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DECEMBER 18, 1970

VITAL STATISTICS REPORT

Health Interview Survey Data

FROM THE

NATIONAL CENTER FOR HEALTH STATISTICS

Changes in Cigarette Consumption Between June 1966 and August 1968

The estimates in this publication are based on data collected by the U.S. Bureau of the Census under contract with the National Center for Health Statistics. The data, collected as supplements to the Current Population Survey of June 1966, August 1967, and August 1968, cover the civilian, noninstitutional population of the United States 17 years of age and over.

The distribution of the population for these 3 years by cigarette smoking status (present smoker, former smoker, and never smoked) is shown in a report released in December 1969. That report indicated that between June 1966 and August 1968 the proportion of persons smoking cigarettes decreased for the total population by 5 percent. The decrease was apparent for all age-sex categories, except for persons 65 years and over, where there was only a negligible decrease for males and an increase of 17 percent for females. (See "Cigarette Smoking Status—June 1966, August 1967, and August 1968," *Monthly Vital Statistics Report*, Vol. 18, No. 9, Supplement, December 5, 1969.)

This current report contains information on the daily consumption pattern of those present smokers during the same time period. The data indicate that the only consistent decline between 1966 and 1968 was for persons averaging 10 or fewer cigarettes daily, a decrease of 3 percent. The change was largest for those 65 years and over, where the rate fell for males by 13 percent and for females by 18 percent.

The proportion of persons smoking over 10 cigarettes per day increased for most smoking categories, and the changes were generally higher for those aged 45 years and over. The largest percentage increases for persons smoking 11-20 cigarettes daily were 5 percent for males 45-64 years of age and 15 percent for females 65 years and over.

The same trend is apparent for those smoking 21-40 cigarettes daily, where there was an increase of 24 percent for males and 43 percent for females in the oldest age group.

For persons smoking more than 2 packs per day the only decrease noted was for both sexes aged 17 to 24 years.

The estimated rates may be slightly affected by the type of respondent. Proxy-respondents (those responded for by other family members) report a somewhat lower average number of cigarettes smoked daily than do self-respondents. For all 3 survey years only one-third of the males were self-respondents. This reporting bias will result in more under-reporting for males than for females since 71 to 73 percent of the females were self-respondents in the three surveys. (See "Changes in Cigarette Smoking Habits Between 1955 and 1966," *Vital and Health Statistics*, PHS Pub. No. 1000-Series 10-No. 59.)

It should be noted that no adjustment of the data was made for persons of unknown smoking or respondent status nor for those for whom current daily smoking rates were not reported.

MONTHLY VITAL STATISTICS REPORT

Table 1. PERCENT OF TOTAL POPULATION 17 YEARS OF AGE AND OVER WHO ARE PRESENT CIGARETTE SMOKERS AND NUMBER AND PERCENT DISTRIBUTION BY AVERAGE NUMBER OF CIGARETTES SMOKED PER DAY, ACCORDING TO SEX AND AGE: UNITED STATES, CURRENT POPULATION SURVEY, JUNE 1966

Sex and age	Present cigarette smokers as a percent of total population	Number of smokers in thousands	Total	Average daily cigarette consumption				
				Under 11	11-20	21-40	41 and over	Daily rate unknown
BOTH SEXES				Percent distribution				
Total, 17 years and over-----	39.6	49,304	100.0	28.0	47.5	19.1	1.7	3.7
17-24 years-----	37.6	8,531	100.0	36.7	46.7	10.5	1.0	5.2
25-44 years-----	49.6	22,407	100.0	23.9	49.7	21.9	1.9	2.6
45-64 years-----	40.2	15,855	100.0	26.4	46.0	21.3	2.0	4.4
65 years and over-----	15.3	2,711	100.0	43.9	40.0	10.5	*	4.9
MALE								
Total, 17 years and over-----	48.6	28,413	100.0	22.2	48.0	22.8	2.3	4.7
17-24 years-----	44.4	4,676	100.0	31.1	49.4	11.4	1.2	6.8
25-44 years-----	57.9	12,475	100.0	17.7	50.1	26.2	2.7	3.3
45-64 years-----	50.1	9,360	100.0	20.4	45.5	26.0	2.7	5.4
65 years and over-----	24.6	1,802	100.0	39.2	42.3	11.9	*	5.6
FEMALE								
Total, 17 years and over-----	31.6	20,891	100.0	35.8	46.8	14.1	0.9	2.4
17-24 years-----	31.6	3,855	100.0	43.5	43.3	9.3	*	3.3
25-44 years-----	42.1	9,932	100.0	31.6	49.2	16.6	0.9	1.7
45-64 years-----	31.1	6,294	100.0	35.3	46.7	14.2	0.9	2.8
65 years and over-----	8.1	809	100.0	54.9	34.6	7.0	*	*

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and P-60.

Table 2. PERCENT OF TOTAL POPULATION 17 YEARS OF AGE AND OVER WHO ARE PRESENT CIGARETTE SMOKERS AND NUMBER AND PERCENT DISTRIBUTION BY AVERAGE NUMBER OF CIGARETTES SMOKED PER DAY, ACCORDING TO SEX AND AGE: UNITED STATES, CURRENT POPULATION SURVEY, AUGUST 1967

Sex and age	Present cigarette smokers as a percent of total population	Number of smokers in thousands	Total	Average daily cigarette consumption				
				Under 11	11-20	21-40	41 and over	Daily rate unknown
BOTH SEXES				Percent distribution				
Total, 17 years and over-----	39.1	49,446	100.0	27.8	47.5	19.2	1.9	3.5
17-24 years-----	37.0	8,542	100.0	36.9	46.1	11.4	0.8	4.7
25-44 years-----	48.5	22,050	100.0	24.3	49.3	21.6	2.2	2.6
45-64 years-----	40.0	15,872	100.0	25.2	46.9	21.6	2.4	3.9
65 years and over-----	16.0	2,882	100.0	41.3	41.7	12.1	*	4.2
MALE								
Total, 17 years and over-----	47.8	28,332	100.0	22.1	48.6	22.6	2.5	4.2
17-24 years-----	43.8	4,701	100.0	31.2	49.6	12.6	0.7	5.9
25-44 years-----	56.3	12,233	100.0	18.4	50.0	25.4	2.9	3.3
45-64 years-----	49.6	9,402	100.0	16.9	47.7	25.6	3.2	4.6
65 years and over-----	25.5	1,986	100.0	38.4	42.4	13.8	1.1	4.4
FEMALE								
Total, 17 years and over-----	31.4	21,114	100.0	35.5	46.1	14.8	1.1	2.5
17-24 years-----	31.2	3,941	100.0	43.6	42.0	10.0	1.0	3.2
25-44 years-----	41.3	9,817	100.0	31.8	48.4	16.8	1.2	1.8
45-64 years-----	31.3	6,469	100.0	34.4	45.8	15.7	1.1	3.0
65 years and over-----	8.7	887	100.0	47.7	40.0	6.3	*	3.7

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and P-60.

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Table 3. PERCENT OF TOTAL POPULATION 17 YEARS OF AGE AND OVER WHO ARE PRESENT CIGARETTE SMOKERS AND NUMBER AND PERCENT DISTRIBUTION BY AVERAGE NUMBER OF CIGARETTES SMOKED PER DAY, ACCORDING TO SEX AND AGE: UNITED STATES, CURRENT POPULATION SURVEY, AUGUST 1968

Sex and age	Present cigarette smokers as a percent of total population	Number of smokers in thousands	Total	Average daily cigarette consumption				
				Under 11	11-20	21-40	41 and over	Daily rate unknown
BOTH SEXES				Percent distribution				
Total, 17 years and over-----	37.7	48,436	100.0	27.1	47.9	19.5	2.1	3.4
17-24 years-----	34.8	8,348	100.0	36.4	46.7	11.5	0.7	4.7
25-44 years-----	47.1	21,666	100.0	23.6	49.3	21.9	2.4	2.7
45-64 years-----	38.5	15,491	100.0	24.8	47.7	21.7	2.4	3.4
65 years and over-----	15.9	2,931	100.0	38.0	42.5	13.2	1.3	5.0
MALE								
Total, 17 years and over-----	45.9	27,574	100.0	21.6	48.9	22.6	2.8	4.0
17-24 years-----	41.3	4,537	100.0	31.7	48.8	12.8	0.8	5.9
25-44 years-----	54.7	12,022	100.0	17.9	50.5	25.2	3.3	3.1
45-64 years-----	47.3	9,032	100.0	18.9	47.8	25.8	3.5	4.0
65 years and over-----	24.5	1,934	100.0	34.3	43.9	14.8	1.6	5.4
FEMALE								
Total, 17 years and over-----	30.5	20,862	100.0	34.3	46.7	15.4	1.0	2.6
17-24 years-----	29.4	3,811	100.0	42.0	44.2	10.0	0.6	3.2
25-44 years-----	40.2	9,644	100.0	30.8	47.9	17.9	1.3	2.2
45-64 years-----	30.5	6,409	100.0	33.3	47.4	15.8	0.9	2.6
65 years and over-----	9.5	997	100.0	45.0	39.9	10.0	*	4.3

NOTE: For official population estimates for more general use, see U.S. Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and P-60.

EXPLANATION OF SYMBOLS USED IN TABLES	
Data not available-----	---
Category not applicable-----	...
Quantity zero-----	-
Quantity more than 0 but less than 0.05-----	0.0
Figure does not meet standards of reliability or precision--	*

Technical Notes

The information from the Current Population Survey of the U.S. Bureau of the Census on cigarette smoking habits of the civilian, non-institutional population was collected in household interviews in June 1966, August 1967, and August 1968. A supplement was added to the basic Current Population Survey for each of these months to derive information as to the smoking habits of the population. The information in tables 1, 2, and 3 was obtained from the following questions, which were worded alike in all three supplements:

- Has . . . smoked at least 100 cigarettes during his entire life?
 Does . . . smoke cigarettes now?
 On the average, about how many cigarettes a day does . . . smoke?

The Current Population Survey's sample design in June 1966 was spread over 357 areas comprising 701 counties and independent cities, with coverage in each of the 50 States and the District of Columbia. Approximately 35,000 households, which contained about 75,000 persons 17 years of age or over, were designated for inclusion in the survey. Interviews were not obtained from about 1,500 of these households because the occupants either were not found at home after repeated calls or were unavailable for some other reason. Noninterview adjustment factors are employed to take into account these households. During August 1967 the Current Population Survey sample consisted of about 52,500 households with a noninterview rate of about 4.5 percent. The August 1968 sample contained about 50,000 households with a noninterview rate of about 4.6 percent. The 1967 and 1968 samples covered 449 areas comprising 863 counties and independent cities.

Since the estimates based on these data are obtained from a sample, they are subject to sampling variability and to errors of response and reporting. The standard error is primarily a measure of sampling variability, that is, the variations that occur by chance because a sample rather than the entire population is surveyed. Approximations of the standard errors of the estimates have been computed. Standard error tables for the 3 years have been prepared; the order of magnitude of these errors for percentages shown in this report is summarized below:

June 1966 base	Percentage		
	10	25	50
10,000,000 -----	0.4	0.6	0.6
25,000,000 -----	0.2	0.4	0.4
50,000,000 -----	0.2	0.3	0.3
100,000,000 -----	0.1	0.2	0.3
<i>August 1967 and 1968 base</i>			
10,000,000 -----	0.3	0.5	0.5
25,000,000 -----	0.2	0.3	0.3
50,000,000 -----	0.1	0.2	0.2
100,000,000 -----	0.1	0.2	0.2

The standard error of the difference between two percentages is approximately the square root of the sum of squares of the standard error of each estimate considered separately. For instance, the percentages of present smokers among males in 1966 and 1967 were 48.6 and 47.8, respectively. Linear interpolation from the above table indicates that for populations of 58.5 million and 59.2 million the standard errors of these percentages are about 0.3 in 1966 and 0.2 in 1967. Thus, the standard error of the difference is about 0.36. The observed difference between the two percentages is 0.8. This difference divided by the standard error of the difference between the two percentages (0.8/0.36) gives a value of 2.2. This value means that a difference of 0.8 percentage points may occur by chance alone about three times out of 100 observations. Thus, this difference may be considered statistically significant. Smoking information was ob-

tained for persons who were not home at the time of the interview from a household respondent. The type of respondent, i.e., self-respondent or proxy, had little effect on the rates of present smokers for males but had some effect on the rates of present smokers for females. The degree of the differences for 1968 was similar to those reported for 1966 and 1967 in Series 10, No. 52.

1968	Percent present smokers	
	Male	Female
Self-----	47.3	32.8
Proxy-----	46.4	25.9

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National Center for Health Statistics
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