# Prevalence of Chronic Circulatory Conditions 

## United States, 1972

Statistics on prevalence of chronic circulatory conditions by measures of impact of the conditions and selected demographic characteristics. Based on data collected in the Health Interview Survey during 1972.
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE Public Health Service

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| SYMBOLS |  |
| :---: | :---: |
|  |  |
| Category not applicable------------------------------- |  |
|  | - |
| Quantity more than 0 but less than 0.05---- | 0.0 |
| Figure does not meet standards of reliability or precision (more than 30 percent relative standard error) $\qquad$ | * |

# PREVALENCE OF SELECTED CHRONIC CIRCULATORY CONDITIONS 

Charles S. Wilder, Division of Health Interview Statistics,

## INTRODUCTION

During 1972 the prevalence of chronic circulatory conditions among members of the civilian, noninstitutionalized population of the United States was measured in the Health Interview Survey. Prevalence estimates and measures of impact of these conditions on the population covered by the Survey are presented in this report. An earlier report on the prevalence of heart conditions and high blood pressure based on data collected in interviews during July 1957-June 1958 was published in the series, Health Statistics From the U.S. National Health Survey (Series B, Number 13).

Methodological studies have shown that chronic conditions are generally underreported in interview surveys. Respondents in health interviews tend to report conditions of which they are aware and which they are willing to report to the interviewer. Reporting is better for those conditions which have made a significant impact on the affected individual and his family. Conditions that are severe or costly or require treatment tend to be better reported than conditions having lesser impact. For instance, a condition which has caused limitation of activity, visits to the doctor, or days in bed is more likely to be reported in the interview than a condition which has had little or no impact on the person.

Methodological studies of the completeness of reporting chronic conditions in health interviews have been conducted for the Health Interview Survey. Findings of several of these studies are summarized in the last section of this report.

Because methodological studies show that chronic conditions having greater impact are
better reported, published data on chronic conditions other than physical impairments have been restricted in recent years to those causing limitation of activity or mobility. In Series 10 of Vital and Health Statistics detailed information on the causes of limitation have been presented in reports numbered $17,51,61$, and 80 .

Methodological studies have also indicated that inclusion of a checklist of descriptive condition titles as part of the interview questionnaire will increase the probability that a respondent will recognize the terms and report those of which he is aware. Of course, the diagnostic accuracy of reported conditions is dependent on the information the respondent remembers that the attending physician has passed on to the family or, in the absence of medical attendance, on the previous experience or education of the family.

From 1957-67 data were collected on all chronic conditions. Beginning in 1968, as part of the redesign of the data collection procedure, reporting of chronic conditions was limited to those causing disability days, physician visits, or limitation of activity and, in addition, to the measurement of prevalence of a single system of chronic conditions through use of an extended checklist of chronic conditions in that system. (A report on this new design and the results of a study of the previous method and the revised procedure is presented in Vital and Health Statistics, Series 2, Number 48.) During 1972 the system under study was that of the circulatory system. A list of 21 chronic circulatory conditions was employed in the 1972 questionnaire along with a single residual category.

The substantive part of this report is

Table A. Prevalence of selected chronic circulatory conditions reported in health interviews, number per 1,000 persons, percent of conditions by measures of impact, and disability days in past year: United States, 1972

|  | Chronic condition and ICDA code ${ }^{1}$ | Prevalence |  |
| :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Number } \\ & \text { in } \\ & \text { thousands } \end{aligned}$ | Number <br> per 1,000 persons |
| 1 | Heart conditions-----------390-398,402,404,410-429, $782.1,782.2,782.4$ | 10,291 | 50.4 |
| 2 | Active rheumatic fever and chronic rheumatic heart disease---390-398 | 766 | 3.8 |
| 3 | Hypertensive heart disease--------------------------------402,404 | 2,142 | 10.5 |
| 4 | Coronary heart disease--------------------------------------410-414 | 3,307 | 16.2 |
| 5 | Other specified heart disease-------------------------420-427.6,428 | 449 | 2.2 |
| 6 | Unspecified disorders of heart rhythm-------------427.9,782,1,782.2 | 2,442 | 12.0 |
| 7 | Heart trouble, N.O.S.-----------------------------------429, 782.4 | 1,184 | 5.8 |
| 8 | Hypertensive disease, N.E.C.------------------------------400,401,403 | 12,271 | 60.1 |
| 9 | Cerebrovascular disease-----------------------------------------430-438 | 1,534 | 7.5 |
| 10 | Arteriosclerosis, N.E.C.--------------------------------------------4440 | 700 | 3.4 |
| 11. | Varicose veins, N.E.C.-----------------------------------------454,456 | 7,519 | 36.8 |
| 12 | Hemorrhoids---------------------------------------------------------4545 | 9,744 | 47.7 |
| 13 | Ph1ebitis and thrombophlebitis, N.E.C.------------------------------451 | 317 | 1.6 |
| 14 | Poor circulation, N.O.S | 938 | 4.6 |
| 15 | Congenital anomalies of circulatory system-------------------746,747 | 900 | 4.4 |

${ }^{1}$ Eighth Revision of the International Classification of Diseases, Adapted for Use in the United States, 1965.
presented in three sections. The first of these presents prevalence estimates for a selected group of chronic circulatory conditions. The effect of the circulatory condition on the individual is presented by a series of measures of impact such as long- or short-term disability, medical attention, or degree of botheration. The second section of the report presents data on the distribution of chronic circulatory conditions for a series of demographic characteristics. The text points out differences in the distribution of these diseases in the population. In the next section, comparative cardiovascular prevalence rates for persons 18-79 years of age based on Health Examination Survey data collected in 1960-1962 are presented.

## SOURCE OF DATA

The information presented in this report on the prevalence of chronic circulatory conditions is based on data collected in the Health Inter-
view Survey, a continuing nationwide survey conducted by household interview. Each week a probability sample is interviewed by trained personnel of the U.S. Bureau of the Census to obtain information about the health and other characteristics of each household member in the civilian, noninstitutionalized population of the United States. During the 52 weeks of 1972 the sample was composed of about 44,000 households containing about 134,000 persons living at the time of the interview.

A description of the design of the survey, the methods used in estimation, and the general qualifications of the data are presented in appendix I. Since 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

Table A. Prevalence of selected chronic circulatory conditions reported in health interviews, number per 1,000 persons, percent of conditions by measures of impact, and disability days in past year: United States, 1972-Con.

| Percent of conditions- |  |  |  | Disability days |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Causing <br> limita- <br> tion of <br> activity | With 1 or more bed-days in past year | With doctor ever seen | With 1 or more physician visits in past year | Restric-ted-activity days per condition per year | ```Bed-days per condition per year``` | Bed-days per bed-disabling condition per year ${ }^{2}$ | Work- loss days per condition per year |  |
| 41.6 | 21.6 | 98.6 | 75.1 | 30.2 | 12.6 | 58.5 | 2.2 | 1 |
| 38.4 | 20.8 | 100.0 | 68.0 | 16.5 | 6.6 | 31.8 | + | 2 |
| 46.5 | 23.4 | 99.8 | 87.0 | 38.3 | 17.2 | 73.2 | 2.2 | 3 |
| 60.1 | 31.1 | 100.0 | 87.1 | 43.1 | 16.0 | 51.6 | 3.4 | 4 |
| 44.1 | 24.9 | 97.8 | 69.7 | 47.9 | 22.8 | 91.5 | 5.1 | 5 |
| 10.9 | 7.0 | 95.8 | 56.3 | 7.1 | 3.4 | 47.9 | 0.9 | 6 |
| 45.3 | 20.9 | 98.1 | 65.7 | 29.3 | 14.0 | 67.2 | \% | 7 |
| 8.9 | 7.0 | 99.2 | 80.6 | 6.2 | 2.0 | 29.1 | 0:5 | 8 |
| 51.0 | 28.0 | 99.3 | 72.9 | 51.0 | 25.1 | 89.5 | 1.8 | 9 |
| 21.9 | 11.0 | 94.3 | 64.3 | 15.3 | 9.0 | 82.0 | * | 10 |
| 3.9 | 4.1 | 69.1 | 26.6 | 3.7 | 0.8 | 20.1 | * | 11 |
| 0.7 | 5.4 | 68.0 | 28.5 | 2.9 | 0.7 | 13.2 | 0.5 | 12 |
| 21.5 | 36.3 | 99.4 | 68.1 | 24.7 | 12.4 | 34.2 | * | 13 |
| 19.8 | 10.1 | 92.6 | 58.0 | 21.6 | 7.7 | 76.2 | 1.7 | 14 |
| 18.8 | 9.2 | 98.4 | 57.4 | 6.0 | $*$ | * | * | 15 |

N.O.S. = Not otherwise specified.
N.E.C. = Not elsewhere classified.
${ }^{2}$ Figure is obtained by dividing the annual volume of bed-days (used in computing the previous column) by the number of persons with the condition who reported 1 or more bed-days in the year.
numerator or denominator of a rate or percentage is small, the sampling error may be high. Charts of relative sampling errors and instructions for their use are shown in appendix I.

Appendix II presents definitions of certain terms used in this report. Appendix III illustrates portions of the questionnaire used to obtain information about chronic circulatory conditions. The entire questionnaire used during 1972 is illustrated in appendix III of the Current Estimates report for 1972 (Series 10, Number 85).

In addition to the limitations of the data on the prevalence of chronic conditions reported in health interviews explained in the introduction, it should be pointed out that the restriction of the survey to the civilian population not confined to institutions affects the esti-
mated prevalence. The omission of the institutionalized population reduces the prevalence estimates since the proportion of persons with chronic conditions in institutions is high. ${ }^{1}$

[^0]
## PREVALENCE AND MEASURES OF IMPACT OF CONDITIONS

The term prevalence means the number of some item existing at a given point of time; the term is usually stated as point-prevalence. Another definition in use is the average number of some item existing during a specified interval of time. The latter definition is the one used for the Health Interview Survey. Table A shows the prevalence of selected chronic circulatory conditions during 1972. The main source for obtaining a report of chronic circulatory conditions is ,the checklist of conditions in questions 38 and 39 (see appendix III, probe questions). Question 38 asked: "Has anyone in the family (you, your -- , etc.) EVER had -- ." The list of 11 conditions which was read, is as follows:


Stroke or a cerebrovascular accident
Hemorrhage of the brain Angina pectoris Myocardial infarction Any other heart attack

Question 39 asked: "DURING THE PAST 12 MONTHS, did anyone in the family (you, your -- , etc.) have -- ?" The list of 10 conditions and a residual category was then read; they are:


Varicose veins
Hemorrhoids or piles
Phlebitis or thrombophlebitis
Any other condition affecting blood circulation

Other sources on the questionnaire of circulatory conditions were the disability probe questions 10,24 , and 34 , the doctor visit probe question 17, and the hospital page (see appendix III). Details about each condition reported were obtained on a condition page.

If a condition was reported from question 38-the EVER question-it is not included in the
prevalence estimates in table A and elsewhere unless there was some indication in the responses on the questionnaire that the condition was present in the past 12 months.

Conditions reported in the interview were counted as chronic if they were on the list of conditions always considered to be chronic regardless of onset (appendix II) or if they had had their onset more than 3 months prior to the week of interview and lasted more than 3 months. The chronic conditions reported in this manner are all assumed to be present at a given point in time and therefore approximate pointprevalence.

Table A shows the prevalence per 1,000 persons in the civilian, noninstitutionalized population of nine groups of circulatory conditions and the six categories of heart diseases into which the group "heart conditions" is subclassified. Table A also shows the rubrics of the Eighth Revision of the International Classification of Diseases, Adapted for Use in the United States (ICDA), into which the groups are classified.

It will be noted that the term coronary heart disease has been used in preference to the term ischemic heart diseases employed in the ICDA. It is felt that although the latter term is somewhat more specific, the term coronary heart disease will be more easily recognized by the nonmedical readers of these reports.

In most instances the assignment of conditions reported in the two checklists of 21 conditions to one of the nine groups in table $A$ is readily apparent. However, two of the conditions, heart murmurs and gangrene, need further explanation. If sufficient information is given, heart murmur is classified either in the rheumatic disease group or in the group "other specified heart disease." If heart murmur is reported to be functional or no additional information is reported, it is included in the group "unspecified disorders of heart rhythm." None of the conditions reported as gangrene are included in table A. Gangrene, not otherwise specified, was classified to the group "other diseases of arteries" included in the $1,426,000$ conditions reported in the interview but not shown in table A (see page 5).

It should also be pointed out that the groups hypertensive heart disease and hyper-
tensive disease, not elsewhere classified, do not include all cases of reported high blood pressure. For example, if coronary heart disease and hypertension are reported, coding practice combines hypertension with the coronary heart disease and only the coronary heart disease is coded.

It has been pointed out earlier that the diagnostic accuracy of conditions depends on the information known to the respondent. Thus the terms heart trouble and poor circulation indicate that something was wrong and that the circulatory system was involved. Also, assignment to the categories hypertensive heart disease or hypertensive disease, not elsewhere classified, depends on the knowledge of high blood pressure and the presence or lack of heart involvement.

Within each of the subgroups in the heart

[^1]| Age | Persons |
| :---: | :---: |
| All ages ............................................... | 36,492,000 |
| Under 17 years | 1,176,000 |
| 17-44 years ................................................ | 11,186,000 |
| 45-64 years ................................................ | 13,692,000 |
| 65 years and over ...................................... | 10,436,000 |

Both the estimate of 44 million selected circulatory conditions and 36 million persons with selected circulatory conditions have a severe shortcoming since they combine conditions with a wide range of severity and impact. For example, the estimate of 44 million persons combines together persons with coronary heart disease, 60.1 percent of whom are limited in activities, with persons who have varicose veins, 3.9 percent of whom are limited in activities. Because of this shortcoming, further analysis of persons with circulatory diseases will not be presented here. Researchers who would like estimates of the number of persons with specific combinations of circulatory conditions should contact the Division of Health Interview Statistics directly for further assistance.
conditions group and within each of the other eight groups, the prevalence estimate may be considered as a count of persons with each condition. However, it is possible that the same person may have one or more of these conditions. For instance, a person may have hypertensive heart disease and hemorrhoids. Some combinations are not possible; for example, a person with hypertensive disease and coronary heart disease is coded solely to the heart disease category. Also, arteriosclerosis is not coded separately when cerebral, coronary, or pulmonary arteries are involved. ${ }^{2}$

Table A includes most of the chronic circulatory conditions reported in health interviews in 1972. In addition there were about $1,426,000$ conditions reported in health interviews for which data are not presented in this report. ${ }^{3}$

Table A also shows various measures of impact of the condition groups on the people with them. About 2 of each 5 heart conditions caused limitation of activity; the largest proportion among the subgroups was coronary disease with 60.1 percent of these conditions causing limitation. It is of interest that 45.3 percent of conditions reported as heart trouble caused limitation. Among the other eight groups, half of the persons with cerebrovascular disease reported this condition as causing limitation of activity. (If paralysis was reported as cause of limitation due to cerebrovascular disease, both conditions are coded as causes of limitation.) Hemorrhoids and varicose veins were reported as causing very small percentages of limitation of activity.

About 1 in 5 of the heart conditions caused 1 or more days in bed during the year prior to
${ }^{3}$ The 1,426,000 conditions are:

| Chronic condition and ICDA code | Number <br> of <br> conditions |
| :--- | ---: |
| Inactive rheumatic fever $\ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ | 492,000 |
| Other diseases of arteries (441-447) ....................................................... | 264,000 |
| Hypotension (458.0) ...... |  |
| Other diseases of circulatory system |  |
| $(448,450,452,453,457,458.1,458.9)$ | $\ldots . .$. |

Adding the $1,426,000$ to $44,214,000$ gives a total of $45,640,000$ circulatory conditions. These conditions were reported by $37,174,000$ persons.
interview. Among the heart condition subgroups this percentage ranged from 31.1 for coronary heart disease to 7.0 for unspecified disorders of heart rhythm. The highest percentage of conditions with bed-stay in the past year was reported for phlebitis and thrombophlebitis with 36.3 percent.

With the exception of varicose veins and hemorrhoids, most of the conditions had been medically attended at some stage of disease, and more than half of each group had been seen by a physician in the past year.

During 1972 it is estimated that heart conditions caused an average of 30.2 days of restricted activity and 12.6 days in bed per condition per year. The days of restricted activity include the days in bed. The subgroup "other specified heart disease" (including pericarditis, endocarditis, myocarditis, pulmonary heart disease, and symptomatic heart diseases) had the highest rate of disability days among the heart conditions. As might be expected, cerebrovascular disease caused the highest number of days of disability among the other circulatory

Table $B$. Prevalence of selected chronic circulatory conditions reported in health interviews, and percent of conditions for which person ever hospitalized or now under treament: United States, 1972

| Chronic condition ${ }^{1}$ | Prevalence in thousands | Percent of conditions for which- |  |
| :---: | :---: | :---: | :---: |
|  |  | Ever hospitalized | Takes medicine or treatment recommended by doctor |
|  | 10,291 | 41.0 | 58.6 |
| Active rheumatic fever and chronic rheumatic heart <br> disease |  | 44.3 | 43.7 |
|  | 2,142 | 32.3 | 78.1 |
|  | 3,307 | 66.6 | 79.0 |
|  | 449 | 41.2 | 49.4 |
| Unspecified disorders of heart rhythm | 2,442 | 10.6 | 21.5 |
| Heart trouble, N.O.S.--- | 1,184 | 45.5 | 56.0 |
|  | 12,271 | 7.1 | 59.5 |
| Cerebrovascular disease | 1,534 | 64.7 | 63.4 |
|  | 700 | 18.4 | 43.6 |
|  | 7,519 | 13.5 | 16.1 |
|  | 9,744 | 8.8 | 19.2 |
| Ph1ebitis and thrombophlebitis, N.E.C.----------------- | 317 | 47.3 | 36.6 |
|  | 938 | 9.6 | 42.3 |
|  | 900 | 24.3 | 11.9 |

[^2]conditions. The number of work-loss days per currently employed person with a circulatory condition was quite low.

About 2 of each 5 heart conditions required hospitalization at some time prior to the interview (table B). However, 2 of each 3 coronary heart conditions had been hospitalized. About 3 of each 5 heart conditions required medicine or some form of treatment recommended by a doctor.

Table C elaborates on estimated percentages of conditions with 1 or more bed-days in past year (shown in table A) by presenting a frequency distribution of bed-days in the past year. For instance, 21.6 percent of the heart conditions required 1 or more days in bed. An
estimated 7.2 percent of persons with heart conditions had 1-7 days in bed, and 6.0 percent spent 1 month or more in bed in the past year. Cerebrovascular disease caused 10.5 percent of the persons with this condition to spend 31 or more days in bed. Similarly, 10 percent of coronary disease patients spent 31 or more days in bed.

About one-third of the heart conditions caused 5 or more physician visits in the past year (table D). Among the heart condition subgroups, 49.3 percent of persons with hypertensive heart disease and 47.1 percent with coronary heart disease had five or more physician visits.

Each of the persons with a given condition was asked about the frequency and amount of

Table G. Prevalence of selected chronic circulatory conditions reported in health interviews and percent distribution of conditions by frequency of bed disability days in past year for the condition: United States, 1972

| Chronic condition ${ }^{1}$ | Prev- <br> alence in thousands | Bed-disability days in past year |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | None | 1-7 | 8-14 | 15-30 | $31-$ 180 | $\begin{gathered} 181 \\ \text { or } \\ \text { more } \end{gathered}$ | $\begin{aligned} & \text { Un- } \\ & \text { known } \\ & \text { if } \\ & \text { any } \end{aligned}$ |
|  |  | Percent distribution |  |  |  |  |  |  |  |
| Heart conditions----------------------- | 10,291 |  |  |  |  |  |  |  |  |
| Active rheumatic fever and chronic rheumatic heart disease | 766 | $100.0$ | 77.8 | 6.3 | 4.7 | * | * | * | * |
| Hypertensive heart disease-------- | 2,142 | 100.0 | 75.6 | 8.8 | 4.5 | 4.6 | 4.2 | * | * |
| Coronary heart disease-------------- | 3,307 | 100.0 | 68.2 | 8.8 | 5.1 | 7.2 | 7.7 | 2.3 | * |
| Other specified heart disease------ | 449 | 100.0 | 69.7 | * | * | * | * | * | * |
| Unspecified disorder of heart rhythm | 2,442 | 100.0 | 91.9 | 3.8 | * | * | * | * | * |
| Heart trouble, N.O.S.-------------- | 1,184 | 100.0 | 74.6 | 8.2 | 4.1 | 3.0 | 3.3 | * | 4.6 |
| Hypertensive disease, N.E.C.--------- | 12,271 | 100.0 | 91.9 | 4.3 | 1.2 | 0.7 | 0.7 | * | 1.1 |
| Cerebrovascular disease | 1,534 | 100.0 | 69.4 | 7.8 | 5.0 | 4.8 | 5.5 | 5.0 | 2.6 |
|  | 700 | 100.0 | 87.0 | * | * | * | * | * | * |
| Varicose veins, N.E.C.----------------- | 7,519 | 100.0 | 94.3 | 2.0 | 0.8 | 0.8 | * | * | 1.6 |
| Hemorrhoids----------------------------- | 9,744 | 100.0 | 93.4 | 3.7 | 1.1 | 0.4 | * | * | 1.2 |
| Phlebitis and thrombophlebitis, N.E.C. | 317 | 100.0 | 60.9 | 13.9 | * | * | * | * | * |
| Poor circulation, N.O.S.-------------- | 938 | 100.0 | 79.3 | 4.5 | * | * | * | * | 10.6 |
| Congenital anomalies of circulatory system | 900 | 100.0 | 88.6 | $*$ | * | * | * | * | * |

N.O.S. $=$ not otherwise specified.
N.E.C. = Not elsewhere classified.
${ }^{1}$ See table A for ICDA codes.

Table D. Prevalence of selected chronic circulatory conditions reported in health interviews and percent distribution of conditions by frequency of physician visits in past year for the condition: United States, 1972

| Chronic condition ${ }^{1}$ | Prev- <br> alence in <br> thou- <br> sands | Physician visits in past year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | None | 1 | 2-4 | $\begin{array}{\|l\|} 5 \\ \text { or } \\ \text { more } \end{array}$ | Un known if any |
|  |  | Percent distribution |  |  |  |  |  |
| Heart conditions--------------------- | 10,291 | 100.0 | 20.4 | 17.3 | 23.2 | 34.7 | 4.4 |
| Active rheumatic fever and chronic rheumatic heart disease- | 766 | 100.0 | 29.4 | 22.2 | 18.3 | 27.7 | \% |
| Hypertensive heart disease | 2,142 | 100.0 | 9.7 | 12.4 | 25.3 | 49.3 | 3.3 |
| Coronary heart disease | 3,307 | 100.0 | 10.6 | 11.6 | 28.5 | 47.1 | 2.3 |
| Other specified heart disease | 449 | 100.0 | 22.5 | 15.4 | 21.8 | 32.7 | 7.8 |
| Unspecified disorders of heart <br> rhythm- | 2,442 | 100.0 | 37.1 | 29.2 | 17.2 | 10.0 | 6.5 |
| Heart trouble, N.O.S.-------------- | 1,184 | 100.0 | 26.4 | 15.3 | 20.9 | 29.5 | 8.0 |
| Hypertensive disease, N.E.C | 12,271 | 100.0 | 16.4 | 21.8 | 32.7 | 26.2 | 2.9 |
| Cerebrovascular disease | 1,534 | 100.0 | 21.7 | 10.2 | 24.3 | 38.4 | 5.5 |
| Arteriosclerosis, N.E.C.------------- | 700 | 100.0 | 25.7 | 21.1 | 20.7 | 22.4 | 10.0 |
| Varicose veins, N.E. | 7,519 | 100.0 | 40.2 | 14.9 | 7.1 | 4.6 | 33.2 |
| Hemorrhoids----------------------------- | 9,744 | 100.0 | 36.9 | 18.5 | 8.2 | 1.8 | 34.6 |
| Phlebitis and thrombophlebitis, N.E.C. | 317 | 100.0 | 26.8 | 20.2 | 22.1 | 25.9 | * |
| Poor circulatory, N.O.S.------------- | 938 | 100.0 | 22.1 | 15.5 | 22.5 | 19.9 | 19.9 |
| Congenital anomalies of circulatory <br> system- | 900 | 100.0 | 38.4 | 29.6 | 15.3 | 12.7 | 4.1 |

N.O.S. $=$ Not otherwise specified.
N.E.C. = Not elsewhere classified.
${ }^{12}$ See table A for ICDA codes.
bother caused by the condition. Bother was not defined for the respondent; usually this term refers to the trouble, worry, inconvenience, anxiety, and so forth the condition causes the person. Table E shows that 15.5 percent of heart conditions bothered the persons with these conditions all the time. About one-third of the heart conditions never bothered the person. The degree of botheration is presented in tables $F$ and G. Table $G$ presents a percent distribution of the total prevalence by degree of botheration for persons who reported being bothered (table E). About 2 out of 3 ( 64.2 percent) heart patients reported some degree of botheration with 20.7 percent being bothered a great deal (table F).

About 1 of 8 heart conditions was reported as having been noticed for the first time in the year prior to interview (table H). Incidence of a chronic condition is defined as the onset of the condition within a specified period of time. It should be pointed out that the incidence as reported in a health interview may be the first recognition of symptoms which started at some earlier point in time. Onset as stated by the respondent may be prior to the medical diagnosis of the condition or may be after the physician told the respondent about the diagnosis.

Table E: Prevalence of selected chronic circulatory conditions reported in health interviews and percent distribution of conditions by frequency of bother caused by condition: United States, 1972

| Chronic condition ${ }^{1}$ | Prevalence in thousands | Total | Frequency of bother |  |  |  | Not bothered | Unknown if both ered |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | All the time | Often | Once in while | Frequency not specified |  |  |
|  |  | Percent distribution |  |  |  |  |  |  |
| Heart conditions---n--m-n------------ | 10,291 | 100.0 | 15.5 | 9.8 | 37.1 | 1.8 | 34.2 | 1.6 |
| Active rheumatic fever and chronic rheumatic heart disease-- |  | 100.0 | 10.3 | 7.6 | 34.2 | * | 44.9 | \% |
| Hypertensive heart disease------- | 2,142 | 100.0 | 21.3 | 13.2 | 41.4 | 1.6 | 21.5 | * |
| Coronary heart disease----mon-m- | 3,307 | 100.0 | 22.6 | 12.6 | 39.6 | 1.6 | 22.8 | * |
| Other specified heart disease----- | 449 | 100.0 | 20.9 | * | 29.0 | $\stackrel{\square}{*}$ | 36.3 | * |
| Unspecified disorders of heart rhythm. | 2,442 | 100.0 | 3.1 | 4.8 | 32.6 | 2.0 | 56.4 | * |
| Heart trouble, N.O.S.----m-m------ | 1,184 | 100.0 | 11.7 | 8.5 | 36.9 | * | 35.7 | 4.3 |
| Hypertensive disease, N.E.C | 12,271 | 100.0 | 5.9 | 5.0 | 36.9 | 1.7 | 49.2 | 1.3 |
| Cerebrovascular disease | 1,534 | 100.0 | 44.3 | 5.5 | 19.7 | * | 27.0 | 2.3 |
| Arteriosclerosis, N.E.C.------------- | 700 | 100.0 | 27.1 | 7.7 | 23.9 | * | 36.3 | * |
| Varicose veins, N.E.C. | 7,519 | 100.0 | 9.2 | 9.3 | 47.1 | 2.1 | 31.0 | 1.3 |
| Hemorrhoids | 9,744 | 100.0 | 3.9 | 8.2 | 74.6 | 1.8 | 10.5 | 1.0 |
| Phlebitis and thrombophlebitis, N.E.C. | 317 | 100.0 | 23.7 | 11.4 | 46.7 | * | 14.2 | * |
| Poor circulation, N.O.S.-----m------- | 938 | 100.0 | 29.5 | 17.8 | 29.6 | * | 9.8 | 10.7 |
| Congenital anomalies of circulatory system. | 900 | 100.0 | 4.8 | * | 14.1 | * | 75.0 | * |

N.O.S. $=$ Not otherwise specified.
N.E.C. = Not elsewhere classified.
${ }^{1}$ See table A for ICDA codes.

Table F. Prevalence of selected chronic circulatory conditions reported in health interviews and percent distribution of conditions by degree person bothered by condition: United States, 1972

| Chronic condition ${ }^{1}$ | Prev- <br> alence in thousands | Degree condition bothers person |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Bothered |  |  |  |  | Not bothered | Unknown if bothered |
|  |  | Total | Al1 <br> botherations | Great deal | Some | Very <br> little | Other |  |  |
|  | Percent distribution |  |  |  |  |  |  |  |  |
| Heart conditions------------ | 10,291 | 100.0 | 64.2 | 20.7 | 26.4 | 14.7 | 2.3 | 34.2 | 1.6 |
| Active rheumatic fever and chronic rheumatic heart <br>  | 766 | 100.0 | 53.4 | 15.5 | 23.2 | 13.1 | * | 44.9 | * |
| Hypertensive heart <br> disease. |  | 100.0 | 77.6 | 28.8 | 33.1 | 13.6 | 2.1 | 21.5 | * |
| Coronary heart disease--- | 3,307 | 100.0 | 76.4 | 27.2 | 30.7 | 15.3 | 3.3 | 22.8 | * |
| Other specified heart disease | 449 | 100.0 | 57.2 | 20.5 | 19.4 | 15.4 | * | 36.3 | * |
| Unspecified disorder of heart rhythm | 2,442 | 100.0 | 42.5 | 9.0 | 17.6 | 14.7 | * | 56.4 | * |
| Heart trouble, N.O.S.----- | 1,184 | 100.0 | 60.0 | 15.7 | 25.7 | 15.7 | * | 35.7 | 4.3 |
| Hypertensive disease, <br> N.E.C. | 12,271 | 100.0 | 49.5 | 9.2 | 21.7 | 16.6 | 1.9 | 49.2 | 1.3 |
| Cerebrovascular disease----- | 1,534 | 100.0 | 70.7 | 31.6 | 23.5 | 11.3 | 4.2 | 27.0 | 2.3 |
| Arteriosclerosis, N.E.C....-- | 700 | 100.0 | 60.1 | 20.7 | 25.1 | 12.0 | * | 36.3 | * |
| Varicose veins, N.E.C. | 7,519 | 100.0 | 67.7 | 11.8 | 34.1 | 19.9 | 2.0 | 31.0 | 1.3 |
| Hemorrhoids---- | 9,744 | 100.0 | 88.5 | 17.6 | 40.5 | 28.7 | 1.7 | 10.5 | 1.0 |
| Phlebitis and thrombophlebitis, N.E.C. | 317 | 100.0 | 83.0 | 26.8 | 37.9 | 14.8 | * | 14.2 | * |
| Poor circulation, N.O.S.---- | 938 | 100.0 | 79.4 | 26.3 | 36.2 | 14.0 | * | 9.8 | 10.7 |
| Congenital anomalies of circulatory system | 900 | 100.0 | 23.2 | 7.4 | 9.3 | 5.8 | * | 75.0 | * |

N.O.S. = Not otherwise specified.
N.E.C. = Not elsewhere classified.
${ }^{1}$ See table A for ICDA codes.

Table G. Number of chronic circulatory conditions reported in health interviews as causing bother and percent distribution of degree person bothered by condition: United States, 1972

| Chronic condition ${ }^{1}$ | Number bothered in thousands | Degree condition bothers person |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Great deal | Some | $\begin{gathered} \text { Very } \\ \text { little } \end{gathered}$ | Other |
|  |  | Percent distribution |  |  |  |  |
| Heart conditions--------------------- | 6,604 | 100.0 | 32.3 | 41.2 | 22.9 | 3.6 |
| Active rheumatic fever and chronic rheumatic heart disease | 409 | 100.0 | 29.1 | 43.5 | 24.4 | * |
| Hypertensive heart disease-------- | 1,663 | 100.0 | 37.1 | 42.6 | 17.6 | 2.7 |
| Coronary heart disease------------- | 2,526 | 100.0 | 35.6 35 | 40.1 | 20.0 | 4.3 |
| Other specified heart disease----- | 257 | 100.0 | 35.8 | 33.9 | 26.8 | * |
| Unspecified disorders of heart rhythm | 1,039 | 100.0 | 21.3 | 41.4 | 34.5 | * |
| Heart trouble, N.o.s.-------------- | 1,710 | 100.0 | 26.2 | 42.8 | 26.2 | * |
| Hypertensive disease, N.E.C.--------- | 6,069 | 100.0 | 18.6 | 43.8 | 33.6 | 3.9 |
| Cerebrovascular disease | 1,084 | 100.0 | 44.6 | 33.3 | 16.0 | 6.0 |
| Arteriosclerosis, N.E.C | 421 | 100.0 | 34.4 | 41.8 | 20.0 | * |
| Varicose veins, N.E.C.--------------- | 5,090 | 100.0 | 17.4 | 50.3 | 29.4 | 2.9 |
| Hemorrhoids | 8,625 | 100.0 | 19.9 | 45.8 | 32.4 | 1.9 |
| Phlebitis and thrombophlebitis, N.E.C. | 263 | 100.0 | 32.3 | 45.6 | 17.9 | * |
| Poor circulation, N.O.S.------------- | 745 | 100.0 | 33.2 | 45.6 | 17.6 | * |
| Congenital anomalies of circulatory system | 209 | 100.0 | 32.1 | 40.2 | 24.9 | * |

N.O.S. $=$ Not otherwise specified.
N.E.C. = Not elsewhere classified.
${ }^{1}$ See table A for ICDA codes.

Table H. Prevalence and incidence in past year of chronic circulatory conditions reported in health interviews and percent incidence is of prevalence: United States, 1972

| Chronic condition ${ }^{1}$ | Prevalence in thousands | Incidence in thousands ${ }^{2}$ | Percent occurring in past 12 months |
| :---: | :---: | :---: | :---: |
| Heart conditions | 10,291 | 1,258 | 12.2 |
| Active rheumatic fever and chronic rheumatic heart disease | 766 | 1, 40 | 5.2 |
| Hypertensive heart disease | 2,142 | 168 | 7.8 |
|  | 3,307 | 285 | 8.6 |
|  | , 449 | 65 | 14.5 |
| Unspecified disorders of heart rhyt | 2,442 | 509 | 20.8 |
| Heart trouble, N.O.S.-----m-n-m-n | 1,184 | 191 | 16.1 |
|  | 12,271 | 1,802 | 14.7 |
| Cerebrovascular disease | 1,534 | 215 | 14.0 |
| Arteriosclerosis, N.E.C | 700 | 85 | 12.1 |
| Varicose veins, N.E.C. | 7,519 | 351 | 4.7 |
| Hemorrhoids | 9,744 | 1,073 | 11.0 |
| Phlebitis and thrombophlebitis, N.E.C.---------- | 317 | 75 | 23.7 |
|  | 938 | 83 | 8.8 |
| Congenital anomalies of circulatory system-m---- | 900 | 55 | 6.1 |

N.O.S. $=$ Not otherwise specified.
N.E.C. $=$ Not elsewhere classified.
${ }^{1}$ See table A for ICDA codes.
${ }^{2}$ Onset of the condition within 12 months of the week of interview.

## PREVALENCE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

The prevalence of all heart conditions reported in health interviews is distributed by age and selected demographic characteristics in table 1. Tables $2-7$ present the same type of information about each subgroup of the heart conditions, and tables $8-15$ present data about the other circulatory conditions. Since the age distribution of groups in the population may differ, the age-specific prevalence rates per 1,000 persons are shown as well as the crude rate for all ages. Highlights of the distributions in the tables will be discussed for some of the conditions.

Hypertensive heart disease.-The prevalence rate per 1,000 persons was highest among persons 65 years and older (figure 1) and higher for females than males (figure 2). The rate for white persons was much less than that for persons of other races (omprised mostly of blacks) (figure 3 ). In the age group 45-64 years the color differential was such that the rate for persons of other races was 2.6 times that for white persons (table 3 ). The same order of sex and color differences has been reported from the Health Examination Survey for "definite hypertensive heart disease" Vital and Health Statistics, (Series 11, Number 13).

As family income rose, the prevalence rates declined. This is not a function of uneven age
distribution, since the decline in rate also occurred for the age-specific rates. This same pattern was also present for the characteristic education of head of family.

The prevalence rate of hypertensive heart disease was somewhat higher in nonmetropolitan areas than in metropolitan areas (as defined for
the 1960 decennial census). There were more cases per 1,000 persons reported from the South Region than elsewhere, and the prevalence rates in the other three regions were quite similar (figure 4 ).

Coronary heart disease.-The prevalence per 1,000 persons of coronary heart disease was


Figure 1. Prevalence of selected chronic circulatory conditions reported in health interviews per 1,000 persons, by age.


Figure 2. Prevalence of selected chronic circulatory conditions reported in health interviews per 1,000 persons, by sex.


Figure 3. Prevalence of selected chronic circulatory conditions reported in health interviews per 1,000 persons, by color.


Figure 4. Prevalence of selected chronic circulatory conditions reported in health interviews per 1,000 persons, by geographic region.
somewhat higher for males than for females. The Health Examination Survey report Series 11, Number 10, confirms this finding for "definite coronary heart disease." A color differential was observed in the Health Interview Survey data, where the rate for white persons was about 3 times as large as that for persons of other races. The Health Examination Survey report does not confirm this finding.

When age-specific rates are examined, there is little difference in prevalence rates by income and education. Also, there was relatively little difference in prevalence rates by residence and region.

Hypertensive disease, not elsewhere classified. The prevalence rate of hypertension with no mention of heart involvement was higher for females than for males. It was also
higher for persons of other races than for white persons. As income rose, the prevalence rates declined within each age group. There was relatively little geographic difference in rates, although the rate for the South Region was the highest.

Varicose veins, not elsewhere classified. There was a notable sex difference in prevalence of varicose veins. Females had a rate which is about 4 times that for males. The rate for white persons was twice that for other persons. As income rose, the prevalence rate declined. The prevalence rate was lowest in the South Region.

Hemorrhoids.-Females had a prevalence rate for hemorrhoids somewhat larger than that for males. White persons had a higher rate than did persons of other races.

## COMPARISON WITH HEALTH EXAMINATION SURVEY FINDINGS

During 1960-1962 the Health Examination Survey (HES) examined a sample of the civilian, noninstitutionalized population aged 18-79 years and obtained information about the prevalence of cardiovascular disease as well as much other information obtainable from direct examination of the population. Information about the prevalence of heart disease and high blood pressure has been published by the Health Examination Survey in several reports in Series 11 of Vital and Health Statistics, Numbers 4-6, 10, 13, 34, and 38 and in Series 2, Number 22.

The prevalence of selected heart conditions and hypertension as reported in the Health Interview Survey among persons aged $18-79$ years may be compared with the findings from the Health Examination Survey. The prevalence rates shown below are per 100 persons for conditions reported in the Health Interview Survey in 1972 and for those classified as definite heart disease and definite hypertension in HES in 1960-1962. Conditions were classified as definite if they met survey criteria and as suspect if they met less rigorous criteria. The prevalence rates from the Health Examination Survey are quoted from Series 11, Numbers 6 and 13. Series 11, Number 6, also discusses the cardiovascular examination and the criteria for diagnosis as definite or suspect.

| Condition | Health Interview Survey | Health Examination Survey |
| :---: | :---: | :---: |
|  | Prevalence per 100 persons |  |
| Heart disease .................. | 6.6 | 13.2 |
| Rheumatic heart disease | 0.5 | 1.1 |
| Coronary heart disease .......... | 2.3 | 2.8 |
| Congenital heart disease ..... | 0.4 | 0.2 |
| Hypertensive heart <br> disease $\qquad$ | 1.5 | 9.5 |
| Hypertension with or without mention of heart disease $\qquad$ | 10.2 | 15.3 |

The report Series 2, Number 22, contains a detailed discussion of differences in prevalence estimates of heart disease and hypertension as made by the HES examination, by personal physician, and from the medical history. The HES examination classified more conditions as definite heart disease than did the personal physician or medical history. The excess probably represents undiagnosed cases.

It is probable that the medical history corresponds closest to the reports from health interviews. This statement must be qualified in that the wording of the questions and the method of administration (self-administered and interview) were different. In addition, the problem of having some proxy respondents has to be considered. It is possible that a relative of the person for whom the information is being obtained may not know that the person has hypertension or heart disease. Thus the person himself perhaps could have reported the condition, but a proxy respondent was not able to do so. (During 1972, 61.5 percent of all persons 17 years and over responded for themselves in the Health Interview Survey).

On the basis of the comparison between the Health Interview Survey and the Health Examination Survey prevalence rates, it would appear that the estimated rate of 10.5 per 1,000 persons with hypertensive heart disease is much too low. Also about half of all heart disease classified as definite in a rigorous examination can be reported in health interviews. However, as will be shown in the last section of this report, about 79 percent of heart diseases reported in medical records were also reported in health interviews. This suggests that a portion of the heart disease found during the examination was previously undiagnosed.

## REPORTING CHRONIC CONDITIONS IN INTERVIEWS

Throughout the existence of the Health Interview Survey efforts have been made to determine the reliability of data produced by the survey and to implement improved methods of data collection. Because of problems in the collection of data on prevalence of chronic conditions, methodological studies have been undertaken to
determine the extent of underreporting. One of these studies was a record-check study conducted in 1961-62 by the Stanford Research Institute to determine how well chronic conditions reported in health interviews compare with those noted in medical records prepared during each visit to a physician during a year. This particular record-check study was conducted among a sample of members of the Kaiser Foundation Health Plan, Southern California Region, a large prepayment medical plan providing medical services through the Southern California Permanente Medical Group (SCPMG). In this study, records were made of each patient encounter at SCPMG during the study year. Following the end of the year these sample persons were interviewed by trained interviewers. The results of this prospective study have been reported in two methodological reports from the National Center for

Health Statistics, Vital and Health Statistics, Series 2, Numbers 23 and 57.

The second of these reports shows the number of conditions in the medical record compared to the number of conditions reported in the interview for persons who stated that they used no medical services other than those of SCPMG. Table J summarizes these findings for chronic circulatory conditions. The prevalence of conditions noted in the patient encounter forms is presented in the column entitled "Conditions Reported in Medical Record," and the prevalence of conditions reported in the health interviews is presented in the column labeled "Conditions Reported in Interview." Other columns show matches and nonmatches for these conditions. Column $\mathbf{F}$ shows the percent of conditions in the medical record that were reported in the interviews. These percentages indicate

Table J. Chronic circulatory conditions reported in medical records of the Southern California Permanente Medical Group during 1961 and 1962 and whether or not reported in a household interview

| Chronic conditions | (A) <br> Conditions reported in medical record | (B) <br> Conditions reported in interview | (C) <br> Conditions reported in interview and record | (D) <br> Conditions reported in record but not in interview | (E) <br> Conditions reported in interview but not in record | (F) <br> Percent of conditions in record reported in interview $\frac{\mathrm{col} \cdot \mathrm{C}}{\mathrm{col} \cdot \mathrm{~A}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vascular lesions of the central nervous system | 28 | 30 | 24 | 4 | 6 | 85.7 |
| Diseases of the heart, N.E.C.--.---m----- | 238 | 245 | 189 | 49 | 56 | 79.4 |
| Hypertension, not elsewhere classifiable, without heart involvement | 227 | 285 | 184 | 43 | 101 | 81.1 |
| Varicose veins------------------------------ | 81 | 82 | 39 | 42 | 43 | 48.1 |
|  | 131 | 192 | 87 | 44 | 105 | 66.4 |
| Rheumatic fever; arteriosclerosis, not elsewhere classifiable; other chronic diseases of the circulatory system------ | 33 | 48 | 13 | 20 | 35 | 39.4 |

N.E.C. $=$ Not elsewhere classified.

SOURCE: Extracted from table 4 of Vital and Health Statistics, Series 2, Number 57.
that reporting of various circulatory conditions was quite good. However, column B presents figures similar to the prevalence estimates from the regular Health Interview Survey. It is quite possible that examining all medical records at SCPMG for the sample persons would show additional chronic circulatory conditions to be added to column A. It is also quite possible that a person did not mention a specific circulatory condition at any time in a patient encounter during the study year. It is conccivable that a person could have a chronic circulatory condition present in the year prior to interview and have it under control so as not to require a physician visit during the year.

An earlier record-check study conducted at the Health Insurance Plan of Greater New York and reported in Scries 2, Number 7, showed the following percentages of conditions in the medical records that were reported in interviews:

| Condition | Percent |
| :---: | :---: |
| Heart disease | 60.5 |
| Hypertension without heart involvement $\qquad$ | 45.8 |
| Varicose veins................................... | 42.3 |
| Hemorrhoids ................................... | 38.2 |
| Other diseases of circulatory system $\qquad$ | 32.7 |

Comparison of the findings of these recordcheck studies suggests some improvement in reporting in the later study over that of the first one. Since the early study refinements have been made in questionnaire design and interviewer training to stimulate memory recall which enable the respondent to report more information. Other methodological reports discussing some of these points are Numbers $26,41,45$, and 48 in Series 2.

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Table 1. Prevalence of heart conditions reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972
[Data are based on household interviews of the civihan, nonunstitutionalized populaton. The survey design, general qualifications, and information on the reliability of the estimates are given in appendis I. Definitions of terms are given in appendix II

| Selected characteristic | $\begin{aligned} & \text { All } \\ & \text { ages } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 17 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 17-44 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | 65 years and over | $\begin{aligned} & \text { All } \\ & \text { ages } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 17 \\ & \text { years } \end{aligned}$ | 17-44 | $45-64$ years | $\begin{gathered} 65 \\ \text { years } \\ \text { and } \\ \text { over } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total ${ }^{1}$ | Prevalence of conditions in thousands |  |  |  |  | Number per 1,000 persons |  |  |  |  |
|  | 10,291 | 683 | 1,900 | 3,749 | 3,959 | 50.4 | 10.5 | 24.6 | 88.8 | 198.7 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| MaleFemale | 4,725 5,566 | 393 290 | 724 176 | 1,953 1,796 | 1, 654 | 48.0 52.7 | 11.9 | 19.5 29.3 | 97.4 | 199.3 |
| Color |  |  |  |  |  |  |  |  |  |  |
| White | 9,237 | 593 | 1,639 | 3,370 | 3,635 | 51.7 | 10.8 | 24.2 | 88.4 | 200.0 |
| All othe | 1,055 | 90 | - 262 | - 378 | 324 | 41.5 | 9.0 | 27.5 | 91.6 | 185.2 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$3,000 | 2,244 | 39 | 183 | 588 | 1,435 | 114.1 | 9.1 | 32.6 | 162.7 | 233.6 |
|  | 1,651 | 58 | 209 | 461 | - 923 | 78.0 | 9.4 | 32.4 | 117.8 | 199.6 |
| \$5,000-\$6,999 | 1,335 | 119 | 230 | 478 | 509 | 54.5 | 15.1 | 25.2 | 98.7 | 190.7 |
| \$7,000-\$9,999 | 1,381 | 103 | 310 | 608 | 361 | 39.9 | 8.8 | 22.0 | 88.2 | 188.9 |
| \$10,000-\$14,999 | 1,676 | 210 | 478 | 743 | 245 | 32.8 | 11.5 | 22.5 | 74.3 | 158.9 |
| \$15,000 or more | 1,442 | 109 | 406 | 665 | 262 | 35.2 | 8.5 | 24.3 | 66.6 | 174.8 |
| Education of head of family |  |  |  |  |  |  |  |  |  |  |
| Less than 9 years | 3,803 | 116 | 299 | 1,279 | 2,108 | 82.3 | 9.6 | 25.4 | 102.5 | 213.1 |
| 9-11 years---.-- | 1,732 | 113 | 337 | - 730 | 2,1082 | 49.4 | 9.4 | 27.2 | 95.9 | 179.5 |
| 12 years--- | 2,468 | 243 | 614 | 975 | 637 | 37.5 | 10.7 | 22.4 | 79.7 | 183.0 |
| 13 years or more---------------------- | 2,123 | 197 | 623 | 735 | 568 | 38.9 | 11.3 | 25.2 | 78.4 | 186.7 |
| Usual activity |  |  |  |  |  |  |  |  |  |  |
| Preschool (under 6 years)------------- | 218 | 218 | -•• | $\cdots$ | ... | 10.5 | 10.5 |  |  |  |
| School-age (6-16 years)--------------- | 465 | 465 | $\cdots$ | $\ldots$ | $\ldots$ | 10.5 | 10.5 |  |  | . |
| Usually working (17 years and over)---- | 3,129 | . . | 954 | 1,824 | 351 | 41.7 | 10.5 | $2 i . i$ | 67.7 | 12.75 |
| Usually keeping house (female, 17 years and over) | 3,684 |  | 647 | 1,154 |  |  |  |  |  |  |
| Retired ( 45 years and over)----n---.--- | 1,929 | ... | 647 | 1,154 | I, 1,420 | $\begin{array}{r}92.6 \\ .233 .6 \\ \hline\end{array}$ |  | 35.8 | 94.7 294.7 | 197.3 217.4 |
|  | 866 | . . | 300 | 262 | - 305 | - 53.3 | $\ldots$ | 21.7 | 192.2 | 289.4 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| All SMSA - |  | 485 | 1,300 | 2,372 | 2,347 | 49.6 | 11.9 | 25.7 | 86.1 | 192.3 |
| Central city | 3,159 | 204 | - 589 | 1,156 | 1,211 | 55.0 | 12.1 | 26.9 | 94.6 | 187.2 |
| Not central city | 3,344 | 281 | 711 | 1,216 | 1,136 | 45.4 | 11.7 | 24.9 | 79.3 | 198.0 |
| Outside SMSA |  |  |  | 1,216 | 1,136 | 5. | 11. | 24. | 7.3 | 198.0 |
| Nonfarm- | 3,370 | 174 | 556 | 1,199 | 1,440 | 51.9 | 8.1 | 23.1 | 94.9 | 211.4 |
| Farm | 418 | * | 44 | 177 | 172 | 51.6 | \% | 17.3 | 86.3 | 190.5 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast- | 2,506 | 178 | 429 | 899 | 1,000 | 52.2 | 12.4 | 24.4 | 82.3 | 192.9 |
| North Centra | 2,629 | 171 | 477 | 948 | 1,033 | 47.0 | 9.4 | 22.7 | 84.8 | 187.6 |
| South- | 3,297 | 176 | 589 | 1,228 | 1,305 | 51.4 | 3.5 | 24.0 | 96.0 | 212.6 |
| West | 1,859 | 158 | 405 | 674 | 621 | 51.6 | 13.6 | 29.0 | 91.7 | 200.6 |

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN, and page 43, code P4AN-M. A guide to the use of the relative standard error sharts is on page 41 .

Table 2. Prevalence of active rheumatic fever and chronic rheumatic heart disease reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: 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]

| Selected characteristic | $\begin{aligned} & \text { A11 } \\ & \text { ages } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 17 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 17-44 \\ & \text { years } \end{aligned}$ | 45-64 years | 65 years and over | $\begin{aligned} & \text { All } \\ & \text { ages } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 17 \\ & \text { years } \end{aligned}$ | 17-44 years | 45-64 years | 65 years and over |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total ${ }^{1}-2-$-------- | Prevalence of conditions in thousands |  |  |  |  | Number per 1,000 persons |  |  |  |  |
|  | 766 | 68 | 333 | 264 | 101 | 3.8 | 1.0 | 4.3 | 6.3 | 5.1 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male------------------ | 250 | * | 101 | 90 | $7 *$ | 2.5 | \% ${ }^{*}$ | 2.7 | 4.5 | 6.4 |
| White All other | 692 75 | 54 | 296 37 | $\stackrel{245}{*}$ | $\stackrel{97}{*}$ | 3.9 3.0 | 1.0 | 4.4 3.9 | 6.4 | 5.3 |
| Less than \$5,000-n--- | 181 | * | 56 | 62 | 49 | 4.4 | * | 4.6 | 8.2 | 4.6 |
| \$10,000 or more----------- | 322 | * | 165 | 113 | * | 3.5 | * | 4.3 | 5.7 | * |
| Education of head of family |  |  |  |  |  |  |  |  |  |  |
| Less than 12 years---- | 315 | 39 | 110 | 111 | 55 | 3.9 | 1.6 | 4.6 | 5.5 | 4.2 |
| 12 years------------- | 240 | * | 108 | 94 | \% | 3.6 |  | 3.9 | 7.7 |  |
| 13 years or more------ | 202 | * | 112 | 57 | * | 3.7 | $\stackrel{*}{*}$ | 4.5 | 6.1 | * |
| Usually working (17 years and over) | 275 | $\ldots$ | 152 | 109 | * | 3.7 | -•• | 3.4 | 4.0 | * |
| Usually keeping house (female, 17 years and over) | 299 | ... | 132 | 111 | 56 | 7.5 | ... | 7.3 | 9.1 | 5.9 |
| Pl.ace of residence |  |  |  |  |  |  |  |  |  |  |
| A11 SMSA-------------- | 518 | 47 | 242 | 157 | 72 | 4.0 | 1.2 | 4.8 | 5.7 | 5.9 |
| Central city-------- | 254 | * | 107 | 84 | * | 4.4 | $\stackrel{ }{*}$ | 4.9 | 6.9 | * |
| Not central city---- | 264 | * | 135 | 72 | 38 | 3.6 | * | 4.7 | 4.7 | 6.6 |
| Outside SMSA---------- | 249 | * | 92 | 107 | * | 3.4 | * | 3.5 | 7.3 | * |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast-------------- | 190 | * | 81 | 58 | 40 | 4.0 | * | 4.6 | 5.3 | 7.7 |
| North Central----n---- | 201 | * | 84 | 66 | * | 3.6 | * | 4.0 | 5.9 | * |
| South-0--------0------- | 199 | * | 101 | 62 | * | 3.1 | * | 4.1 | 4.8 | * |
| West------------------ | 177 | * | 68 | 77 | * | 4.9 | * | 4.9 | 10.5 | * |

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43 , code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 3. Prevalence of hypertensive heart disease reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: 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 1 . Definitions of terms are given in appendix II]

| Selected characteristic | A11 ages | $\begin{aligned} & \text { Under } \\ & 45 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | 65 <br> years and over | $\begin{aligned} & \text { Al1 } \\ & \text { ages } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 45 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | 65 years and over |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total ${ }^{1}$ | Prevalence of conditions in thousands |  |  |  | Number per 1,000 persons |  |  |  |
|  | 2,142 | 252 | 839 | 1,051 | 10.5 | 1.8 | 19.9 | 52.8 |
| Sex |  |  |  |  |  |  |  |  |
| Male-Female | $\begin{array}{r} 732 \\ 1,410 \end{array}$ | 105 147 | 323 516 | 304 748 | 7.4 13.3 | 1.5 2.0 | 16.1 23.3 | 36.6 64.4 |
| White <br> All other- | 1,707 436 | 185 67 | 655 184 | 866 185 | 9.6 17.2 | 1.5 3.4 | $\frac{17.2}{44.6}$ | 47.7 105.8 |
| Less than \$3,000 | 787 | 41 | 245 | 500 | 40.0 | 4.1 | 67.8 | 81.4 |
| \$3,000-\$4,999-- | 388 | 43 | 114 | 231 | 18.3 | 3.4 | 29.1 | 49.9 |
| \$5,000-\$6,999 | 220 | * | 109 | 90 | 9.0 | * | 22.5 | 33.7 |
| \$7,000-\$9,999 | 242 | * | 127 | 82 | 7.0 | * | 18.4 | 42.9 |
| \$10,000-\$14,999 | 221 | 58 | 121 | 42 | 4.3 | 1.5 | 12.1 | 27.2 |
| \$15,000 or more- | 182 | 44 | 84 | 54 | 4.4 | 1.5 | 8.4 | 36.0 |
| Education of head of family |  |  |  |  |  |  |  |  |
| Less than 9 years | 1,093 | 57 | 400 | 635 | 23.7 | 2.4 | 32.1 | 64.2 |
| 9-11 years- | 357 | 71 | 167 | 120 | 10.2 | 2.9 | 21.9 | 39.0 |
| 12 years-------------------------------1-2- | 372 | 56 | 166 | 150 | 5.7 | 1.1 | 13.6 | 43.1 |
| 13 years or more $\qquad$ | 280 | 62 | 97 | 121 | 5.1 | 1.5 | 10.3 | 39.8 |
| Usually working (17 years and over)-- | 490 | 122 | 299 | 69 | 6.5 | 2.7 | 11.1 | 24.7 |
| Usually keeping house (female, 17 years and over) | 1,098 | 92 | 368 | 638 | 27.6 | 5.1 | 30.2 | 66.8 |
| Retired (45 years and over) <br> place of residence | 375 | ... | 114 | 261 | 45.4 | ... | 66.1 | 40.0 |
| A11 SMSA----- | 1,257 | 182 | 506 | 569 | 9.6 | 2.0 | 18.4 | 46.6 |
| Central city | -703 | 102 | 272 | 329 | 12.2 | 2.6 | 22.3 | 50.9 |
| Not central city | 553 | 79 | 234 | 240 | 7.5 | 1.5 | 15.3 | 41.8 |
| Outside SMSA |  |  |  |  |  |  |  |  |
| Nonfarm- | 780 | 65 | 288 | 426 | 12.0 | 1.4 | 22.8 | 62.5 |
| Farm--------------------------------- | 106 | * | 45 | 56 | 13.1 | $*$ | 22.0 | 62.0 |
| Geographic region |  |  |  |  |  |  |  |  |
|  | 480 | 64 | 201 | 215 | 10.0 | 2.0 | 18.4 | 41.5 |
| North Central | 535 | 66 | 175 | 294 | 9.6 | 1.7 | 15.7 | 53.4 |
| South- | 804 | 71 | 328 | 405 | 12.5 | 1.6 | 25.7 | 66.0 |
| West-- | 324 | 52 | 135 | 138 | 9.0 | 2.0 | 18.4 | 44.6 |

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42 , code A4AN and page 43, code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 4. Prevalence of coronary heart disease reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: 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]


[^3]NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43, code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 5. Prevalence of other specified heart disease reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972
[Data are based on houschold interviews of the civihan, nominstitutionalıed population. The survey design, general qualifications, and informatino on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42 , code A4AN and page 43 , code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 6. Prevalence of unspecified disorders of heart rhythm reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972
[Data are based on houschold interviews of the crvilan, noninstitutionalized population. The survey design, gencral qualifications, and information on the reliability of the estimates are given in appendin I. Definitions of terms are given in appendix II!


[^4]Table 7. Prevalence of heart trouble, not otherwise specified, reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972
[Data are based on household interviews of the civilian, nommstatutomalieed population. Ihe survey design, general qualifications, and information on the reliability of the estimates are given in appendix l. Definitions of terms are given in appendix II]

| Selected characteristic | $\begin{aligned} & \text { All } \\ & \text { ages } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 45 \\ & \text { years } \end{aligned}$ | 45-64 years | $\begin{aligned} & 65 \\ & \text { years } \\ & \text { and } \\ & \text { over } \end{aligned}$ | Al1 ages | Under 45 years | 45-64 years | $\begin{aligned} & 65 \\ & \text { years } \\ & \text { and } \\ & \text { over } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total ${ }^{1}$ | Prevalence of conditions in thous ands |  |  |  | Number per 1,000 persons |  |  |  |
|  | 1,184 | 156 | 470 | 559 | 5.8 | 1.1 | 11.1 | 28.1 |
|  |  |  |  |  |  |  |  |  |
|  | 677 507 | 80 75 | 297 173 | 299 | 6.9 4.8 | 1.1 | 14.8 7.8 | 36.0 22.3 |
| Color |  |  |  |  |  |  |  |  |
| White | 1,021 | 126 | 404 | 491 | 5.7 | 1.0 | 10.6 | 27.0 |
| Al1 othe | 163 | * | 66 | 68 | 6.4 | $\dot{*}$ | 16.0 | 38.9 |
| Family income |  |  |  |  |  |  |  |  |
| Less than \$3,000- | 320 | * | 95 | 206 | 16.3 | * | 26.3 | 33.5 |
| \$3,000-\$4,999-- | 205 | * | 63 | 124 | 9.7 | * | 16.1 | 26.8 |
| \$5,000-\$6,999 | 190 | * | 74 | 85 | 7.8 | * | 15.3 | 31.8 |
| \$7,000-\$9,999 | 142 | * | 70 | 42 | 4.1 | * | 10.2 | 22.0 |
| \$10,000-\$14,999 | 129 | * | 75 | * | 2.5 | $\dot{*}$ | 7.5 |  |
| \$15,000 or more- | 93 | * | 53 | * | 2.3 | * | 5.3 | * |
| Education of head of family |  |  |  |  |  |  |  |  |
| Less than 9 years------------m--------1- | 585 | 57 | 192 | 335 | 12.7 | 2.4 | 15.4 | 33.9 |
| 9-11 years- | 213 | 35 | 99 | 79 | 6.1 | 1.4 | 13.0 | 25.7 |
|  | 213 | 35 | 108 | 69 | 3.2 | 0.7 | 8.8 | 19.8 |
|  | 146 | * | 69 | 56 | 2.7 | * | 7.4 | 18.4 |
| Usual activity |  |  |  |  |  |  |  |  |
| Usually working (17 years and over)-Usually keeping house (female, 17 years and over) | 360 | 77 | 238 | 44 | 4.8 | 1.7 | 8.8 | 15.8 |
|  | 356 | 38 | 107 | 211 | 8.9 | 2.1 | 8.8 | 22.1 |
| Retired (45 years and over)--------- | 348 | . . | 88 | 259 | 42.1 |  | 51.0 | 39.6 |
| Place of residence |  |  |  |  |  |  |  |  |
| A11 SMSA------------------------------- | 685 | 84 | 275 | 326 | 5.2 | 0.9 | 10.0 | 26.7 |
| Central city------------------------- | 337 | 53 | 132 | 152 | 5.9 | 1.4 | 10.8 | 23.5 |
|  | 348 | * | 143 | 174 | 4.7 | * | 9.3 | 30.3 |
| Outside SMSA |  |  |  |  |  |  |  |  |
| Nonfarm---------------------------- | 430 | 69 | 164 | 197 | 6.6 | 1.5 | 13.0 | 28.9 |
| Farm------------------------------- | 70 | * | * | 35 | 8.6 | * | * | 38.8 |
| Geographic region |  |  |  |  |  |  |  |  |
| Northeast- | 265 | * | 100 | 136 | 5.5 | * | 9.2 | 26.2 |
| North Central | 302 | * | 127 | 143 | 5.4 | * | 11.4 | 26.0 |
| South-- | 424 | 61 | 170 | 194 | 6.6 | 1.3 | 13.3 | 31.6 |
| West------------------------------------- | 193 | 35 | 73 | 86 | 5.4 | 1.4 | 9.9 | 27.8 |

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43 , code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 8. Prevalence of hypertensive disease, not elsewhere classified, reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: 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 appendia I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43 , code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 9. Prevalence of cerebrovascular disease reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972
[Data are based on houschold intervicws of the civilian, nonmstitutionalized 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]

| Selected characteristic | $\begin{aligned} & \text { All } \\ & \text { ages } \end{aligned}$ | Under 45 years | 45-64 | 65 years and over | $\begin{array}{r} \text { All } \\ \text { ages } \end{array}$ | $\begin{aligned} & \text { Under } \\ & 45 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45-64 \\ & \text { years } \end{aligned}$ | 65 years and over |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Prevalence of conditions in thousands |  |  |  | Number per 1,000 persons |  |  |  |
|  | 1,534 | 88 | 487 | 960 | 7.5 | 0.6 | 11.5 | 48.2 |
|  |  |  |  |  |  |  |  |  |
|  | 750 | 45 | 257 | 448 | 7.6 | 0.6 | 12.8 | 54.0 |
|  | 784 | 43 | 230 | 511 | 7.4 | 0.6 | 10.4 | 44.0 |
| White | 1,303 | 63 | 384 | 855 | 7.3 | 0.5 | 10.1 | 47.0 |
| Family income |  |  |  |  |  |  |  |  |
| Less than \$3,000---------------------- | 466 | $\star$ | 126 | 315 | 23.7 | * | 34.9 | 51.3 |
| \$3,000-\$4,999- | 312 | * | 71 | 222 | 14.7 | * | 18.1 | 48.0 |
| \$5,000-\$6,999 | 225 | * | 68 | 145 | 9.2 | * | 14.0 | 54.3 |
| \$7,000-\$9,999 | 147 | * | 65 | 73 | 4.2 | * | 9.4 | 38.2 |
| \$10,000-\$14,999 | 166 | * | 76 | 82 | 3.3 | * | 7.6 | 53.2 |
|  | 150 | * | 58 | 81 | 3.7 | * | 5.8 | 54.0 |
| Education of head of family |  |  |  |  |  |  |  |  |
| Less than 9 years------------------- | 770 | * | 208 | 531 | 16.7 | * | 16.7 | 53.7 |
| 9-11 years- | 230 | * | 84 | 126 | 6.6 | * | 11.0 | 41.0 |
| 12 years- | 302 | * | 110 | 167 | 4.6 | * | 9.0 | 48.0 |
| 13 years or more- | 207 | * | 79 | 117 | 3.8 | * | 8.4 | 38.4 |
| Usual activity |  |  |  |  |  |  |  |  |
| Usually working (17 years and over)-- | 218 | * | 152 | 38 | 2.9 | * | 5.6 | 13.6 |
| Usually keeping house (female, 17 years and over) | 508 | * | 158 | 321 | 12.8 | * | 13.0 | 33.6 |
| Retired (45 years and over)---------- | 533 | ... | 116 | 418 | 64.6 | $\ldots$ | 67.3 | 64.0 |
| Place of residence |  |  |  |  |  |  |  |  |
| A11 SMSA----------------------------- | 893 | 44 | 289 | 560 | 6.8 | 0.5 | 10.5 | 45.9 |
| Central city------------------------ | 527 | * | 163 | 338 | 9.2 | * | 13.3 | 52.2 |
| Not central city------------------------ | 366 | * | 126 | 222 | 5.0 | * | 8.2 | 38.7 |
| Outside SMSA |  |  |  |  |  |  |  |  |
| Nonfarm- | 575 | 41 | 180 | 353 | 8.9 | 0.9 | 14.2 | 51.8 |
| Farm--- | 67 | * | * | 46 | 8.3 | * | * | 50.9 |
| Geographic region |  |  |  |  |  |  |  |  |
| Northeast----------------------------- | 298 | * | 94 | 189 | 6.2 | * | 8.6 | 36.5 |
| North central------------------------- | 389 | * | 118 | 255 | 6.9 | * | 10.6 | 46.3 |
| South----------------------------------- | 574 | 41 | 184 | 348 | 9.0 | 0.9 | 14.4 | 56.7 |
| West- | 273 | * | 91. | 167 | 7.6 | * | 12.4 | 54.0 |

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43, code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 10. Prevalence of arteriosclerosis, not elsewhere classified, reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: 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]

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43, code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 11. Prevalence of varicose veins, not elsewhere classified, reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972
[Data are based on household interviews of the civilian, noninstitutionalized population. The survey design, general qualifications, and information on the reliablity of the estimates are given in appendix I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43, code $\mathrm{P} 4 \mathrm{AN}-\mathrm{M}$. A guide to the use of the relative standard error charts is on page 41.

Table 12. Prevalence of hemorrhoids reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: 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 H]

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42 , code A4AN and page 43 , code $P 4 A N-M$. A guide to the use of the relative standard error charts is on page 41 .

Table 13. Prevalence of phlebitis and thrombophlebitis reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972

Data are based on household intervicws of the civhian, 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]

| Selected characteristic |
| :---: |

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43 , code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 14. Prevalence of poor circulation, not otherwise specified, reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: 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]

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42 , code A4AN and page 43, code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 15. Prevalence of congenital anomalies of circulatory system reported in health interviews and number of conditions per 1,000 persons, by age and selected characteristics: United States, 1972
[Data are based on houschold interviews of the covihan, noninsututundized population. The survey design, general qualifications, and information on the relabilaty fo the cstimates are given in appendiv I. Definitions of terms are given in appendix II]

${ }^{1}$ Includes unknown income and education.
NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43, code P4AN-M. A guide to the use of the relative standard error charts is on page 41.

Table 16. Population used in obtaining rates shown in this publication, by age and selected characteristics: United States, 1972
[Data are based on houschold interviews of the civilian, noninstitutionalized population. The survey design, gencral qualifications, and information on the reliability of the estimates are given in appendix I. Definitions of terms are given in appendix II]

| Selected characteristic | All ages | $\begin{aligned} & \text { Under } \\ & 17 \\ & \text { years } \end{aligned}$ | 17-44 years | $\begin{array}{r} 45-64 \\ \text { years } \end{array}$ | $\begin{aligned} & 65 \\ & \text { years } \\ & \text { and } \\ & \text { over } \end{aligned}$ | $\begin{aligned} & \text { Under } \\ & 45 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 45 \\ & \text { years } \\ & \text { and } \\ & \text { over } \end{aligned}$ | Under 65 years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total ${ }^{1}$ | Number of persons in thousands |  |  |  |  |  |  |  |
|  | 204,148 | 64,865 | 77,131 | 42,229 | 19,924 | 141,996 | 62,153 | 184,225 |
| Sex |  |  |  |  |  |  |  |  |
| Mal | 98,445 | 33,037 | 37,060 | 20,046 | 8,301 | 70,098 | $\begin{aligned} & 28,347 \\ & 33,806 \end{aligned}$ | $\begin{aligned} & 90,144 \\ & 94,081 \end{aligned}$ |
| Femal | 105,704 | 31,827 | 40,071 | 22,183 | 11,623 | 71,898 | $33,806$ | $94,081$ |
| Color |  |  |  |  |  |  |  |  |
| White | 178,727 | 54,828 | 67,620 | 38,104 | 18,174 | 122,448 | 56,278 | $160,553$ |
| All oth | 25,421 | 10,037 | 9,511 | 4,125 | 1,749 | 19,547 | 5,874 | $23,672$ |
| Family income |  |  |  |  |  |  |  |  |
| Less than \$5,000- | 40,836 | 10,471 | 12,068 | 7,528 | 10,769 | 22,539 | 18,297 | 30,067 |
| Less than \$3,000 | 19,674 21,161 | 4,304 6,167 | 5,611 | 3,615 | 6,144 | - $\begin{array}{r}9,915 \\ 12,624\end{array}$ | 9,760 | 13,530 |
| \$5, ${ }^{\text {S }}$, 0000 - \$4, 999 | 151,191 | 50,677 | 61,166 | 31,727 | 7,621 | 111, 843 | 39,349 | 143,570 |
| \$5, 5 ,000- $\mathbf{\$ 9}$ 9,999 | 59,134 | 19,618 | 23,198 | 11,738 | 4,580 | 42,815 | 16,318 | 54,554 |
| \$5,000-\$6,999 | 24,513 | 7,864 | 9,136 | 4,844 | 2,669 | 17,000 | 7,513 | 21,844 |
| \$7,000-\$9,999 | 34,621 | 11,754 | 14,061 | 6,894 19,989 | 1,911 | 25,815 69,027 | 8,806 23,030 | 32,709 89,016 |
| \$10,000 or more- | 52,058 | 18, 277 | 21,253 | 10,001 | 1,542 | 39,530 | 11,544 | 49,532 |
|  | 40,983 | 12,782 | 16,715 | 9,988 | 1,499 | 29,497 | 11,486 | 39,485 |
| Education of head of family |  |  |  |  |  |  |  |  |
| Less than 12 years - | 81,253 | 24,044 | 24,160 | 20,084 | 12,965 | 48,204 | 33,049 | 68,288 |
| Less than 9 years | 46,182 | 12,035 | 11,785 | 12,472 | 9,890 | 23, 821 | 22,361 | 36,292 |
| 9-11 years--... | 35,071 | 12,009 | 12,375 | 7,612 | 3,075 6,524 | 24,384 92 | 10,687 | -31,996 |
| 12 years or more | 120,346 65,789 | 40,093 22,730 | 52, 2722 | 21,607 | 6,524 | 92, 215 5081 | 15,708 | 113,822 |
|  | 54,557 | 17,363 | 24,771 | 9,380 | 3,043 | 42,134 | 12,423 | 51,514 |
| Usual activity |  |  |  |  |  |  |  |  |
| Preschool (Under 6 years) | 20,733 | 20,733 |  | $\ldots$ | $\cdots$ | 20,733 | ... | 20,733 |
|  | 44, 732 | 44,132 |  |  |  | 44,132 |  | 44,132 |
| Usually working ( 17 years and over)--------Usually keeping house (female, 17 years and | 74,991 | ... | 45,241 | 26,957 | 2,793 | 45,241 | 29,750 | 72,198 |
| Usually keeping house (female, 17 years and over) | 39,792 |  | 18,063 | 12,185 | 9,544 | 18,063 | 21,729 | 30,249 1,724 |
| Retired (45 years and over) | 8,257 16,244 |  | 13,826 | 1,724 1,363 | 6,533 | 13,826 | 2,417 | 15,189 |
| $\begin{aligned} & \text { Other (17 years and over)------ } \\ & \text { Place of residence } \end{aligned}$ | 16,244 |  | 13,826 | 1,363 | 1,054 | 13,826 |  |  |
| A11 SMSA - | 131,100 | 40,855 | 50,499 | 27,539 | 12,207 | 91,353 | 39,746 | 118,893 |
| Central city- | 57,395 | 16,801 | 21,912 | 12,214 | 6,469 | 38,713 | 18,683 | 50,927 67,966 |
| Not central ci | 73,704 | 24,054 | 28,587 | 15,325 | 5,738 | 52,641 50,642 | 22,406 | 67,332 |
| Outside SMSA | 64,949 | 21,405 | 24,091 | 12,640 | 6,813 | 45,496 | 19,453 | 58,135 |
| Farm-- | 8,100 | 2,605 | 2,541 | 2,050 | 903 | 5,146. | 2,954 | 7,197 |
| Geographic region |  |  |  |  |  |  |  |  |
| Northeast | 48,011 | 14,334 | 17,575 | 10,918 | 5,184 | 31,909 | 16,102 | 42,827 |
| North Central | 55,974 | 18,270 | 21,023 | 11, 174 | 5,507 | 39,292 | 16,682 | 50,467 |
| South- | 64,128 36,036 | 20,645 11,616 | 24,558 13,975 | 12,787 | 6,137 3,095 | 45,203 25,591 | 18,924 | 32,941 |

${ }^{1}$ Includes unknown income and education.
NOTES: For official population estimates formore general use, see U.S. Bureau of the Census reports on the civilian population of the United States in Current Population Reports, Series P-20, P-25, and P-60.

Relative standard errors of estimates for this table are found on chart on page 42, code A4AN. A guide to the use of the relative standard error charts is on page 41.

## 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 continuing 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 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 ${ }^{4}$ as well as a detailed description of the sample designs ${ }^{5}$ and a report on the estimation procedure ${ }^{6}$ and the method used to calculate sampling errors of estimates derived from the survey.

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 inter-

[^5]viewing 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 houṣehold).
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 3.9 percent, including a 1.4 -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 population 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. ${ }^{7-10}$

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 calculated 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

[^6]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 41, 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 42. 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 43. . 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

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

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 39 and 40; and (4) the range of the statistic as described on page 39.

| Statistic | Use: |  |  |
| :---: | :---: | :---: | :---: |
|  | Rule | Code | On page |
| Number of: <br> Persons in the U.S. population or any age-sex category thereof |  |  |  |
|  | Not subject to sampling error |  |  |
| Persons in any other population group . . . . . . . . . | 1 | A4AN | 42 |
| Chronic conditions, by type . . . . . . . . | 1 | A4AN | 42 |
| Prevalence per 1,000 persons . . . . . . . . . . . . | 3 | P4AN-M | 43 |
| Percentage of conditions by measures of impact . . . . . | 2 | P4AN-M | 43 |
| Percentage distribution of conditions by: |  |  |  |
| Frequency of bed disability days or physician visits in past year . . | 2 | P4AN-M | 43 |
| Frequency or degree of botheration . . . . . . . . . . | 2 | P4AN-M | 43 |
| Rates per condition per year: |  | Numer.: A4BW | 42 |
| Restricted activity or bed disability days . . . . . . . | 4(b) | Denom.: A4AN | 42 |

Relative standard errors for aggregetes based on four quarters of data collection for data of all types and ranges


Example of use of chart: An aggregate of $2,000,000$ (on scale at bottom of chart) for a Narrow range Type A statistic (code: A4AN) has a relative standard error of 3.6 percent, (read from scale at left side of chart), or a standard error of 72,000 ( 3.6 percent of $2,000,000$ ). For a Wide range Type $B$ statistic (code: A4BW), an aggregate of 6,000,000 has a relative error of 16.0 percent or a standard error of 960,000 ( 16 percent of $6,000,000$ ).

NOTE: As a result of a sample reduction during January-March 1970, the sampling error for annual estimates should be adjusted by a factor of 1.08 .

Relative standard errors for percentages based on four quarters of data collection for type A data, Narrow and Medium range
(Base of percentage shown on curves in mililions)


Estimated percentage
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 3.2 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 $X 3.2$ percent or 0.64 percentage points.

# APPENDIX II <br> <br> DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT 

 <br> <br> 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," 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.
Allergy, any
Arthritis or rheumatism

[^7]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 lleg
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
Prevalence of conditions.- In general, 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 ${ }_{\star}$ 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.

Incidence of conditions.-The incidence of conditions is the estimated number of conditions having their onset in a specified time period. As previously mentioned, minor acute conditions involving neither restricted activity nor medical attention are excluded from the statistics. The incidence data shown in some reports are further limited to various subclasses of conditions, such as "incidence of conditions involving bed disability."

Onset of condition.-A condition is considered to have had its onset when it was first noticed. This could be the time the person first felt sick or became injured, or it could be the time when the person or his family was first told by a physician that he had a condition of which he was previously unaware.

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.

Bed-disabling condition.-A condition with onset in the past 2 weeks involving at least 1 day of bed disability is called a bed-disabling condition. (See "Bed-disability day" under "Terms Relating to Disability.")

## 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.

Disability day.-Short-term disability days are classified according to whether they are days of restricted activity, bed days, hospital days, work-loss days, or school-loss days. All hospital
days are, by definition, days of bed disability; all days of bed disability are, by definition, days of restricted activity. The converse form of these statements is, of course, not true. Days lost from work and days lost from school are special terms which apply to the working and school-age populations only, but these too are days of restricted activity. Hence "days of restricted activity" is the most inclusive term used to describe disability days.

Restricted-activity day.-A day of restricted activity is one on which a person cuts down on his usual activities for the whole of that day because of an illness or an injury. The term "usual activities" for any day means the things that the person would ordinarily do on that day. For children under school age, usual activities depend on whatever the usual pattern is for the child's day, which will in turn be affected by the age of the child, weather conditions, and so forth. For retired or elderly persons, usual activities might consist of almost no activity, but cutting down on even a small amount for as much as a day would constitute restricted activity. On Sundays or holidays, usual activities are the things the person usually does on such days-going to church, playing golf, visiting friends or relatives, or staying at home and listening to the radio, reading, looking at television, and so forth. Persons who have permanently reduced their usual activities because of a chronic condition might not report any restricted-activity days during a 2-week period. Therefore absence of restricted-activity days does not imply normal health.

Restricted activity does not imply complete inactivity, but it does imply only the minimum of usual activities. A special nap for an hour after lunch does not constitute cutting down on usual activities, nor does the elimination of a heavy chore such as cleaning ashes out of the furnace or hanging out the wash. If a farmer or housewife carries on only the minimum of the day's chores, however, this is a day of restricted activity.

A day spent in bed or a day home from work or school because of illness or injury is, of course, a restricted-activity day.

Bed-disability day.-A day of bed disability is one on which a person stays in bed for all or
most of the day because of a specific illness or injury. All or most of the day is defined as more than half of the daylight hours. All hospital days for inpatients are considered to be days of bed disability even if the patient was not actually in bed at the hospital.

Work-loss day.-A day lost from work is a day on which a person did not work at his job or business for at least half of his normal workday because of a specific illness or injury. The number of days lost from work is determined only for persons 17 years of age and over who reported that at any time during the 2 -week period covered by the interview they either worked at or had a job or business. (See "Currently employed persons" under "Demographic Terms.')

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 certain types 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)

## 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.

Education.-The categories of education status show the years of school completed. Only years completed in regular schools, where persons are given a formal education, are included. A "regular" school is one which advances a person toward an elementary or high school diploma or a college, university, or professional school degree. Thus education in vocational, trade, or business schools outside the regular school system is not counted in determining the highest grade of school completed.
Education of head of family or of unrelated individuals.-Each member of a family is classified according to the education of the head 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 education.

Usual activity. - All persons in the population are classified according to their usual activ-
ity 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 activity. 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 $h^{-}$or she has either volun-
tarily 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," "retired," or "going to school," and females 17 years of age or older not classified as "keeping house."

Geographic 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 1.

| Region | States Macluded |
| :---: | :---: |
| Northeast . | Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania |
| North Central | Michigan, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, Nebraska |
| South | Dclaware, Maryland, <br> District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Texas, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma |
| West | Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Alaska, Oregon, Culifornia, Hawaii |

Figure I.

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.

Standard metropolitan statistical areas.-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 non-
farm 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

## PROBE QUESTIONS AND CONDITION PAGES USED TO OBTAIN INFORMATION ABOUT CHRONIC CIRCULATORY CONDITIONS

| This survey is being conducted to collect information on the Nation's health. I will ask about visits to doctors and dentists, illness in the family, and other health related items. (HAND CALENDAR) <br> The next few questions refer to the past 2 weeks, the 2 weeks outlined in red on that calendar, beginning Monday, $\qquad$ (date) , and ending this past Sunday, $\qquad$ (date) . <br> 5a. During those 2 weeks, did -- stay in bed because of any illness or injury? <br> b. During that 2-week period, how many days did -. stay in bed all or most of the day? | 5a. |  |
| :---: | :---: | :---: |
| 6. During those 2 weeks, how many days did illiness <br> or injury keep -- from work? (For females): not counting work around the house. | 6. | $\begin{aligned} & \square=\text { WL days (8) } \\ & 00 \square \text { None (9) } \end{aligned}$ |
| 7. During those 2 weeks, how many days did illness or injury keep -- from school? | 7. | $\overbrace{00}^{\square}$ SL days (9) |
| If NO days in Q.5b, go to Q. 9 <br> 8. On how many of these -- days lost from ; $\begin{aligned} & \text { work } \\ & \text { school }\end{aligned}$ did -- stay in bed all or most of the day? | 8. | $\square_{\text {00 } \square}^{\square}$ None |
| 9a. (NOT COUNTING the day(s) $\left\{\begin{array}{l}\text { in bed } \\ \text { lost from work } \\ \text { lost from school }\end{array}\right\}$ ) <br> Were there any (other) days during the past 2 weeks that -- cut down on the things he usually does because of illness or injury? | 9a. | $\begin{aligned} & 1 Y \\ & 2 \mathrm{~N}(10) \end{aligned}$ |
| b. (Again, not counting the day(s) $\left\{\begin{array}{l}\text { in bed } \\ \text { lost from work } \\ \text { lost from school }\end{array}\right\}$ ) During that period, how many (ather) days did he cut down for as much as a day? | b. | $\begin{aligned} & \text { Days } \\ & 00 \square \text { None } \end{aligned}$ |
| If \| or more days in Q's. 5-9, ask 10; otherwise go to next person. <br> 100. What condition caused -. to $\left\{\begin{array}{l}\text { stay in bed } \\ \text { miss work } \\ \text { miss school } \\ \text { cut down }\end{array}\right\}$ during the past 2 weeks? | 10a. | Enter condition in item C Ask 10b |
| b. Did any other condition cause him to $\left\{\begin{array}{l}\text { stay in bed } \\ \text { miss work } \\ \text { miss school } \\ \text { eut down }\end{array}\right\}$ during that period? | b. | N (NP) |
| c. What eondition? | c. | Enter conditions in item C Reask 10b |
| 110. During the past 2 weeks did anyone in the family that is you, your --, etc. have any (other) accidents or injuries? |  | - |
| b. Who was this? - Mark 'Accident or injury' box in person's column. | 11 b . | ¢] Aceident or injury |
| c. What was the injury? | c. |  |
| d. Did anyone have any other accidents or injuries during thot period? Y (1/b and c) |  |  |
| For each person with "Accident or injury," ask: <br> -. As a resulf of the occident, did -- see a doctor or did he cut down on the things he usually does? | c. | $Y$ (Enteriniun in item $C$ ) N |

PROBE QUESTIONS


PROBE QUESTIONS

\begin{tabular}{|c|c|c|c|}
\hline \begin{tabular}{l}
Ages 17+ \\
Ages 6-16
\end{tabular} \& \begin{tabular}{l}
25a. What was -- doing most of the past 12 months - (For males): \\
working or doing something else? \\
If "something else," ask. \\
b. What was -- doing? \\
If 45 + years and was not "working," "'keeping house," or "going to school," ask: \\
c. Is -- retired? \\
d. If "retired," ask: Did he retire because of his health? \\
26a. What was -- doing most of the past 12 months - going to school or doing something else? \\
If "something else." ask: \\
b. What was -- doing?
\end{tabular} \& 25. \& \begin{tabular}{l}
Working (30a)

<br>
3 Retired, health (29)
<br>
4 [ <br>
Retired, other (29) <br>
5 $\square$ Going to sehoot (32) <br>
6 L $\square$ 17+ something else (29) <br>
$7 \square$ $\qquad$
\end{tabular} <br>

\hline Ages under 6 \& \& \& $$
\begin{aligned}
& \circ \square 1-5 \text { years (27) } \\
& \circ \square \square \text { Under } ;(28)
\end{aligned}
$$ <br>

\hline \multicolumn{2}{|l|}{270. Is -- able to take part at all in ordinary play with other children?} \& 27a. \& $Y$ ( ${ }^{\text {N }}$ (34) <br>
\hline \multicolumn{2}{|l|}{b. Is he limited in the kind of play he con do because of his heaith?} \& b. \& 2 Y (34) N <br>
\hline \multicolumn{2}{|l|}{c. Is he limited in the amount of play because of his health?} \& c. \& 2 Y (34) N (33) <br>
\hline \multicolumn{2}{|l|}{28a. Is -- limited in any way because of his health?} \& 28. \& Y Y ${ }^{\text {S }}$ N(NP) <br>
\hline \multicolumn{2}{|l|}{b. In what way is he limited?} \& b. \& - (34) <br>
\hline \multicolumn{2}{|l|}{29a. Does-- health now keop him from working?} \& 29a. \& 1 Y (34) N <br>
\hline \multicolumn{2}{|l|}{b. Is he limited in the kind of work he could do because of his health?} \& b. \& 2 Y (34) <br>
\hline \multicolumn{2}{|l|}{c. Is he limited in the amount of work he could do because of his health?} \& c. \& $\underline{2} Y$ (34) <br>
\hline \multicolumn{2}{|l|}{d. Is he limited in the kind or amount of other activities because of his health?} \& d. \& $3 \begin{aligned} & \text { Y (34) }\end{aligned}$ <br>
\hline \multicolumn{2}{|l|}{30c. Does -- NOW have a job?} \& 30a. \& $Y(30 c)$ <br>
\hline \multicolumn{2}{|l|}{b. In tems of health, is -- NOW able to (work - keep house) at all?} \& b. \& $Y$ Y ${ }^{\text {Y (34) }}$ <br>
\hline \multicolumn{2}{|l|}{c. Is he limited in the kind of (work - housework) he con do because of his health?} \& c. \& 2 Y (34) N <br>
\hline \multicolumn{2}{|l|}{d. Is he limited in the amount of (work - housework) he can do because of his health?} \& d. \& 2 Y (34) N <br>
\hline \multicolumn{2}{|l|}{-. Is he limited in the kind or amount of other activities becayse of his health?} \& e. \& ${ }_{3} \mathrm{Y}$ (34) N (33) <br>
\hline \multicolumn{2}{|l|}{31. In terms of health would -- be able to go to school?} \& 31. \& $Y \quad 1 \mathrm{~N}$ (34) <br>
\hline \multicolumn{2}{|l|}{32a. Doos (would) -- have to go to a certain type of school because of his health?} \& 320. \& 2 Y (34) <br>
\hline \multicolumn{2}{|l|}{b. Is he (would he be) limited in school attendance because of his health?} \& b. \& 2 Y (34) <br>
\hline \multicolumn{2}{|l|}{c. Is he limited in the kind or amount of other activities because of his health?} \& c. \& $3{ }^{3} \mathrm{Y}$ (34) N (33) <br>
\hline \multicolumn{2}{|l|}{33a. Is =- limited in ANY WAY because of a disability or health?} \& 330. \& 4 $\mathrm{Y}^{5} \mathrm{~N}(\mathrm{NP})$ <br>
\hline \multicolumn{2}{|l|}{b. In what way is he limited? Record limitation, not condition.} \& b. \& <br>
\hline \multicolumn{2}{|l|}{34a. About how long has he $\left\{\begin{array}{l}\text { been limited in -- } \\ \text { been unoble to -- } \\ \text { had to go to a certain type of school? }\end{array}\right\}$} \& 340. \& 000 Less than 1 month
$\qquad$ Mos. $\qquad$ Yrs. <br>

\hline \multicolumn{2}{|l|}{| b. What (other) condition couses this limitation? |
| :--- |
| If "old age" only, ask: Is this limitation caused by any specific condition? |} \& b. \& Enter condition in item C and ask c

$\square$ Old age only (NP) <br>
\hline \multicolumn{2}{|l|}{c. Is this limitation caused by any other condition?} \& c. \&  <br>
\hline \multicolumn{2}{|l|}{Mark box or ask:} \& \& $\square$ Only 1 condition <br>
\hline \multicolumn{2}{|l|}{d. Which of these conditions would you say is the MAIN cause of his limitation?} \& d. \& Enter main condition <br>
\hline
\end{tabular}

PROBE QUESTIONS

22. Where did the accident happen?

## $1 \square$ At home (inside house)

 At home (adjacent premises)Street and highway (includes roadway and public sidewalk)$5 \square$ Industrial place (includes premises)
${ }^{6} \square$ School (includes premises)
$7 \square$ Place of recreation and sports, except at schoolOther (Specify) $\longrightarrow$
23. Was -- at work at his job or business when the accident happened?

| 1 Y | ${ }^{3} \square$ While in Armed Services |
| :--- | :--- |
| 2 N | $4 \square$ Under 17 at time of accident |

24a. Was a ear, truck, bus, or other mator vehicle involved in the accident in any way?
b. Was more than one vehicle inyolved?
c. Was it (either one) moving at the time?

25 a . Was -~ outside the velicle, getting in or out of it, a passenger or was -- the driver?

b. What kind(s) of motor vehicle was involved?

| $1 \square$ Car (26) | $2 \square$ Taxi (26) | $3 \square$ Bus (26) |
| :--- | :--- | :--- |
|  |  |  |
| $4 \square$ Truck (26) | $5 \square$ Motorcycle (26) | $5 \square$ Other (Specify) |


| $1 \square \mathrm{Car}$ | $2 \square$ Taxi | $3 \square$ Bus |
| :--- | :--- | :--- |
| $4 \square$ Truck | $5 \square$ Motorcycle | $6 \square$ Other (Specify) |

26. How did the aceident happen?

For motor vehicle accident, refer to Card $Y$ and sircle number for answer given.
If '"Outside" -
12 3* (Specify)
If "Inside' or "Getting
in or out of' '
$4567^{*}$ (Specify object)
$8 \square$ Accident on roadway $\square$ Accident not on roadway
(Specify how)

For nonmotor vehicle accident, refer to Card $Z$ and circle number for answer given.

| 11 | 12 | 13 | $14^{*}$ | 15 | 16 | 17 | $18^{*}$ | 19 | 20 | 21 | 22 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 23 | 24 | 25 | 26 | 27 | $28^{*}$ |  |  |  |  | *(Specify) |  |



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[^0]:    ${ }^{1}$ Some indication of the prevalence of circulatory conditions among the institutionalized population may be obtained from the report "Prevalence of Chronic Conditions and Impairments Among Residents of Nursing and Personal Care Homes, United States, May-June 1964," Vital and Health Statistics, Series 12, Number 8. This survey of resident institutions providing nursing or personal care covered an estimated 554,000 persons in the institutional population. An estimated 282.6 persons per 1,000 were reported to have diseases of the heart, 63.3 per 1,000 had hypertension without mention of heart, 339.5 per $1,000 \mathrm{had}$ vascular lesions affecting central nervous system, 78.5 per 1,000 had general arteriosclerosis, 32.0 per 1,000 had varicose veins, and 38.2 per 1,000 had hemorrhoids.

[^1]:    ${ }^{2}$ The estimates of the prevalence of the nine groups of circulatory conditions presented in this report are estimates of the number of cases in each disease category with no attempt to account for persons who have more than one circulatory condition. A summation of the nine chronic circulatory condition categories indicates an estimated $44,214,000$ conditions among the civilian, noninstitutionalized population. However, this should nọt be interpreted as 44 million persons with these conditions, since there may be duplication. The following figures show the estimated number of persons with one or more of the nine circulatory system conditions by age:

[^2]:    N.O.S. $=$ Not otherwise specified.
    N.E.C. $=$ Not elsewhere classified.
    ${ }^{1}$ See table A for ICDA codes.

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

[^4]:    ${ }^{1}$ Includes unknown income and education.
    NOTE: Relative standard errors of estimates for this table are found on chart on page 42, code A4AN and page 43 , cade $\mathrm{P} 4 \mathrm{AN}-\mathrm{M}$. A guide to the use of the relative standard error charts is on page 41.

[^5]:    ${ }^{4}$ 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.
    ${ }^{5}$ 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.
    ${ }^{6}$ 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.

[^6]:    ${ }^{7}$ 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.
    ${ }^{8}$ 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.
    ${ }^{9}$ 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.
    ${ }^{10}$ 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.

[^7]:    ${ }^{11}$ 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.

