## VITAL STATISTICS REPORT

 Health Interview Survey
## Characteristics of Females Ever Having a Breast Examination and Interval Since Last Examination, United States, 1973

During 1973, data were collected in the Health Interview Survey on the most recent examinations obtained by persons in the civilian noninstitutionalized population to provide early detection of disease. Included among these examinations were electrocardiograms (EKG), glaucoma tests, chest X -rays, eye
examinations, breast examinations, routine physicals for children under 17 years of age, and pap smears (Papanicolaou test). This is the first time such data have been collected in the Health Interview Survey. A more detailed report of all types of preventive services collected in the survey is planned for re-

Table 1 , Number and percent distribution of females 17 years and over ever having or never having breast examinations, according to family income and age: United States, 1973

| Family income and age | Total ${ }^{1}$ | Ever had examination | Never had examination | Total ${ }^{1}$ | Ever had examination | Never had examination |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All family income ${ }^{2}$ | Number in thousands |  |  | Percent |  |  |
| A11 females, 17 years and over-- | 75,161 | 57,372 | 14,557 | 100.0 | 76.3 | 19.4 |
| 17-24 year | 15,062 | 9,815 | 4,547 | 100.0 | 65.2 | 30.2 |
| 25-44 years | 25,862 | 22,958 | 2,097 | 100.0 | 88.8 | 8.1 |
| 45-64 years | 22,370 | 17,584 | 3,765 | 100.0 | 78.6 | 16.8 |
|  <br> Less than $\$ 5,000$ | 11,867 | 7,015 | 4,148 | 100.0 | 59.1 | 35.0 |
| A11 females, 17 years and over-- | 16,297 | 10,744 | 4,962 | 100.0 | 65.9 | 30.4 |
| 17-24 years | 3,260 | 2,349 | 812 | 100.0 | 72.1 | 24.9 |
| 25.44 years | 2,793 | 2,231 | 479 | 100.0 | 79.9 | 17.2 |
| 45-64 years | 4,172 | 2,822 | 1,223 | 100.0 | 67.6 | 29.3 |
| 65 years and ov | 6,072 | 3,342 | 2,447 | 100.0 | 55.0 | 40.3 |
| $\$ 5,000-\$ 9,999$ <br> A11 females, 17 years and over-- | 18,739 | 14,514 | 3,500 | 100.0 | 77.5 | 18.7 |
| 17-24 years | 4,365 | 3,171 | 1,018 | 100.0 | 72.6 | 23.3 |
| 25-44 years | 6,223 | 5,388 | 1,644 | 100.0 | 86.6 | 10.3 |
| 45-64 years | 5,472 | 4,207 | 1,039 | 100.0 | 76.9 | 19.0 |
| 65 years and over---------------1 | 2,679 | 1,747 | 800 | 100.0 | 65.2 | 29.9 |
| $\$ 10,000$-or more | 34,590 | 28,497 | 4,782 | 100.0 | 82.4 | 13.8 |
| 17-24 | 6,565 | 3,826 | 2,407 | 100.0 | 58.3 | 36.7 |
| 25-44 years | 15,330 | 14,184 | 764 | 100.0 | 92.5 | 5.0 |
|  | 10,771 | 9,188 | 1,137 | 100.0 | 85.3 | 10.6 |
|  | 1,924 | 1,299 | 474 | 100.0 | 67.5 | 24.6 |

[^0]lease within the year. This report presents data on the proportion of females 17 years and over ever having a breast examination by a doctor and the interval since the most recent examination for breast cancer by age, family income, and education and color of the individual.

Based on the data collected during 1973, approximately three-fourths of all civilian noninstitutionalized females 17 years and over had at least one breast examination prior to the interview (table 1). Approximately 62.9 percent of the 57 million females who ever had a breast examination had the examination during the preceding year (table 2). More than 90 percent ( 92.3 percent) of this group had the examination within the past 5 years. Although a higher proportion of females 25-44 years of age had had a breast examination ( 88.8 percent) than did females of other ages, females in the 17-24 age group were more likely to have had the examination in the past year ( 78.8 percent). Proportionately fewer females 65 years and over had ever had a breast examination compared to other. age groups and were less likely to have had a recent examination.

There was a direct relationship between family income and the percent of females ever having a breast examination. As income level rose, so did the percentage of females having a breast examination, ranging from 65.9 percent for those with less than $\$ 5,000$ annual income to 82.4 percent for those with
family incomes of $\$ 10,000$ or more. There was als a direct relationship between increasing income and the percentage of females having recent breast examinations (within the past year), ranging from 56.1 percent in the lowest income group to 66.3 percent in the highest.

Awareness of the need for preventive examinations is directly related to education. Table 3 shows that females who have not completed high school were less likely to ever have had a breast examination than those females who have completed more years of education, ranging from 66.3 percent among females who never completed high school to 85.5 percent of those completing at least 1 year of college. There was also an increase in the percentage of females having recent examinations with higher education (table 4).

Table 5 shows data comparing the proportion of white females with other females 17 years and over ever having a breast examination. Approximately 77.1 percent of the white female population had had a breast examination compared to 70.5 percent of other females. Although slightly more white females had had this examination for breast cancer than did other females, white females were not as likely to have had a recent examination (table 6). Among white females, 62.5 percent had had a breast examination in the past year compared to 66.3 percent of other females.

| SYMBOLS |  |
| :---: | :---: |
| 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- | * |

Table 2. Number and percent distribution of females 17 . years and over having breast examinations by interval since last examination, according to family income and age: United States, 1974

| Family income and age | $\begin{aligned} & \text { Total } \\ & \text { with } \\ & \text { examination } \end{aligned}$ | Interval since last examination |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Less than } \\ & 1 \text { y year } \end{aligned}$ | $\begin{gathered} 1-2 \\ \text { years } \end{gathered}$ | $\begin{gathered} 3-4 \\ \text { years } \end{gathered}$ | 5 years or more |
|  | Number in thousands |  |  |  |  |
| AIl family income ${ }^{1}$ |  |  |  |  |  |
|  | 57,372 | 36,070 | 13,275 | 3,591 | 4,436 |
|  | 9,815 | 7,739 | 1,769 | 252 | 55 |
|  | 22,958 | 15,443 | 5,264 | 1,229 | 1,022 |
|  | 17,584 | 9,506 | 4,530 | 1,431 | 2,117 |
|  | 7,015 | 3,381 | 1,713 |  | 1,242 |
| Less than \$5,000 |  |  |  |  |  |
| All females, 17 years and over------------------ | 10,744 | 6,028 | 2,571 | 855 | 1,289 |
|  | 2,349 | 1,793 | 455 | 91 | * |
|  | 2,231 | 1,415 | 550 | 138 | 127 |
| 45-64 years---- | 2,822 | 1,274 | 783 | 264 | 501 |
|  | 3,342 | 1,546 | 784 | 361 | 651 |
| \$5,000-\$9,999 |  |  |  |  |  |
|  | 14,514 | 8,879 | 3,452 | 1,003 | 1,180 |
|  | 3,171 | 2,495 | 582 | 71 | * |
|  | 5,388 | 3,432 | 1,318 | 334 | 305 |
|  | 4,207 | 2,141 | 1,089 | 410 | 567 |
|  | 1,747 | 811 | 463 | 188 | 284 |
| \$10,000 or more |  |  |  |  |  |
| All females, 17 years and over------------------ | 28,497 | 18,894 | 6,454 | 1,505 | 1,644 |
|  | 3,826 | 3,068 | 658 | 79 | $\stackrel{*}{*}$ |
| 25-44 years- | 14,184 | 9,826 | 3,142 | 688 | 527 |
|  | 9,188 | 5,303 | 2,330 | 662 | 893 |
| 65 years and over | 1,299 |  |  | 76 | 202 |
|  | Percent distribution |  |  |  |  |
| All family income ${ }^{1}$ |  |  |  |  |  |
| A11 females, 17 years and over---...----..------ | 100.0 | 62.9 | 23.1 | 6.3 | 7.7 |
|  | 100.0 | 78.8 | 18.0 | 2.6 | 0.6 |
| 25-44 years-- | 100.0 | 67.3 | 22.9 | 5.4 | 4.5 |
| 45-64 years | 100.0 | 54.1 | 25.8 | 8.1 | 12.0 |
|  | 100.0 | 48.2 | 24.4 | 9.7 | 17.7 |
| Less than \$5,000 |  |  |  |  |  |
| A11 females, 17 years and over-m--------------- | 100.0 | 56.1 | 23.9 | 8.0 | 12.0 |
|  | 100.0 |  | 19.4 |  | * |
|  | 100.0 | 63.4 | 24.7 | 6.2 | 5.7 |
|  | 100.0 | 45.1 | 27.7 | 9.4 | 17.8 |
|  | 100.0 | 46.3 | 23.5 | 10.8 | 19.5 |
| \$5,000-\$9,999 |  |  |  |  |  |
| All females, 17 years and over---w-------------- | 100.0 | 61.2 | 23.8 | 6.9 | 8.1 |
| 17-24 years | 100.0 | 78.7 | 18.4 | 2.2 | * |
|  | 100.0 | 63.7 | 24.5 | 6.2 | 5.7 |
| 45-64 years- | 100.0 | 50.9 | 25.9 | 9.7 | 13.5 |
|  | 100.0 | 46.4 | 26.5 | 10.8 | 16.3 |
| \$10,000 or more |  |  |  |  |  |
|  | 100.0 | 66.3 | 22.6 | 5.3 | 5.8 |
| 17-24 years- | 100.0 | 80.2 | 17.2 | 2.1 | * |
|  | 100.0 | 69.3 | 22.2 | 4.9 | 3.7 |
| 45-64 years- | 100.0 | 57.7 | 25.4 | 7.2 | 9.7 |
|  | 100.0 | 53.7 | 24.9 | 5.9 | 15.6 |

[^1]Table 3. Number and percent distribution of females 17 years and over ever having or never having breast examinations, according to educational level of individual and age: United States, 1973

| Educational level of individual and age | Total ${ }^{1}$ | Ever <br> had examination | Never had examination | Total ${ }^{1}$ | Ever had examination | Never had examination |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All educational levels ${ }^{2}$ | Number in thousands$\begin{array}{l\|\|} 75,161 \\ \hline \end{array}$ |  |  | Percent |  |  |
| All females 17 years and over------ |  |  |  | 100.0 | 76.3 | 19.4 |
| 17-24 years | 15,062 | 9,815 | 4,547 | 100.0 | 65.2 | 30.2 |
| 25-44 years | 25,862 | 22,958 | 2,097 | 100.0 | 88.8 | 8.1 |
| 45-64 years | 22,370 | 17,584 | 3,765 | 100.0 | 78.6 | 16.8 |
| 65 years and ove | 11,867 | 7,015 | 4,148 | 100.0 | 59.1 | 35.0 |
| Less than 12 years |  |  |  |  |  |  |
| All females 17 years and over----m--- | 28,348 | 18,796 | 8,334 | 100.0 | 66.3 | 29.4 |
| 17-24 years | 4,394 | 2,322 | 1,872 | 100.0 | 52.8 | 42.6 |
| 25-44 years | 6,739 | 5,491 | 997 | 100.0 | 81.5 | 14.8 |
| 45-64 years | 9,536 | 6,765 | 2,404 | 100.0 | 70.9 | 25.2 |
| 65 years and ov | 7,680 | 4,218 | 3,061 | 100.0 | 54.9 | 39.9 |
| 12 years |  |  |  |  |  |  |
| All females 17 years and over-------- | 29,402 | 24,115 | 4,186 | 100.0 | 82.0 | 14.2 |
| 17-24 years | 6,461 | 4,485 | 1,727 | 100.0 | 69.4 | 26.7 |
| 25-44 years | 11,991 | 10,919 | 756 | 100.0 | 91.1 | 6.3 |
| 45-64 years- | 8,625 | 7,154 | 1,056 | 100.0 | 82.9 | 12.2 |
|  | 2,325 | 1,557 | 647 | 100.0 | 67.0 | 27.8 |
| 13 years or more |  |  |  |  |  |  |
| All females 17 years and over------- | 16,599 | 14,197 | 1,855 | 100.0 | 85.5 | 11.2 |
| 17-24 years | 4,044 | 2,969 | 909 | 100.0 | 73.4 | 22.5 |
| 25-44 years | 6,983 | 6,481 | 323 | 100.0 | 92.8 | 4.6 |
| 45-64 years- | 4,001 | 3,587 | 276 | 100.0 | 89.7 | 6.9 |
| 65 years and over------------------------- | 1,571 | 1,160 | 347 | 100.0 | 73.8 | 22.1 |

[^2]Table 4. Number and percent distribution of females 17 years and over having breast examinations by interval since last examination, according to educational level of individual and age: United States, 1973


[^3]Table 5. Number and percent distribution of females 17 years and over ever having or never having breast examinations, according to color and age: United States, 1973

| Color and age | Total ${ }^{1}$ | Ever had examination | Never had examination | Total ${ }^{1}$ | Ever had examination | Never had examination |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All color | Number in thousands |  |  | Percent |  |  |
| A11 females 17 years and over-..--- | 75,161 | 57,372 | 14,557 | 100.0 | 76.3 | 19.4 |
| 17-24 years | 15,062 | 9,815 | 4,547 | 100.0 | 65.2 | 30.2 |
| 25-44 years | 25,862 | 22,958 | 2,097 | 100.0 | 88.8 | 8.1 |
| 45-64 years | 22,370 | 17,584 | 3,765 | 100.0 | 78.6 | 16.8 |
| 65 years and over | 11,867 | 7,015 | 4,148 | 100.0 | 59.1 | 35.0 |
| White |  |  |  |  |  |  |
| A11 females 17 years and ove | 66,380 | 51,178 | 12,517 | 100.0 | 77.1 | 18.9 |
| 17-24 years | 12,923 | 8,375 | 3,995 | 100.0 | 64.8 | 30.9 |
| 25-44 years | 22,520 | 20,178 | 1,693 | 100.0 | 89.6 | 7.5 |
| 45-64 years | 20,085 | 16,084 | 3,145 | 100.0 | 80.1 | 15.7 |
|  | 10,853 | 6,540 | 3,683 | 100.0 | 60.3 | 33.9 |
| A11 other |  |  |  |  |  |  |
| All females 17 years and over | 8,781 | 6,194 | 2,040 | 100.0 | 70.5 | 23.2 |
| 17-24 years--------------------------------- | 2,140 | 1,440 | 551 | 100.0 | 67.3 | 25.7 |
|  | 3,343 | 2,779 | 404 | 100.0 | 83.1 | 12.1 |
| 45-64 years | 2,285 | 1,500 | 620 | 100.0 | 65.6 | 27.1 |
| 65 years and ove | 1,014 | 475 | 465 | 100.0 | 46.8 | 45.9 |

${ }^{1}$ Includes unknown if examined.

Table 6. Number and percent distribution of females 17 years and over having breast examinations by interval since last examination, according to color and age: United States, 1974

| Color and age | $\begin{gathered} \text { Total } \\ \text { with } \\ \text { examination } \end{gathered}$ | Interval since last examination |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Less than 1 year | $\begin{gathered} 1-2 \\ \text { years } \end{gathered}$ | $\begin{gathered} 3-4 \\ \text { years } \end{gathered}$ | 5 years or more |
|  | Number in thousands |  |  |  |  |
| All color |  |  |  |  |  |
| All females, 17 years and over--------------- | 57,372 | 36,070 | 13,275 | 3,591 | 4,436 |
|  | 9,81522,95817,5847,015 | 7,73915,4439,5063,381 | 1,7695,2644,5301,713 | $\begin{array}{r} 252 \\ 1,229 \\ 1,431 \\ 679 \end{array}$ | 551,0222,1171,242 |
|  |  |  |  |  |  |
| 45-64 years- |  |  |  |  |  |
|  |  |  |  |  |  |
| White |  |  |  |  |  |
|  | 51,178 | 31,961 | 11,868 | 3,266 | 4,084 |
|  | 8,37520,17816,0846,540 | 6,59313,5788,6583,131 | $\begin{aligned} & 1,507 \\ & 4,608 \\ & 4,154 \\ & 1,598 \end{aligned}$ | $\begin{array}{r} 227 \\ 1,079 \\ 1,322 \\ 637 \end{array}$ | 489131,9491,174 |
| 25-44 years-- |  |  |  |  |  |
| 45-64 years- |  |  |  |  |  |
|  |  |  |  |  |  |
| All others |  |  |  |  |  |
|  | 6,194 | 4,109 | 1,407 | 325 | 352 |
|  | 1,4402,7791,500475 | 1,1461,865848250 | $\begin{aligned} & 262 \\ & 656 \\ & 375 \\ & 115 \end{aligned}$ | $*$150109 | \%10916868 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | Percent distribution |  |  |  |  |

## Al1 color

| A11 females, 17 years and over--------------- | 100.0 | 62.9 | 23.1 | 6.3 | 7.7 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 17-24 years- | 100.0 | 78.8 | 18.0 | 2.6 | 0.6 |
| 25-44 years- | 100.0 | 67.3 | 22.9 | 5.4 | 4.5 |
|  | 100.0 | 54.1 | 25.8 | 8.1 | 12.0 |
|  | 100.0 | 48.2 | 24.4 | 9.7 | 17.7 |
| White |  |  |  |  |  |
|  | 100.0 | 62.5 | 23.2 | 6.4 | 8.0 |
|  | 100.0 | 78.7 | 18.0 | 2.7 | 0.6 |
| 25-44 years- | 100.0 | 67.3 | 22.8 | 5.3 |  |
| 45-64 yearsm-0.- | 100.0 100.0 | 53.8 47.9 | 25.8 24.4 | 8.2 9.7 |  |
| All others |  |  |  |  |  |
|  | 100.0 | 66.3 | 22.7 | 5.2 | 5.7 |
|  | 100.0 | 79.6 | 18.2 | * | * |
| 25-44 years | 100.0 | 67.1 | 23.6 | 5.4 | 3.9 |
| 45-64 years-- | 100.0 | 56.5 | 25.0 | 7.3 | 11.2 |
|  | 100.0 | 52.6 | 24.2 | 8.8 | 14.3 |

## Technical Notes

SOURCE OF DATA: The data presented in this report were obtained from household interviews in the Health Interview Survey. These interviews were conducted throughout calendar year 1973 in a probability sample of the civilian noninstitutionalized population of the United States. During that year approximately 120,000 persons living in about 41,000 households were included in the sample.

The question "About how long has it been since you had a breast examination by a doctor?' was asked for each female household member 17 years and over, and was the only question asked on breast examinations in the interview.
SAMPLING: Since the estimates shown are based on a sample of the population rather than for the entire

Table I. STANDARD ERRORS OF ESTIMATES OF AGGREGATES

| Size of estimates <br> in thousands | Standard error in thousands |
| :---: | :---: |
| 100------------------- | 18 |
| 200- | 26 |
| 300--- | 31 |
| 500- | 40 |
| 1,000- | 57 |
| 2,000- | 80 |
| 3,000 | 98 |
| 5,000 | 125 |
| 10,000 | 174 |
| 20,000 | 237 |
| 30,000 | 278 |
| 50,000 | 325 |

Table II. STANDARD ERRORS, EXPRESSED IN PERCENTAGE POINTS, OF ESTIMATED PERCENTAGES

| Base of percentage in thousands | Estimated percentage |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $98$ | 95 | $\begin{aligned} & 10 \\ & 90 \end{aligned}$ | 20 80 | 50 |
| 100------------ | 2.5 | 3.9 | 5.4 | 7.2 | 9.0 |
| 200 | 1.8 | 2.8 | 3.8 | 5.1 | 6.4 |
| 300 | 1.5 | 2.3 | 3.1 | 4.2 | 5.2 |
| 500 | 1.1 | 1.8 | 2.4 | 3.2 | 4.0 |
| 1,000- | 0.8 | 1.2 | 1.7 | 2.3 | 2.9 |
| 2,000 | 0.6 | 0.9 | 1.2 | 1.6 | 2.0 |
| 3,000 | 0.5 | 0.7 | 1.0 | 1.3 | 1.6 |
|  | 0.4 | 0.6 | 0.8 | 1.0 | 1.3 |
| 10,000 | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 |
| 20,000---------- | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 |
| 30,000- | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 |
| 50,000---..---...- | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 |

population, they are subject to sampling error. The standard errors appropriate for the percent of females with breast examinations and the interval since the last breast examination are shown in tables I and II.

The selected differences stated in the text of this report have been tested and have been found to be significant at the .05 significance level. The reader should be cautioned that differences observed in the tables of this report are not necessarily statistically significant and may only be due to sampling error.

For a more detailed discussion of the limitations and qualifications of data collected in the Health Interview Survey, see Series 10, No. 95 entitled: Current Estimates from the Health Interview Survey, United States, 1973.

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[^0]:    $\cdot{ }^{1}$ Includes unknown if examined.

[^1]:    ${ }^{1}$ Includes unknown income.

[^2]:    ${ }^{1}$ Includes unknown if examined.
    ${ }^{2}$ Includes unknown education.

[^3]:    ${ }^{1}$ Includes unknown education.

