking, alcohol consumption, and desirable body weight—for the non-institutionalized population aged 20 years and over, by sex, race, Hispanic origin, age, income, and education. It also provides estimates of changes in the prevalence of selected unfavorable practices between 1977 and 1983. Detailed 1977 prevalence estimates for all seven practices were presented in an earlier report.¹¹

One purpose of the 1983 AHPS was to provide data to help clarify the interrelationships of health practices among U.S. adults and to further investigate their relationships to health status. Public use data tapes are available at nominal cost from the National Center for Health Statistics. Analyses of these data are encouraged.

Some sex differences were observed in the relationship between selected health behaviors and various sociodemographic characteristics. A detailed consideration of these differences is beyond the scope of this report. Tables showing sex-specific prevalence for each of the seven health practices are available on request from the Division of Health Interview Statistics.

The statistics presented and discussed in this report are simple prevalence estimates, unadjusted for age or other

sociodemographic characteristics. Relationships between health practices and selected characteristics (education, for example) may be attributable, at least in part, to differences in the age composition of particular population subgroups. Terms such as "similar" and "the same" are used to indicate that no statistical significance exists between the statistics being compared. Terms that relate to differences (such as "greater" or "less") indicate that differences are statistically significant. The *t*-test with a critical value of 1.96 (0.05 level of significance) was used to test all comparisons that are discussed. Lack of comment regarding the difference between any two statistics does not mean that the difference was tested and found to be not significant.

Sleep

Data on sleeping practices of U.S. adults are shown in table 1. Approximately two-thirds of persons 20 years and

over reported getting 7 or 8 hours of sleep on the average, and about one-fourth reported sleeping 6 hours or less a night. Black persons were more likely to be at the extremes of the sleep range than white persons. Among black respondents, 34 percent reported sleeping 6 hours or less, compared with 23 percent of white respondents; and 13 percent of black respondents reported sleeping 9 hours or more, compared with 10 percent of white respondents. People aged 45–64 appear to get the least sleep, with approximately 28 percent reporting 6 hours or less. By contrast, 21 percent of adults under 35 years of age reported sleeping 6 hours or less.

Sleeping habits also were related to income and education. Thirty percent of persons with family incomes of less than \$7,000 reported sleeping 6 hours or less, and 21 percent of persons with family incomes of \$40,000 or more reported this behavior. Similarly, 29 percent of adults with less than 12 years of education slept 6 hours or less, in contrast to 21 percent of persons with more than a high school education.

Table 1. Total population 20 years of age and over and percent distribution by average number of hours of sleep a night, according to selected characteristics: United States, 1983

Characteristic	Population 20 years of age and over ¹	Hours of sleep				
		Total ²	6 or less	7	8	9 or more
	Number in thousands		Percent distribution			
All persons 20 years of age and over	158,867	100.0	24.3	27.9	38.2	10.0
Sex						
Male	74,600	100.0	24.9	29.2	37.2	8.7
Female	84,266	100.0	23.8	25.9	39.1	11.2
Race ³						
White	138,695	100.0	23.1	28.2	39.0	9.7
All other	20,172	100.0	33.0	22.2	32.8	12.0
Black	16,716	100.0	34.3	20.3	32.6	12.7
Other	3,456	100.0	26.4	31.3	33.5	8.9
Hispanic origin ³						
Hispanic	9,596	100.0	21.2	24.8	42.0	12.0
Non-Hispanic	148,501	100.0	24.5	27.6	38.0	9.9
Age						
20–34 years	59,868	100.0	20.8	28.2	40.7	10.3
35–44 years	28,933	100.0	24.5	30.9	38.3	6.3
45–54 years	22,169	100.0	27.5	29.5	35.7	7.2
55–64 years	22,004	100.0	28.0	27.0	36.5	8.5
65–74 years	16,377	100.0	26.5	22.6	36.7	14.2
75 years and over	9,516	100.0	26.4	16.6	34.4	22.7
Income						
Less than \$7,000	18,355	100.0	30.0	19.6	35.3	15.1
\$7,000–\$14,999	29,272	100.0	25.8	23.7	38.4	12.1
\$15,000–\$24,999	36,146	100.0	23.6	28.3	38.2	9.9
\$25,000–\$39,999	36,373	100.0	22.5	31.8	38.3	7.4
\$40,000 or more	21,466	100.0	21.3	32.2	39.5	6.9
Education of individual						
Less than 12 years	41,916	100.0	28.9	20.7	36.4	14.0
12 years	60,122	100.0	24.1	27.5	38.9	9.6
More than 12 years	55,799	100.0	21.1	32.6	38.8	7.4

¹Includes unknowns.

²Excludes unknown hours of sleep.

³Based on self-reported identification.

Table 2. Percent distribution of persons 20 years of age and over by frequency of eating breakfast, according to selected characteristics: United States, 1983

Characteristic	Frequency of eating breakfast			
	Total ¹	Every day	Sometimes	Never
	Percent distribution			
All persons 20 years of age and over	100.0	53.9	19.0	27.1
Sex				
Male	100.0	52.9	19.3	27.8
Female	100.0	54.9	18.8	26.4
Race ²				
White	100.0	55.1	17.6	27.3
All other	100.0	46.1	28.4	25.5
Black	100.0	46.0	28.8	25.2
Other	100.0	46.8	26.2	27.1
Hispanic origin ²				
Hispanic	100.0	53.5	22.8	23.7
Non-Hispanic	100.0	54.0	18.8	27.2
Age				
20-34 years	100.0	38.4	25.9	35.6
35-44 years	100.0	45.3	22.7	32.1
45-54 years	100.0	55.0	17.8	27.2
55-64 years	100.0	69.3	11.6	19.1
65-74 years	100.0	82.0	7.5	10.5
75 years and over	100.0	91.6	4.0	4.4
Income				
Less than \$7,000	100.0	55.7	19.4	24.9
\$7,000-\$14,999	100.0	56.8	18.3	24.9
\$15,000-\$24,999	100.0	52.8	19.4	27.8
\$25,000-\$39,999	100.0	50.7	19.7	29.7
\$40,000 or more	100.0	53.2	18.1	28.7
Education of individual				
Less than 12 years	100.0	58.8	17.1	24.1
12 years	100.0	50.1	20.4	29.5
More than 12 years	100.0	54.4	18.9	26.7

¹Excludes unknown breakfast-eating habits.

²Based on self-reported identification.

NOTE: See table 1 for population.

Eating breakfast

Table 2 shows that more than one-half of U.S. adults eat breakfast every day, and more than one-fourth never eat breakfast. White respondents were more likely (55 percent) to eat breakfast every day than black respondents (46 percent). Breakfast eating habits were strongly related to age. The percent of persons who reported eating breakfast every day rose steadily from less than 40 percent of persons 20-34 years of age to more than 90 percent of persons 75 years and older.

Snacking

Data on snacking behavior are shown in table 3. Slightly more than one-third of respondents reported snacking every

day. The remaining respondents were evenly divided among those reporting snacking sometimes and those never snacking. Persons of Hispanic origin were less likely to snack every day (30 percent) than were non-Hispanic persons (38 percent). Snacking is clearly related to age, with about 40 percent of the youngest age groups reporting daily snacking, and 27 percent of the elderly, aged 75 years and over, reporting this practice. Concomitantly, only 25 percent of persons in the youngest age group indicated that they never eat snacks compared with more than 50 percent of those 75 years and over.

Table 3. Percent distribution of persons 20 years of age and over by frequency of eating snacks, according to selected characteristics: United States, 1983

Characteristic	Frequency of eating snacks			
	Total ¹	Every day	Sometimes	Never
		Percent distribution		
All persons 20 years of age and over	100.0	37.0	30.6	32.4
Sex				
Male	100.0	38.9	28.1	33.1
Female	100.0	35.4	32.8	31.8
Race ²				
White	100.0	37.4	29.9	32.7
All other	100.0	34.8	35.0	30.2
Black	100.0	35.8	35.0	29.1
Other	100.0	29.8	34.9	35.4
Hispanic origin ²				
Hispanic	100.0	29.6	34.4	36.0
Non-Hispanic	100.0	37.5	30.3	32.2
Age				
20-34 years	100.0	40.2	35.4	24.5
35-44 years	100.0	37.9	31.5	30.6
45-54 years	100.0	37.8	28.5	33.7
55-64 years	100.0	34.4	26.6	39.0
65-74 years	100.0	32.8	24.0	43.3
75 years and over	100.0	26.6	22.8	50.7
Income				
Less than \$7,000	100.0	34.5	31.2	34.3
\$7,000-\$14,999	100.0	36.7	30.7	32.7
\$15,000-\$24,999	100.0	37.6	31.0	31.4
\$25,000-\$39,999	100.0	38.5	31.0	30.5
\$40,000 or more	100.0	39.0	29.2	31.8
Education of individual				
Less than 12 years	100.0	34.8	28.6	36.5
12 years	100.0	38.4	31.5	30.1
More than 12 years	100.0	37.3	30.9	31.7

¹Excludes unknown snacking habits.²Based on self-reported identification.

NOTE: See table 1 for population.

Physical activity

Table 4 shows that about 40 percent of adults considered themselves "more active" than others their own age, and 14 percent perceived their activity level to be lower than that of their contemporaries. Almost one-half of the persons in the population indicated that they were "about as active" as people the same age. Men more often reported being "more active" (44 percent) than women did (35 percent). Black persons more often reported being "less active" (18 percent) than white persons did (13 percent).

Perceived physical activity levels varied with age, income, and education. Thirty-six percent of persons 20-34 years of age reported being more active in contrast to 41 percent of persons 65-74 years and 49 percent of the 75 and over age group. Interestingly, reports of being less active were also more prevalent in the older age groups; 16 percent of the oldest group, compared with 13 percent of the youngest group said they were less active. Thus, persons in the older age

groups were more likely to place themselves at the extremes of the physical activity spectrum. Young people aged 20-34 years were most likely to report their activity level to be about the same as their contemporaries (52 percent), and the elderly aged 75 years and over were least likely to classify themselves this way (35 percent).

More active physical activity levels were associated with both income and education. Among persons with incomes of less than \$7,000, 33 percent reported being more active in contrast to 46 percent of people in the highest income group. Similarly, about one-third of those persons who had not completed high school indicated that they were more active than their contemporaries, compared with 44 percent of people with post-high school education. The proportion of persons reporting themselves less active than their contemporaries declined correspondingly with both increasing income and education.

Table 4. Percent distribution of persons 20 years of age and over by physical activity level relative to persons of same age, according to selected characteristics: United States, 1983

Characteristic	Physical activity level			
	Total ¹	More active	Same	Less active
	Percent distribution			
All persons 20 years of age and over	100.0	38.8	47.4	13.8
Sex				
Male	100.0	43.5	44.6	11.9
Female	100.0	34.7	49.8	15.4
Race ²				
White	100.0	39.3	47.5	13.2
All other	100.0	35.5	46.9	17.6
Black	100.0	35.5	46.2	18.3
Other	100.0	35.4	50.6	14.1
Hispanic origin ²				
Hispanic	100.0	38.1	47.9	14.0
Non-Hispanic	100.0	38.9	47.4	13.7
Age				
20-34 years	100.0	35.5	51.6	12.9
35-44 years	100.0	40.4	48.3	11.3
45-54 years	100.0	39.9	46.9	13.3
55-64 years	100.0	39.6	43.3	17.1
65-74 years	100.0	40.5	43.4	16.1
75 years and over	100.0	48.6	35.4	16.0
Income				
Less than \$7,000	100.0	32.7	45.2	22.0
\$7,000-\$14,999	100.0	35.5	48.3	16.2
\$15,000-\$24,999	100.0	38.3	48.5	13.2
\$25,000-\$39,999	100.0	40.0	49.4	10.6
\$40,000 or more	100.0	45.8	44.6	9.6
Education of individual				
Less than 12 years	100.0	33.3	48.0	18.8
12 years	100.0	38.1	49.7	12.2
More than 12 years	100.0	43.9	44.5	11.6

¹Excludes unknown physical activity level.²Based on self-reported identification.

NOTE: See table 1 for population.

Alcohol consumption

Alcohol consumption classifications shown in table 5 were developed by the National Institute on Alcohol Abuse and Alcoholism and were based on the number and frequency of drinks reported for the most recent 2-week period in which alcohol was consumed.¹² Quantity and frequency of alcohol consumed was converted into average number of ounces of ethanol consumed daily, and three categories of drinker—lighter, moderate, and heavier—were derived. About one-third of respondents reported never drinking more than 12 drinks in any single year and were therefore classified as lifetime abstainers. Only 7 percent of respondents said they had been drinkers at some time in their lives but had not had a drink in the past year. These persons were classified as former drinkers. Thirty percent of AHPs respondents reported consumption patterns that were indicative of “lighter drinking,” defined as between 0.01 ounces and 0.21 ounces of ethanol a day. Ten percent of the people in the population were

classified as “heavier drinkers,” indicating that they consumed one ounce or more of ethanol per day on the average (two or more drinks). Men and women differed markedly in their drinking habits, with 19 percent of men reporting lifetime abstention in contrast to 45 percent of women. Men were about four times more likely than women to be heavier drinkers (16 percent of men versus 4 percent of women). Among drinkers, men were twice as likely as women to have had five drinks or more on at least 1 day in the past year (50 percent of men compared with 23 percent of women).

Drinking habits also varied according to race and Hispanic origin. Black persons and members of other racial groups were significantly more likely to be lifetime abstainers (48 percent and 56 percent, respectively) than were white persons (31 percent). Among drinkers, black persons were less likely than white persons to report having had five drinks or more on at least 1 day in the past year (30 percent of black persons in contrast to 38 percent of white persons). Although Hispanic

persons were more likely to be lifetime abstainers (46 percent) than were non-Hispanic persons (32 percent), Hispanic drinkers were more likely than non-Hispanic drinkers to have consumed five drinks or more in 1 day at some time during the past year (43 percent versus 37 percent, respectively).

Alcohol consumption was also strongly associated with age, education, and income. Younger people were more likely to drink, and they tended to drink more heavily than older people. About 26 percent of persons 20–34 years of age were lifetime abstainers, in comparison with 45 percent of persons 65–74 years and 61 percent of those 75 years and older. Among drinkers, 52 percent of the youngest group reported having had five drinks or more in 1 day, in contrast

to 13 percent of adults aged 65–74 years and only 5 percent of respondents 75 years and older. These findings are consistent with other research showing an apparent trend toward increased alcohol consumption in the younger age groups.¹³ Heavier drinking among young adults could indicate that young people drink more but reduce their alcohol consumption as they get older; however, lower lifetime abstention rates found for younger persons in the current analysis, combined with evidence from other studies that indicate alcohol consumption levels do not tend to decrease as people age,¹³ suggest that younger people are now drinking more than did earlier generations. In light of current knowledge about the harmful health and social consequences of heavy drinking, the findings of

Table 5. Percent distribution of persons 20 years of age and over by alcohol consumption, according to selected characteristics, and percent of persons who consumed 5 or more drinks in 1 day in past year: United States, 1983

Characteristic	Alcohol consumption ¹						Percent of drinkers who consumed 5 or more drinks in 1 day
	Total ²	Lifetime abstainer	Former drinker	Lighter drinker	Moderate drinker	Heavier drinker	
				Percent distribution			
All persons 20 years of age and over	100.0	33.0	6.7	29.5	21.0	9.9	37.7
Sex							
Male	100.0	18.5	9.0	28.5	27.7	16.2	49.9
Female	100.0	45.4	4.6	30.4	15.1	4.3	23.4
Race ³							
White	100.0	30.6	6.6	30.5	22.0	10.3	38.4
All other	100.0	49.6	7.2	22.8	13.8	6.6	30.9
Black	100.0	48.3	7.5	22.6	14.4	7.2	29.6
Other	100.0	55.8	6.0	23.8	10.6	3.9	37.6
Hispanic origin ³							
Hispanic	100.0	46.1	4.1	23.3	18.0	8.5	42.6
Non-Hispanic	100.0	32.1	6.8	29.9	21.1	10.0	37.4
Age							
20–34 years	100.0	26.3	3.5	33.7	26.1	10.4	51.8
35–44 years	100.0	28.2	6.3	31.9	23.1	10.4	36.0
45–54 years	100.0	32.8	8.1	28.7	19.1	11.3	30.2
55–64 years	100.0	36.3	9.4	27.3	17.3	9.8	21.2
65–74 years	100.0	45.3	12.2	22.8	11.7	8.0	13.2
75 years and over	100.0	61.1	8.9	14.5	10.9	4.7	5.0
Income							
Less than \$7,000	100.0	47.6	9.4	20.1	15.2	7.7	42.5
\$7,000–\$14,999	100.0	38.8	9.0	25.6	18.3	8.3	40.4
\$15,000–\$24,999	100.0	32.6	7.0	29.8	21.1	9.5	39.9
\$25,000–\$39,999	100.0	25.3	5.2	34.8	23.6	11.0	37.3
\$40,000 or more	100.0	18.3	3.3	35.9	28.5	14.0	36.3
Education of individual							
Less than 12 years	100.0	47.3	10.9	21.0	13.1	7.8	35.3
12 years	100.0	32.1	6.1	31.8	20.6	9.5	38.0
More than 12 years	100.0	23.0	4.1	33.6	27.4	11.9	38.5

¹Measure developed by the National Institute on Alcohol Abuse and Alcoholism. Categories based on ounces of ethanol consumed during a 2-week reference period within the past 12 months: Zero for abstainers; 0.01–0.21 ounces per day for lighter drinkers; 0.22–0.99 ounces per day for moderate drinkers; and 1.0 ounces or more per day for heavier drinkers. The conversion factors were .04 ounces of ethanol per ounce of beer, .15 ounces per ounce of wine, and .45 ounces per ounce of liquor.

²Excludes unknown alcohol consumption level, and for last column also excludes drinkers for whom it is unknown whether or not they have 5 or more drinks in 1 day.

³Based on self-reported identification.

NOTE: See table 1 for population.

more prevalent and heavier alcohol consumption among the young should be a matter of considerable public health concern.

Drinking was also associated with education, with adults in the higher educational attainment groups being more likely to drink and to drink more heavily. The relationship between drinking and income was somewhat different. Persons at the lower income levels were less likely to drink than persons with higher incomes (48 percent of persons with incomes under \$7,000 were abstainers compared with 18 percent of persons with incomes of \$40,000 or more). They were also less likely to drink heavily on a regular basis (8 percent of the lowest income group, compared with 14 percent of the highest income group, being classified as heavier drinkers). However, the lowest income group was somewhat more likely to have had five drinks or more on at least 1 day in the

past year (43 percent) than persons in the \$40,000 or more income category were (36 percent).

Smoking

Data on smoking status and number of cigarettes smoked are shown in table 6. In 1983, about 32 percent of U.S. adults currently smoked cigarettes, 45 percent had never smoked, and 23 percent had smoked but quit. A larger proportion of men (36 percent) currently smoked than women (29 percent). Men were more likely than women to have ever smoked cigarettes (65 percent of men had ever smoked compared to 46 percent of women), but they were also more likely than women to be former smokers. About 30 percent of all men were classified as former smokers (45 percent

Table 6. Percent distribution of persons 20 years of age and over by smoking status and percent distribution of current smokers by number of cigarettes smoked daily, according to selected characteristics: United States, 1983

Characteristic	Smoking status				Number of cigarettes smoked daily					
	Total ¹	Never smoked	Former smoker	Current smoker	All current smokers ²	Less than 15	15-24	25-34	35 or more	
All persons 20 years of age and over	100.0	45.2	22.5	32.4	100.0	28.4	44.8	13.4	13.4	
Sex										
Male	100.0	34.7	29.5	35.7	100.0	23.1	43.8	15.6	17.5	
Female	100.0	54.4	16.2	29.4	100.0	34.1	45.9	11.0	9.0	
Race ³										
White	100.0	44.5	23.5	32.0	100.0	24.4	46.1	14.7	14.4	
All other	100.0	50.0	15.1	34.9	100.0	53.6	36.8	4.9	4.7	
Black	100.0	48.2	14.7	37.1	100.0	54.7	36.0	4.8	4.5	
Other	100.0	58.6	16.9	24.5	100.0	45.0	42.6	*5.9	*6.4	
Hispanic origin ³										
Hispanic	100.0	57.2	16.5	26.4	100.0	56.4	34.1	4.8	4.6	
Non-Hispanic	100.0	44.4	22.9	32.7	100.0	27.0	45.4	13.8	13.8	
Age										
20-34 years	100.0	49.6	14.4	36.1	100.0	32.0	47.3	11.8	8.9	
35-44 years	100.0	40.6	22.1	37.3	100.0	23.0	42.5	17.1	17.4	
45-54 years	100.0	37.6	25.9	36.5	100.0	22.7	41.0	15.0	21.3	
55-64 years	100.0	38.2	31.7	30.2	100.0	25.7	45.7	12.8	15.8	
65-74 years	100.0	45.5	33.0	21.5	100.0	37.0	43.7	10.5	8.9	
75 years and over	100.0	64.7	26.8	8.5	100.0	46.0	45.4	*5.9	*2.5	
Income										
Less than \$7,000	100.0	48.2	16.4	35.4	100.0	34.4	42.5	11.7	11.3	
\$7,000-\$14,999	100.0	43.2	21.8	35.0	100.0	30.5	48.0	10.7	10.8	
\$15,000-\$24,999	100.0	44.3	21.9	33.8	100.0	27.7	45.0	14.0	13.3	
\$25,000-\$39,999	100.0	45.2	23.8	31.0	100.0	23.7	44.3	15.5	16.5	
\$40,000 or more	100.0	45.4	27.7	26.9	100.0	25.8	42.3	17.4	14.5	
Education of individual										
Less than 12 years	100.0	41.2	22.1	36.7	100.0	28.1	44.7	12.0	15.3	
12 years	100.0	42.1	21.8	36.2	100.0	27.9	45.8	13.6	12.7	
More than 12 years	100.0	51.5	23.4	25.1	100.0	29.5	43.6	14.4	12.5	

¹Excludes unknown smoking status.

²Excludes unknown amount smoked.

³Based on self-reported identification.

NOTE: See table 1 for population.

of men who had ever smoked) compared with 16 percent of all women (36 percent of women who had ever smoked). Among current smokers, women appeared to smoke fewer cigarettes than men. Thirty-four percent of women smoked less than 15 cigarettes a day compared with 23 percent of men, and 18 percent of men smoked 35 cigarettes or more in contrast to 9 percent of women.

Smoking practices differed for black and white persons and for Hispanic and non-Hispanic persons. A higher proportion of black persons (37 percent) currently smoked cigarettes than white persons did (32 percent), but black smokers reported smoking fewer cigarettes per day than white smokers did—about one-fourth of white smokers (24 percent) smoked less than 15 cigarettes daily, and over one-half of black smokers (55 percent) smoked this amount. A smaller proportion of Hispanic persons reported currently smoking cigarettes (26 percent) than non-Hispanic respondents did (33 percent). Among smokers, Hispanic persons were twice as likely (56 percent) as non-Hispanic persons (27 percent) to smoke less than 15 cigarettes per day. (See Technical notes for further discussion of Hispanic smoking practices.)

Smoking practices were also related to age. Prevalence of cigarette smoking was fairly similar in all age groups under age 55, but smoking prevalence in the older age groups was sharply lower. Among persons aged 55–74, this lower prevalence of current smoking was associated with much larger proportions of former smokers; approximately one-third of persons in this age group were former smokers. In contrast, the low smoking prevalence in the oldest group (9 percent) is attributable to the fact that they never started smoking (65 percent).

Smoking prevalence was associated with education and to some extent with income. Persons with more than 12 years of education were the least likely to smoke (25 percent) and the most likely to have never started (52 percent) of any education group. Smoking was inversely related to income level, declining from 35 percent of persons with incomes of less than \$7,000 to 27 percent of persons with incomes of \$40,000 a year or more.

Desirable weight

Desirable weight is presented using the 1960 Metropolitan Life Insurance Company (MLIC) standards of desirable body weight for height.¹⁴ The MLIC desirable weight standards are based on the mortality experience of a group of life insurance policy holders. Because persons who obtain life insurance are not representative of the general population, the appropriateness of these standards for some population subgroups is unknown.¹⁵ The 1960 MLIC standards are slightly lower than

the more recent MLIC standards, published in 1983. Thus, data presented in this report somewhat overestimate the proportion of the population that is overweight according to 1983 standards. Both MLIC and NHIS data are based on self-reported height and weight (see Technical notes for a discussion of adjustments made for reporting differences). Self-reported height and weight data produce conservative estimates of the extent of overweight in the population because heavier people tend to report lighter body weights than are obtained by actual physical measurements.¹⁶

A variety of measures of overweight status are used both within NCHS and by outside researchers.¹⁵ A major source of data on the prevalence of overweight in the U.S. population is the Second National Health and Nutrition Examination Survey (NHANES II). Data released from the NHANES II on overweight status are computed using measured height and weight and are expressed in terms of body mass index (BMI), calculated as weight divided by height squared. Although not identical, the proportions of the population defined as “20 percent or more overweight” using the BMI NHANES II cut-off points and the 1960 and 1983 MLIC standards are not substantially different.¹⁵ The 1960 MLIC standards were selected for the present analysis to maintain comparability with measures of overweight used in previously published research.¹¹

Overall, about 23 percent of U.S. adults reported height and weight measurements that placed them within 5 percent of their desirable body weight, whereas 16 percent of the population was 30 percent or more above desirable weight (see table 7). The proportion of Hispanic persons and non-Hispanic persons reporting desirable weight did not differ significantly. Young people were more likely to be of desirable weight than were older people. Almost 28 percent of persons in the youngest group were within 5 percent of desirable weight in contrast to 23 percent of persons 35–44 years of age and even lower proportions in the older age groups.

Women were more likely than men to be at the extremes of the desirable weight range. Twelve percent of women in contrast to 5 percent of men were in the most underweight category, and 18 percent of women compared with 13 percent of men were in the most overweight category. The proportion of persons 30 percent or more overweight differed significantly for black and white persons. About 26 percent of black persons reported weights in this range compared with 15 percent of white persons.

Extreme overweight was also associated with both income and education. People in the lowest income and education groups were about twice as likely to be 30 percent or more overweight compared with people at the high ends of the income and education ranges.

Table 7. Percent distribution of persons 20 years of age and over by body weight, according to selected characteristics: United States, 1983

Characteristic	Total ²	Body weight ¹						
		10 percent or more below desirable weight	5-9.9 percent below desirable weight	Plus or minus 4.9 percent of desirable weight	5-9.9 percent above desirable weight	10-19.9 percent above desirable weight	20-29.9 percent above desirable weight	30 percent or more above desirable weight
All persons 20 years of age and over	100.0	9.0	8.4	22.8	12.9	20.1	10.8	16.0
Sex								
Male	100.0	5.2	6.3	21.7	16.1	24.0	13.2	13.4
Female	100.0	12.4	10.2	23.8	10.1	16.6	8.6	18.3
Race ³								
White	100.0	9.2	8.4	23.0	13.2	20.4	10.8	15.0
All other	100.0	8.0	8.3	21.5	10.8	17.6	11.0	22.8
Black	100.0	7.1	7.4	19.6	10.8	17.8	11.6	25.7
Other	100.0	12.4	12.3	30.7	10.8	16.9	8.2	8.7
Hispanic origin ³								
Hispanic	100.0	6.4	6.7	23.6	10.8	20.6	13.8	18.1
Non-Hispanic	100.0	9.2	8.5	22.7	13.0	20.0	10.6	15.9
Age								
20-34 years	100.0	13.3	11.5	27.6	12.6	16.5	7.8	10.7
35-44 years	100.0	7.2	8.0	22.5	13.1	21.5	11.0	16.7
45-54 years	100.0	4.9	5.7	18.1	13.1	23.1	13.3	21.9
55-64 years	100.0	4.7	5.0	18.9	12.9	23.3	13.9	21.3
65-74 years	100.0	6.6	6.2	18.1	12.3	22.0	13.3	21.5
75 years and over	100.0	12.0	8.4	21.5	15.2	20.1	11.2	11.6
Income								
Less than \$7,000	100.0	10.4	8.8	20.6	11.1	18.0	10.5	20.7
\$7,000-\$14,999	100.0	9.3	7.9	21.9	12.8	18.4	10.9	18.8
\$15,000-\$24,999	100.0	9.0	8.2	22.7	12.0	21.0	11.4	15.6
\$25,000-\$39,999	100.0	8.1	8.5	23.5	14.1	20.8	10.4	14.6
\$40,000 or more	100.0	8.9	9.8	25.0	14.1	21.7	10.0	10.5
Education of individual								
Less than 12 years	100.0	7.6	6.2	18.8	11.1	20.7	13.0	22.5
12 years	100.0	9.0	8.2	23.0	12.8	20.3	10.9	15.8
More than 12 years	100.0	10.0	10.3	25.7	14.3	19.4	9.0	11.3

¹Desirable weight based on 1960 Metropolitan Life Insurance Company standards. NHIS data are self-reported, and estimates may vary from those that would be obtained if physical measurements were taken.

²Excludes unknown height or weight.

³Based on self-reported identification.

NOTE: See table 1 for population.

Trends

Table 8 shows changes between 1977 and 1983 in the proportion of persons reporting selected unfavorable health practices, expressed as a ratio of the proportion reporting a particular practice in 1983 to the proportion reporting the same practice in 1977. Thus, ratios greater than 1.00 represent increases in the prevalence of the (unfavorable) practice over the 6-year period, and ratios of less than 1.00 represent decreases.

In general, between 1977 and 1983 there appears to have been an increase in unfavorable health practices, except for a decline of approximately 10 percent in reported rates of current smoking and a slight decrease in rates of irregular eating habits represented by snacking (3 percent). Although most of the differences were not marked, there was an increase of 10 percent or more in the prevalence rates of 4 of the

7 unfavorable practices—sleeping 6 hours or less (12 percent); being less physically active than contemporaries (12 percent); weighing 30 percent or more above desirable weight (10 percent); and drinking five or more drinks in any 1 day (28 percent). The proportion of persons who never eat breakfast increased only slightly (4 percent).

Declines in smoking prevalence between 1977 and 1983 signify a public health accomplishment and demonstrate that progress in being made toward reaching the 1990 objective of reducing smoking prevalence in the U.S. population to below 25 percent.

It should be noted that increases in the proportion of persons who reported that they are less physically active than their contemporaries could be attributed as much to changing perceptions of the norms of physical activity as to changes in individual physical activity levels. In both 1977 and 1983,

the physical activity questions required that people assess their level of activity relative to others the same age, thereby measuring their perceptions of relative activity rather than any objective, quantifiable activity level. These perceptions, by definition, incorporate both an evaluation of individuals' own physical activity levels and those of their contemporaries. With recent increased publicity encouraging exercise and physical fitness, U.S. adults may perceive higher activity levels in the general population than in earlier years, even though their own physical activity levels may have remained constant or even increased slightly.

The substantial increase in the proportion of persons who reported drinking five or more drinks is difficult to interpret because of differences in question wording and context between the two survey years. In 1977, respondents were asked if they had had five or more drinks at one sitting in the past year, whereas in 1983 people were asked about having five or more drinks in any 1 day. Also, unlike the 1977 question, the 1983 question on consuming five or more drinks followed one that asked respondents whether they had had nine or more drinks in any 1 day. These and other changes in the 1983 alcohol questions allow better estimates of the alcohol

Table 8. Changes between 1977 and 1983 in the proportion of U.S. adults ages 20 years and over, reporting selected health practices: Ratio of the proportion reporting the practice in 1983 to the proportion reporting the practice in 1977

Characteristic	Health practices						
	Sleeps 6 hours or less	Never eats breakfast	Snacks every day	Less physically active than contemporaries	Had 5 or more drinks on any 1 day ¹	Current smoker	30 percent or more above desirable weight ²
	Ratio of the proportion reporting practice in 1983 to the proportion reporting practice in 1977						
All persons 20 years of age and over	1.12	1.04	0.97	1.12	1.28	0.90	1.10
Sex							
Male	1.07	1.03	0.97	1.02	1.15	0.87	1.15
Female	1.17	1.04	0.98	1.21	1.26	0.92	1.10
Race ³							
White	1.10	1.05	0.98	1.11	1.28	0.90	1.12
All other	1.21	0.96	0.93	1.15	1.21	0.86	0.99
Black	1.23	0.91	0.96	1.16	1.12	0.88	1.04
Other	1.17	1.33	0.81	1.24	2.08	0.84	0.77
Hispanic origin ³							
Hispanic	0.87	1.10	0.87	0.92	1.33	0.79	0.96
Non-Hispanic	1.14	1.03	0.98	1.14	1.26	0.90	1.12
Age							
20-34 years	1.03	0.99	0.93	1.29	1.20	0.90	1.07
35-44 years	1.12	0.99	0.94	1.11	1.07	0.86	1.11
45-54 years	1.20	1.12	1.03	1.11	1.13	0.92	1.25
55-64 years	1.23	1.10	0.99	1.00	1.15	0.88	1.09
65-74 years	1.16	1.13	1.12	1.10	1.42	1.00	1.14
75 years and over	1.18	0.77	1.00	1.00	1.39	0.85	0.97
Income ⁴							
Less than \$7,000	1.11	1.23	1.02	1.02	2.08	1.06	1.08
\$7,000-\$14,999	1.21	0.99	0.99	1.08	1.54	0.93	1.14
\$15,000-\$24,999	1.10	1.04	0.95	1.28	1.24	0.88	1.08
\$25,000-\$39,999	1.08	1.01	0.95	1.19	1.12	0.83	1.16
\$40,000 or more	1.10	1.02	1.01	1.25	0.99	0.79	1.11
Education of individual							
Less than 12 years	1.14	1.03	0.97	1.14	1.60	0.98	1.07
12 years	1.16	1.02	0.97	1.13	1.22	0.92	1.17
More than 12 years	1.10	1.03	0.98	1.23	1.09	0.82	1.28

¹The 1977 question asked about 5 or more drinks on any one occasion in the past year, while the 1983 question asked about 5 or more drinks on any 1 day in the past year.

²Desirable weight based on 1960 Metropolitan Life Insurance Company standards. NHIS data are self-reported, and estimates may vary from those that would be obtained if physical measurements were taken.

³Based on self-reported identification.

⁴The income categories for 1983 shown here differ from the 1977 categories shown in *Advance Data* No. 64. The 1983 income categories contain roughly the same proportion of the 1983 population as the 1977 categories contained of the 1977 population. The income categories for 1977 were less than \$5,000, \$5,000-\$9,999, \$10,000-\$14,999, \$15,000-\$24,999, and \$25,000 or more.

consumption habits of the American people, but limit the ability to measure changes over time.

Overall, these findings, especially with regard to alcohol use, body weight, and physical activity, suggest the need for further assessment of the progress made toward the 1990 prevention objectives and of the public health education strate-

gies designed to accomplish those goals. Progress has been made in the area of smoking reduction, but additional gains are needed to reach the 1990 goal. The recently completed 1985 NHIS Health Promotion and Disease Prevention survey will offer an opportunity to continue to monitor advances toward the national goals.¹⁷

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Technical notes

Data presented in this report were obtained from household interviews of the National Health Interview Survey (NHIS). These interviews were conducted among a probability sample of the civilian noninstitutionalized population of the United States. During 1983 approximately 106,000 persons living in about 41,000 households were included in the sample. The total noninterview rate for the NHIS was about 3.3 percent, including 2.0 percent attributable to respondent refusal and 1.3 percent attributable to failure to find an eligible respondent at home after repeated calls.

Questions about health practices were asked of a one-third subsample of all persons 18 years of age and over, or approximately 22,400 persons. This report is based on data for the approximately 21,450 subsample respondents who were 20 years of age and over. Self-reporting was generally required for these questions, but proxy responses were accepted when subsample persons were physically or mentally incapable of answering the questions for themselves. Persons with unknown health practice characteristics are excluded only from the analysis for that particular health practice. Item nonresponse for the data discussed in this report ranged from 0.2 percent for snacking to 3.1 percent for desirable weight.

The measure of desirable weight used in this report was based on the 1960 Metropolitan Life Insurance Company (MLIC) standards of desirable weights for men and women that were derived from the 1959 Build and Blood Pressure Study conducted by the Society of Actuaries. These standards are published in a Metropolitan Life Insurance Company booklet entitled *Overweight: Its Prevention and Significance*.¹⁴ Desirable weights were shown for small, medium, and large frames for men and women. For NHIS analyses, the midpoint of the desirable weight range for the medium frame category was used as the "desirable weight" for a particular height, with certain adjustments. The MLIC standards were developed based on weight in indoor clothing and height with 1-inch heels for men and 2-inch heels for women. The NHIS asked respondents to report their height without shoes and their weight without shoes. To compensate for these differences, the MLIC standards were adjusted by subtracting 2 pounds from the midpoint of the medium frame category for both sexes, and subtracting 1 inch from the height for men and 2 inches from the height for women.

Estimates for the white, black, and other populations, shown in table 1 of the text, are based on self-reported racial identifications. The Hispanic classification is also based on self-reporting. For detailed definitions of other sociodemographic terms used here, see appendix II in most Series 10 reports in the *Vital and Health Statistics* series. In accordance with new Government guidelines, the race and Hispanic origin designations shown in this report differ from those presented in the earlier *Advance Data* report on health practices of

Standard errors, expressed in percentage points, of estimated percents, NHIS Alcohol and Health Practices Survey, 1983

Base of percent in thousands	Estimated percent				
	2 or 98	5 or 95	10 or 90	20 or 80	50
50	5.5	8.5	11.7	15.6	19.5
70	4.6	7.2	9.9	13.2	16.5
100	3.9	6.0	8.3	11.0	13.8
300	2.2	3.5	4.8	6.4	8.0
500	1.7	2.7	3.7	4.9	6.2
700	1.5	2.3	3.1	4.2	5.2
1,000	1.2	1.9	2.6	3.5	4.4
5,000	0.5	0.8	1.2	1.6	1.9
10,000	0.4	0.6	0.8	1.1	1.4
20,000	0.3	0.4	0.6	0.8	1.0
30,000	0.2	0.3	0.5	0.6	0.8
50,000	0.2	0.3	0.4	0.5	0.6
100,000	0.1	0.2	0.3	0.3	0.4

the U.S. population.¹¹ To calculate the ratios shown in table 8 of this report, the 1977 data were recomputed with race and Hispanic origin designations that resembled, as closely as possible, those shown here for the 1983 population.

Findings presented in this report regarding the smoking practices of Hispanic persons differ somewhat from findings presented elsewhere¹⁸ for Mexican-Americans living in the Southwest United States, collected in the Hispanic Health and Nutrition Examination Survey (HHANES). HHANES data showed a higher prevalence of current smoking among Mexican-American men and a lower prevalence among Mexican-American women than did unpublished sex-specific data from the 1983 NHIS for persons of Hispanic origin. Possible explanations for these discrepancies could include differences in sample design or interviewing procedures, cultural differences between Mexican-Americans and other Hispanic groups (NHIS includes all Hispanic groups), regional differences in smoking behavior, or differences in the age or educational composition of the two Hispanic samples. Analysis of these methodological issues is beyond the scope of this report.

Because the estimates shown in this report are based on a sample of the population rather than on the entire population, they are subject to sampling error. Standard errors appropriate for estimated percents of persons are shown in the table above. The statistics shown and discussed here are simple prevalence estimates, unadjusted for age or other sociodemographic characteristics.

To better understand the limitations of the estimates presented in this report, data users are encouraged to familiarize themselves with the survey design, the methods used in estimation, and the general qualifications of the data, which are described in appendix I of the 1983 Current Estimates report.¹⁹ Definitions of certain terms used in this report, but not specifically addressed in this section, and the questionnaire and flashcards used during 1983 are presented in appendixes II and III of that report.

NOTE: See list of references at end of text.

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