# Limitation of Activity and Mobility Due to Chronic Conditions United States-1972 

Statistics on persons limited in activity and mobility due to chronic conditions by age, sex, color, family income, living arrangements, geographic region, and place of residence. Statistics are also presented on chronic conditions reported as the main cause of limitation and the duration of limitation. Based on data collected in household interviews during 1972.


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## COOPERATION OF THE BUREAU OF THE CENSUS


#### Abstract

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies.

In accordance with specifications established by the Division of Health Interview Statistics, the Bureau of the Census, under a contractual arrangement, participated in planning the survey and collecting the data.


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## SYMBOLS

Data not available-------..------------------------------ .-
Category not applicable-------------------------------. . .
Quantity zero--------------------------------------------- -
Quantity more than 0 but less than $0.05----\quad 0.0$
Figure does not meet standards of reliability or precision (more than 30 percent relative standard error)--------- *

# LIMITATION OF ACTIVITY AND MOBILITY DUE TO CHRONIC CONDITIONS 

## UNITED STATES, 1972

Charles S. Wilder, Dicision of Health Interview Statistics

## INTRODUCTION

During 1972 an estimated $25,868,000$ persons, about 12.7 percent of the civilian, noninstitutionalized population of the United States, were reported in health interviews to be limited in activity to some degree due to chronic disease or impairment. Also, an estimated $6,458,000$ persons, 3.2 percent of the population, were reported as limited in mobility due to chronic conditions. An estimated $1,775,000$ of these persons were confined to the house except in emergencies. Of the persons with mobility limitation, about $5,960,000$ also reported activity limitation. Limitation of activity is defined as the inability to carry on the major activity for one's age-sex group, such as working, keeping house, or going to school, restriction in the amount or kind of major activity, or restriction in relation to other activities such as recreational, church, or civic interests. Limitation of mobility is defined as restriction in ability to move about freely; this ranges from confinement to bed all or most of the time to having trouble getting around alone.

Earlier reports in Series 10 specifically devoted to the subject of chronic limitation of activity are Numbers $17,45,51,61$, and 80. Data on limitation of mobility are presented in detail in Numbers 45 and 61. The Current Estimates reports in Series 10, Numbers 52, 60, $63,72,79$, and 85 present summary information on chronic activity limitation.

## SOURCE AND LIMITATIONS OF THE DATA

The information from the Health Interview Survey in this report was obtained in household interviews in a continuing nationwide survey. Each week a probability sample of households is interviewed by trained personnel of the U.S. Bureau of the Census to obtain information about the health and other characteristics of each member of the household in the civilian, noninstitutionalized population of the United States. During 1972 the sample was composed of about 44,000 households containing about 134,000 persons.

A description of the design of the survey, the methods used in estimation, and general qualifications of the data obtained from surveys is presented in appendix I. Since 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. Therefore, particular attention should be paid to the section entitled "Reliability of Estimates." Sampling errors for most of the estimates are of relatively low magnitude. However, where an estimated number or the numerator or denominator of a rate or percentage is small, the sampling error may be high. Charts of the relative sampling errors and instructions for their use are shown in appendix I.

Certain terms used in this report are defined in appendix II. Some of the terms have
specialized meanings for the purpose of the survey; therefore the reader should examine this section of the report.

The questionnaire used in 1972 is illustrated in the Current Estimates report, Scries 10, Number 85 . The portions of this questionnaire dealing with limitation of activity and mobility are presented in appendix III of this report. Card M (or questions 19-23 for persons unable to understand Card M) was used to obtain the degree of mobility limitation for each person. Persons with mobility limitation were asked question 24 to obtain information about the duration of limitation and chronic conditions causing the limitation.

Each person was classified by usual activity status during the year prior to interview (questions 25 and 26). Then the person was asked the questions about limitation which were most appropriate to the major activity to which he had been classified (questions 27-32). For instance, those persons who were usually working were asked question 30 about any degree of limitation in ability to work or in other activities because of health. If no limitation was reported in response to these questions, each person was asked an additional question about any other limitation (question 33). Persons who reported some degree of limitation of activity were asked (question 34) about duration of limitation and chronic conditions causing the limitation. In some instances a specific chronic condition was not reported; in this event, "old age only" or some similar response about the person's state of health was accepted as a chronic condition. If the condition causing the limitation was an acute condition, such as injury or pregnancy, causing temporary disability, the limitation questions were reasked about any long-term disability present other than this temporary disability. For instance, a person may be confined to bed with a fracture of the femur but also be limited in kind or amount of work and have trouble getting around freely due to a heart condition. In this case, the person is classified as "Limited in amount or hind of major activity" and as "Has trouble getting around alone."

It should be pointed out that respondents in health interviews report only those things
which they know about and are willing to talk about in an interview situation. Questionnaire design and interviewer training have been aimed at minimizing the effects of respondent differences in reporting.

The restriction of the survey to the civilian, noninstitutionalized population living at the time of the interview affects the estimates of persons with chronic limitations of activity and mobility. The omission of the institutionalized population reduces the estimated total number of limited persons since the proportion of chronically limited persons in institutions is high. ${ }^{1}$

## LIMITATION OF ACTIVITY AND MOBILITY

## Comparison with Prior Years

During 1972 an estimated $25,868,000$ persons in the civilian, noninstitutionalized population were reported to be limited to some extent in activity due to chronic disease or impairment. About $6,031,000$ or 3.0 percent of the population were unable to carry on their major activity (working, keeping house, going to school) (table 1). Another $13,557,000,6.6$ percent, were limited in the amount or kind of major activity, and $6,279,000$, or 3.1 percent, were limited in other activities such as recreational, church, or civic activities. Thus 12.7 percent of the population were limited in activity to some degree.

Limitation of activity has been measured each year since the Health Interview Survey began in July 1957.2 The distribution of the
 sent statistics on the extent of disability among patients in nursing homes and mental hospitals.
${ }^{2}$ Prior to July 1967 the measurement of activity limitation was made only for those persons who reported one $c$ - more chronic conditions in the interview. Subsequent to this date limitation of activity was measured for all persons. Each person who reported some degree of limitation was asked for the chronic conditions causing the limitation. As mentioned earlier, if a person reported an acute condition as causing temporary limitation, the probe questions were reasked about long-term limitation caused by chronic disease or impairment. The report entitled "Interviewing Methods in the Health Interview Survey" (Series 2, Number 48) discusses the changes in data collection procedure after July 1967.
civilian, noninstitutionalized population by chronic activity limitation status is presented in table A for each of the 15 years of data collection. Over the years the percentages of the population in each degree of activity limitation have been quite stable. In general the percentages for 1972 are consistent with those reported earlier.

The percentages of the population with chronic mobility limitation for three time periods are presented in table B. Prior to July 1965 limitation of mobility was measured in the Health Interview Survey only for persons who had some degrec of activity limitation. During July 1965-June 1967, each person who reported one or more chronic conditions was asked to select the statement from a card (like Card $M$ in appendix III) which best described his limita-tion-of-mobility status. During 1972 all persons
in the population were shown Card M and asked to select the appropriate statement. (If the person did not understand Card M, he was read questions 19-23, see appendix III. ${ }^{3}$ The percentages of persons confined to the house or needing help in getting around were about the same in each time period (table B). However, during 1972 the percentage of persons who had trouble getting around alone was somewhat smaller than in the earlier data.

During 1972 among the $6,458,000$ persons with mobility limitation, 92.3 percent were

[^0]Table A. Total population and percent distribution of persons by degree of chronic activity limitation: United States, July 19.57-December 1972

| Year ${ }^{1}$ | Total population |  | With no limitation of activity | With <br> limitation, but not in major activity | With limitation in amount or kind of major activity | Unable to carry on major activity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Number } \\ \text { in } \\ \text { thou- } \\ \text { sands } \end{gathered}$ | Percent |  |  |  |  |
|  | Percent distribution |  |  |  |  |  |
| July 1957-June 1958- | 168,369 | 100.0 | 89.9 | 2.7 | 5.2 | 2.1 |
| July 1958-June 1959 | 171,300 | 100.0 | 90.2 | 2.5 | 5.2 | 2.1 |
| July 1959-June 1960 | 174,621 | 100.0 | 89.5 | 2.8 | 5.5 | 2.2 |
| July 1960-June 1961 | 177,984 | 100.0 | 88.7 | 2.9 | 6.1 | 2.3 |
| July 1961-June 1962 | 180,790 | 100.0 | 88.0 | 3.3 | 6.5 | 2.2 |
| July 1962-June 1963- | 183, 146 | 100.0 | 87.6 | 3.4 | 6.7 | 2.3 |
| July 1963-June 1964 | 185, 797 | 100.0 | 87.9 | 3.4 | 6.5 | 2.2 |
| July 1964-June 1965- | 188,430 | 100.0 | 88.0 | 3.1 | 6.7 | 2.2 |
| July 1965-June 1966 | 190,710 | 100.0 | 88.8 | 2.8 | 6.3 | 2.1 |
| July 1966-June 1967 | 192,359 | 100.0 | 88.3 | 3.0 | 6.5 | 2.2 |
| 1967 | 193,403 | 100.0 | 88.5 | 2.8 | 6.3 | 2.3 |
| 1968 | 195,392 | 100.0 | 89.1 | 1.8 | 6.4 | 2.8 |
| 1969 | 197,422 | 100.0 | 88.4 | 2.4 | 6.4 | 2.8 |
| 1970 | 199,843 | 100.0 | 88.2 | 2.9 | 6.0 | 2.9 |
| 1971 | 202,360 | 100.0 | 87.7 | 3.0 | 6.4 | 2.9 |
| 1972 | 204,148 | 100.0 | 87.3 | 3.1 | 6.6 | 3.0 |

[^1]Table B. Total population and percent distribution of persons by degree of chronic mobility limitation: United States, July 1965-June 1966, July 1966-June 1967, and 1972

| Year | Total population |  | ```With no limi- tation of mobil- ity``` | Has trouble getting aroind alone | Needs help in getting around |  | Confined to the hoise |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ```Number in thou- sands``` | Percent |  |  | Spe cial aid | An other person | Not confined to bed | Confined to bed |
| July 1965-June 1966- | 190,710 | 100.0 | 96.8 | 1.5 | 0.6 | 0.3 | 0.5 | 0.2 |
| July 1966-June 1967--- | 192, 359 | 100.0 | 96.6 | 1.7 | 0.7 | 0.3 | 0.6 | 0.2 |
| 1972------------- | 204,148 | 100.0 | 96.8 | 1.3 | 0.7 | 0.3 | 0.7 | 0.2 |

Table C. Number of persons with limitation of mobility and percent distribution by activity limitation status, according to degree of limitation: United States, 1972

| Activity limitation status | Total | Has trouble getting around alone | Needs help in getting around | Confined to the house |
| :---: | :---: | :---: | :---: | :---: |
| Ju1y 1965-June 1967 | Number of persons in thousands |  |  |  |
| Persons with mobility limitatio | $6,312$ | $3,114$ | $1,766$ | $1,432$ |
|  | Percent distribution |  |  |  |
| Al1 statuses | 100.0 | 100.0 | 100.0 | 100.0 |
| Unable to carry on major activity ${ }^{1}-0-0-0-0-10-0-0$ | 38.4 | 21.3 | 45.4 | 66.8 |
| Limited in amount or kind of major activity ${ }^{1}$------ | 43.6 | 53.4 | 39.6 | 27.4 |
| Limited, but not in major activity ${ }^{1}$ | 13.5 | 20.4 | 9.1 | 4.1 |
| Not limited in activity- | 4.5 | 5.0 | 5.8 | \% |
| 1972 | Number of persons in thousands |  |  |  |
| Persons with mobility limitation | 6,458 | 2,609 | 2,074 | 1,775 |
|  | Percent distribution |  |  |  |
| A11 statuses | 100.0 | 100.0 | 100.0 | 100.0 |
| Unable to carry on major activity ${ }^{1}$ | 46.1 | 31.2 | 47.0 | 66.9 |
| Limited in amount or kind of major activity ${ }^{1}-\ldots-\ldots$ | 38.7 | 48.0 | 37.3 | 26.6 |
|  | 7.6 | 10.8 | 7.6 | 2.8 |
|  | 7.7 | 10.0 | 8.1 | 3.8 |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.
reported as being limited in activity (table C). During July 1965 -June 1967 among the 6,312,000 persons with mobility limitation, 95.5 percent had activity limitation (table C and Series 10 , Number 61). Among persons confined to the house, the corresponding percentages of persons with activity limitation were:

> Percent with activity limitation
${ }_{1965-1967 .}^{1972}$.

## Age and Sex

The substantial similarity between the percentages for the several time periods in tables B and C suggests that the shift in data collection procedure for mobility limitation from asking mobility limitation status only for persons with chronic conditions to asking all persons has produced comparable sets of data on mobility limitation.

As age increased, the proportions of persons with limitations of activity and mobility rose accordingly (figure 1). About 2 of each 5 persons 65 years of age and over were limited in


Figure 1. Percent of population with limitation of activity or mobility due to chronic conditions by age.
activity and about 1 in 5 had some degree of mobility limitation. Among the 25.9 million persons with activity limitation, about 17.5 million were at least 45 years of age (table 1). Similarly, among the 6.5 million persons with mobility limitation, 5.5 million were 45 years of age or older.

Among persons under 45 years of age, relatively few persons were unable to carry on the major activity of their age-sex group (table 1). As age increased the proportion unable to carry on major activity rose until 16.3 percent of persons 65 years and over were so limited. Although the proportions of persons with limitation of mobility rose with age, there was less shift to more severe limitation with increasing age (table 2). Within each of the three age groups-17-44 years, $45-64$ years, and 65 years and over-the proportions of the population with each degree of mobility limitation were quite similar. For instance, for persons 65 years and over, 5 out of 100 were confined to the house, 6 per 100 had trouble getting around alone, and 7 per 100 needed help in getting around.

Tables D and E present percentages of the population with some degree of limitation of activity or mobility. Comparing crude rates for demographic characteristics to determine relationships of health measures among population groups is not advisable without taking into account differences in the age distributions of the various population groups. Because of differences in age distribution of populations, comparisons should be made within age groups or by using age-adjusted percentages. Age-adjusted data can be compared directly since the rates assume identical age distributions of all groups. The standard population used in age-adjusting these data by the direct method ${ }^{4}$ is the age distribution of the total civilian, noninstitutionalized population for both sexes using four age groups: under 17, 17-44, 45-64, and 65
"The "direct method" of age adjustment is accomplished by multiplying the specific rate for each age group by the population for the corresponding age group in the standard population. The adjusted rate is formed by adding the resulting products for each age group and dividing the sum by the total population that was taken as a standard.

Table D. Unadjusted and age-adjusted ${ }^{1}$ percents of poprulation with limitation of activity due to chronic conditions by age and selected characteristics: United States, 1972

| Characteristic | All ages |  | Under 17 years | 17-44 years | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | 65 years and over |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unadjusted | $\begin{array}{\|c} \text { Age- } \\ \text { adjusted } \end{array}$ |  |  |  |  |
|  | Percent |  |  |  |  |  |
| Total ${ }^{2}$ | 12.7 | 12.7 | 3.0 | 8:3 | 21.1 | 43.2 |
| Sex |  |  |  |  |  |  |
| Male-- | 13.2 | 13.9 | 3.4 2.4 | 9.4 | 22.5 | 47.0 |
| Living arrangements |  |  |  |  |  |  |
| Living alone------------ | 29.1 | * | * | 10.9 | 28.8 | 41.7 |
| Living with nonrelatives--- | 16.9 | 17.0 | * | 9.0 | 32.7 | 50.1 |
| Living with relatives-married--------- | 15.6 |  |  | 7.7 | 19.2 | 42.2 |
| Living with relatives-other <br> Family income | 7.1 | 15.0 | 3.0 | 9.3 | 28.5 | 48.0 |
| Less than \$3,000------------------------ | 30.4 | 22.2 | 3.6 | 15.0 | 49.7 | 52.0 |
| \$3,000-\$4,999- | 21.0 | 17.3 | 3.7 | 12.5 | 33.7 | 45.1 |
| \$5,000-\$5,999 | 13.7 | 13.5 | 3.2 | 9.6 | 24.4 | 39.1 |
| \$7,000-\$9,999 | 10.1 | 11.6 | 3.0 | 7.5 | 19.8 | 37.7 |
| \$10,000-\$14,999 | 7.9 | 10.1 | 2.8 | 6.9 | 15.6 | 34.3 |
| \$15,000 or more | 7.9 | 9.3 | 2.6 | 6.6 | 12.8 | 34.5 |
| Color and family income |  |  |  |  |  |  |
| White ${ }^{2}$ | 12.7 | 12.4 | 3.0 | 8.0 | 20.6 | 42.4 |
| Less than \$5,000 | 27.6 | 19.5 | 4.0 | 13.2 | 41.1 | 48.2 |
| \$5,000 or more | 9.5 | 10.8 | 2.9 | 7.3 | 17.1 | 36.7 |
| All other ${ }^{2}$ | 12.7 | 15.2 | 2.8 | 10.2 | 26.1 | 51.8 |
| Less than \$5,000 | 19.4 | 21.0 |  | 15.0 | 42.6 | 55.9 |
| \$5,000 or more | 8.0 | 10.9 | 2.7 | 7.7 | 15.7 | 39.3 |
| Geographic region |  |  |  |  |  |  |
| Northeast--- | 12.2 | 11.5 | 2.7 | 7.9 | 18.5 | 39.3 |
| North Central | 12.0 | 12.1 | 2.9 | 8.0 | 19.9 | 41.2 |
| South - | 13.4 | 13.6 | 2.9 | 8.2 | 23.7 | 47.7 |
| West- | 13.2 | 13.7 | 3.5 | 9.4 | 22.5 | 44.6 |
| Place of residence |  |  |  |  |  |  |
| Al1 SMSA--------------------------------1-2- | 12.2 | 12.2 | 3.1 | 8.5 | 19.8 | 40.5 |
|  | 13.6 | 12.9 | 3.0 | 9.2 | 21.7 | 41.3 |
|  | 11.0 | 11.7 | 3.2 | 8.0 | 18.3 | 39.6 |
| Outside SMSA-nonfarm | 13.5 | 13.5 | 2.8 | 7.9 | 24.1 | 47.5 |
|  | 14.3 | 13.2 | 2.4 | 8.9 | 21.3 | 47.8 |

${ }^{1}$ Adjusted by the direct method to the age distribution of the total civilian, noninstitutionalized population of the United States.
${ }^{2}$ Includes unknown income.

Table E. Unadjusted and age-adjusted ${ }^{1}$ percents of population with limitation of mobility due to chronic conditions by age and selected characteristics: United States, 1972

| Characteristic | All ages |  | $\begin{aligned} & \text { Under } \\ & 17 \\ & \text { years } \end{aligned}$ | 17-44 years | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | 65 <br> years <br> and <br> over |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unadjusted | $\begin{aligned} & \text { Age- } \\ & \text { adjusted } \end{aligned}$ |  |  |  |  |
|  | Percent |  |  |  |  |  |
| Total ${ }^{2}$ | 3.2 | 3.2 | 0.3 | 0.9 | 4.8 | 17.6 |
| Sex |  |  |  |  |  |  |
| Male------------------------------------- | 2.9 | 3.1 | 0.3 | 1.0 | 5.0 | 15.2 |
| Living arrangements |  |  |  |  |  |  |
|  | 10.6 | * | * | 1.5 | 3.5 | 18.2 |
| Living with nonrelatives--------------- | 5.2 | 8.1 | * | * | 10.0 | 24.7 |
| Living with relatives-married--------m- | 3.4 |  |  | 0.7 | 3.9 | 14.3 |
| Living with relatives-other------------ | 1.8 | 4.8 | 0.3 | 1.3 | 3.4 | 25.6 |
| Fanily income |  |  |  |  |  |  |
|  | 11.4 | 7.0 | * | 2.9 | 16.7 | 23.6 |
|  | 6.0 | 4.4 | * | 2.1 | 9.4 | 15.8 |
| \$5,000-\$6,999 | 3.2 | 3.1 | * | 1.0 | 5.5 | 15.4 |
| \$7,000-\$9,999 | 2.0 | 2.6 | 0.3 | 0.8 | 4.3 | 13.7 |
| \$10,000-\$14,999 | 1.3 | 2.4 | 0.3 | 0.6 | 2.8 | 14.9 |
|  | 1.1 | 2.0 | * | 0.4 | 1.5 | 14.9 |
| Color and family income |  |  |  |  |  |  |
| White ${ }^{2}$ | 3.1 | 3.0 | 0.3 | 0.9 | 4.4 | 17.0 |
| Less than \$5,000 $\$ 5,000$ or mose- <br> A11 other ${ }^{2}$ | 9.2 | 5.5 | * | 2.4 | 12.0 |  |
|  | 1.8 | 2.4 | 0.2 | 0.6 | 3.1 | 14.6 |
|  | 3.7 | 4.8 | 0.4 | 1.5 | 8.6 | 23.8 |
| Less than $\$ 5,000$$\begin{array}{r} \$ 5,000 \text { or mone........................... } \\ \text { Geographic region } \end{array}$ | 6.7 | 7.0 | * | 2.6 | 16.2 | 25.9 |
|  | 1.6 | 3.0 | * | 0.9 | 3.9 | 13.0 |
|  |  |  |  |  |  |  |
|  | 3.1 | 2.9 | 0.3 | 1.1 | 3.7 | 16.5 |
|  | 2.7 | 2.8 | 0.3 | 0.7 | 4.2 | 15.8 |
| South---- | 3.9 | 3.9 | 0.4 | 1.0 | 5.5 | 21.2 |
| West- | 2.7 | 2.9 | * | 0.9 | 4.6 | 15.5 |
| Place of residence |  |  |  |  |  |  |
| A11 SMSA---------------------------------1- | 2.9 | 2.9 | 0.3 | 0.9 | 4.3 | 15.4 |
| Central city | 3.7 | 3.4 | 0.3 | 1.3 | 5.3 | 17.5 |
|  | 2.3 | 2.6 | 0.3 | 0.7 | 3.5 | 15.2 |
| Outside SMSA-nonfarm | 3.7 | 3.6 | 0.4 | 0.9 | 6.1 | 19.5 |
|  | 3.8 | 3.5 | * | 1.6 | 4.8 | 17.0 |

${ }^{1}$ Age-adjusted, by the direct method, to the age distribution of the total civilian, noninstitutionalized population of the United States.
${ }^{2}$ Includes unknown income.
and over. By using this standard population, the age-adjusted percentages are not distorted from the crude percentages to the extent that some other standard population may change the age-adjusted proportions. However, the reader should use the age-adjusted rates only for examination of the relationships within a given demographic characteristic. The unadjusted (crude) percentages are the actual ones, and any quotation of percentages and age-specific rates should be of the crude rates rather than of the adjusted data.

A higher percentage of males have activity limitation than do females. The most pronounced difference by sex occurred among persons 65 years and over. The age-adjusted rates indicate a somewhat greater sex difference than do the crude percentages. Examination of the data by degree of activity limitation in table 1 reveals that the largest sex difference was among persons unable to carry on major activity of working, keeping house, or going to school. The rate for males of 4.6 percent exceeded that for females by a ratio of 3 to 1 . However, for limitation affecting amount or kind of major activity the percentage of males is smaller than that of females ( 5.4 percent for males compared with 7.8 for females). The sex differences in limitation of amount or kind of major activity can be explained to some extent by differences in the usual activity status of usually working or usually keeping house. A person who is usually working and becomes limited in major activity may be able to redefine his major activity by changing jobs and therefore no longer consider himself limited in the amount or kind of major activity. However, a female whose usual activity is keeping house is less likely to redefine her housework responsibilities, but rather reports that she is limited in certain of her housework activities.

The percentages of persons of each sex with mobility limitations were about the same, with or without age adjustment. There was very little sex difference for the individual degrees of mobility limitation in table 2.

In the 1970 Decennial Census, a question devoted to work disability was asked of 5 percent of the population aged 16-64 years. The question was phrased as follows:

28a. Does this person have a health or physical condition which limits the kind or amount of work he can do at a job?
b. Does his health or physical condition keep him from holding any job at all? Data obtained from these questions have been published in a report from the Bureau of the Census, "Persons With Work Disability" (PC(2)6C). The results for males 45-64 years of age may be compared directly with information about activity limitation for this age group since the questions in the Health Interview Survey apply to work disability (see appendix III). Comparison of the data for males 17-44 years is more difficult since 16.2 percent of these persons were not asked about work disability because their usual activity status was going to school.

The comparison between the sets of data for the two age groups is presented on page 9. If the reader keeps in mind the qualification about persons 17-44 who were going to school, it can be seen that the percentages reported in both studies are quite similar.

## Living Arrangements and Age

Persons living alone experienced the highest percentages of limitation of activity or mobility (tables D, E, and 3-6). These high rates result from the fact that this group consists primarily of older people. Of particular interest in these data is the substantial numbers of persons who are living alone and unable to carry on major activity ( 6.6 percent of the 13.4 million persons) and of those confined to the house ( 2.6 percent of the total). A majority of the persons contributing to these rates were people 65 years and over.

The lowest percentages of limited persons were found among persons living with relatives and not presently married. Since 7 out of each 10 of these persons were children under 17 years of age living with parents it is not surprising that the percentages of limited persons were quite small. The larger size of age-adjusted rates occurs because the age-specific rates of those persons 45 years or older are taken into account in age-adjustment.

| Age | Population in thousands | Percent with: |  |
| :---: | :---: | :---: | :---: |
|  |  | Partial work disability | Complete work disability |
| 18-44 years . . . | 34,402 | 5.9 | 1.7 |
| 45-64 years . . . . | 19,780 | 11.8 | 7.2 |
| Health Interview Survey - 1972 |  |  |  |
| Age | Population in thousands | Percent |  |
|  |  | Limited in amount or kind of major activity | Unable to carry on major activity |
| 17-44 years . . . . | 37,060 | 4.1 | 1.5 |
| 45-64 years . . . . | 20,046 | 10.2 | 7.6 |

## Family Income, Color, and Age

The frequently noted inverse relationship between annual family income and measures of disability is again present in these data. As family income rose, the percentage of persons limited in activity or mobility fell (tables D, E, and 7-10). Some portion of the differing rates is accounted for by the substantial numbers of older persons in the lower income groups in relation to the proportions in the higher income groups. For instance, among persons with incomes less than $\$ 5,000$ a year, about onc-fourth ( 26.4 percent) were 65 years of age and over. Among persons with family incomes of $\$ 5,000-\$ 9,999$, about 7.7 percent were 65 years and over, and among. persons with incomes of $\$ 10,000$ or more, about 3.3 percent were in this age group. Since about one-third of all persons with limitation of activity come from this age group, it is not surprising to find this inverse relationship with advance in family income. Similarly, about half ( 54.3 percent) of all persons with limitation of mobility are 65 years of age or older.

However, differences in age distribution of income groups is not sufficient to explain the inverse relationship since within age groups the same phenomenon occurs. Examination of the age-specific percentages shown ir tables D and E indicate this, although for the three income
groups higher than $\$ 7,000$, there is less disparity in percentages than for the lower income groups.

The same inverse relationship with income is present for the data for the two racial groupswhite and all other (tables 11-14). However, in the total income category, the proportions of persons with activity limitation were the same for white and all other races (unadjusted percentages). When differences in age distribution of these two population groups were taken into account, the percentage of limited persons of races other than white was greater than that for white persons. However, when income and color are considered, the age-adjusted percentages with activity limitation are more similar. Among persons with income of $\$ 5,000$ or more, the percentage for white persons is 10.8 and for other races, 10.9 percent. For incomes under $\$ 5,000$, the difference in rates is slightly greater, 19.5 for white and 21.0 for other races.

White persons had lower percentages of mobility limitation, unadjusted as well as age-adjusted, than did persons of other races. This differential was still present when income was also taken into account.

## Geographic Distribution and Age

Persons residing in the South and West Regions had higher percentages of limitation of activity due to chronic conditions than did the
other regions of the United States (tables 15-16). Although the rates for the South and West Regions were virtually the same, the age-specific percentages for these regions differed in that the observed percentages were higher in the West Region for persons under 45 years of age, but were lower for persons 45 years or older.

The highest rate of limitation of mobility was reported from the South Region (tables 17-18). Relatively more difficulty with ambulation was reported among persons 45 years and over in the South Region. This contributed to the excess in the rate of limitation of mobility for this region.

Larger proportions of persons living outside metropolitan areas reported limitations of activity and mobility than did residents of the 212 standard metropolitan statistical areas (SMSA) defined for the 1960 decennial census ${ }^{5}$ (tables 19-22). Within the metropolitan areas higher rates were reported for residents of central cities than for the remainder of the metropolitan areas. (The central city of an SMSA is the city or cities named in the title of the metropolitan area. For instance, Detroit is the central city of the Detroit SMSA comprised of Macomb, Oakland, and Wayne Counties in Michigan as defined for the 1960 census.)

## Chronic Conditions <br> Causing Limitation

Each person who reported some degrce of activity or mobility limitation was asked to state the cause of the limitation; if the person reported more than one chronic condition or impairment, he was also asked to specify which condition was the main cause of the limitation. In the event he could not differentiate among conditions, the first named condition has been classified as the main cause. If the person was unable to specify any chronic condition as the cause of limitation but instead stated that old

[^2]age, gencral debility, or some other chronic state caused the limitation, this general state of health was considered to be an acceptable main cause of limitation. As stated carlier if an acute condition or another temporary cause, such as pregnancy or an injury, was reported, this condition was not accepted as a chronic causc of limitation, and unless the limitation was also due to some chronic condition, the person was classified as not limitcel.

In the previous report on causes of limitation for 1969-1970 (Series 10, Number 80) parallel tables for all causes and main cause of limitation were presented. It was pointed out in that report that fewer multiple causes of limitation were being reported under the redesigned procedure of collecting data on limitations. Therefore, for 1972 , tables showing causes of limitation are restricted to main cause of limitation.

Tables 23 and 24 present data for 30 groups of chronic diseases or impairments, and two unspecified groups, "Old age" and "Other" which were used when a specific condition was not specified as the cause. The "Other" group includes general condition, debility, and similar generalized states of health. The 30 groups of chronic conditions and the two unspecified groups do not include the entire range of main causes of limitation reported in the interview. The 32 categories of main causes comprise about 82 percent of reported main causes of activity limitation and 83 percent of the main causes of mobility limitation (including the figures for which asterisks are shown).

Figures 2 and 3 show the leading main causes of activity and mobility limitation. The four conditions in figure $2-$ heart conditions, arthritis and rheumatism, impairments (except paralysis and absence) of lower extremities and hips, and impairments (except paralysis) of back or spine-were responsible for 36 percent of all activity limitations. The five conditions in figure 3-arthritis and rheumatism, impairments (except paralysis and absence) of lower extremities and hips, heart conditions, cercbrovascular disease (stroke), and paralysis (completc or partial)-caused more than half of the mobility limitations.


Figure 2. Percent of persons with activity limitation who reported selected chronic conditions as the main cause of their limitation.

## Duration of Limitation

Persons with limitation of activity or mobility were asked how long they had been limited to the degree reported in the interview. For instance, a person who was unable to work was asked to state the length of time he had been unable to work. He should not have reported the length of time limited to a lesser degree. However, if a person was limited in amount or kind of major activity, but earlier in this period of disability had heen unable to work, it is


Figure 3. Percent of persons with mobility limitation who reported selected chronic conditions as the main cause of their limitation.
probable the duration of limitation includes the entire time he was limited. Table F summarizes the data on duration of limitation presented in more detail by degrec of limitation in tables 25 and 26. Duration of activity limitation was also measured in 1969-70 and presented in Series 10, Number 80. A comparison of the 1969-70 data with that for 1972 is shown below for all limited! persons.

For 1972 the percentage of persons limited for 1-4 years and for 5 years or more are significantly greater than for the earlier period.

| Period |  |  | All <br> Pcrsons <br> limited | Limited less than 1 year | $\begin{gathered} \text { Limited } \\ \text { I-4. } \\ \text { ycars } \end{gathered}$ | Limited 5 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - |  | Percent |  |  |  |
| 1972. | - • - | - • • • | 100.0 | 10.4 | 39.7 | 45.9 |
| 1969-1970. | - • | - • • • • | 100.0 | 9.6 | 38.1 | 43.5 |

Table $F$. Number of persons limited in activity or mobility and percent distribution by duration of limitation, according to age: United States, 1972

| Type of limitation and age | Persons <br> limited ${ }^{1}$ |  | Duration of limitation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ```Number in thou- sands``` | Percent | Less <br> than <br> 1 year | $\begin{gathered} 1-4 \\ \text { years } \end{gathered}$ | 5 years or more |
| Limitation of activity |  | Percent distribution |  |  |  |
| A11 ages | 25,868 | 100.0 | 10.4 | 39.7 | 45.9 |
| Under 17 years | 1,921 | 100.0 | 12.1 | 43.6 | 38.2 |
| 17-44 years- | 6,407 | 100.0 | 12.0 | 35.4 | 48.2 |
| 45-64 years | 8,926 | 100.0 | 10.8 | 39.3 | 46.5 |
| 65 years and ov | 8,613 | 100.0 | 8.3 | 42.5 | 45.4 |
| All ages | 6,458 | 100.0 | 10.3 | 39.1 | 40.0 |
| Under 17 years- | 193 | 100.0 | * | 41.5 | 28.0 |
| 17-44 years | 722 | 100.0 | 13.9 | 29.6 | 40.9 |
| 45-64 years- | 2,039 | 100.0 | 12.0 | 39.3 | 40.5 |
| 65 years and ove | 3,505 | 100.0 | 8.4 | 40.8 | 40.1 |

${ }^{1}$ Includes unknown duration.

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[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, general qualiticatignt, and information on the reliability of the estimates are given in appendix I. Defintions of terms are given in appendix II]

| Sex and age | Total population | With no limitation of activity | $\begin{aligned} & \text { With } \\ & \text { Iimitation, } \\ & \text { but not in } \\ & \text { major } \\ & \text { activity } \end{aligned}$ | With limitation in amount or kind of major activity ${ }^{1}$ | Unable to carry on major activity ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Both sexes | Number of persons in thousands |  |  |  |  |
| All ages | 204,148 | 178,281 | 6,279 | 13,557 | 6,031 |
| Under 17 years | $\begin{aligned} & 64,865 \\ & 77,131 \\ & 42,229 \\ & 19,924 \end{aligned}$ |  | $\begin{array}{r} 884 \\ 2,410 \\ 1,929 \\ 1,056 \end{array}$ | $\begin{array}{r} 906 \\ 3,242 \\ 5,097 \\ 4,312 \end{array}$ | $\begin{array}{r} 131 \\ 755 \\ 1,900 \\ 3,246 \end{array}$ |
| 17-44 years-- |  |  |  |  |  |
| 45-64 years- |  |  |  |  |  |
| 65 years and ove |  |  |  |  |  |
|  | 98,445 | 85,438 | 3,142 | 5,333 | 4,531 |
| Under 17 years- |  |  | $\begin{array}{r} 516 \\ 1,383 \\ 930 \\ 313 \end{array}$ | $\begin{array}{r} 520 \\ 1,523 \\ 2,050 \\ 1,240 \end{array}$ | $\begin{array}{r} 82 \\ 570 \\ 1,529 \\ 2,351 \end{array}$ |
| 17-44 years- |  |  |  |  |  |
| 45-64 years- |  |  |  |  |  |
| 65 years and over |  |  |  |  |  |
| Female |  |  |  |  |  |
| All ages------------------------------ | 105,704 | 92,842 | 3,137 | 8,224 | 1,500 |
| Under 17 years | $\begin{aligned} & 31,827 \\ & 40,071 \\ & 22,183 \\ & 11,623 \end{aligned}$ | $\begin{array}{r} 31,025 \\ 37,138 \\ 17,766 \\ 6,913 \end{array}$ | $\begin{array}{r} 368 \\ 1,028 \\ 999 \\ 743 \end{array}$ | $\begin{array}{r} 386 \\ 1,719 \\ 3,047 \\ 3,072 \end{array}$ | 49185371895 |
| 17-44 years-- |  |  |  |  |  |
| 45-64 years- |  |  |  |  |  |
| 65 years and ove |  |  |  |  |  |
| Both sexes |  | Percent distribution |  |  |  |
| All ages- | 100.0 | 87.3 | 3.1 | 6.6 | 3.0 |
| Under 17 years | 100.0 | 97.0 | 1.4 | 1.4 | 0.2 |
| 17-44 years- | 100.0 | 91.7 | 3.1 | 4.2 | 1.0 |
| 45-64 years- | 100.0 | 78.9 | 4.6 | 12.1 | 4.5 |
| 65 years and over | 100.0 | 56.8 | 5.3 | 21.6 | 16.3 |
| Male |  |  |  |  |  |
| All ages | 100.0 | 86.8 | 3.2 | 5.4 | 4.6 |
| Under 17 years | 100.0 | 96.6 | 1.6 | 1.6 | 0.2 |
| 17-44 years- | 100.0 | 90.6 | 3.7 | 4.1 | 1.5 |
| 45-64 years - | 100.0 | 77.5 | 4.6 | 10.2 | 7.6 |
| 65 years and over- | 100.0 | 53.0 | 3.8 | 14.9 | 28.3 |
| Female |  |  |  |  |  |
| All ages------------------------------- | 100.0 | 87.8 | 3.0 | 7.8 | 1.4 |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 97.5 \\ & 92.7 \\ & 80.1 \\ & 59.5 \end{aligned}$ | $\begin{aligned} & 1.2 \\ & 2.6 \\ & 4.5 \\ & 6.4 \end{aligned}$ | 1.24.313.726.4 | 0.20.51.77.7 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.
NOTE: For official population estimates for more general use, see 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. Total population and number and percent distribution of persons by mobility limitation status due to chronic conditions, according to sex and age: United States, 1972
[Data are based on houschold interviews of the civilan, nonnstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


NOTE: For offical population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series $P-20, P-25$, and $\mathrm{P}-60$.

Table 3. Total population and number of persons by activity limitation status due to chronic conditions, living arrangements, and age: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Major activity refers to ability to work, keep hoise, or engage in school or preschool activities.

NOTE: For offical population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series $\mathrm{P}-20, \mathrm{P}-25$, and $P-60$.

Table 4. Percent distribution of persons by activity limitation status due to chronic conditions, according to living arrangements and age: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Living arrangements and age | Total population | With no limitation of activity | With limitation, but not in major activity ${ }^{1}$ | With limitation in amount or kind of major activity ${ }^{1}$ | Unable to carry on major activity ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All arrangements | Percent distribution |  |  |  |  |
| All ages- | 100.0 | 87.3 | 3.1 | 6.6 | 3.0 |
| Under 17 years <br> 17-44 years <br>  <br>  <br> Living alone <br>  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 97.0 \\ & 91.7 \\ & 78.9 \\ & 56.8 \end{aligned}$ | $\begin{aligned} & 1.4 \\ & 3.1 \\ & 4.6 \\ & 5.3 \end{aligned}$ | $\begin{array}{r} 1.4 \\ 4.2 \\ 12.1 \\ 21.6 \end{array}$ | 0.21.04.516.3 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | 100.0 | 70.9 | 6.2 | 16.4 | 6.6 |
| Under 17 years <br> 17-44 years- <br> 45-64 years--- <br>  <br> Living with nonrelatives <br> All ages | 100.0100.0100.0100.0 | $\begin{array}{r} * \\ 89.1 \\ 71.2 \\ 58.3 \end{array}$ | $\begin{array}{r} * \\ 4.8 \\ 5.9 \\ 7.3 \end{array}$ | $\begin{array}{r} * \\ 4.4 \\ 16.5 \\ 24.5 \end{array}$ | *1.76.49.9 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | 100.0 | 83.1 | 4.7 | 6.8 | 5.4 |
| Under 17 years <br> 17-44 years- <br>  <br> 65 years and over- <br> Living with relatives-married | 100.0100.0100.0100.0 | $\begin{aligned} & 94.0 \\ & 91.0 \\ & 67.5 \\ & 49.9 \end{aligned}$ | $\begin{array}{r} * \\ 5.0 \\ * \\ * \\ * \end{array}$ | $\begin{array}{r} * \\ 2.7 \\ 15.6 \\ 22.8 \end{array}$ | $\begin{array}{r} \% \\ \% \\ 13.0 \\ 23.3 \end{array}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| All ages-- | 100.0 | 84.4 | 3.5 | 8.4 | 3.7 |
| Under 17 years <br> 17-44 years <br> 45-64 years- <br> 65 years and over- | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 92.3 \\ & 80.8 \\ & 57.8 \end{aligned}$ | $\begin{aligned} & 2.8 \\ & 4.8 \\ & 4.5 \end{aligned}$ | $\begin{array}{r} 3.3 \\ 11.8 \\ 19.8 \end{array}$ | 10.63.717.9 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Living with relatives-other |  |  |  |  |  |
| All ages- | 100.0 | 92.9 | 2.1 | 3.4 | 1.6 |
|  | $\begin{aligned} & 100.0 \\ & 100.0 \\ & 100.0 \\ & 100.0 \end{aligned}$ | $\begin{aligned} & 97.0 \\ & 90.7 \\ & 71.5 \\ & 52.0 \end{aligned}$ | 1.43.44.74.6 | 1.44.215.922.5 | $\begin{array}{r} 0.2 \\ 1.7 \\ 7.8 \\ 20.9 \end{array}$ |
| 17-44 years------ |  |  |  |  |  |
| 45-64 years- |  |  |  |  |  |
| 65 years and over- |  |  |  |  |  |

[^3]Table 5. Total population and number of persons by mobility limitation status due to chronic conditions, living arrangements, and age: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II」


NOTE: For official population estimates for more general use, see Bureari of the Census reports on the civilian popilation of the United States In Current Popiliation Reports, Series p-20, p-25, and $\mathrm{P}-60$.

Table 6. Percent distribution of persons by mobility limitation status due to chronic conditions, according to living arrangements and age: United States, 1972
[Data are based on household intervicws of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


Table 7. Total population and number of persons by activity limitation status due to chronic conditions, family income, and age: United States, 1972
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The surveydesign, general qualifications, and information on the reliability of the estimates are given in appendix I. DeCinitions of terms are given in appendix II]

${ }_{2}^{1}$ Major activity refers to abllity to work, keep house, or engage in school or preschosl activities.
${ }^{2}$ Includes unknown income.
NOTE: For official population estinates for more genewal use, see Bureay of the Census reposts on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and P-60.

Table 8. Percent distribution of persons by activity limitation status due to chronic conditions, according to family income and age: United States, 1972
[Data dre based on household unten iews of the eivilian, nomenstututionalued population. The surveydesign, gencral qualifications, and information on the reliability of the estimates are given in appendix 1. Definitions of terms are given in appendix II]

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.
${ }^{2}$ Includes unknown income.

Table 9. Total population and number of persons by mobility limitation status due to chroniz condftions, family incone, and age: United States, 1972
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, gencralqualifications, and information on the reliablity of the estimates are given in appendi I. Definitions of terms are given in appendix II]


## ${ }^{1}$ Includes unknown income.

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States in Gurrent Population Reports, Series $\mathrm{P}-20, \mathrm{P}-25$, and $\mathrm{P}-60$.

Table 10. Percent distribution of persons by mobility limitation status due to chronic conditions, according to family income and age: United States, 1972
[Data de based on houschold intervews of the civilian, mommstitutionalised population. The surveydesign, general qualifications, and information on the reliability of the estimates are green in appendix I. Delinitions of terms are given in appendix II


[^4]Table 11. Total population and number of persons by activity limitation status, color, family income, and age: United States, 1972
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.
${ }^{2}$ Includes unknown income.
NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and $\mathrm{P}-60$.

Table 12. Percent distribution of persons by activity limitation status due to chronic conditions, according to color, family income, and age: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The surveydesign, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Color, family income, and age | Total population | ```With no limitation of activity``` | With limitation, but not in major activity ${ }^{1}$ | With limitation in amount or kind of major activity ${ }^{1}$ | Unable to carry on major activity ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White | Percent distribution |  |  |  |  |
| A11 incomes ${ }^{2}$ | 100.0 | 87.3 | 3.2 | 6.6 | 2.8 |
| Under 17 years | 100.0 | 97.0 | 1.4 | 1.4 | 0.2 |
| 17-44 years--- | 100.0 | 92.0 | 3.2 | 4.0 | 0.8 |
| 45-64 years- | 100.0 | 79.4 | 4.7 | 11.9 | 4.1 |
| 65 years and over- | 100.0 | 57.6 | 5.4 | 21.5 | 15.6 |
| Less than \$5,000- | 100.0 | 72.4 | 4.8 | 14.0 | 8.8 |
| Under 17 years - | 100.0 | 96.0 | 1.8 | 2.0 | * |
| 17-44 years-- | 100.0 | 86.8 | 4.5 | 5.9 | 2.7 |
| 45-64 years | 100.0 | 58.9 | 5.9 | 21.8 | 13.4 |
| 65 years and over- | 100.0 | 51.8 | 6.3 | 24.6 | 17.2 |
| \$5,000 or more- | 100.0 | 90.5 | 2.9 | 5.1 | 1.5 |
| Under 17 years----------------- | 100.0 | 97.1 | 1.4 | 1.3 | 0.2 |
| 17-44 years--- | 100.0 | 92.7 | 3.1 | 3.7 | 0.5 |
| 45-64 years----- | 170.0 100.0 | 82.9 63.2 | 4.5 4.2 | 10.2 | 2.4 |
| All other |  |  |  |  |  |
| All incomes ${ }^{2}$ | 100.0 | 87.3 | 2.2 | 6.6 | 3.9 |
| Under 17 years | 100.0 | 97.1 | 1.0 | 1.6 | * |
| 17-44 years--- | 100.0 | 89.8 | 2.3 | 5.8 | 2.1 |
| 45-64 years---- | 100.0 | 73.9 | 3.8 | 14.0 | 8.3 |
| 65 years and over--- | 100.0 | 48.2 | 4.7 | 23.2 | 24.0 |
| Less than \$5,000- | 100.0 | 80.6 | 2.6 | 10.0 | 6.8 |
|  | 100.0 | 96.8 | * | 2.1 | * |
| 17-44 years- | 100.0 | 85.0 | 2.9 | 8.0 | 4.1 |
| 45-54 years---.-- | 1.00 .0 | 57.4 | 5.0 | 22.2 | 15.4 |
| 65 years and over---- | 100.0 | 44.1 | 5.2 | 26.3 | 24.3 |
| \$5,000 or more | 100.0 | 92.1 | 1.9 | 4.3 | 1.8 |
| Under 17 years | 100.0 | 97.3 | 1.1 | 1.3 | * |
| 17-44 years - | 100.0 | 92.3 | 2.1 | 4.6 | 1.0 |
| 45-64 years - | 100.0 | 84.3 | 3.1 | 8.7 | 3.9 |
| 65 years and over | 100.0 | 60.7 | \% | 13.7 | 22.7 |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

Table 13. Total population and number of persons by mobility limitation status due to chronic conditions, color, family income, and age: United States, 1972
[Data are based on houschold intervicws of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown income.
NOTE: For official popilation estimates for more general use, see Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and $\mathrm{P}-60$.

Table 14. Percent distribution of persons by mobility limitation status due to chronic conditions, according to color, family income, and age: United States, 1972
[Data are based on bousehold intervicws of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


[^5]Table 15. Total population and number of persons by activity limitation status due to chronic conditions, geographic region, and age: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The surveydesign, general qualifications, and information on the rcliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series $\mathrm{P}-20$, $\mathrm{P}-25$,

Table 16. Percent distribution of persons by activity limitation status due to chronic conditions, according to geographic region and age: United States, 1972
[Data are based on household interviews of the civilian, nommstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

Table 17. Total population and number of persons by mobility limitation status due to chronic conditions, geographic region, and age: United States, 1972
[Data are bascd on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]


NOTE: For official population estimates for more general use, see 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 18. Percent distribution of persons by mobility limitation status due to chronic conditions, according to geographic region and age: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II)

| Geographic region and age | Total population | ```With no limitation of mobility``` | Has trouble getting around alone | Needs help in getting around | Confined to the house |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All regions | Percent distribution |  |  |  |  |
| A11 ages | 100.0 | 96.8 | 1.3 | 1.0 | 0.9 |
| Under 17 years | 100.0 | 99.7 | 0.1 | 0.1 | 0.1 |
| 17-44 years---- | 100.0 | 99.1 | 0.5 | 0.3 | 0.2 |
| 45-64 years | 100.0 | 95.2 | 2.4 | 1.1 | 1.3 |
| 65 years and over | 100.0 | 82.4 | 5.8 | 6.7 | 5.2 |
| Northeast |  |  |  |  |  |
| All ages | 100.0 | 96.9 | 1.1 | 1.0 | 1.0 |
| Under 17 years | 100.0 | 99.8 | * | * | * |
| 17-44 years----- | 100.0 | 98.9 | 0.5 | 0.3 | 0.3 |
| 45-64 years----- | 100.0 | 96.3 | 1.6 | 0.9 | 1.1 |
| 65 years and ove | 100.0 | 83.5 | 4.5 | 6.0 | 5.9 |
| North Central |  |  |  |  |  |
| All ages | 100.0 | 97.3 | 1.1 | 1.0 | 0.6 |
| Under 17 years | 100.0 | 99.7 | * | * | * |
| 17-44 years-- | 100.0 | 99.3 | 0.4 | 0.2 | * |
| 45-64 years - | 100.0 | 95.8 | 2.3 | 0.9 | 1.0 |
| 65 years and over | 100.0 | 84.2 | 5.2 | 6.9 | 3.7 |
| South |  |  |  |  |  |
| A11 ages | 100.0 | 96.1 | 1.6 | 1.1 | 1.1 |
| Under 17 years | 100.0 | 99.6 | * | * | * |
| 17-44 years | 100.0 | 99.0 | 0.5 | 0.2 | 0.3 |
| 45-64 years--- | 100.0 | 93.5 | 3.3 | 1.5 | 1.7 |
| 65 years and over | 100.0 | 78.8 | 7.8 | 7.0 | 6.4 |
| West |  |  |  |  |  |
| All ages | 100.0 | 97.3 | 1.1 | 0.9 | 0.7 |
| Under 17 years | 100.0 | 99.7 | * | * | * |
| 17-44 years-- | 100.0 | 99.1 | 0.5 | 0.3 | * |
| 45-64 years - | 100.0 | 95.4 | 2.3 | 1.0 | 1.4 |
| 65 years and over | 100.0 | 84.5 | 4.8 | 6.6 | 4.0 |

Table 19. Total population and number of persons by activity limitation status due to chronic conditions, place of residence, and age: United States, 1972
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The surveydesign, general qualifications, and information on the reliabil ity of the estimates are given in appendix I. Definitions of terms are given in appendix II]


${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities NOTE: For official population estimates for more general use, see Bureau of the census reports on the civilian population of the United States in Current Population Reports, Series $P-20, P-25$, and

Table 20. Percent distribution of persons by activity limitation status due to chronic conditions, according to place of residence and age: United States, 1972
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The surveydesign, general qualifications, and informationon the reliability of the estimates are given in appendix I. Definitions of terms arc given in appendix II]

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

Table 21. Total population and number of persons by mobility limitation status due to chronic conditions, place of residence, and age: United States, 1972
[Data are based on hnuschold interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Deffinitions of terms are given in appendix II]


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

Table 22. Percent distribution of persons bymobility limitation status due to chronic conditions, according to place of residence and age: United States, 1972
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Place of residence and age | Total population | ```With no limitation of mobility``` | Has trouble getting around alone | Needs help in getting around | Confined to the house |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All areas | Percent distribution |  |  |  |  |
| All ages | 100.0 | 96.8 | 1.3 | 1.0 | 0.9 |
| Under 17 years- <br> 17-44 years <br> 45-64 years <br> 65 years and over- <br> A11 SMSA <br> All ages- | 100.0 | 99.7 | 0.1 | 0.1 | 0.1 |
|  | 100.0 | 99.1 | 0.5 | 0.3 | 0.2 |
|  | 100.0 | 95.2 | 2.4 | 1.1 | 1.3 |
|  | 100.0 | 82.4 | 5.8 | 6.7 | 5.2 |
|  | 100.0 | 97.1 | 1.1 | 0.9 | 0.8 |
| Under 17 years- <br> 17-44 years- <br> 45-64 years <br> 65 years and over <br> Central city <br> All ages | 100.0 | 99.7 | 0.1 | 0.1 | * |
|  | 100.0 | 99.1 | 0.4 | 0.3 | 0.2 |
|  | 100.0 | 95.7 | 2.1 | 1.0 | 1.2 |
|  | 100.0 | 83.6 | 5.0 | 6.1 | 5.3 |
|  |  |  |  |  |  |
|  | 100.0 | 96.3 | 1.4 | 1.1 | 1.1 |
|  <br>  <br>  <br> 65 years and over---------------1 <br> Not central city <br> A11 <br> ages | 100.0 | 99.7 |  | * |  |
|  | 100.0 | 98.7 | 0.6 | 0.4 | 0.3 |
|  | 100.0 | 94.7 | 2.5 | 1.2 | 1.6 |
|  | 100.0 | 82.5 | 5.3 | 6.3 | 5.9 |
|  |  |  |  |  |  |
|  | 100.0 | 97.7 | 0.9 | 0.7 | 0.6 |
| Under 17 years <br> 17-44 years <br> 45-64 years <br>  <br> Qutside SMSA-nonfarm <br>  | 100.0 | 99.7 | * | * | * |
|  | 100.0 | 99.3 | 0.3 | 0.2 | 0.1 |
|  | 100.0 | 96.5 | 1.8 | 0.8 | 0.8 |
|  | 100.0 | 84.8 | 4.6 | 5.9 | 4.7 |
|  |  |  |  |  |  |
|  | 100.0 | 96.3 | 1.6 | 1.2 | 0.9 |
| Under 17 years <br> 17-44 years- <br> 45-64 years- <br>  <br> Outside SMSA-farm <br> All ages-----------------------------------1 | 100.0 |  | * | * | * |
|  | 100.0 | 99.1 | 0.4 | 0.2 | 0.2 |
|  | 100.0 | 93.9 | 3.1 | 1.4 | 1.6 |
|  | 100.0 | 80.5 | 7.2 | 7.5 | 4.8 |
|  |  |  |  |  |  |
|  | 100.0 | 96.2 | 1.6 | 1.1 | 1.1 |
| Under 17 years- <br>  <br>  <br> 65 years and over- |  | 100.0 | * | * | * |
|  | 100.0 | 98.4 | * | * | * |
|  | 100.0 | 95.3 | 2.5 | * | * |
|  | 100.0 | 81.1 | 6.0 | 7.9 | 5.2 |

Table 23. Number and percent distribution of persons with limitation of activity by the chronic condition reported as the main cause of limitation, according to degree of limitation: United States, 1972
[Data are based on houselsild interviews of the civilian, nominstitutionalieed population. The survey design, gencral qualifications, and information on the reliability of the estimates are given in appendix 1 . Definitions of terms are given in appendis II]

| Selected chronic conditions | $\left\{\begin{array}{c} \text { All } \\ \text { degrees } \\ \text { of } \\ \text { activity } \\ \text { limita- } \\ \text { tion } \end{array}\right.$ | With <br> limitation, but not in major activityl | With <br> limitation in amount or kind of major activity ${ }^{1}$ | Unable <br> to carry on major activity ${ }^{1}$ | ```A11 degrees of activity limita- tion``` | With <br> Iimita <br> tion, but not in major activity ${ }^{1}$ | With <br> limitation in amount or kind of major activity ${ }^{1}$ | Unable to carry on major activityl |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of persons in thousands |  |  |  | Percent distribution |  |  |  |
| Persons limited in activity-------- | 25,868 | 6,279 | 13,557 | 6,031 | 100.0 | 100.0 | 100.0 | 100.0 |
| Tuberculosis, all forms | 96 | * | 46 | 41 | 0.4 | * | 0.3 | 0.7 |
| Malignant neoplasms----------------------- | 279 | * | 136 | 113 | 1.1 | * | 1.0 | 1.9 |
| Benign and unspecified neoplasms--------- | 148 | $\pm$ | 87 | * | 0.6 | * | 0.6 | * |
| Diabetes | 612 | 156 | 299 | 156 | 2.4 | 2.5 | 2.2 | 2.6 |
| Mental and nervous conditions--------n--- | 945 | 187 | 456 | 302 | 3.7 | 3.0 | 3.4 | 5.0 |
| Heart conditions~ | 3,478 | 495 | 1,958 | 1,024 | 13.4 | 7.9 | 14.4 | 17.0 |
| Cerebrovascular disease-------------------1 | 604 | 40 | 198 | 367 | 2.3 | 0.6 | 1.5 | 6.1 |
| Hypertension without heaxt involvement--- | 739 | 161 | 462 | 117 | 2.9 | 2.6 | 3.4 | 1.9 |
| Varicose veins | 199 | 45 | 128 | \% | 0.8 | 0.7 | 0.9 | * |
| Hemorrhoids. | 44 | * | * | \% | 0.2 | * | * | * |
| Other conditions of circulatory system--- | 496 | 86 | 243 | 167 | 1.9 | 1.4 | 1.8 | 2.8 |
| Chronic bronchitis | 147 | * | 96 | * | 0.6 | * | 0.7 | \% |
| Emphysema | 473 | 54 | 198 | 221 | 1.8 | 0.9 | 1.5 | 3.7 |
| Asthma, with or without hay fever-------- | 952 | 399 | 464 | 90 | 3.7 | 6.4 | 3.4 | 2.5 |
|  | 152 | 83 | 67 | * | 0.6 | 1.3 | 0.5 | * |
| Chronic sinusitis- | 49 | * | \% | * | 0.2 | \% | * | * |
| Other conditions of respiratory system--- | 344 | 68 | 159 | 117 | 1.3 | 1.1 | 1.2 | 1.9 |
| Peptic ulcer | 264 | 65 | 139 | 61 | 1.0 | 1.0 | 1.0 | 1.0 |
| Hernia-----------------------------------1 | 375 | 74 | 255 | 47 | 1.4 | 1.2 | 1.9 | 0.8 |
| Other conditions of digestive system----- | 404 | 91 | 206 | 107 | 1.6 | 1.4 | 1.5 | 1.8 |
| Diseases of kidney and ureter---m-------- | 142 | * | 88 | * | 0.5 | * | 0.6 | * |
| Other conditions of genitourinary system- | 314 | 66 | 211 | 38 | 2.2 | 1.1 | 1.6 | 0.6 |
| Arthritis and rheumatism | 2,903 | 574 | 1,722 | 607 | 11.2 | 9.1 | 12.7 | 10.1 |
| Other musculoskeletal disorders---------- | 1,294 | 345 | 757 | 192 | 5.0 | 5.5 | 5.6 | 3.2 |
| Visual impairments-------------------------1- | 589 | 194 | 219 | 175 | 2.3 | 3.1 | 1.6 | 2.9 |
| Hearing impaixments----------------------1 | 446 | 260 | 152 | * | 1.7 | 4.1 | 1.1 | * |
| Paralysis, complete or partial----------- | 510 | 117 | 203 | 190 | 2.0 | 1.9 | 1.5 | 3.2 |
| tmpaiments (except paralysis) of back or spine | 1,494 | 440 | 900 | 155 | 5.8 | 7.0 | 6.6 | 2.6 |
| Impaiments (except paralysis and absence) of upper extremities and shoulders------ | 382 | 140 | 202 | 40 | 1.5 | 2.2 | 1.5 | 0.7 |
| Impairments (except paralysis and absence) of lower extremities and hips- | 1,516 | 586 | 624 | 306 | 5.9 | 9.3 | 4.6 | 5.1 |
| ```Condition not specified: Old age (65 years and over)``` | 711 | 68 | 425 | 219 | 2.7 | 1.1 | 3.1 | 3.6 |
|  | 147 | * | 98 | * | 0.6 | * | 0.7 | * |

${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

Table 24. Number and percent distribution of persons with limitation of mobility by the chronic condition reported as the main cause of limitation, according to degree of limitation: United States, 1972
[Data are based on houschold intervews of the civilan, nomstitutenalued population. The survey design, general qualifications, and information on the reliability of the cstimates are given in appenilix I. Definitoons of terms are given in appendix II]

| Selected chronic conditions | ```All degrees of mobil- ity limita- tion``` | Has trouble getting around alone | Needs help in getting around | Confined to the house | $\begin{gathered} \text { All } \\ \text { degrees } \\ \text { of } \\ \text { mobil- } \\ \text { ity } \\ \text { limita- } \\ \text { tion } \end{gathered}$ | Has trouble getting around alone | Needs help in getting around | Confined to the house |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of persons in thousands |  |  |  | Percent distribtuion |  |  |  |
| Persons limited in mobility-------- | 6,458 | 2,609 | 2,074 | 1,775 | 100.0 | 100.0 | 100.0 | 100.0 |
| Tuberculosis, all forms------------------- | * | * | * | * | * | * | * | * |
| Malignant neoplasms | 102 | * | * | 56 | 1.6 | * | * | 3.2 |
| Benign and unspecified neoplasms--------- | \% | * | * | * |  | * | * | * |
|  | 105 | 45 | * | * | 1.6 | 1.7 | * |  |
| Mental and nervous conditions | 119 | 43 | * | 68 | 1.8 | 1.6 | * | * |
| Heart conditions-- | 565 | 203 | 81 | 280 | 8.7 | 7.8 | 3.9 | 3.8 |
|  | 404 | 116 | 135 | 153 | 6.3 |  |  | 15.8 |
| Hypertension without heart involvement--- | 105 |  | * | * |  | 4.4 | 6.5 | 8.6 |
| Varicose veins- |  | \% | * | * | 1.6 | 2.0 | * | * |
| Hemorrhoids----- | 45 |  | * | * | 0.7 | * | \% | * |
| Other conditions of circulatory system--- | 187 | * | * | * | * | * | * | * |
| Other conditions of circulatory system--- |  | 95$*$ | 48 | 44 | 2.9 | 3.6 | 2.3 | 2.5 |
| hronic bronchitis-------- | 147 |  | * | * | * | * | * |  |
| Emphysema----------------------------------1-1 |  | \% 70 | * | 69 | 2.3 | 2.7 | * | 3.9 |
| Asthma, with or without hay fever-m----- | 64 | 70 | * | 40$*$ | 1.0 | * | * | 2.3 |
| Hay fever, without asthma------ | * | * | * |  |  | * | * | * |
| Chronic sinusitis-------- | * | * | * | * | * | * | * |  |
| Other conditions of respiratory systemm-- | 42 | * | * | * | 0.7 |  | * | * |
| Peptic ulce | * | * |  | * | * | * |  |  |
| Hernia- | * | * | * | * | * | * | $*$ | * |
| Other conditions of digestive system- | 54 | * | * | * | 0.8 | $\cdots$ | * |  |
| Diseases of kidney and ureter--n--------- | \% | * | * | * | \% | * | * | * |
| Other conditions of genitourinary system- |  | * | * | * |  | * | * | * |
| Arthritis and rheumatism----------------1 | 1,431 | 674 | 51.2 | 245 | 22.2 | 25.8 | 24.7 | 13.8 |
| Other musculoskeletal disorders | 244 | 136 | 67 | 42 | 3.8 | 5.2 | 3.2 | 2.8 |
| Visual impairments | 200 | 57 | 97 | 46 | 3.1 | 2.2 | 4.7 |  |
| Hearing impairments-----------------------10 | * | * | * | * | \% |  |  | 2.6 |
| Paralysis, complete or partial----------- | 288 | 80 | 137 | 71 |  |  |  |  |
| Impairments (except paralysis) of back |  |  |  |  | 4.4 | 3.1 | 6.6 | 4.0 |
|  | 163 | 92 | 49 | * | 2.5 | 3.5 | 2.4 | * |
| Impairments (except paralysis and absence) of upper extremities and shoulders | * | * | * | * | * | * | * | * |
| Impairments (except paralysis and absence) of lower extremities and <br>  | 697 | 281 | 310 | 106 | 10.8 | 10.8 | 14.9 | 6.0 |
| Condition not specified: <br> Old age ( 65 years and over) | 149 | 44 | 66 | 39 | 2.3 | 1.7 | 3.2 |  |
| Other- | * | * | * | * | \% | * | * | * |

Table 25. Number and percent distribution of persons with limitation of activity due to chronic conditions by duration of limitation, according to degree of limitation and age: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Degree of limitation and age | $\begin{aligned} & \text { Persons } \\ & \text { limited } \\ & \text { in } \\ & \text { activity } \end{aligned}$ | Duration of 1imitation |  |  | ```Persons limited in activity }\mp@subsup{}{}{1``` | Duration of limitation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Less } \\ \text { than } \\ 1 \text { year } \end{gathered}$ | y l -4 |  |  | Less than 1 year | $\begin{gathered} 1-4 \\ \text { years } \end{gathered}$ |  |
| All limited persons | Number of persons in thousands |  |  |  | Percent distribution |  |  |  |
| All ages------------- | 25,868 | 2,679 | 10,273 | 11,881 | 100.0 | 10.4 | 39.7 | 45.9 |
| Under 17 years | 1,921 | 232 | 837 | 734 | 100.0 | 12.1 | 43.6 | 38.2 |
|  | 6,407 | 771 | 2,268 | 3,086 | 100.0 | 12.0 | 35.4 | 48.2 |
| 45-64 years-- | 8,926 | 961 | 3,508 | 4,148 | 100.0 | 10.8 | 39.3 | 46.5 |
| 65 years and over---------- | 8,613 | 714 | 3,660 | 3,912 | 100.0 | 8.3 | 42.5 | 45.4 |
| Unable to carry on major activity ${ }^{2}$ |  |  |  |  |  |  |  |  |
| All ages--------------- | 6,031 | 717 | 2,384 | 2,844 | 100.0 | 11.9 | 39.5 | 47.2 |
| Under 17 years------------- | 131 | 43 | 47 | 41 | 100.0 | 32.8 | 35.9 | 31.3 |
|  | 755 | 143 | 289 | 314 | 100.0 | 18.9 | 38.3 | 41.6 |
|  | 1,900 | 253 | 819 | 805 | 100.0 | 13.3 | 43.1 | 42.4 |
| 65 years and over---------- | 3,246 | 278 | 1,229 | 1,684 | 100.0 | 8.6 | 37.9 | 51.9 |
| Limited in amount or kind of major activity ${ }^{2}$ |  |  |  |  |  |  |  |  |
| A11 ages - | 13,557 | 1,475 | 5,912 | 5,947 | 100.0 | 10.9 | 43.6 | 43.9 |
| Under 17 years-------------- | 906 | 104 | 498 | 276 | 100.0 | 11.5 | 55.0 | 30.5 |
|  | 3,242 | 437 | 1,218 | 1,553 | 100.0 | 13.5 | 37.6 | 47.9 |
|  | 5,097 | 567 | 2,124 | 2,352 | 100.0 |  | 41.7 | 46.1 |
| 65 years and over---------- | 4,312 | 367 | 2,072 | 1,765 | 100.0 | 8.5 | 48.1 | 40.9 |
| Limited, but not in major |  |  |  |  |  |  |  |  |
| All ages | 6,279 | 486 | 1,976 | 3,090 | 100.0 | 7.7 | 31.5 | 49.2 |
| Under 17 years------------- | 884 | 86 | 292 | 417 | 100.0 | 9.7 | 33.0 | 47.2 |
|  | 2,410 | 191 | 761 | 1,219 | 100.0 | 7.9 | 31.6 | 50.6 |
|  | 1,929 | 141 | 564 | 991 | 100.0 | 7.3 | 29.2 | 51.4 |
| 65 years and over---------- | 1,056 | 68 | 359 | 463 | 100.0 | 6.4 | 34.0 | 43.8 |

[^6]Table 26. Number and percent distribution of persons with limitation of mobility due to chronic conditions by duration of limitation, according to degree of limitation and age: United States, 1972
[Data are based on houschold intervicws of the civilian, nonunstututionalized population. The survey design, gencral qualifications, and information on the reliability of the cstimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown duration.

## APPENDIX I

## TECHNICAL NOTES ON METHODS

## Background of This Report

This report is one of a series of statistical reports prepared by the National Center for Health Statistics (NCHS). It is based on information collected in a centinuing nationwide sample of households in the Health Interview Survey (HIS).

The Health Interview Survey utilizes a questionnaire which obtains information on personal and demographic characteristics, illnesses, injuries, impairments, chronic conditions, and other health topics. As data relating to each of these various broad topics are tabulated and analyzed, separate reports are issued which cover one or more of the specific topics. The present report is based on data collected in household interviews during 1972.

The population covered by the sample for the Health Interview Survey is the civilian, noninstitutionalized population of the United States living at the time of the interview. The sample does not include members of the Armed Forces or U.S. nationals living in foreign countries. It should also be noted that the estimates shown do not represent a complete measure of any given topic during the specified calendar period since data are not collected in the interview for persons who died during the reference period. For many types of statistics collected in the survey, the reference period covers the 2 weeks prior to the interview week. For such a short period, the contribution by decedents to a total inventory of conditions or services should be very small. However, the contribution by decedents during a long reference period (e.g., 1 year) might be sizable, especially for older persons.

## Statistical Design of the <br> Health Interview Survey

General plan..--The sampling plan of the survey follows a multistage probability design which permits a continuous sampling of the civilian, noninstitutionalized population of the United States. The sample is designed in such a way that the sample of households interviewed each week is representative of the target population and that weekly samples are additive over time. This feature of the design permits both continuous measurement of characteristics of samples and more detailed analysis of less common characteristics and smaller categories of health-related items. The continuous collection has administrative and operational advantages as well as technical assets since it permits fieldwork to be handled with an experienced, stable staff.

The overall sample was designed so that tabulations can be provided for each of the four major geographic regions and for urban and rural sectors of the United States.

The first stage of the sample design consists of drawing a sample of 357 primary sampling units (PSU's) from approximately 1,900 geographically defined PSU's. A PSU consists of a county, a small group of contiguous counties, or a standard metropolitan statistical area. The PSU's collectively cover the 50 States and the District of Columbia.

With no loss in general understanding, the remaining stages can be combined and treated in this discussion as an ultimate stage. Within PSU's, then, ultimate stage units called segments are defined in such a manner that each segment contains an expected six households. Three general types of segments are used:

Area segments which are defined geographically.

List segments, using 1960 census registers as the frame.

Permit segments, using updated lists of building permits issued in sample PSU's since 1960.

Census address listings were used for all areas of the country where addresses were well defined and could be used to locate housing units. In general the list frame included the larger urban areas of the United States from which about two-thirds of the HIS sample was selected.

The usual HIS sample consists of approximately 8,000 segments containing 57,000 assigned households, of which 11,000 were vacant, demolished, or occupied by persons not in the scope of the survey. The 46,000 eligible occupied households yield a probability sample of about 134,000 persons in 44,000 interviewed households in a year.

Descriptive material on data collection, field procedures, and questionnaire development in the HIS has been published ${ }^{6}$ as well as a detailed description of the sample design ${ }^{7}$ and a report on the estimation procedure and the method used to calculate sampling errors of estimates derived from the survey. ${ }^{8}$

[^7]Collection of data.-Field operations for the survey are performed by the U.S. Bureau of the Census under specifications established by the National Center for Health Statistics. In accordance with these specifications the Bureau of the Census participates in survey planning, selects the sample, and conducts the field interviewing as an agent of NCHS. The data are coded, edited, and tabulated by NCHS.

Estimating procedures.--Since the design of the HIS is a complex multistage probability sample, it is necessary to use complex procedures in the derivation of estimates. Four basic operations are involved:

1. Inflation by the reciprocal of the probability of selection.--The probability of selection is the product of the probabilities of selection from each step of selection in the design (PSU, segment, and household).
2. Nonresponse adjustment.-The estimates are inflated by a multiplication factor which has as its numerator the number of sample households in a given segment and as its denominator the number of households interviewed in that segment.
3. First-stage ratio adjustment.--Sampling theory indicates that the use of auxiliary information which is highly correlated with the variables being estimated improves the reliability of the estimates. To reduce the variability between PSU's within a region, the estimates are ratio adjusted to the 1960 populations within six color-residence classes.
4. Poststratification by age-sex-color.-The estimates are ratio adjusted within each of 60 age-sex-color cells to an independent estimate of the population of each cell for the survey period. These independent estimates are prepared by the Bureau of the Census. Both the first-stage and poststratified ratio adjustments take the form of multiplication factors applied to the weight of each elementary unit (person, household, condition, and hospitalization).

The effect of the ratio-estimating process is to make the sample more closely representative of the civilian, noninstitutionalized population
by age, sex, color, and residence, which thereby reduces sampling variance.

As noted, each week's sample represents the population living during that week and characteristics of the population. Consolidation of samples over a time period, e.g., a calendar quarter, produces estimates of average characteristics of the U.S. population for the calendar quarter. Similarly, population data for a year are averages of the four quarterly figures.

For prevalence statistics, such as number of persons with speech impairments or number of persons classified by time interval since last physician visit, figures are first calculated for each calendar quarter by averaging estimates for all weeks of interviewing in the quarter. Prevalence data for a year are then obtained by averaging the four quarterly figures.

For other types of statistics-namely those measuring the number of occurrences during a specified time period--such as incidence of acute conditions, number of disability days, or number of visits to a doctor or dentist, a similar computational procedure is used, but the statistics are interpreted differently. For these items, the questionnaire asks for the respondent's experience over the 2 calendar weeks prior to the week of interview. In such instances the estimated quarterly total for the statistic is 6.5 times the average 2 -week estimate produced by the 13 successive samples taken during the period. The annual total is the sum of the four quarters. Thus the experience of persons interviewed during a year-experience which actually occurred for each person in a 2 -calendar-week interval prior to week of interview-is treated as though it measured the total of such experience during the year. Such interpretation leads to no significant bias.

## General Qualifications

Nonresponse.- Data were adjusted for nonresponse by a procedure which imputes to persons in a household which was not interviewed the characteristics of persons in households in the same segment which were interviewed. The total noninterview rate, the ratio of the total noninterviewed eligible households to the total
eligible households, was 3.6 percent, including a 1.1-percent refusal rate with the remainder primarily due to the failure to find an eligible respondent at home after repeated calls.

The interview process.-- The statistics presented in this report are based on replies obtained in interviews with persons in the sample households. Each person 19 years of age and over present at the time of interview was interviewed individually. For children and for adults not present in the home at the time of the interview, the information was obtained from a related household member such as a spouse or the mother of a child.

There are limitations to the accuracy of diagnostic and other information collected in household interviews. For diagnostic information, the household respondent can usually pass on to the interviewer only the information the physician has given to the family. For conditions not medically attended, diagnostic information is often no more than a description of symptoms. However, other facts, such as the number of disability days caused by the condition, can be obtained more accurately from household members than from any other source since only the persons concerned are in a position to report this information.

Rounding of numbers.- The original tabulations on which the data in this report are based show all estimates to the nearest whole unit. All consolidations were made from the original tabulations using the estimates to the nearest unit. In the final published tables, the figures are rounded to the nearest thousand, although these are not necessarily accurate to that detail. Devised statistics such as rates and percent distributions are computed after the estimates on which these are based have been rounded to the nearest thousand.

Population figures.-Some of the published tables include population figures for specified categories. Except for certain overall totals by age, sex, and color, which are adjusted to independent estimates, these figures are based on the sample of households in the HIS. These are given primarily to provide denominators for rate computation, and for this purpose are more appropriate for use with the accompanying measures of health characteristics than other popula-
tion data that may be available. With the exception of the overall totals by age, sex, and color mentioned above, the population figures differ from figures (which are derived from different sources) published in reports of the Bureau of the Census. Official population estimates are presented in Bureau of the Census reports in Series P-20, P-25, and P-60.

## Reliability of Estimates

Since the statistics presented in this report are based on a sample, they will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and interviewing personnel and procedures.

As in any survey, the results are also subject to reporting and processing errors and errors due to nonresponse. To the extent possible, these types of errors were kept to a minimum by methods built into survey procedures. Although it is very difficult to measure the extent of bias in the Health Interview Survey, a number of studies have been conducted to study this problem. The results have been published in several reports.9-12

The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calcu-

[^8]lated for this report, the standard error also reflects part of the variation which arises in the measurement process. It does not include estimates of any biases which might be in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than $2 \frac{1}{2}$ times as large.

The relative standard error of an estimate is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percentage of the estimate. For this report, asterisks are shown for any cell with more than a 30 -percent relative standard error. Included in this appendix are charts from which the relative standard errors can be determined for estimates shown in the report. In order to derive relative errors which would be applicable to a wide variety of health statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result, the charts provide an estimate of the approximate relative standard error rather than the precise error for any specific aggregate or percentage.

Three classes of statistics for the health survey are identified for purposes of estimating variances.

Narrow range.-This class consists of (1) statistics which estimate a population attribute, e.g., the number of persons in a particular income group, and (2) statistics for which the measure for a single individual during the reference period used in data collection is usually either 0 or 1 or on occasion may take on the value 2 or very rarely 3 .
Medium range.-This class consists of other statistics for which the measure for a single individual during the reference period used in data collection will rarely lie outside the range 0 to 5 .
Wide range.--This class consists of statistics for which the measure for a single individual during the reference period used in data collection can range from 0 to a number in excess of 5 , e.g., the number of days of bed disability.

In addition to classifying variables according to whether they are narrow-, medium-, or wide-range, statistics in the survey are further defined as:

Type $A$. Statistics on prevalence and incidence for which the period of reference in the questionnaire is 12 months.
Type B. Incidence-type statistics for which the period of reference in the questionnaire is 2 weeks.
Type C. Statistics for which the reference period is 6 months.
Only the charts on sampling error applicable to data contained in this report are presented.

General rules for determining relative sampling errors.-The "guide" on page 46, together with the following rules, will enable the reader to determine approximate relative standard errors from the charts for estimates presented in this report.

Rule 1. Estimates of aggregates: Approximate relative standard errors for estimates of aggregates such as the number of persons with a given characteristic are obtained from appropriate curves on page 47. The number of persons in the total U.S. population or in an age-sex-color class of the total population is adjusted to official Bureau of the Census figures and is not subject to sampling error.
Rule 2. Estimates of percentages in a percent distribution: Relative standard errors for percentages in a percent distribution of a total are obtained from appropriate curves on page 48 . For values which do not fall on one of the curves presented in the chart, visual interpolation will provide a satisfactory approximation.
Rule 3. Estimates of rates where the numerator is a. subclass of the denominator: This rule applies for prevalence rates or where a unit of the numerator occurs, with few exceptions, only once in the
year for any one unit in the denominator. For example, in computing the rate of visual impairments per 1,000 population, the numerator consisting of persons with the impairment is a subclass of the denominator, which includes all persons in the population. Such rates if converted to rates per 100 may be treated as though they were percentages and the relative standard errors obtained from the chart P4AN-M. Rates per 1,000 , or on any other base, must first be converted to rates per 100; then the percentage chart will provide the relative standard error per 100 .
Rule 4. Estimates of rates where the numerator is not a subclass of the denominator: This rule applies where a unit of the numerator often occurs more than once for any one unit in the denominator. For example, in the computation of the number of persons injured per 100 currently employed persons per year, it is possible that a person in the denominator could have sustained more than one of the injuries included in the numerator. Approximate relative standard errors for rates of this kind may be computed as follows:
(a) Where the denominator is the total U.S. population or includes all persons in one or more of the age-sexcolor groups of the total population, the relative error of the rate is equivalent to the relative error of the numerator, which can be obtained directly from the appropriate chart.
(b) In other cases the relative standard error of the numerator and of the denominator can be obtained from the appropriate curve. Square each of these relative errors, add the resulting values, and extract the square root of the sum. This procedure will result in an upper bound on the standard error and often will overstate the error.

Rule 5. Estimates of difference between two statistics (mean, rate, total, etc.): The standard error of a difference is approximately the square root of the sum of the squares of each standard error considered separately. A formula for the standard error of a difference,

$$
d=X_{1}-X_{2}
$$

is

$$
\sigma_{d}=\sqrt{\left(X_{1} V_{x 1}\right)^{2}+\left(X_{2} V_{x 2}\right)^{2}}
$$

where $X_{1}$ is the estimate for class $1, X_{2}$ is the estimate for class 2 , and $V_{\mathrm{x} 1}$ and $V_{\mathrm{x} 2}$ are the relative errors of $X_{1}$ and $X_{2}$ respectively. This formula will represent the actual standard error quite accurately for the difference between separate and uncorrelated characteristics although it is only a rough approximation in most other cases. The relative standard error of each estimate involved in such a difference can be determined by one of the four rules above, whichever is appropriate.

## Guide to Use of Relative Standard Error Charts

The code shown below identifies the appropriate curve to be used in estimating the relative standard error of the statistic described. The four components of each code describe the statistic as follows:
(1) $\mathrm{A}=$ aggregate, $\mathrm{P}=$ percentage; (2) the number of calendar quarters of data collection; (3) the type of statistic as described on page 45; and (4) the range of the statistic as described on page 44.

| Statistic | Use: |  |  |
| :---: | :---: | :---: | :---: |
|  | Rule | Code | On Page |
| Number of: |  |  |  |
| Persons in the U.S. population or in any age-sex-color category thereof | Not subject to sampling error |  |  |
| Persons with limitation of activity and mobility by characteristic | 1 | A8AN | 47 |
| Persons in any other population group . | 1 | A8AN | 47 |
| Chronic conditions, by type | 1 | A8AN | 47 |
| Percentage distribution of: <br> Persons with limitation of activity and mobility by characteristic | 2 | P8AN-M | 48 |
| Chronic conditıons, by type | 2 | PBAN-M | 48 |
| Number of chronic conditions per person in the U.S. population or any age-sex-color group thereof | 4(a) | A8AM | 47 |
| Number of chronic conditions per person in any other population group | 4(b) | Numer.: A8AM <br> Denom.: A8AN | 47 47 |



Example of use of chart: An aggregate of 5,000,000 (on scale at bottom of chart) for a Narrow range type A statistic (code: A8AN) has a relative standard error of 1.9 percent, read from scale at left side of chart, or a standard error of 95,000 ( 1.9 percent of $5,000,000$ ). For a. Wide range type $B$ statistic (code: A8BW), an aggregate of $10,000,000$ has a relative error of 9.3 percent or a standard error of 930,000 ( 9.3 percent of $10,000,000$ ).
(Base of percentage shown on curves in millions)


Example of use of chart: An estimate of 20 percent (on scale at bottom of chart) based on an estimate of $10,000,000$ has a relative standard error of 2.8 percent (read from the scale at the left side of the chart), the point at which the curve for a base of $10,000,000$ intersects the vertical line for 20 percent. The standard error in percentage points is equal to 20 percent $X 2.8$ percent or 0.56 percentage points.

## APPENDIX II

## DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

## Terms Relating to Conditions

Condition.-A morbidity condition, or simply a condition, is any entry on the questionnaire which describes a departure from a state of physical or mental well-being. It results from a positive response to one of a series of "medicaldisability impact" or "illness-recall" questions. In the coding and tabulating process conditions are selected or classified according to a number of different criteria such as whether they were medically attended, whether they resulted in disability, or whether they were acute or chronic; or according to the type of disease, injury, impairment, or symptom reported. For the purposes of each published report or set of tables, only those conditions recorded on the questionnaire which satisfy certain stated criteria are included.

Conditions except impairments are classified by type according to the Eighth Revision International Classification of Diseases, Adapted for Use in the United States, ${ }^{13}$ with certain modifications adopted to make the code more suitable for a household interview survey.

Chronic condition.-A condition is considered chronic if (1) the condition is described by the respondent as having been first noticed more than 3 months before the week of the interview or (2) it is one of the conditions listed below which are always considered chronic regardless of the date of onset.

[^9]Allergy, any
Arthritis or rheumatism
Asthma
Cancer
Cleft palate
Club foot
Condition present since birth
Deafness or serious trouble with hearing
Diabetes
Epilepsy
Hardening of the arteries
Hay fever
Heart trouble
Hemorrhoids or piles
Hernia or rupture
High blood pressure
Kidney stones
Mental illness
Missing fingers, hand, or arm-toes, foot, or leg Palsy
Paralysis of any kind
Permanent stiffness or deformity of the foot, leg, fingers, arm, or back
Prostate trouble
Repeated trouble with back or spine
Rheumatic fever
Serious trouble with seeing, even when wearing glasses
Sinus trouble, repeated attacks of
Speech defect, any
Stomach ulcer
Stroke
Thyroid trouble or goiter
Tuberculosis
Tumor, cyst, or growth
Varicose veins, trouble with

|  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Figure 1.

Impairment.--Impairments are chronic or permanent defects, usually static in nature, resulting from disease, injury, or congenital malformation. They represent decrease or loss of ability to perform various functions, particularly those of the musculoskeletal system and the sense organs. All impairments are classified by means of a special supplementary code for impairments. Hence code numbers for impairments in the International Classification of Diseases are not used. In the Supplementary Code, impairments are grouped according to type of func-
tional impairment and etiology. The impairment classification is shown in Vital and Health Statistics, Series 10, No. 48.

Persons with chronic conditions.-The estimated number of persons with chronic conditions is based on the number of persons who at the time of the interview were reported to have one or more chronic conditions.

Chronic condition groups.-The 30 condition groups shown in this report and the International Classification code numbers used are listed in figure I.

Prevalence of conditions.- Ingeneral, prevalence of conditions is the estimated number of conditions of a specified type existing at a specified time or the average number existing during a specified interval of time. The prevalence of chronic conditions is defined as the number of chronic cases reported to be present or assumed to be present at the time of the interview. Those assumed to be present at the time of the interview are cases described by the respondent in terms of one of the diseases on the list of conditions always considered chronic (see definition of chronic condition above) and reported to have been present at some time during the 12 -month period prior to the interview.

## Terms Relating to Disability

Disability.-Disability is the general term used to describe any temporary or long-term reduction of a person's activity as a result of an acute or chronic condition.

Chronic activity limitation.-Persons are classified into four categories according to the extent to which their activities are limited at present as a result of chronic conditions. Since the usual activities of preschool children, school-age children, housewives, and workers and other persons differ, a different set of criteria is used for each group. There is a general similarity between them, however, as will be seen in the following descriptions of the four categories:

1. Persons unable to carry on major activity for their group (major activity refers to ability to work, keep house, or engage in school or preschool activities)

Preschool children:
Inability to take part in ordinary play with other children.

School-age children:
Inability to go to school.
Housewives:
Inability to do any housework.
Workers and all other persons:
Inability to work at a job or business.
2. Persons limited in amount or kind of major activity performed (major activity refers to ability to work, keep house, or engage in school or preschool activities)

Preschool children:
Limited in amount or kind of play with other children, e.g., need special rest periods, cannot play strenuous games, or cannot play for long periods at a time.
School-age children:
Limited to crrtain type of schools or in school attendance, e.g., need special schools or special teaching or cannot go to school full time or for long periods at a time.

## Housewives:

Limited in amount or kind of housework, e.g., cannot lift children, wash or iron, or do housework for long periods at a time.

Workers and all other persons:
Limited in amount or kind of work, e.g., need special working aids or special rest periods at work, cannot work full time or for long periods at a time, or cannot do strenuous work.
3. Persons not limited in major activity but otherwise limited (major activity refers to ability to work, keep house, or engage in school or preschool activities)
Preschool children:
Not classified in this category.
School-age children:
Not limited in going to school but limited in participation in athletics or other extracurricular activities.

Housewives:
Not limited in housework but limited in other activities such as church, clubs, hobbies, civic projects, or shopping.
Workers and all other persons:
Not limited in regular work activities but limited in other activities such as church, clubs, hobbies, civic projects, sports, or games.
4. Persons not limited in activities (includes persons whose activities are not limited in any of the ways described above)

Chronic mobility limitation.-Persons are classified into five categories according to the extent to which their mobility is limited at present as a result of chronic conditions. The categories are as follows:
Stays in bed.- Must stay in bed all or most of the time.

Stays in the house. Must stay in the house, but not in bed, all or most of the time.

Needs help getting around. - Able to go outside but needs the help of another person or of a special aid such as a cane or wheelchair in getting around.
Has trouble getting around freely.--Does not need the help of another person or a special aid but has trouble in getting around freely.
Is not limited in mobility. - Not limited in any of the ways described above.

## Demographic Terms

Age. - The age recorded for each person is the age at last birthday. Age is recorded in single years and grouped in a variety of distributions depending on the purpose of the table.

Color. The population is divided into two color groups, "white" and "all other." "All other" includes Negro, American Indian, Chinese, Japanese, and any other race. Mexican persons are included with "white" unless definitely known to be Indian or of another race.

Income of family or of unrelated individuals. Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family (or by an unrelated individual) in the 12 month period preceding the week of interview. Income from
all sources is included, e.g., wages, salaries, rents from property, pensions, and help from relatives.

Living arrangement. -- The four categories of living arrangements shown in this report are as follows:
Living alone.- Living alone is defined as living in a one-member household.

Living with nonrelatives.--Living with nonrelatives is defined as living in a household with another person or persons none of whom are related to the person by blood, marriage, or adoption.
Living with relatives -married. - This category includes married persons who are living in a household with another person or persons one or more of whom are related to them by blood, marriage, or adoption. Persons with commonlaw marriages are considered to be married. For purposes of this category "married" excludes widowed, divorced, or separated. Persons whose only marriage was annulled are counted as "never married."

Living with relatives-other.-This category includes children living with parents or relatives; it also includes persons who are widowed, divorced, separated, or never married who are living in a household with another person or persons one or more of whom are related to them by blood, marriage, or adoption. Persons whose only marriage was annulled are counted as "never married." "Separated" refers to married persons who have a legal separation or who have parted because of marital discord.

Usual activity. All persons in the population are classified according to their usual activity during the 12 -month period prior to the week of interview. The "usual" activity, in case more than one is reported, is the one at which the person spent the most time during the 12 -month period. Children under 6 years of age are classified as "preschool." All persons aged 6-16 years are classified as "school age."

The categories of usual activity used in this report for persons aged 17 years and over are usually working, usually going to school, usually keeping house, retired, and other activ-
ity. For several reasons these categories are not comparable with somewhat similarly named categories in official Federal labor force statistics. First, the responses concerning usual activity are accepted without detailed questioning since the objective of the question is not to estimate the numbers of persons in labor force categories but to identify crudely certain population groups which may have differing health problems. Second, the figures represent the usual activity status over the period of an entire year, whereas official labor force statistics relate to a much shorter period, usually 1 week. Third, the minimum age for usually working persons is 17 in the Health Interview Survey, and the official labor force categories include all persons aged 14 or older. Finally, in the definitions of specific categories which follow, certain marginal groups are classified differently to simplify procedures.
Usually working includes persons 17 years of age or older who are paid employees; self-employed in their own business, profession, or in farming; or unpaid employees in a family business or farm. Work around the house or volunteer or unpaid work such as for a church is not counted as working.

Usually going to school includes persons 17 years of age or older whose major activity is going to school.

Usually keeping house includes female persons 17 years of age or older whose major activity is described as "keeping house" and who cannot be classified as "working."

Retired includes persons 45 years old and over who consider themselves to be retired. In case of doubt, a person 45 years of age or older is counted as retired if he or she has either voluntarily or involuntarily stopped working, is not looking for work, and is not described as "keeping house." A retired person may or may not be able to work.

Other activity includes all persons 17 years of age or .older not classified as "working," "re-
tired," or "going to school," and females 17 years of age or older not classified as "keeping house."

Gicographic region.-For the purpose of classifying the population by geographic area, the States are grouped into four regions. These regions, which correspond to those used by the U.S. Bureau of the Census, are shown in figure II.

Place of residence. - The place of residence of a member of the civilian, noninstitutionalized population is classified as inside a standard metropolitan statistical area (SMSA) or outside an SMSA and either farm or nonfarm.

| Region | States Included |
| :---: | :---: |
| Northeast . | Maine, New Hampshire, Vermont, Massachusctts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania |
| North Central | Michigan, Ohis, Indiana, Illinus, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South D.Jkota, Kamsas, Nobraska |
| South . | Delaware, Maryland, <br> District of Columbia, <br> Virginia, Wics Virginia, <br> North Carslina, Sumth <br> Carolina, Georgis, Florida, <br> Kentucky, Texss, Tennessec, <br> Alabama, Mississippi, <br> Arkansar, Louisiana, <br> Okl.thoma |
| West | Montams, Idaho, Wyoming, Colorado, New Mevico, Arizoma, L'tah, Nevada, Washingtom, Naka, Oregn, California, Hawdi |

Figure II.

Standard metropolitan statistical arcas. The definitions and titles of SMSA's are established by the U.S. Office of Management and Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas. There were 212 SMSA's defined for the 1960 decennial census.

The definition of an individual SMSA involves two considerations: first, a city or cities of specified population which constitute the central city and identify the county in which it is located as the central county; second, economic and social relationships with contiguous counties (except in New England) which are metropolitan in character so that the periphery of the specific metropolitan area may be determined. SMSA's are not limited by State boundaries. In New England SMSA's consist of towns and cities, rather than counties. The metropolitan population in this report is based on SMSA's as defined in the 1960 census and does not include any subsequent additions or changes.

Central cities.-Each SMSA must include at least one central city. The complete title of an SMSA identifies the central city or cities. If only one central city is designated, then it must have 50,000 inhabitants or more. The area title may include, in addition to the largest city, up to two city names on the basis and in the order of the following criteria: (1) the additional city has at least 250,000 inhabitants or (2) the additional
city has a population of one-third or more of that of the largest city and a minimum population of 25,000 . An exception occurs where two cities have contiguous boundaries and constitute, for economic and social purposes, a single community of at least 50,000 , the smaller of which must have a population of at least 15,000.

Farm and nonfarm residence.-The population residing outside SMSA's is subdivided into the farm population, which comprises all non-SMSA residents living on farms, and the nonfarm population, which comprises the remaining outside SMSA population. The farm population includes persons living on places of 10 acres or more from which sales of farm products amounted to $\$ 50$ or more during the previous 12 months or on places of less than 10 acres from which sales of farm products amounted to $\$ 250$ or more during the preceding 12 months. Other persons living outside an SMSA were classified as nonfarm if their household paid rent for the house but their rent did not include any land used for farming.

Sales of farm products refer to the gross receipts from the sale of field crops, vegetables, fruits, nuts, livestock and livestock products (milk, wool, etc.), poultry and poultry products, and nursery and forest products produced on the place and sold at any time during the preceding 12 months.

## APPENDIX III <br> PROBE QUESTIONS ON LIMITATION OF ACTIVITY AND MOBILITY 1972



## CARD M

In terms of health:

1. MUST STAY IN BED ALL OR MOST OF THE TIME.
2. MUST STAY IN THE HOUSE ALL OR most of the time.
3. NEED THE HELP OF ANOTHER PERSON IN GETTING AROUND INSIDE OR OUTSIDE THE HOUSE.
4. NEED THE HELP OF SOME SPECIAL AID, SUCH AS A CANE OR WHEELCHAIR. IN GETTING AROUND INSIDE OR OUTSIDE THE HOUSE
5. DOES NOT NEED THE HELP OF

ANOTHER PERSON OR A SPECIAL AID BUT HAS TROUBLE IN GETTING AROUND FREELY.
6. DOES NOT HAVE TROUBLE GETTING AROUND FREELY.

| Ages $17+$ | 25a. What was -- doing most of the past 12 months - (For males): <br> working or doing something else? <br> If "something else," ask: <br> (For females): <br> b. What was -- doing? <br> If $45+$ years and was not "workıng." "'keeping house," or "going to school," ask: <br> c. Is -- retired? <br> d. If "retired," ask: Did he retire becouse of his heal th? | 25. | Working (30a) Keeping house (30b) <br> 3 $\square$ Retired, health (29) <br> $4 \square$ Retired, other (29) <br> 5 $\square$ Going to school (32) |
| :---: | :---: | :---: | :---: |
| Ages $6-16$ | 26a. What was -- doing most of the past 12 monshs - going to school or doing something else? <br> If "something else," ask: <br> b. What was -- doing? |  | 17+ something else (29) <br> 7 $\square$ 6-16 something else (31) |
| Ages under 6 |  |  | $0 \square$ $\square$ I-5 years (27) $\square$ Under 1 (28) |
| 27a. Is -- able to toke part ot all in ordinary play with other children? |  | 270. | Y 1 N (34) |
| b. Is he limited in the kind of play he con do because of his health? |  | 6. | 2 Y (34) N |
| c. Is he limited in the amount of ploy because of his health? |  | c. | 2 Y (34) N (33) |
| 28a. Is -- limited in any way because of his heolth? |  | 28a. | ,Y-1/ Y (NP) |
| b. In what way is he limited? |  | b. | (34) |
| 29a. Does -- health now keep him from working? |  | 290. | 1 Y (34) N |
| b. Is he limited in the kind of work he could do because of his heolth? |  | b. | 2 Y (34) |
| c. Is he limited in the amount of work he could do becouse of his health? |  | c. | 2 Y (34) |
| d. Is he limited in the kind or amount of other activities because of his health? |  | d. | 3 Y (34) N(33) |
| 30a. Does -= NOW have a job? |  | 30 a . | $Y$ (30c) N |
| b. In terms of hoalth, is -- NOW able to (work - keep house) at all? |  | b. | $Y$ Y |
| c. Is he limited in the kind of (work - housework) he can do because of his health? |  | c. | 2 Y (34) |
| d. Is he limited in the amount of (work - housework) he can do because of his health? |  | d. | $2{ }^{2}(34)$ |
| e. Is he limited in the kind or amount of other activities because of his health? |  | c. | 3 Y (34) N (33) |
| 31. In terms of health would -- be able to go to school? |  | 31. | $Y$ I N (34) |
| 32a. Does (would) -- have to go to a certain type of school because of his health? |  | 320. | 2 Y (34) |
| b. Is he (would he bo) limifed in school attendonce because of his hoalth? |  | b. | 2 Y (34) |
| c. Is he limited in the kind or omount of other activitues because of his health? |  | c. | 3 Y (34) $\quad \mathrm{N}$ (33) |
| 33a. Is -Z limited in ANY WAY because of a disability or health? <br> b. In what way is he limited? Record limitation, not condition. |  | 33a. | 4 Y |
|  |  | b. |  |
| 34a. About how long has he $\left\{\begin{array}{l}\text { been limited in -- } \\ \text { bean unable to -- } \\ \text { had to go to a certain type of school? }\end{array}\right\}$ <br> b. What (other) condition causes this limitation? <br> If "old age" only, ask: Is this limitation caused by any specific condition? <br> c. Is this limitation caused by any other condition? <br> Mark box or ask: <br> d. Which of these conditions would you say is the MAIN cause of his limitation? |  | 340. | $000 \square \text { Less than I month }$ |
|  |  | b. | Enter condition in item $C$ and osk $c$ Old age orily (NP) $\qquad$ |
|  |  | , | $\begin{aligned} & \text { Y (Reask } \\ & \text { band e) } \end{aligned}$ |
|  |  | d. | Only 1 condition <br> Enter main condition |

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[^0]:    ${ }^{3}$ During 1969 and 1971 limitation of mobility was measured through a series of questions, but without the use of a card showing the range of limitation status. These estimates have not been published because they differed widely from those obtained earlier. A project is underway to determine the cause of the difference.

[^1]:    ${ }^{1}$ The data on limited persons for the period July 1957 through June 1967 were obtained from persons with one or more chronic conditions reported in the interview. Later data on limited persons was obtained for all persons.
    ${ }_{2}^{2}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

[^2]:    ${ }^{5}$ The sample design in use for the Health Interview Survey during July 1962 through 1972 is based on 1960 census data. Beginning with the 1973 data collection, the sample design is based on the 1970 census data.

[^3]:    ${ }^{1}$ Major activity refers to ability to work, keep house, or engage in school or preschool activi-

[^4]:    ${ }^{1}$ Includes unknown income.

[^5]:    ${ }^{1}$ Includes unknown income.

[^6]:    ${ }^{1}$ Includes unknown duration.
    ${ }^{2}$ Major activity refers to ability to work, keep house, or engage in school or preschool activities.

[^7]:    ${ }^{6}$ National Center for Health Statistics: Health survey procedure: concepts, questionnaire development, and definitions in the Health Interview Survey. Vital and Health Statistics. PHS Pub. No. 1000-Series 1-No. 2. Public Health Service. Washington. U.S. Government Printing Office, May 1964.
    ${ }^{7}$ U.S. National Health Survey: The statistical design of the health household interview survey. Health Statistics. PHS Pub. No. 584-A2. Public Health Service. Washington, D.C., July 1958.
    ${ }^{8}$ National Center for Health Statistics: Estimation and sampling variance in the Health Interview Survey. Vital and Health Statistics. PHS Pub. No. 1000 -Series 2 -No. 38. Public Health Service. Washington. U.S. Government Printing Office, June 1970.

[^8]:    ${ }^{9}$ National Center for Health Statistics: Health interview responses compared with medical records. Vital and Health Statistics. PHS Pub. No. 1000-Series 2-No. 7. Public Health Service. Washington. U.S. Government Printing Office, July 1965.
    ${ }^{10}$ National Center for Health Statistics: Comparison of hospitalization reporting in three survey procedures. Vital and Health Statistics. PHS Pub. No. 1000-Series 2-No. 8. Public Health Service. Washington. U.S. Government Printing Office, July 1965.
    ${ }^{11}$ National Center for Health Statistics: Interview data on chronic conditions compared with information derived from medical records. Vital and Health Statistics. PHS Pub. No. 1000-Series 2-No. 23. Public Health Service. Washington. U.S. Government Printing Office, May 1967.
    ${ }^{12}$ National Center for Health Statistics: The influence of interviewer and respondent psychological and behavioral variables on the reporting in household interviews. Vital and Health Statistics. PHS Pub. No. 1000-Series 2-No. 26. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1968.

[^9]:    ${ }^{13}$ National Center for Health Statistics: Eighth Revision International Classification of Diseases, Adapted for Use in the United States. PHS Pub. No. 1693. Public Health Service. Washington. U.S. Government Printing Office, 1967.

