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# Vital and Health Statistics

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From the CENTERS FOR DISEASE CONTROL AND PREVENTION / National Center for Health Statistics

## Prevalence of Selected Chronic Conditions: United States, 1990–92

January 1997



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention  
National Center for Health Statistics



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Series 10:  
Data From the National Health  
Survey  
No. 194

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
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# Abstract

This report presents an update of the prevalence of selected chronic conditions in the United States. Its purpose is to provide prevalence data by age, sex and age, race and age, family income, and geographic region for major chronic condition systems. It further assesses the percent of selected conditions that cause activity limitation, the percent for which a physician was consulted, and the percent that caused hospitalization. Conditions with the highest prevalence and those causing the most disability days are also analyzed. Trends in prevalence rates for the conditions with highest prevalence are examined as well.

Information for this report is based on data collected during the National Health Interview Survey (NHIS) for the years 1990, 1991, and 1992. This is a continuing nationwide survey of households for which a probability sample of the civilian noninstitutionalized population of the United States is interviewed by the U.S. Bureau of the Census regarding the health and other characteristics of each member of the household. The sample for the years 1990–92 was composed of 142,638 households containing 368,075 persons. Each household was administered one of six of the chronic conditions system lists.

Deformities or orthopedic impairments was the most frequent chronic condition reported with almost 35 million conditions. Other conditions high in prevalence were chronic sinusitis, arthritis, and high blood pressure with annual averages of 33.7, 31.8, and 27.6 million conditions, respectively. Mental retardation and multiple sclerosis caused the highest percents of activity limitation among persons afflicted, 87.5 percent and 69.4 percent, respectively. Deformities and other orthopedic impairments, arthritis, and heart disease caused the highest numbers of restricted activity days and bed disability days per year, whereas, malignant neoplasms of the lung, bronchus, and other respiratory sites, caused the highest number of restricted activity days per year, per condition reported, 96.1 days.

In little more than a decade, the prevalence rate from asthma has increased almost 50 percent and the rate from chronic bronchitis has increased 46 percent.

**Keywords:** Activity • Limitations • Disability days • Trends

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# Prevalence of selected chronic conditions

by John Gary Collins, M.B.A., Division of Health Interview Statistics

## Highlights

Highlights of the data contained in this report for the 3-year period 1990–92 are summarized in the following statements:

- From the time period 1979–81 to the time period 1990–92, the prevalence rate from asthma has increased almost 50 percent. The rates from chronic bronchitis and hay fever or allergic rhinitis without asthma have increased 46 percent and 25 percent, respectively.
- The highest number of bed-disability days were caused by deformities or orthopedic impairments (161 million days), heart disease (158 million days), and arthritis (152 million days).
- Mental retardation was the chronic condition most likely to cause limitation of activity, causing limitation of major or outside activities in 87.5 percent of persons affected. Multiple sclerosis was the second highest causing limitation in 69.4 percent of those with the condition.
- Deformities or orthopedic impairments was the chronic condition most frequently reported in the interviews, with an annual average prevalence of almost 35 million conditions or 140.6 per every 1,000 persons in the civilian noninstitutionalized population.
- Chronic sinusitis, arthritis, and high blood pressure ranked second, third, and fourth in prevalence among the chronic conditions reported, with annual averages of 33.7, 31.8, and 27.6 million conditions, respectively.
- Among persons under 18 years of age, the four most prevalent chronic conditions were hay fever, chronic sinusitis, asthma, and chronic bronchitis, respectively.
- Deformities or orthopedic impairments and chronic sinusitis were by far the most prevalent chronic conditions among persons 18–44 years of age, with respective rates of 161.7 and 157.1 per 1,000 persons.
- Arthritis and high blood pressure were the conditions highest in prevalence among persons in the age groups 45–64 years and 65–74 years.
- More than one-half the persons 75 years of age and over reported having arthritis and over 40 percent of these persons report having deafness and other hearing impairments.
- Deformities or orthopedic impairments, chronic sinusitis, and deafness and other hearing impairments were the most frequent conditions reported among males with respective rates of 136.7, 114.6, and 109.4 per 1,000 persons.
- Among women, arthritis and chronic sinusitis were the most frequently reported chronic conditions with rates of 158.1 and 155.5 per 1,000 persons, respectively.
- Among black persons, high blood pressure was the most prevalent condition reported, with a rate of 135.3 per 1,000 persons.
- High blood pressure and heart disease were the most frequently reported circulatory conditions, whereas, chronic sinusitis and hay fever were the most prevalent respiratory conditions.
- Deformities or orthopedic impairments and deafness and other hearing impairments were by far the most prevalent impairments reported, with 35.0 and 23.3 million conditions, respectively.
- The prevalence rate of cataracts among persons 75 years of age and over is almost 10 times the rate of the total population, 229.0 per 1,000 persons compared with 25.8.
- The chronic conditions reported to cause the most restricted activity days were deformities or orthopedic impairments (600 million days), arthritis (445 million days), and heart disease (400 million days).
- Malignant neoplasms of the lung, bronchus, and other respiratory sites caused the highest number of restricted activity days per condition reported, 96.1 days per year.



# Introduction

National estimates of the prevalence of selected chronic conditions in the civilian noninstitutionalized population of the United States are presented in this report. These estimates are based on data collected by the National Center for Health Statistics (NCHS) by means of the National Health Interview Survey (NHIS) in 1990, 1991, and 1992. Data on the prevalence of chronic conditions reported in household interviews are shown in terms of numbers and rates per 1,000 persons cross tabulated by sex and age, race and age, family income, and geographic region.

In addition, data are provided on the percent of chronic conditions causing limitation of activity, the percent for which a physician was consulted, and the percent that caused hospitalization. The numbers of restricted-activity days and bed-disability days caused by selected chronic conditions and the associated days per condition are shown by an age dichotomy and by sex. Conditions with the highest prevalence, those causing the most restricted activity and bed disability, and those causing the highest percent of activity limitation are presented in rank order for the 10 highest in each category.

Data are presented for six different categories of chronic conditions:

- Circulatory conditions
- Respiratory conditions
- Digestive conditions
- Impairments and conditions of the nervous system and sense organs
- Conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue
- Endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs, and conditions of the genitourinary system

The most recent NCHS report that included NHIS data on chronic disease prevalence was *Current Estimates from the National Health Interview Survey, United States, 1994* (1). Other recent publications providing NHIS data on the prevalence of chronic conditions are mentioned in the section on related data.

# Methods

## Data collection

Information in this report is based on data collected during the National Health Interview Survey (NHIS), a continuing nationwide survey of households. Each week a probability sample of the civilian noninstitutionalized population of the United States is interviewed by personnel of the U.S. Bureau of the Census. Information is obtained about the health and other characteristics of each member of the household.

One of the strengths of NHIS is that it allows data to be combined over multiple years. This increases stability of the estimates because augmenting the sample size leads to smaller sampling errors. Combining data over time is possible because of the sampling design of NHIS and its use of standard questions over several years. Combining data is particularly desirable when making estimates for relatively rare events or population subgroups—in this case, chronic conditions. Therefore, data for this report are based on information obtained by NCHS in the 1990, 1991, and 1992 surveys, and annual averages for these three years are presented.

The NHIS sample for the 3 years combined was composed of 142,638 eligible households, containing 368,075 persons living at the time of interview. The total NHIS noninterview rate was about 4.4 percent; 2.8 percent was due to respondent refusal, and the remainder was primarily due to failure to locate an eligible respondent at home after repeated calls.

A description of the survey design, the methods used in estimation, and general qualifications of the data obtained from the survey are presented in [appendix I](#).

Because the estimates presented in this report are based on a sample of the population, they are subject to sampling errors. Therefore, readers should pay particular attention to the section of [appendix I](#) entitled “Reliability of the estimates,” which presents formulas for calculating standard errors and instructions for their use. Sampling errors for most of the estimates are relatively low. However, when an estimated number or the numerator or denominator of a rate or percent is small, the sampling error may be large. The relatively small size of the sample for the chronic condition lists (one-sixth of the total sample per year) limits the number of variables with which the data can be effectively analyzed.

All information collected during the survey is from responsible family members residing in the household. When possible, all adult family members participate in the interview. However, proxy responses are accepted for family members

who are not at home and are required for all children and for family members who are physically or mentally incapable of responding for themselves. Although a considerable effort is made to ensure accurate reporting, information from both proxy and self-respondents may be inaccurate because the respondent is unaware of relevant information, has forgotten it, does not wish to reveal it to an interviewer, or because the respondent does not understand the intended meaning of a question. Errors may also be introduced by interviewers, coders, and others during the processing and analysis of the data.

Certain terms used in this report are defined in [appendix II](#) and have specialized meanings for the purpose of the survey. It is suggested that the reader become familiar with these definitions. [Appendix III](#) contains the probe questions and the recording forms used to obtain information on the prevalence of selected chronic conditions and the resulting limitation of activity and disability days. The questionnaires used during the 1990, 1991, and 1992 surveys are presented in Series 10 of *Vital and Health Statistics* (2–4). The portions of the questionnaire shown in [appendix III](#) for 1992 are the same as those for 1990 and 1991. Chronic conditions are coded using a slight modification of the *International Classification of Diseases (ICD)*(5), and impairments are coded by a classification shown in the *NCHS Medical Coding Manual* (6).

Methodological studies have shown that chronic conditions are generally underreported in interview surveys (7). Respondents in health interviews tend to report conditions of which they are aware and about which they are willing to report to the interviewer. Reporting is better for conditions that have made a significant impact on affected individuals and their families. Conditions that are severe or costly, or are being treated, tend to be better reported than conditions having less impact. For instance, a condition that has caused limitation of activity, visits to the doctor, or days in bed is more likely to be reported in the interview than one that has had little or no impact on the person.

Methodological studies have also indicated that inclusion of a checklist of descriptive condition titles as part of the interview questionnaire increases the probability that a respondent will recognize the terms and report those of which the respondent is aware. Of course, the diagnostic accuracy of condition reports depends on how well the respondent remembers information 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.

During the period 1957–67, data were collected in NHIS on all chronic conditions. From 1968 through 1977, as part of a redesign of the data collection procedure, data on chronic conditions involving disability days, physician visits, hospitalizations, or limitation of activity were collected. In addition, prevalence information was obtained for only a single system of chronic conditions (for example, respiratory conditions) in each survey year through the use of an extended checklist of chronic conditions in that system. A report describing this design and the results of a study comparing the previous method with the revised procedure is presented in Series 2 of *Vital and Health Statistics* (8).

The current procedure for collecting information on chronic conditions was established in 1978. Currently, six categorical lists of selected chronic conditions are included in the NHIS questionnaire. Each family in the NHIS is questioned on only one of these six lists, selected on a predetermined basis. Therefore, each list is administered to only one-sixth of the total NHIS sample each year.

These six categorical checklists of conditions are located in Section H of the questionnaire. For lists 3,4,6 and the majority of list 1, items C through W, responses are based on the following question: “During the past 12 months did anyone in the family (read names) have . . .?” For list 1, items A and B, and all of list 2, responses are based on the question “Does anyone in the family (read names) now have . . .?” Finally, for list 5, responses are based on the question “Has anyone in the family (read names) ever had . . .?”

For each condition reported, additional information is collected on the nature of the condition and whether the condition caused the use of medical services (hospitalization and physician visits). Estimates for days of disability caused by chronic conditions are based on the number of disability days reported for the 2 weeks before interview. Also a determination is made as to whether the reported condition causes limitation of activity.

The survey includes data only on persons living in the household at the time of interview. Thus the experience of persons who died prior to the time of interview is excluded from the data. Also excluded is the experience of persons who were institutionalized or who were members of the Armed Forces at the time of the household interview.

## Estimating prevalence of chronic conditions

“Prevalence” often refers to the number of some item existing at a given point in time; this definition of prevalence is usually referred to as “point prevalence.” Prevalence can also refer to the average number of some item existing during a specified interval of time and is usually called “period prevalence.” The latter definition is used in the NHIS because the data are collected over intervals of time.

Chronic conditions are defined as conditions that either were first noticed 3 months or more before the date of interviews, or belong to a group of conditions considered chronic regardless of when they began.

This report focuses on the prevalence of selected chronic conditions. The data presented represent the prevalence of conditions, not the prevalence of persons with a chronic condition. However, for most conditions, the condition prevalence and the person prevalence are almost identical. The purpose of this section is to clarify the instances in which large variations are present. Large variations between condition prevalence and person prevalence occur for two different reasons. The first is that a prevalence estimate of a condition may include more than one of the specified checklist items or a checklist item and a specified “other condition” item that falls into the same ICD category as the checklist item. The second reason is that some prevalence categories shown are a combination of other categories and, as a result, a person may have more than one of the conditions that are added to form the combined category. The following outlines the condition prevalence figures in this report that vary markedly from the person prevalence for the condition:

- *Circulatory conditions*—Two condition classes in the circulatory condition tables are combinations of multiple conditions that are not mutually exclusive. These two are “heart disease” and “heart rhythm disorders.” Thus the prevalence estimates presented for these two conditions are much higher than the person prevalence estimates would be. A third condition, “ischemic heart disease,” is generated from multiple checklist items. The person prevalence is estimated to be about 15 percent lower than the condition prevalence shown in this report. Other circulatory condition data shown in this report vary only marginally between person and condition prevalence.
- *Respiratory conditions*—There are no significant differences between condition prevalence and person prevalence for the respiratory conditions shown in this report.
- *Digestive conditions*—The only digestive condition category for which condition prevalence and person prevalence may vary substantially is “ulcer, gastric, duodenal, and/or peptic,” which is a combined category of the three types of ulcers that are not mutually exclusive.
- *Impairments and conditions of nervous system and sense organs*—There are several combined categories among the impairments for which condition prevalence and person prevalence may vary significantly. They are speech impairments, which includes two separate categories; absence of extremities or parts of extremities, which includes two categories; and deformities or orthopedic impairments, which includes four separate categories. All other condition and person prevalence estimates in this section are either identical or vary only slightly.
- *Conditions of skin and subcutaneous tissue and of musculoskeletal system and connective tissue*—The only condition in these groups for which there is a large difference in the condition and person prevalence estimates is arthritis. The condition prevalence is more than 1 million conditions higher than the person prevalence estimate.
- *Endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of blood and blood-forming organs; and genitourinary conditions*—There are no significant

differences between condition prevalence and person prevalence for these categories shown in this report.

The concept of condition prevalence is generally used in NHIS because specific health indexes such as limitation of activity and disability days can be ascribed to specific conditions. In addition, prosthetic and pharmaceutical treatment modes are more condition specific than person specific.

In instances when a condition prevalence estimate is distorted by multiple checklist items, such as in the case of coronary heart disease, person prevalence estimates have been and will continue to be given or the differences between the two enumerated.

It should be pointed out that the restriction of the NHIS to the civilian population not confined to institutions also affects the estimated prevalence of chronic conditions. Omission of the institutionalized population reduces the prevalence estimates, especially for the elderly, because the proportion of persons in institutions who have chronic conditions is high. These estimates do not indicate the prevalence in the total population.

## Significance of results

In this report, terms such as “similar” and “the same” mean that no statistically significant difference exists between the statistics being compared. Terms relating to difference (for example, “greater” or “less”) indicate that differences are statistically significant. The t-test, with a critical value of +1.96 (0.05 level of significance), was used to test all comparisons that are discussed. Lack of comment regarding the difference between any two statistics does not mean that the difference was tested and found to be insignificant.

The significance tests in this report do not control for multiple comparisons. Thus some of the differences highlighted may not be significant when the effects of making multiple comparisons are considered. The reader should assess the significance of any differences both in terms of the statistical significance and the substantive significance of the findings.

An asterisk is placed beside certain figures to indicate a 30-percent or greater relative standard error. Figures marked with an asterisk are given primarily to allow the reader to combine them with related estimates and thereby possibly to produce a more reliable overall estimate for a broader category.

The Division of Health Interview Statistics, NCHS, should be contacted for information about coding and editing procedures used to produce the final data file from which the estimates shown in this report are derived.

## Comparison to earlier NHIS data on chronic conditions

Chronic condition data have been collected in NHIS since 1957. As described in the previous sections, the procedures for collecting chronic condition data have changed over the years.

In addition to changes in survey procedures, three versions of the ICD have been used over this period. Because of changes in survey procedures and disease classifications, only

NHIS chronic condition data from 1979 and later years are comparable for the purpose of trend analysis. There are even exceptions within these years. For example, NHIS data for 1979 showed prevalence of heart conditions that included rheumatic fever, whereas currently NHIS data show prevalence of heart disease that does not include the same ICD codes previously included. In addition, total deformities or orthopedic impairments as shown in this report represent a total of the subclassifications, whereas some prior NHIS publications did not treat this category as cumulative and persons with impairments in multiple categories were only counted once. Hence in these cases, the total shown was less than the sum of the subcategories.

Although a large amount of chronic condition data has been published over the years, only material published in about the last 25 years is referenced here. However, many other publications are also cited within those publications listed.

The following is a list of reports on data collected during the period when single systems were surveyed. A good deal of detailed and useful information is available in each of these reports, but the reader should exercise caution in comparing estimates from the following reports with estimates from reports for 1979 and later years:

- Series 10, No. 84: Prevalence of Selected Chronic Respiratory Conditions, United States, 1970 (9)
- Series 10, No. 92: Prevalence of Chronic Skin and Musculoskeletal Conditions, United States, 1969 (10)
- Series 10, No. 94: Prevalence of Chronic Circulatory Conditions, United States, 1972 (11)
- Series 10, No. 109: Prevalence of Chronic Conditions of the Genitourinary, Nervous, Endocrine, Metabolic, and Blood and Blood-forming Systems and of Other Selected Chronic Conditions, United States, 1973 (12)
- Series 10, No. 121: Characteristics of Persons with Hypertension, United States, 1974 (13)
- Series 10, No. 123: Prevalence of Selected Chronic Digestive Conditions, United States, 1975 (14)
- Series 10, No. 124: Prevalence of Chronic Skin and Musculoskeletal Conditions, United States, 1976 (15)
- Series 10, No. 134: Prevalence of Selected Impairments, United States, 1977 (16)

In addition, data on the prevalence of chronic conditions have been presented yearly since 1982 in the *Current Estimates* reports. The most recent data are presented in *Current Estimates From the National Health Interview Survey, United States, 1994* (1). Information in the *Current Estimates* reports is not as detailed as the information is in this report; in the *Current Estimates* reports, estimates were subject to more variation because data for only 1 year were used, whereas data for 3 years were used for this report.

Finally, there have been three reports produced that focused on the prevalence of all selected chronic conditions since 1979:

- Series 10, No. 155: Prevalence of Selected Chronic Conditions, United States, 1979–81 (17)

- Advanced Data No. 155: Prevalence of Selected Chronic Conditions, United States, 1983–85 (18)
- Series 10, No. 182: Prevalence of Selected Chronic Conditions, United States, 1986–88 (19)

## Other NCHS programs providing chronic condition data

NCHS sponsors several programs that provide information on chronic conditions: NHIS, the survey from which data in this report were obtained; the National Health and Nutrition Examination Survey (NHANES); the vital statistics program; and the National Health Care Survey (NHCS), which has several components that provide chronic condition-related data.

Because of major program differences in objectives, methodology, and definitions, direct comparisons are precluded in the majority of instances. However, when these data sets are used to complement one another, it is possible to obtain a comprehensive overview of the prevalence and effects of chronic conditions in the United States.

The NHANES (20) design is a stratified, multistage, probability cluster sample of households throughout the United States. The process of selecting a sample of persons to be examined is a cascading one that involves the selection of primary sampling units (counties or small groups of contiguous counties), census enumeration districts, segments (clusters of households), households, eligible persons, and, finally, sample persons.

NHANES is used to collect a broad range of morbidity data and related health information. The essential differentiating characteristic of NHANES is its supplementation of interview with specially standardized direct medical examinations, including tests and other procedures used in clinical practice. Because NHANES data includes results of examinations, estimates of prevalence of certain conditions from NHANES will include cases not previously identified and thus not reported by the participant. Estimates can also be made of the distribution within the population of a broad variety of health-related measurements, including not only physical measurements (such as height, weight, and various skinfolds) but also physiological measurements (such as diastolic blood pressure and serum cholesterol level) and psychological measurements. In addition, this survey provides an assessment of the nutritional status of the U.S. population ages 1–74 years that permits nutritional variables to be related to health measures.

NHANES is a recurring survey, and hence permits measurement of changes in health and nutritional status over time. Although information on the range of chronic conditions covered in NHIS is not obtainable through NHANES, extensive physiological and biological information on a number of “target” conditions is available. Conditions for which extensive diagnostic and prevalence data have been collected through NHANES include diabetes; kidney disease; liver disease; allergic conditions; arthritis and disc degeneration; cardiovascular disease, including hypertension; skin conditions; pulmonary disease; and speech and hearing pathology.

For a number of these conditions, diabetes and hypertension in particular, the NHANES prevalence estimates are higher than NHIS estimates because undiagnosed conditions are identified during the NHANES examination. However, when only data reported by respondents are compared, prevalence estimates are similar for both surveys (21). Thus it is advantageous to use data from both surveys when examining the extent and effects of the prevalence of selected chronic conditions. NHANES data can provide information on undiagnosed conditions. NHIS data can provide information on the prevalence of serious chronic conditions (that is, those that cause limitations) as well as detailed medical and nonmedical information with which the condition prevalence information may be related.

NHANES I was conducted from 1971 through 1973, NHANES II from 1976 through 1980, and NHANES III was conducted from 1988 through 1994. In addition, the Hispanic Health and Nutrition Examination Survey (HHANES) was conducted from 1982 through 1984 to produce estimates of the health and nutritional status of Mexican-Americans, Cuban-Americans, and Puerto Ricans that are comparable with estimates available for the general population.

One function of the vital statistics program of NCHS is to report the estimated number of deaths in the United States by cause of death. Data on deaths from chronic conditions are not included in NHIS because only civilian noninstitutionalized persons who are alive at the time of interview are surveyed. To understand the entire spectrum of the problem of chronic conditions in this country, mortality data from the vital statistics program must also be considered. The 10 leading causes of death in the United States in 1993 are shown in [table A](#) along with the 10 most prevalent selected chronic conditions reported in NHIS for 1990–92. The list of leading causes of death includes conditions, such as pneumonia and influenza, that are considered acute and others, such as malignant neoplasms, that are not collected in their entirety in NHIS. Hence these lists are not altogether comparable but are nevertheless a useful complement to one another.

NHCS is comprised of five basic components, many of which provide chronic condition data.

### 1. Hospital and surgical care

The National Hospital Discharge Survey (NHDS) provides statistics on the utilization of non-Federal short-stay hospitals based on data collected from a national sample of hospital records of discharged inpatients (22). It is a continuous survey that has been conducted by NCHS since 1965.

Because NHDS focuses on hospital discharges, condition data are available only for those conditions requiring hospitalization during the survey year. These hospitalizations are discharge based and not person based; one person may have multiple discharges during the year. Estimates for this survey are made by “first-listed diagnosis” as well as by “all-listed diagnoses.” These data are not comparable with NHIS prevalence data, but they can be used to estimate the number of hospitalizations resulting from selected chronic conditions during a given year as well as to provide a basic demographic

**Table A. Statistics on selected chronic conditions with highest prevalence in the civilian noninstitutionalized population and conditions causing the largest number of deaths, and respective ICD codes, in rank order: United States, 1990–92**

Condition and ICD code <sup>1</sup>	Rank	Number of conditions in thousands	Rate per 1,000 persons <sup>2</sup>	Condition and ICD code <sup>1</sup>	Rank	Number of conditions in thousands	Crude death rate per 100,000 population <sup>3</sup>
Chronic conditions				Cause of death			
Deformities or orthopedic impairments . . . X70,X71,X73,–X80,X84–X86,X89	1	34,964	140.6	Diseases of the heart . . . . . 390–398, 402, 404, 410–429	1	739.9	286.9
Chronic sinusitis . . . . . 473	2	33,736	135.6	Malignant neoplasms . . . . . 140–205	2	530.9	205.8
Arthritis . . . . . 711.0, 9, 712.8, 9, 714–716, 720.0, 721	3	31,788	127.8	Cerebrovascular diseases . . . . . 430–438	3	149.7	58.1
High blood pressure . . . . . 401–405	4	27,600	111.0	Chronic obstructive pulmonary disease . . . . . 490–496	4	101.1	39.2
Hay fever or allergic rhinitis without asthma . . . 477	5	24,060	96.7	Accidents and adverse effects . . . . . E800–E949	5	88.6	34.4
Deafness and other hearing impairments . . . . . X05–X09	6	23,266	93.5	Pneumonia and influenza . . . . . 480–487	6	81.7	31.7
Heart disease . . . . . 413–417, 420.9, 421.0, 9, 422.9, 423, 424, 425.0–5, 9, 426, 427.0–6, 8, 9, 428, 429.0–5, 8, 9, 745, 746, 785.0–2	7	20,489	82.4	Diabetes mellitus . . . . . 250	7	55.1	21.4
Chronic bronchitis . . . . . 490, 491	8	12,884	51.8	Human immunodeficiency viral infection . . . . . 042–044	8	38.5	14.9
Asthma . . . . . 493	9	11,482	46.2	Suicide . . . . . E950–E959	9	31.2	12.1
Other headache (excluding tension headache) . . . . . 784.0	10	10,279	41.3	Homicide and legal intervention . . . . . E960–E978	10	25.5	9.9

<sup>1</sup>Ninth Revision International Classification of Diseases Impairments are coded according to a special classification system for the National Health Interview Survey.

<sup>2</sup>Conditions per 1,000 persons in civilian noninstitutionalized population.

<sup>3</sup>Deaths per 100,000 resident population.

NOTE: Chronic condition data are for 1990–92; cause of death data are provisional for 1993.

Source: Mortality data are from the vital statistics program of the National Center for Health Statistics.

profile of the persons hospitalized for the conditions. Thus NHDS data complement the NHIS chronic condition prevalence estimates.

The National Survey of Ambulatory Surgery (NSAS) surveys hospital-based and freestanding ambulatory surgical care units and provides data on diagnoses, procedures, and patient characteristics. The survey was initiated in 1994 and will provide data on chronic conditions that were heretofore unavailable.

## 2. Ambulatory care

The National Ambulatory Medical Care Survey (NAMCS)(23) is a continuing national probability sample of office-based physicians selected from the master files of the American Medical Association and the American Osteopathic Association. Selected physicians maintain a listing of all patient visits to their offices during a randomly assigned 7-day period. The strength of these data is in the precision and depth of the medical information provided. Reliable data on information such as diagnosis, reason for visit, diagnostic procedures, treatments, and medication therapy are reported by the physicians themselves. However, NAMCS includes only physicians classified as non-Federal, office based, and primarily engaged in patient care activities. Hence the estimates of the numbers of physician visits for chronic condition diagnoses are not reflective of the total population. Because of the high reliability of these data, it is nevertheless important to consider the results of this survey when assessing the impact of chronic

conditions. Data from the NAMCS provide estimates of physician visits for specific conditions that can be cross-tabulated by a number of variables. This information is a useful complement to the NHIS prevalence estimates of chronic conditions presented in this report.

The National Hospital Ambulatory Medical Care Survey (NHAMCS) (24) was initiated in 1992 to collect data on patients visiting hospital emergency departments, outpatient departments, and clinics. The data are collected annually from a sample of 70,000 visits from 440 hospitals. The information is gathered by abstracting medical records. This survey thus collects data on doctor visits that were not included in NAMCS. Although a large proportion of the visits are for acute conditions, data on such chronic conditions as heart disease and cerebrovascular disease are included that provide an additional perspective to the understanding of chronic condition prevalence in the United States.

## 3. Long-term care

The National Nursing Home Survey (NNHS) is a continuing periodic survey of nursing homes that was first conducted by NCHS from August 1973 through April 1974. The survey was conducted again from May 1977 through December 1977 and most recently from August 1985 through January 1986 (25). All types of nursing homes in the coterminous United States were included in the 1985–86 NNHS, regardless of their intensity of services, their participation in Medicare and

Medicaid programs, or their licensing. Data on nursing home facilities, residents, discharges, and chronic conditions are collected in the survey.

The institutionalized population is not included in NHIS, so chronic conditions reported in NNHS can be used to supplement the NHIS estimates. Information is available by all-listed diagnoses at time of survey, first-listed primary diagnosis at time of survey, and prevalence rate of selected diagnoses at time of survey, which eliminates multiple conditions that fall under the same ICD subclassification (25).

In general, the total number of conditions for nursing home residents is quite small when compared with the number for the noninstitutionalized population. However, because most nursing home residents are 65 years of age or over (25), most of the conditions reported by nursing home residents are for older persons and do have some impact on the estimation of condition prevalence for this age group.

In 1985–86, the 1.491 million nursing home residents were reported to have 4.972 million conditions (all-listed diagnoses), or 3.3 conditions per person, at the time of the survey (25). [Table B](#) shows the conditions reported in NNHS with the highest prevalence rates, along with their ICD codes (25). Individual conditions are shown rather than system totals because their rates, which are cumulative, are much higher (for example, ischemic heart disease as opposed to all heart

disease). This allows for a more equitable comparison with prevalence estimates from NHIS if some combination data are desired.

The National Home and Hospice Care Survey (NHHCS) provides data on people being served by this category of health care providers. The annual survey is based on approximately 1,500 sample agencies with personal interviews being conducted with administrators and staff. Data collected include referral, length of service, diagnoses, number of visits, patient charges, health status, and type of service. The survey was first conducted between September and December 1992. Data from this survey are complementary to the total scope of chronic conditions, since they provide in-depth information on persons who are infirmed and suffer from debilitating and life threatening diseases.

#### 4. The health provider inventory component

The health provider inventory component provides a comprehensive national listing of health care facilities, including data on services, location, and staff of the facilities. Hence it has information on facilities for persons with chronic conditions, but no specific information on persons with conditions.

#### 5. The patient follow-up component

The National Nursing Home Survey Follow-up (NNHSF) follows the surveying cohorts of sample patients from the NNHS thus enabling an overview of outcomes from patients with specific chronic conditions. This is a helpful tool for those assessing the utilization and financing of health care for a segment of the population.

**Table B. Number of chronic conditions with highest prevalence among nursing home residents per 1,000 persons with respective ICD codes, in rank order: United States, August 1985–January 1986**

<i>Condition and ICD code</i>	<i>Rank</i>	<i>Number of conditions per 1,000 persons</i>
Ischemic heart disease . . . . . 410–414	1	241.5
Senile dementia or organic brain syndrome . . . . . 290,310	2	233.7
Cerebrovascular disease . . . . . 430–436	3	182.1
Arthritis or rheumatism . . . 710–713, 716, 729.0	4	179.1
Essential hypertension . . . . . 401	5	156.4
Other heart disease . . . . . 391–398,402,404, 415,420–427, 428.1–429.9	6	152.3
Diabetes mellitus . . . . . 250	7	124.2
Psychoses other than senile dementia . . . . . 291–299	8	110.6
Congestive heart failure . . . . . 428.0	9	106.8
Atherosclerosis . . . . . 440	10	74.7
Chronic obstructive pulmonary disease allied conditions . . . . . 490–496	11	68.4
Alzheimer's disease and other specified and unspecified degeneration of the brain . . 331.0, 331.2, 331.9	12	49.2
Malignant neoplasms . . . . . 140–208	13	48.1
Other mental disorders . . . . . 302–309,311–316	14	47.9
Parkinson's disease . . . . . 332	15	47.4
Anemias . . . . . 280–285	16	47.0
Urinary tract infection . . . . . 599.0	17	38.9
Senility without psychoses . . . . . 797	18	38.5
Mental retardation . . . . . 317–319	19	33.9
Osteoporosis . . . . . 733.0	20	32.9

Source: National Center for Health Statistics, National Nursing Home Survey.



# Results

The tables in this report are organized primarily by checklist. However, some modifications in the presentation were made for instances in which more than one of the six lists included data from the same disease classification system as that in the *Ninth Revision of the International Classification of Diseases* (5).

## Conditions with high prevalence

The selected chronic conditions with highest prevalence during 1990–92 are presented in [table C](#) for all persons by sex, race, and age group and in [table D](#) for all persons by family income and geographic region. It should be noted that if a total category such as deformities or orthopedic impairments is included in the top 10 listings, then a subcategory such as deformities and orthopedic impairments of the back is not,

even though the prevalence rate is higher than that for some other conditions that are included. It is not listed because it has already been included in the total category.

Deformities or orthopedic impairments ranked highest in prevalence for all persons, for males, for white persons, for persons 18–44 years of age, for persons with incomes under \$10,000 a year, for persons with incomes of \$20,000–\$34,999 per year, and for persons living in the Northeast and West regions. Chronic sinusitis ranked first among persons in families with incomes of \$35,000 or more and persons from the Midwest and South regions. Arthritis was highest in prevalence for women, persons 45–64, 65–74, and 75 years of age and over; and among persons in families in the \$10,000–\$19,999 income range. High blood pressure was the most prevalent condition among black persons and hay fever was the most prevalent among persons under 18 years of age. For

**Table C. Selected chronic conditions with highest prevalence in rank order, by sex, race, and age: United States, 1990–92**

Chronic condition	All persons <sup>1</sup>	Sex		Race		Age				
		Male	Female	White	Black	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over
		Rank								
Deformities or orthopedic impairments . . . . .	1	1	3	1	3	6	1	3	5	5
Chronic sinusitis . . . . .	2	2	2	2	2	2	2	4	6	7
Arthritis . . . . .	3	5	1	3	4	(2)	8	1	1	1
High blood pressure . . . . .	4	4	4	4	1	(2)	6	2	2	3
Hay fever or allergic rhinitis without asthma . . . . .	5	6	5	6	5	1	3	7	10	(2)
Deafness and other hearing impairments . . . . .	6	3	7	5	8	10	7	5	3	2
Heart disease . . . . .	7	7	6	7	6	9	(2)	6	4	4
Chronic bronchitis . . . . .	8	9	8	8	9	4	9	9	(2)	(2)
Asthma . . . . .	9	8	(2)	9	7	3	10	(2)	(2)	(2)
Other headache (excludes tension headache) . . . . .	10	(2)	10	10	10	(2)	4	(2)	(2)	(2)
Blindness and other visual impairments . . . . .	(2)	10	(2)	(2)	(2)	(2)	(2)	(2)	(2)	8
Migraine headache . . . . .	(2)	(2)	9	(2)	(2)	(2)	5	(2)	(2)	(2)
Dermatitis . . . . .	(2)	(2)	(2)	(2)	(2)	5	(2)	(2)	(2)	(2)
Acne . . . . .	(2)	(2)	(2)	(2)	(2)	7	(2)	(2)	(2)	(2)
Chronic disease of tonsils and adenoids . . . . .	(2)	(2)	(2)	(2)	(2)	8	(2)	(2)	(2)	(2)
Speech impairments . . . . .	(2)	(2)	(2)	(2)	(2)	10	(2)	(2)	(2)	(2)
Hemorrhoids . . . . .	(2)	(2)	(2)	(2)	(2)	(2)	(2)	8	(2)	(2)
Diabetes . . . . .	(2)	(2)	(2)	(2)	(2)	(2)	(2)	10	8	9
Cataracts . . . . .	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	7	6
Tinnitus . . . . .	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	9	10

<sup>1</sup>Includes races other than white and black.

<sup>2</sup>Indicated rank is not in top 10.

NOTE: This table shows rank by condition prevalence, not person prevalence. A person may have more than one condition in some groupings, such as deformities, orthopedic impairments, or heart conditions.



**Table D. Selected chronic conditions with highest prevalence in rank order, by family income and geographic region: United States, 1990–92**

Chronic condition	All persons <sup>1</sup>	Family income				Geographic region			
		Less than \$10,000	\$10,000–\$19,999	\$20,000–\$34,999	\$35,000 and over	Northeast	Midwest	South	West
Rank									
Deformities or orthopedic impairments . . . . .	1	1	2	1	2	1	2	3	1
Chronic sinusitis . . . . .	2	4	3	2	1	4	1	1	6
Arthritis . . . . .	3	2	1	3	4	2	3	2	3
High blood pressure . . . . .	4	3	4	4	5	3	4	4	5
Hay fever or allergic rhinitis without asthma . . . . .	5	7	7	6	3	5	7	5	2
Deafness and other hearing impairments . . . . .	6	5	5	5	6	6	5	6	4
Heart disease . . . . .	7	6	6	7	7	7	6	7	7
Chronic bronchitis . . . . .	8	9	8	8	8	8	8	8	9
Asthma . . . . .	9	8	10	10	9	9	9	9	8
Other headache (excludes tension headache) . . . . .	10	10	9	9	(2)	(2)	10	10	10
Dermatitis . . . . .	(2)	(2)	(2)	(2)	10	(2)	(2)	(2)	(2)
Migraine headache . . . . .	(2)	(2)	(2)	(2)	(2)	10	(2)	(2)	(2)

<sup>1</sup>Includes unknown family income.

<sup>2</sup>Indicated rank is not in top 10.

NOTE: This table shows rank by condition prevalence, not person prevalence. A person may have more than one condition in some group.

most of the variables listed, the conditions in the top 10 rankings did not differ much, although their rank within the top 10 did. The exception was for the age groups. Among persons under 18 years of age, dermatitis, acne, chronic disease of tonsils and adenoids, and speech impairments all rank in the top 10, whereas none of them ranked in the top 10 for all persons. Similarly, for persons 45–64 years of age, hemorrhoids and diabetes ranked in the top 10; and for persons 65–74 years and 75 years and over cataracts, tinnitus, and diabetes ranked in the top 10. None of these conditions ranked in the top 10 for all persons.

Percent distributions of the three selected chronic conditions with the highest prevalence (deformities or orthopedic impairments, chronic sinusitis, and arthritis) are presented in [figure 1](#) by age and sex. Females accounted for a slightly higher proportion of deformities or orthopedic impairments than did males, and almost three out of five chronic sinusitis conditions and more than three out of five arthritis conditions. The female to male ratio for arthritis is age related as more than two of three arthritis conditions among persons 65 years of age and over are among women. Among the age groups shown, approximately one-half of both deformities or orthopedic impairments and chronic sinusitis were reported among persons 18–44 years of age and about one-quarter of both conditions among persons 45–64 years of age. For arthritis the distribution was quite different, with 37.3 percent of the cases reported for persons 45–64 years, 24.9 percent for persons 65–74 years of age, and 20.8 percent for persons 75 years of age and over.

[Figure 2](#) shows the 10 selected chronic conditions with the highest prevalence rate by the percent of conditions causing limitation in major or outside activity. Limitation of activity is defined in [appendix II](#). The extent of disability that was caused by the most prevalent conditions varied. Whereas

chronic sinusitis caused limitation of activity in only 1 of every 200 conditions reported and chronic bronchitis, hay fever, and other headaches caused limitation of activity in about 1 of every 50 conditions; deformities or orthopedic impairments and heart disease resulted in activity limitation approximately 25 percent of the time.

The selected chronic conditions responsible for the largest proportion of activity limitation, 30 percent or more, are shown in [table E](#). In this table, total categories and subcategories are both included to provide data on the most disabling conditions. Ranking is not done since some categories that are not mutually exclusive are included. Conditions causing the highest percents of activity limitation were mental retardation (87.5 percent), multiple sclerosis (69.4 percent), malignant neoplasm of stomach, intestines, colon, and rectum (62.1 percent), paralysis of extremities—complete or partial (60.7 percent), and malignant neoplasms of the lung, bronchus, and other respiratory sites (60.6 percent). Some subcategories of paralysis of extremities—complete or partial are higher than the total category.

[Table F](#) presents the 10 selected chronic conditions with highest prevalence for 1990–92 by four time periods starting with 1979–81. One of the conditions, other headache (excluding tension headache), was not included on any of the six condition lists for 1979–81, and the way that data were combined for deformities or orthopedic impairments and heart disease was modified somewhat in the later periods. Data collection methods for the other seven conditions were constant over the four time periods. Prevalence rates for chronic sinusitis, arthritis, and high blood pressure have remained relatively stable for the four time periods and rates for heart disease have been stable for the last three periods. Conversely, prevalence rates from asthma have increased almost 50 percent over the four periods and chronic bronchitis and hay fever

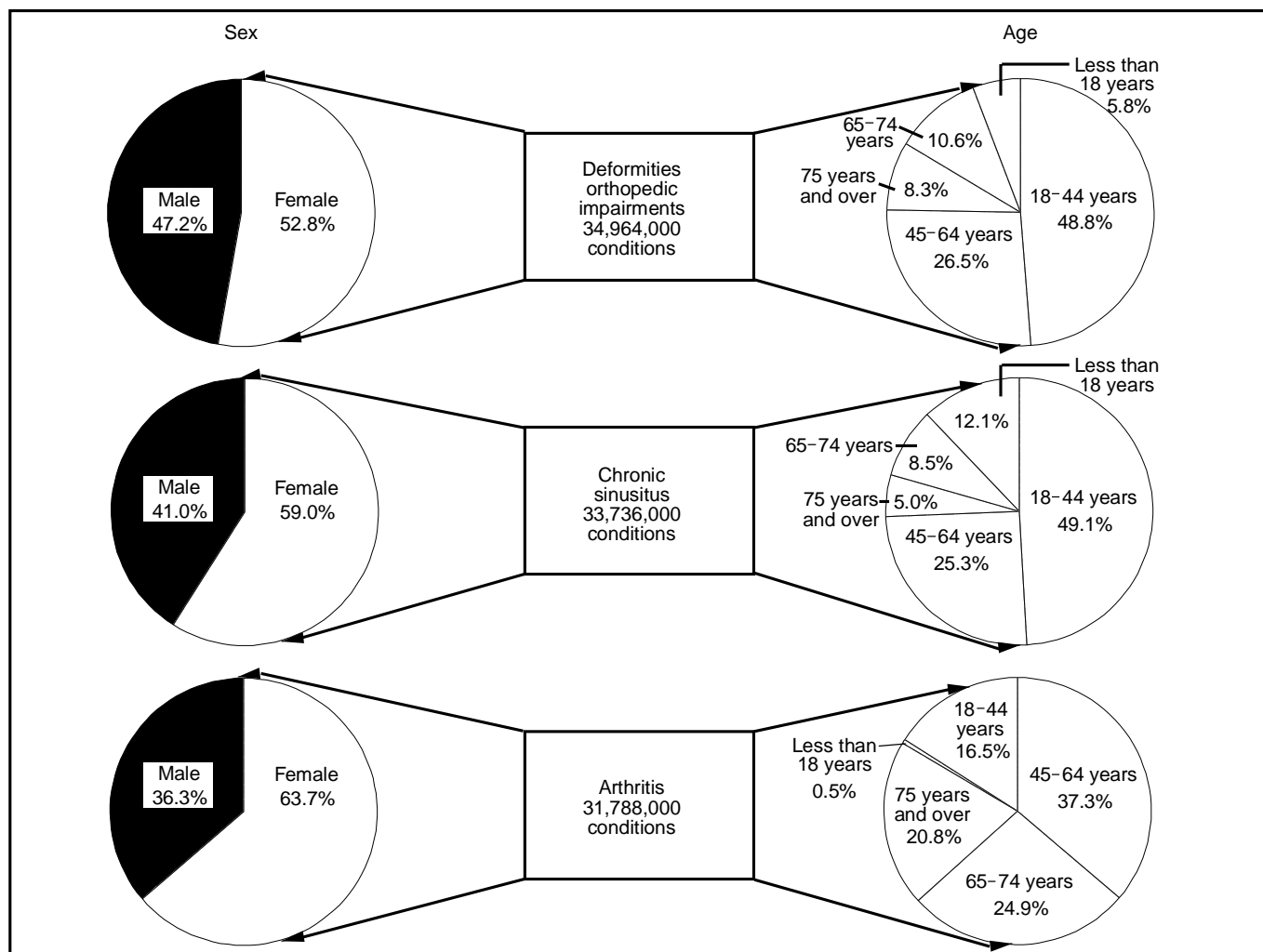


Figure 1. Percent distribution of selected chronic conditions with highest prevalence, by sex and age: United States, 1990–92

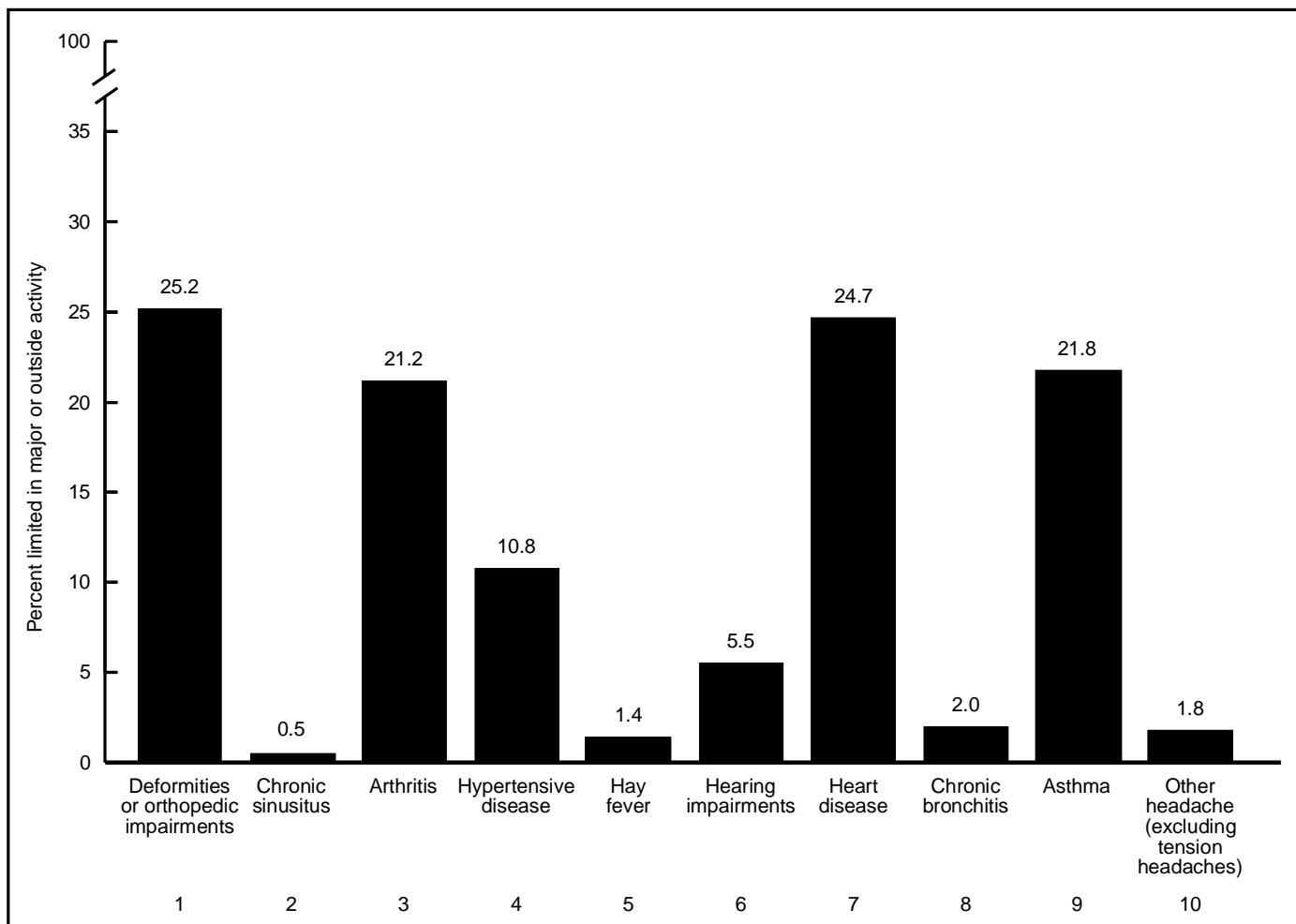
or allergic rhinitis without asthma have increased 46 percent and 25 percent, respectively. The rate for other headache has increased almost 80 percent in the three time periods for which data are available.

## Selected circulatory conditions

Prevalence estimates for selected chronic circulatory conditions and corresponding rates per 1,000 persons by age are shown in [table 1](#). [Tables 2–5](#) show this information for males, females, white persons, and black persons, respectively. The percent of conditions causing limitation of activity, the percent that caused one hospitalization or more, and the percent that caused one doctor visit or more are also included in [tables 1–5](#). [Tables 6 and 7](#) contain prevalence estimates of chronic circulatory conditions and rates per 1,000 persons by family income and geographic region, respectively. Data presented in [table 1](#) show that high blood pressure, estimated at 27.6 million conditions annually, or 111.0 per 1,000 persons, was the most prevalent chronic circulatory condition. Other chronic circulatory conditions with high prevalence were heart disease, estimated at 20.5 million conditions; hemorrhoids, 9.4

million conditions; and varicose veins, 7.4 million conditions. For young persons (under 18 years of age), heart disease was the most prevalent disease, whereas high blood pressure was highest in prevalence for persons 18–44 years, 45–64 years, and 65–74 years of age. For persons 75 years of age and over, high blood pressure and heart disease were about equally as high, 369.8 and 364.9 conditions per 1,000 persons, respectively. Ischemic heart disease caused the highest percent of hospitalizations, 72.4 percent. Data from [tables 2 and 3](#) show that high blood pressure, heart disease, and hemorrhoids were high in prevalence for both sexes and varicose veins was also high among women. The rate of ischemic heart disease was about 60 percent higher among males whereas the rate for varicose veins was about four times higher among women than for men. Women 65 years of age and over also had higher rates for high blood pressure than did men.

The prevalence rate for chronic circulatory conditions are shown for white persons and black persons in [tables 4 and 5](#). The prevalence rates for chronic circulatory conditions among white persons were very similar to those for all persons. The prevalence rate for high blood pressure was higher among black persons than white persons whereas the prevalence rates



**Figure 2. Selected reported chronic conditions with highest prevalence, in rank order, by percent causing limitation in major or outside activity: United States, 1990–92**

for heart disease, hemorrhoids, and varicose veins were higher among white persons than black persons.

Table 6 shows the estimated prevalence of chronic circulatory conditions and rates per 1,000 persons by family income. For most circulatory conditions the rates were highest among those with family incomes of less than \$10,000. Rates among persons in families with incomes of \$35,000 or more were lower than that of all income groups for heart disease, high blood pressure, and cerebrovascular disease. The high rates for persons in the under \$10,000 family income category are likely age related since there is a disproportionate percent of the elderly in this income group.

The prevalence of chronic circulatory conditions and rates per 1,000 persons are shown by geographic region in table 7. Among the regions, the prevalence rates for heart disease, high blood pressure, and hemorrhoids were all lower in the West region.

## Selected respiratory conditions

Tables 8–12 contain the prevalence estimates for selected chronic respiratory conditions and rates per 1,000 persons by age, for all persons, males, females, white persons, and black

persons, respectively. The percent of the conditions causing limitation of activity, the percent that caused one hospitalization or more, and the percent that caused one doctor visit or more are also included in these tables. Tables 13–14 contain estimates of chronic respiratory conditions and rates per 1,000 persons by family income and geographic region, respectively.

Chronic sinusitis was the most frequently reported respiratory condition, with an annual average prevalence of almost 34 million conditions or 135.6 per 1,000 persons (table 8). Other chronic respiratory conditions of high prevalence included hay fever (24.1 million conditions), chronic bronchitis (12.9 million conditions), and asthma (11.5 million conditions). Among persons under 18 years of age, the four above conditions were high in prevalence. In addition, chronic disease of tonsils and adenoids was also high, with a prevalence rate of 24.9 per 1,000 persons under 18 years of age, which was more than double the rate for this condition among persons of all ages. Chronic sinusitis had the highest prevalence rate among persons 18–44, 45–64, 65–74, and 75 years of age and over. The rate for emphysema was highest among older persons, from 0.8 per 1,000 persons 18–44 years of age to 39.9 per 1,000 persons 75 years of age and over. Malignant neoplasms of lung, bronchus, and other respiratory sites, and emphysema

**Table E. Selected chronic conditions causing 30 percent or more limitations in major or outside activity, by percent with limitation: United States, 1990–92**

<i>Chronic condition</i>	<i>Percent</i>
Mental retardation . . . . .	87.5
Multiple sclerosis . . . . .	69.4
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	62.1
Paralysis of extremities, complete or partial . . . . .	60.7
Paralysis of extremities, complete . . . . .	54.5
Paralysis of extremities, partial . . . . .	65.5
Cerebral palsy . . . . .	74.0
Malignant neoplasms of the lung, bronchus, and other respiratory sites . . . . .	60.6
Blindness, both eyes . . . . .	60.3
Other deformities or orthopedic impairments . . . . .	54.4
Paralysis of other sites, complete or partial . . . . .	48.0
Other selected diseases of the heart (excludes hypertension) . . . . .	47.8
Epilepsy . . . . .	44.4
Emphysema . . . . .	44.1
Disorders of bone or cartilage . . . . .	37.9
Cerebrovascular disease . . . . .	35.9
Diabetes . . . . .	35.9
Absence of lower extremities or parts of lower extremities . . . . .	32.8
Absence of bone, joint, or muscle of extremity . . . . .	32.0
Ischemic heart disease . . . . .	31.5
Deformities or orthopedic impairments of upper extremities . . . . .	30.0
Orthopedic impairment of shoulder . . . . .	36.4

had the highest percents of activity limitation, 60.6 and 44.1 percent, respectively.

Data in [tables 9](#) and [10](#) show that for both males and females, the prevalence rates for chronic sinusitis, hay fever, chronic bronchitis, and asthma were high, similar to the pattern for all persons. However, the rates for two conditions, chronic sinusitis and chronic bronchitis, were substantially higher among females. The rates of emphysema among males 65–74 years and 75 years of age and over were more than double the rates for females in those age groups.

**Table F. Prevalence rates per 1,000 persons for selected chronic conditions highest in prevalence in 1990–92 and the comparable rates for these conditions for the periods 1979–81, 1983–85, and 1986–88**

<i>Condition</i>	<i>1979–81</i>	<i>1983–85</i>	<i>1986–88</i>	<i>1990–92</i>
Prevalence per 1,000 persons				
Deformities or orthopedic impairments <sup>1</sup> . . . . .	92.6	120.7	133.2	140.6
Chronic sinusitis . . . . .	137.7	134.6	139.3	135.6
Arthritis . . . . .	122.8	130.9	130.9	135.6
High blood pressure . . . . .	112.6	123.5	120.9	111.0
Hay fever or allergic rhinitis without asthma . . . . .	77.3	86.4	93.4	96.7
Deafness and other hearing impairments . . . . .	80.0	90.8	88.9	93.5
Heart disease <sup>1</sup> . . . . .	68.9	83.2	81.6	82.4
Chronic bronchitis . . . . .	35.4	48.1	50.4	51.8
Asthma . . . . .	31.0	37.1	40.8	46.2
Other headache (excluding tension headache) <sup>2</sup> . . . . .	---	23.0	36.7	41.3

<sup>1</sup>Deformities or orthopedic impairments and heart disease had different inclusions for the prevalence estimates of those conditions for 1979–81.

<sup>2</sup>Other headache was not included on one of the six condition lists for 1979–81.

--- Data not available.

The prevalence rates of chronic respiratory conditions are shown for white persons in [table 11](#) and for black persons in [table 12](#). The rates for white persons were similar to those for all persons, whereas the prevalence rates among black persons were much lower for chronic bronchitis and hay fever.

The estimated prevalence of chronic respiratory conditions and rates per 1,000 persons are shown by family income in [table 13](#). Chronic bronchitis and asthma were highest in prevalence among persons in families with incomes of less than \$10,000, whereas the prevalence rate for hay fever was highest among persons in families with incomes of \$35,000 or more.

The prevalence of chronic respiratory conditions and rates per 1,000 persons are shown by geographic region in [table 14](#). The rates for chronic sinusitis in the South and Midwest regions were higher than rates in Northeast and West regions.

## Selected digestive conditions

Prevalence estimates for selected chronic digestive conditions and the rates per 1,000 persons by age are shown for all persons, males, females, white persons, and black persons in [tables 15–19](#). The percents of conditions causing limitation of activity, the percents that caused one hospitalization or more, and the percents that caused one doctor visit or more are also included in [tables 15–19](#). [Tables 20–21](#) contain prevalence estimates for chronic digestive conditions and the rates per 1,000 persons by family income and geographic region, respectively.

Data presented in [table 15](#) show that the most prevalent chronic digestive conditions were indigestion and other functional disorders of the stomach and digestive system (6.4 million conditions), hernia of abdominal cavity (4.8 million conditions), constipation (4.3 million conditions), and ulcers—gastric, duodenal and/or peptic (4.2 million conditions). Persons 65–74 and 75 years of age and over reported substantially higher prevalence rates for constipation and hernia of the abdominal cavity than did their younger counterparts. Malignant neoplasms of stomach, intestines, colon, and rectum, although relatively small in prevalence, caused by far the highest percent of activity limitations (62.1 percent).

Data from [tables 16 and 17](#) show that indigestion and other functional disorders of the stomach and digestive system were the most prevalent conditions among males followed by hernia of the abdominal cavity. Digestive conditions of highest prevalence among females were indigestion and other functional disorders of the stomach and digestive system and constipation. Constipation was particularly high in prevalence among females 75 years of age and over, with almost 1 out of 10 suffering from this condition.

The prevalence of chronic digestive conditions and the rates per 1,000 persons by age are shown for white persons and black persons, respectively, in [tables 18 and 19](#). The prevalence rates by age for white persons closely parallel those for all persons. Among black persons, a majority of the data by age are not reliable statistically so meaningful comparisons cannot be made.

[Table 20](#) shows the estimated prevalence of chronic digestive conditions and rates per 1,000 persons by age and family income. Prevalence rates among persons in families with incomes of less than \$10,000 a year indicated that rates for ulcers and for constipation were more than triple the rates reported by those in families with incomes of \$35,000 or more. Persons in the lower income families also reported higher rates of indigestion and other functional disorders of the stomach and digestive system and hernia of the abdominal cavity, than did those living in families with incomes of \$35,000 or more. The prevalence of chronic digestive conditions and the rates per 1,000 persons are shown by geographic region in [table 21](#). The rate for indigestion and other functional disorders of the stomach and digestive system was lower in the Northeast than in the other three regions. Hernia of the abdominal cavity was highest in prevalence among persons living in the South region.

## Selected impairments and conditions of the nervous system and sense organs

[Tables 22–26](#) contain the prevalence estimates for selected impairments and chronic conditions of the nervous system and sense organs and rates per 1,000 persons by age, for all persons, males, females, white persons, and black persons, respectively. The percent of conditions causing limitations of activity, the percent that caused one hospitalization or more, and the percent that caused one or more doctor visits are also included in these tables. [Tables 27–28](#) contain prevalence estimates of selected impairments and chronic conditions of the nervous system and sense organs and the corresponding rates per 1,000 persons by family income ([table 27](#)) and geographic region ([table 28](#)).

Among the selected impairments reported, the most prevalent for all persons were deformities or orthopedic impairments, 35.0 million conditions; deafness and other hearing impairments, 23.3 million conditions; and blindness and other visual impairments, 8.2 million conditions ([table 22](#)). Among persons under 18 years of age, deformities or orthopedic impairments were highest in prevalence (2.0 million conditions) followed by deafness and other hearing impairments and speech impairments, each with 1.1 million conditions.

Deformities or orthopedic impairments were also highest in prevalence for persons 18–44 and 45–64 years of age, with deafness and other hearing impairments second and blindness and other visual impairments third in prevalence. Among persons 65–74 years and 75 years of age or more, deafness and other hearing impairments was highest in prevalence and deformities or orthopedic impairments second. Mental retardation caused the highest percent of activity limitation, 87.5 percent.

Other headache (excluding tension headache) and migraine headache were the most prevalent conditions of the nervous system and sense organs among all persons with 10.3 million and 10.0 million conditions, respectively. They were also the conditions highest in prevalence among persons under 18 years and 18–44 years of age, and along with tinnitus for persons 45–64 years of age. For persons 65–74 years and 75 years and over, cataracts was highest in prevalence. Multiple sclerosis caused the highest percent of activity limitation among conditions of the nervous system and sense organs, 69.4 percent.

The prevalence pattern for selected impairments noted above for all persons was very similar for males ([table 23](#)) and females ([table 24](#)). However, for most of the age groups, males had higher prevalence rates than females had for deafness and other hearing impairments and blindness and other visual impairments. In addition, the rate of speech impairments among males under 18 years of age was double that for females.

Among conditions of the nervous system and sense organs, males reported tinnitus (3.7 million) and other headache (3.2 million) most frequently. Females reported migraine headache (7.3 million) and other headache (7.1 million) most frequently. The rate from color blindness among males was almost 10 times that of females, 20.1 compared with 2.1 per 1,000 persons per year.

The prevalence patterns for selected impairments and for chronic conditions of the nervous system and sense organs for white persons were similar to those for all persons ([table 25](#)). Black persons reported lower prevalence rates than white persons did for deafness and other hearing impairments and deformities or orthopedic impairments. However, the prevalence rate for speech impairments among black persons was almost double that for white persons ([table 26](#)).

The estimated prevalence of selected impairments and chronic conditions of the nervous system and sense organs and the rates per 1,000 persons are shown by family income in [table 27](#). Prevalence rates for deformities or orthopedic impairments, deafness and other hearing impairments, blindness and other visual impairments, cataracts, and tinnitus were all higher among persons in families with incomes of under \$10,000 than among persons in families with incomes of \$35,000 or more. Because the lower income group has a higher proportion of persons 65 years of age and over, these differences are, to a large degree, age related.

The prevalence of selected impairments and chronic conditions of the nervous system and sense organs and the corresponding rates per 1,000 persons are shown by geographic region in [table 28](#). The rates for both deafness and



other hearing impairments and tinnitus were higher than average in the Midwest region.

## **Selected conditions of skin and subcutaneous tissue and musculoskeletal system and connective tissue**

Prevalence estimates for selected chronic conditions of the skin and subcutaneous tissue and musculoskeletal system and connective tissue and the rates per 1,000 persons by age are shown for all persons, males, females, white persons, and black persons in [tables 29–33](#). The percent of conditions causing limitation of activity, the percent causing one or more hospitalizations, and the percent causing one doctor visit or more are also included. [Tables 34–35](#) contain prevalence estimates for chronic conditions of skin and subcutaneous tissue and musculoskeletal system and connective tissue and the rates per 1,000 persons by family income ([table 34](#)) and geographic region ([table 35](#)).

Data presented in [table 29](#) show that the most prevalent conditions of the skin and subcutaneous tissue were dermatitis (9.3 million conditions) and ingrown nails (6.1 million conditions). Dermatitis was highest in prevalence among persons under 18 years of age, 18–44 years of age, and 45–64 years of age. Persons under 18 years of age also reported a high prevalence rate from acne. Malignant neoplasms of the skin were higher in prevalence among persons 75 years of age and over than those in other age groups. The only condition in this group causing much activity limitation was chronic ulcer of the skin, 24.1 percent.

Among the selected chronic conditions of the musculoskeletal system and connective tissue, arthritis was by far the most prevalent, 31.8 million conditions. Intervertebral disc disorders and bursitis were a distant second and third with 5.0 million and 4.7 million conditions, respectively. Arthritis was highest in prevalence for all age groups over 18 years of age, whereas intervertebral disc disorders caused the highest percent of activity limitation, 45.2 percent.

Data from [tables 30](#) and [31](#) show that dermatitis was the most prevalent chronic condition of the skin and subcutaneous tissue among both males and females, although the rate for dermatitis was about 50 percent higher for females. Ingrown nails were also high for males, whereas ingrown nails, corns and calluses, and dry itching skin were prevalent among females.

Prevalence of dermatitis was highest of this disease system for females under 18 years of age, 18–44 years, and 45–64 years of age, whereas ingrown nails and corns and calluses were highest among females 65–74 years and 75 years of age and over. Malignant neoplasms of the skin were the most prevalent condition among males 65–74 years and 75 years of age and over. In these age groups, the rates for malignant neoplasms of the skin among males were about double the rate for females.

Arthritis was the most prevalent chronic condition of the musculoskeletal system and connective tissue for both males and females. However, the rates for females were higher than those for males in each of the age groups over 18 years of age.

The prevalence rate of bunions among females was about five times the rate reported among males.

The prevalence of chronic conditions of the skin and subcutaneous tissue and musculoskeletal system and connective tissue and rates per 1,000 persons by age are shown for white persons in [table 32](#) and black persons in [table 33](#). The rates for white persons were similar to those for all persons in both condition groups. Among black persons, the prevalence rate for conditions of the skin and subcutaneous tissue were lower than the rates reported for white persons for almost all conditions. The exception was corns and calluses, which was about a third higher among black persons. The prevalence rates for most conditions of the musculoskeletal system and connective tissue were lower among black persons than among white persons. Black persons reported only half the rate of intervertebral back disorders than white persons did.

[Table 34](#) shows the estimated prevalence of chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue and rates per 1,000 persons by family income. For conditions of the skin and subcutaneous tissue, persons in families with incomes of less than \$10,000 reported the highest rate for ingrown nails and a higher rate for corns and calluses than persons in all income groups. The less than \$10,000 income group also had the highest prevalence rate for arthritis among chronic conditions of the musculoskeletal system and connective tissue. The high rate for arthritis is primarily age related as there is a higher percentage of older persons in this income group than in the others.

The prevalence of chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue and the rates per 1,000 persons are shown by geographic region in [table 35](#). Among persons in the Northeast, a lower prevalence rate for ingrown nails was reported among conditions of the skin and subcutaneous tissue, whereas persons in the West region reported the lowest prevalence rate from arthritis among conditions of the musculoskeletal system and connective tissue.

## **Selected endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions**

[Tables 36–40](#) contain the prevalence estimates for selected endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions and rates per 1,000 persons by age for all persons, males, females, white persons, and black persons, respectively. The percent of conditions causing limitation of activity, the percent causing one hospitalization or more, and the percent causing one doctor visit or more are also included in these tables. [Tables 41–42](#) contain prevalence estimates of these conditions and diseases and the corresponding rates per 1,000 persons by family income and geographic region, respectively. Because these individual systems do not include many conditions, they will be treated as one entity.

For all persons (table 36), the most prevalent conditions were diabetes (7.0 million conditions), anemias (3.7 million conditions), and other diseases of the thyroid (3.3 million conditions). Among persons under 18 years of age, anemias was the most prevalent condition whereas persons 18–44 years of age reported high prevalence rates for anemias, other diseases of the female genital organs, and menstrual disorders. Diabetes was by far the most prevalent chronic condition among persons 45–64 years, 65–74 years, and 75 years of age and over. Diabetes also caused the highest percent of activity limitation.

Among males (table 37), diabetes was also the most prevalent condition, followed by diseases of the prostate and gout. For males under 18 years of age, anemias was reported most frequently and diabetes was highest in prevalence in the other four age groups. Males 65–74 years and 75 years of age and over also reported high prevalence for diseases of the prostate. The conditions of highest prevalence among females (table 38) were diabetes, anemia, and other diseases of the thyroid. Anemia was highest for prevalence among females under 18 years of age and, along with other diseases of the female genital organs and menstrual disorders, highest for females 18–44 years of age. Diabetes was highest in prevalence among females 45–64 years, 65–74 years, and 75 years of age and over.

There was no apparent variation between the prevalence patterns reported for all persons and those reported for white persons (table 39). However, among black persons (table 40), the prevalence rates for diabetes, anemias, and gout were higher than they were for white persons, and the rate for other diseases of the thyroid was lower.

The estimated prevalence of the three condition systems and the rates per 1,000 persons are shown by family income in table 41 and geographic region in table 42. The prevalence rate for diabetes among persons in families with incomes of less than \$10,000 was more than triple that of persons in families with incomes of \$35,000 or more, and anemia rates were about 2½ times higher for persons in the less than \$10,000 income group than in the \$35,000 or more income group (table 41). Among the geographic regions, the prevalence rate of diabetes was lower in the West region than in the other three regions (table 42).

## Restricted-activity days from selected chronic conditions

The estimated number of restricted-activity days and the number of days per selected chronic condition are presented by age (under 65 years of age and 65 years of age and over) and sex in table 43. Only conditions for which the total

number of restricted-activity days for all persons exceeded the cutoff for reliability were included. Table G shows the top 10 rankings for the number of restricted-activity days and for the number of days per condition by sex. Condition subcategories were not included in the ranking to avoid counting a condition in more than one category.

Of all the selected chronic conditions, deformities or orthopedic impairments were responsible for the highest number of restricted activity days, 600.0 million per year. Ranking second and third were arthritis and heart disease with 445.4 and 400.0 million days of restricted activity, respectively. Among males, deformities or orthopedic impairments caused the highest number of restricted-activity days, followed by heart disease and arthritis, whereas females had the same pattern as all persons for those three conditions. Deformities or orthopedic impairments caused the highest number of restricted-activity days among persons under 65 years of age, whereas heart disease and arthritis caused the highest number among persons 65 years of age and over.

The number of restricted-activity days per condition was highest for malignant neoplasms of the lung, bronchus, and other respiratory sites (96.1 days), followed by malignant neoplasms of stomach, intestines, colon, and rectum (60.3 days).

## Bed-disability days from selected conditions

Table 44 contains the estimated number of bed-disability days (bed days) from selected chronic conditions and the number of days per condition by age (under 65 years of age and 65 years of age and over) and sex. Only conditions for which the total number of bed-disability days exceeded the variance cutoff for reliability were included. Table G shows the top 10 rankings by number of days and days per condition.

Of the selected chronic conditions, deformities or orthopedic impairments, heart disease, and arthritis were each responsible for more than twice as many bed-disability days as any of the other conditions with 160.9, 157.9, and 152.1 million days annually, respectively. Heart disease caused the most bed-disability days among males, whereas arthritis caused the most days among females, followed by deformities or orthopedic impairments. Conditions causing the highest number of bed-disability days per condition were paralysis of other site, complete or partial, and paralysis of extremities, complete or partial, 33.3 and 20.5 days per condition per year, respectively.

The population figures used in computing rates in this report are found in table 45.

**Table G. Selected chronic conditions with the highest number of restricted-activity days and days per condition, by sex and rank order, and selected chronic conditions with highest number of bed-disability days and days per condition, by rank order: United States, 1990–92**

Selected chronic condition	Restricted-activity days						Bed-disability days	
	Number of days			Days per condition				
	Both sexes	Male	Female	Both sexes	Male	Female	Number of days	Days per condition
Deformities or orthopedic impairments . . . . .	1	1	1	(2)	(2)	(2)	1	(2)
Arthritis . . . . .	2	3	2	(2)	(2)	(2)	3	(2)
Heart disease . . . . .	3	2	3	(2)	(2)	8	2	10
Intervertebral disc disorder . . . . .	4	4	5	8	6	4	5	8
High blood pressure (hypertension) . . . . .	5	8	4	(2)	(2)	(2)	8	(2)
Asthma . . . . .	6	5	6	(2)	(2)	(2)	4	(2)
Cerebrovascular disease . . . . .	7	7	8	7	5	3	7	4
Diabetes . . . . .	8	9	7	(2)	(2)	(2)	6	9
Emphysema . . . . .	9	6	(2)	4	3	2	10	3
Migraine headache . . . . .	10	(2)	10	(2)	(2)	(2)	9	(2)
Other headache (excluding tension headache) . . . .	(2)	10	(2)	(2)	(2)	(2)	(2)	(2)
Chronic sinusitis . . . . .	(2)	(2)	9	(2)	(2)	(2)	(2)	(2)
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	(2)	(2)	(2)	1	1	(1)	(2)	(2)
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	(2)	(2)	(2)	2	2	(1)	(2)	(2)
Paralysis of other site, complete or partial . . . . .	(2)	(2)	(2)	3	(1)	(1)	(2)	1
Paralysis of extremities, complete or partial . . . . .	(2)	(2)	(2)	5	7	1	(2)	2
Chronic ulcer of the skin . . . . .	(2)	(2)	(2)	6	(1)	(1)	(2)	(2)
Disorders of bone or cartilage . . . . .	(2)	(2)	(2)	9	(2)	5	(2)	5
Poor circulation . . . . .	(2)	(2)	(2)	10	(1)	6	(2)	6
Malignant neoplasms of prostate . . . . .	(2)	(2)	...	(2)	4	...	(2)	(2)
Other diseases of the lung . . . . .	(2)	(2)	(2)	(2)	8	(2)	(2)	7
Liver disease, including cirrhosis . . . . .	(2)	(2)	(2)	(2)	9	(2)	(2)	(2)
Epilepsy . . . . .	(2)	(2)	(2)	(2)	10	(2)	(2)	(2)
Other kidney trouble, not elsewhere classified . . . .	(2)	(2)	(2)	(2)	(2)	7	(2)	(2)
Malignant neoplasms of breast . . . . .	(2)	...	(2)	(2)	...	9	(2)	(2)
Gout . . . . .	(2)	(2)	(2)	(2)	(2)	10	(2)	(2)

... Category not applicable.

<sup>1</sup>Rate would have been in top 10 but estimates for days did not make 30-percent variance cutoff.

<sup>2</sup>Indicates rank is not in top 10.

NOTE: Only ranking of condition days and days per condition, not person days are shown. A person may have more than one condition day in some groupings such as deformities, orthopedic impairments, or heart disease.



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[Data are based on household interviews of the civilian 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](#)]

Chronic circulatory conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years of age	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Heart disease . . . . .	20,489	82.4	18.9	37.4	129.4	262.0	364.9	24.7	45.1	98.2
Ischemic heart disease . . . . .	7,732	31.1	*0.1	4.1	60.3	131.8	168.9	31.5	72.4	99.5
Heart rhythm disorders . . . . .	7,868	31.6	14.1	25.8	40.7	65.1	91.7	6.4	14.8	96.4
Tachycardia or rapid heart . . . . .	1,911	7.7	0.8	4.3	13.7	22.7	28.0	7.0	25.1	94.2
Heart murmurs . . . . .	4,276	17.2	12.6	18.3	18.5	18.9	24.6	2.2	7.3	97.4
Other and unspecified heart rhythm disorders . . . . .	1,681	6.8	*0.7	3.1	8.5	23.5	39.1	16.3	22.4	96.3
Congenital heart disease . . . . .	741	3.0	2.6	2.4	2.9	5.6	6.5	17.9	49.3	99.1
Other selected diseases of heart (excludes hypertension) . . . . .	4,148	16.7	2.1	5.2	25.4	59.5	97.8	47.8	50.9	99.2
Rheumatic fever, with or without heart disease . . . . .	2,029	8.2	*0.7	7.9	16.1	13.6	11.8	15.1	31.3	99.6
High blood pressure (hypertension) . . . .	27,600	111.0	1.6	52.1	229.7	364.3	369.8	10.6	7.8	99.1
Cerebrovascular disease . . . . .	3,002	12.1	*0.5	1.4	16.7	57.9	80.8	35.9	70.3	99.6
Hardening of arteries . . . . .	2,074	8.3	*—	*0.5	11.5	40.0	61.8	9.6	38.1	96.2
Aneurysm . . . . .	226	0.9	*0.1	*0.1	1.8	3.4	5.4	*15.5	61.9	100.0
Phlebitis, thrombophlebitis . . . . .	727	2.9	*—	1.7	4.6	9.4	13.0	17.2	47.6	98.1
Varicose veins of lower extremities . . . .	7,403	29.8	*0.3	24.8	52.8	73.3	77.2	2.2	8.9	60.1
Hemorrhoids . . . . .	9,441	38.0	*0.5	39.8	70.2	65.8	56.7	*0.4	6.0	67.3
Poor circulation . . . . .	980	3.9	*—	1.4	5.9	14.3	24.8	27.7	19.9	92.8

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 2. Average annual number of selected chronic circulatory conditions among males, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic circulatory conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Heart disease . . . . .	9,703	80.4	20.8	29.0	147.2	300.5	379.5	27.3	54.4	98.2
Ischemic heart disease . . . . .	4,664	38.6	*0.1	5.7	86.0	178.4	212.3	32.5	76.6	99.4
Heart rhythm disorders . . . . .	2,902	24.0	16.0	17.9	29.0	54.3	74.2	5.4	15.9	95.8
Tachycardia or rapid heart . . . . .	638	5.3	*0.9	3.1	10.7	17.5	13.2	*5.2	25.1	93.7
Heart murmurs . . . . .	1,578	13.1	14.3	12.1	10.7	17.1	20.3	*2.2	6.8	96.4
Other and unspecified heart rhythm disorders . . . . .	685	5.7	*0.8	2.7	7.7	19.8	40.7	13.1	28.2	96.5
Congenital heart disease . . . . .	300	2.5	2.9	1.5	2.9	*4.6	*4.7	26.0	58.7	100.0
Other selected diseases of heart (excludes hypertension) . . . . .	1,837	15.2	1.8	3.9	29.2	63.1	88.3	48.8	58.3	98.6
Rheumatic fever with or without heart disease . . . . .	575	4.8	*0.7	4.3	9.8	10.8	*4.5	15.7	37.9	100.0
High blood pressure (hypertension) . . . . .	12,227	101.3	2.0	57.1	232.0	315.7	300.2	9.0	7.2	98.9
Cerebrovascular disease . . . . .	1,450	12.0	*0.2	1.7	16.7	69.8	90.7	34.7	73.0	99.1
Hardening of arteries . . . . .	1,029	8.5	*—	*0.9	13.4	45.1	68.6	9.1	49.0	96.6
Aneurysm . . . . .	106	0.9	*—	*—	*1.7	*2.8	*10.1	*15.1	68.9	100.0
Phlebitis, thrombophlebitis . . . . .	245	2.0	*—	1.3	3.1	7.2	*11.4	22.4	51.0	98.4
Varicose veins of lower extremities . . . . .	1,466	12.1	*—	8.3	23.5	36.7	44.5	4.2	9.7	61.9
Hemorrhoids . . . . .	4,110	34.0	*0.7	33.2	73.6	62.6	40.9	*0.0	7.8	67.6
Poor circulation . . . . .	371	3.1	*—	*0.8	4.0	13.3	29.1	33.4	25.6	93.8

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

0.0 Quantity more than zero but less than 0.05.

**Table 3. Average annual number of selected chronic circulatory conditions among females, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic circulatory conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Heart disease . . . . .	10,787	84.3	16.8	45.5	113.0	230.8	356.3	22.3	36.7	98.2
Ischemic heart disease . . . . .	3,068	24.0	*—	2.5	36.7	94.2	143.0	30.0	65.9	99.6
Heart rhythm disorders . . . . .	4,966	38.8	12.2	33.4	51.5	73.8	102.1	7.0	14.2	96.7
Tachycardia or rapid heart . . . . .	1,273	9.9	*0.7	5.5	16.5	26.8	36.8	7.9	25.1	94.5
Heart murmurs . . . . .	2,697	21.1	10.8	24.3	25.6	20.5	27.1	2.3	7.6	98.0
Other and unspecified heart rhythm disorders . . . . .	995	7.8	*0.6	3.6	9.3	26.5	38.1	18.5	18.4	96.3
Congenital heart disease . . . . .	442	3.5	2.3	3.3	2.9	6.3	7.6	12.4	42.8	98.2
Other selected diseases of heart (excludes hypertension) . . . . .	2,312	18.1	2.3	6.4	22.0	56.6	103.5	46.9	45.0	99.6
Rheumatic fever with or without heart disease . . . . .	1,454	11.4	*0.7	11.3	21.9	15.8	16.3	14.9	28.6	99.4
High blood pressure (hypertension) . . . .	15,373	120.1	*1.2	47.4	227.7	403.7	411.0	11.8	8.3	99.3
Cerebrovascular disease . . . . .	1,552	12.1	*0.9	1.1	16.7	48.3	74.8	37.0	67.7	100.0
Hardening of arteries . . . . .	1,045	8.2	*—	*0.2	9.6	35.8	57.7	10.1	27.4	95.9
Aneurysm . . . . .	120	0.9	*0.1	*0.1	*1.9	*3.9	*2.7	*15.8	55.8	100.0
Phlebitis, thrombophlebitis . . . . .	482	3.8	*—	2.1	6.0	11.2	14.0	14.5	46.1	98.1
Varicose veins of lower extremities . . . .	5,938	46.4	*0.7	40.6	79.8	102.9	96.6	1.7	8.7	59.6
Hemorrhoids . . . . .	5,331	41.7	*0.4	46.1	67.0	68.3	66.2	*0.6	4.7	67.1
Poor circulation . . . . .	609	4.8	*—	1.9	7.5	15.1	22.2	24.3	16.6	92.1

<sup>1</sup>Includes races other than white and black and unknown family income.

\*— Figure does not meet standard of reliability or precision and quantity zero.

\* Figure does not meet standard of reliability or precision.

**Table 4. Average annual number of selected chronic circulatory conditions among white persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic circulatory conditions	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons				Percent		
Heart disease . . . . .	18,094	86.9	30.7	131.1	309.9	24.2	46.0	98.3
Ischemic heart disease . . . . .	7,091	34.0	2.6	62.9	153.0	30.5	72.4	99.6
Heart rhythm disorders . . . . .	6,786	32.6	21.4	41.0	77.6	6.5	14.9	96.5
Tachycardia or rapid heart . . . . .	1,706	8.2	3.3	13.6	25.4	6.7	25.6	94.3
Heart murmurs . . . . .	3,560	17.1	15.9	18.5	21.1	2.1	6.6	97.6
Other and unspecified heart rhythm disorders . . . . .	1,520	7.3	2.2	8.8	31.1	16.4	22.4	96.3
Congenital heart disease . . . . .	666	3.2	2.7	3.3	5.6	18.5	49.1	98.9
Other selected diseases of heart (excludes hypertension) . . . . .	3,551	17.1	4.1	23.9	73.7	46.3	52.0	99.0
Rheumatic fever with or without heart disease . . . . .	1,844	8.9	5.7	16.9	13.2	15.0	29.9	99.6
High blood pressure (hypertension) . . . .	22,810	109.5	30.1	215.7	359.6	8.9	7.0	99.1
Cerebrovascular disease . . . . .	2,549	12.2	1.1	15.4	65.2	33.3	69.5	99.5
Hardening of arteries . . . . .	1,939	9.3	*0.2	12.3	51.6	9.7	39.0	96.3
Aneurysm . . . . .	189	0.9	*0.0	1.9	4.0	*17.5	63.5	100.0
Phlebitis, thrombophlebitis . . . . .	648	3.1	1.1	5.0	10.9	17.0	47.1	97.8
Varicose veins of lower extremities . . . .	6,764	32.5	17.1	55.7	77.0	2.0	9.3	60.3
Hemorrhoids . . . . .	8,459	40.6	26.4	74.0	63.7	*0.4	6.0	67.2
Poor circulation . . . . .	872	4.2	0.9	5.6	18.9	28.1	19.6	93.0

\* Figure does not meet standard of reliability or precision.

0.0 Quantity more than zero but less than 0.05.



**Table 5. Average annual number of selected chronic circulatory conditions among black persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic circulatory conditions	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons				Percent		
Heart disease . . . . .	2,062	66.7	31.3	134.7	261.4	29.4	38.5	97.9
Ischemic heart disease . . . . .	514	16.6	*1.8	49.2	90.9	43.0	77.0	98.2
Heart rhythm disorders . . . . .	952	30.8	24.6	42.4	65.5	6.4	14.0	96.5
Tachycardia or rapid heart . . . . .	184	6.0	*2.3	15.6	21.5	*10.3	*20.7	92.4
Heart murmurs . . . . .	627	20.3	19.8	20.1	25.4	*3.3	11.2	97.6
Other and unspecified heart rhythm disorders . . . . .	141	4.6	2.5	*7.0	*18.7	*14.9	*17.7	97.2
Congenital heart disease . . . . .	60	1.9	*1.5	*0.8	*7.8	*16.7	*45.0	100.0
Other selected diseases of heart (excludes hypertension) . . . . .	535	17.3	3.4	42.4	97.2	58.9	44.5	100.0
Rheumatic fever with or without heart disease . . . . .	128	4.1	*2.3	*9.4	*11.3	*20.3	43.0	99.2
High blood pressure (hypertension) . . . . .	4,181	135.3	52.4	365.9	455.3	19.8	12.6	99.4
Cerebrovascular disease . . . . .	405	13.1	*1.2	31.2	87.8	54.6	73.1	100.0
Hardening of arteries . . . . .	103	3.3	*0.3	*6.8	23.8	*5.8	*27.2	94.2
Aneurysm . . . . .	*32	*1.0	*0.3	*1.2	*7.0	*6.3	*46.9	*100.0
Phlebitis, thrombophlebitis . . . . .	75	2.4	*1.3	*2.7	*12.9	*20.0	*54.7	100.0
Varicose veins of lower extremities . . . . .	533	17.2	9.1	36.5	54.6	*3.9	*3.8	58.9
Hemorrhoids . . . . .	776	25.1	16.7	49.6	55.4	*0.5	*4.6	68.7
Poor circulation . . . . .	104	3.4	*0.6	*9.0	*17.6	*25.0	*19.2	90.4

\* Figure does not meet standard of reliability or precision.

**Table 6. Average annual number of selected chronic circulatory conditions and rates per 1,000 persons, by family income: United States, 1990–92**

[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 are given in [appendix II](#)]

Chronic circulatory conditions	Family income									
	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more
	Number in thousands					Rate per 1,000 persons				
Heart disease . . . . .	20,489	3,194	4,208	4,099	5,107	82.4	131.8	108.7	78.1	57.0
Ischemic heart disease . . . . .	7,732	1,081	1,701	1,478	1,737	31.1	44.6	43.9	28.2	19.4
Heart rhythm disorders . . . . .	7,868	1,154	1,434	1,668	2,424	31.6	47.6	37.0	31.8	27.0
Tachycardia or rapid heart . . . . .	1,911	367	366	334	534	7.7	15.1	9.5	6.4	6.0
Heart murmurs . . . . .	4,276	452	709	993	1,527	17.2	18.7	18.3	18.9	17.0
Other and unspecified heart rhythm disorders . . . . .	1,681	335	359	342	363	6.8	13.8	9.3	6.5	4.0
Congenital heart disease . . . . .	741	86	127	169	273	3.0	3.5	3.3	3.2	3.0
Other selected diseases of heart (excludes hypertension) . . . . .	4,148	872	947	785	673	16.7	36.0	24.5	15.0	7.5
Rheumatic fever with or without heart disease . . . . .	2,029	232	348	341	814	8.2	9.6	9.0	6.5	9.1
High blood pressure (hypertension) . . . .	27,600	3,927	5,442	5,577	7,306	111.0	162.1	140.6	106.2	81.5
Cerebrovascular disease . . . . .	3,002	601	666	558	476	12.1	24.8	17.2	10.6	5.3
Hardening of arteries . . . . .	2,074	395	492	403	390	8.3	16.3	12.7	7.7	4.4
Aneurysm . . . . .	226	*33	*45	*42	64	0.9	*1.4	*1.2	*0.8	*0.7
Phlebitis, thrombophlebitis . . . . .	727	162	147	159	158	2.9	6.7	3.8	3.0	1.8
Varicose veins of lower extremities . . . .	7,403	912	1,255	1,683	2,291	29.8	37.6	32.4	32.1	25.6
Hemorrhoids . . . . .	9,441	1,122	1,422	2,041	3,555	38.0	46.3	36.7	38.9	39.7
Poor circulation . . . . .	980	254	225	153	166	3.9	10.5	5.8	2.9	1.9

<sup>1</sup>Includes unknown family income.

\* Figure does not meet standard of reliability or precision.

**Table 7. Average annual number of selected chronic circulatory conditions and rates per 1,000 persons, by geographic region: United States, 1990–92**

[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](#)]

Chronic circulatory conditions	Geographic region									
	All regions	Northeast	Midwest	South	West	All regions	Northeast	Midwest	South	West
	Number in thousands					Rate per 1,000 persons				
Heart disease . . . . .	20,489	4,116	5,296	7,438	3,639	82.4	82.2	87.8	88.3	67.2
Ischemic heart disease . . . . .	7,732	1,645	1,908	2,992	1,187	31.1	32.9	31.6	35.5	21.9
Heart rhythm disorders . . . . .	7,868	1,618	2,105	2,564	1,581	31.6	32.3	34.9	30.4	29.2
Tachycardia or rapid heart . . . . .	1,911	364	539	666	343	7.7	7.3	8.9	7.9	6.3
Heart murmurs . . . . .	4,276	921	1,078	1,358	919	17.2	18.4	17.9	16.1	17.0
Other and unspecified heart rhythm disorders . . . . .	1,681	333	488	540	320	6.8	6.7	8.1	6.4	5.9
Congenital heart disease . . . . .	741	135	247	209	150	3.0	2.7	4.1	2.5	2.8
Other selected diseases of heart (excludes hypertension) . . . . .	4,148	718	1,036	1,673	721	16.7	14.3	17.2	19.9	13.3
Rheumatic fever with or without heart disease . . . . .	2,029	415	569	651	394	8.2	8.3	9.4	7.7	7.3
High blood pressure (hypertension) . . . . .	27,600	5,296	7,272	10,223	4,809	111.0	105.8	120.5	121.4	88.8
Cerebrovascular disease . . . . .	3,002	466	798	1,225	513	12.1	9.3	13.2	14.5	9.5
Hardening of arteries . . . . .	2,074	372	554	802	345	8.3	7.4	9.2	9.5	6.4
Aneurysm . . . . .	226	*43	61	95	*27	0.9	*0.9	1.0	1.1	*0.5
Phlebitis, thrombophlebitis . . . . .	727	156	163	267	142	2.9	3.1	2.7	3.2	2.6
Varicose veins of lower extremities . . . . .	7,403	1,316	2,051	2,360	1,676	29.8	26.3	34.0	28.0	31.0
Hemorrhoids . . . . .	9,441	1,629	2,557	3,414	1,841	38.0	32.5	42.4	40.5	34.0
Poor circulation . . . . .	980	137	298	408	138	3.9	2.7	4.9	4.8	2.5

\* Figure does not meet standard of reliability or precision.

**Table 8. Average annual number of selected chronic respiratory conditions, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic respiratory conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Chronic bronchitis . . . . .	12,884	51.8	53.4	45.1	56.6	70.4	54.8	2.0	9.8	94.9
Emphysema . . . . .	1,861	7.5	*—	0.8	13.5	35.8	39.9	44.1	27.4	97.8
Asthma . . . . .	11,482	46.2	61.2	41.2	41.5	38.2	37.3	21.8	21.9	96.8
Hay fever or allergic rhinitis without asthma . . . . .	24,060	96.7	64.3	121.1	101.4	79.8	66.7	1.4	1.7	71.2
Nasal polyps . . . . .	805	3.2	1.4	3.0	5.3	5.2	4.5	*0.4	16.5	88.9
Chronic sinusitis . . . . .	33,736	135.6	62.0	157.1	180.3	156.2	140.8	0.5	2.5	70.9
Deviated nasal septum . . . . .	1,646	6.6	0.9	8.4	9.5	8.7	7.0	*0.2	11.7	95.2
Chronic disease of tonsils and adenoids . . . . .	2,836	11.4	24.9	9.7	2.9	2.2	*0.6	*0.4	12.1	94.2
Chronic laryngitis . . . . .	1,508	6.1	2.2	7.1	7.2	10.3	6.5	*—	*3.4	68.2
Pleurisy . . . . .	690	2.8	*0.2	2.9	4.7	5.2	*4.4	*1.6	10.7	86.7
Pneumoconiosis and asbestosis . . . . .	324	1.3	*0.1	0.8	2.2	4.9	*3.7	26.2	*12.3	84.0
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	218	0.9	*—	*0.1	1.9	4.0	*3.6	60.6	71.6	100.0
Other diseases of the lung . . . . .	1,141	4.6	3.7	2.8	5.9	8.8	13.5	16.2	31.2	99.6

<sup>1</sup>Includes races other than white and black and unknown family income.

\*— Figure does not meet standard of reliability or precision and quantity zero.

\* Figure does not meet standard of reliability or precision.

**Table 9. Average annual number of selected chronic respiratory conditions among males, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic respiratory conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Chronic bronchitis . . . . .	5,124	42.4	57.7	30.4	39.0	65.0	43.6	2.3	9.4	94.5
Emphysema . . . . .	1,165	9.6	*—	*0.8	17.7	55.9	59.5	44.8	27.9	98.5
Asthma . . . . .	5,331	44.1	72.3	34.2	31.6	30.6	36.7	21.4	22.1	96.1
Hay fever or allergic rhinitis without asthma . . . . .	11,150	92.3	63.6	116.8	92.5	69.3	65.9	1.3	2.0	67.7
Nasal polyps . . . . .	427	3.5	*1.5	3.8	5.8	*3.8	*4.5	*—	19.4	92.5
Chronic sinusitis . . . . .	13,833	114.6	60.7	129.7	154.5	125.3	120.3	0.5	2.5	67.5
Deviated nasal septum . . . . .	931	7.7	*1.3	8.8	13.2	12.2	*7.4	*0.4	11.7	94.5
Chronic disease of tonsils and adenoids . . . . .	1,086	9.0	20.5	6.7	*1.5	*2.1	*—	*0.4	13.5	92.9
Chronic laryngitis . . . . .	333	2.8	1.7	2.7	3.9	*4.5	*2.5	*—	*5.7	63.7
Pleurisy . . . . .	212	1.8	*0.3	1.3	3.9	*3.1	*4.9	*1.9	*16.5	78.8
Pneumoconiosis and asbestosis . . . . .	306	2.5	*—	1.6	4.4	9.8	*9.8	26.5	*12.4	83.0
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	144	1.2	*—	*0.2	2.5	*6.2	*6.3	62.5	83.3	100.0
Other diseases of the lung . . . . .	571	4.7	4.0	2.8	6.5	8.8	16.5	16.8	32.6	99.3

<sup>1</sup>Includes races other than white and black and unknown family income.

\*— Figure does not meet standard of reliability or precision and quantity zero.

\* Figure does not meet standard of reliability or precision.

**Table 10. Average annual number of selected chronic respiratory conditions among females, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic respiratory conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Chronic bronchitis . . . . .	7,760	60.6	48.8	59.3	72.7	74.8	61.4	1.7	10.1	95.2
Emphysema . . . . .	696	5.4	*—	*0.9	9.7	19.6	28.3	42.8	26.6	96.6
Asthma . . . . .	6,151	48.1	49.7	48.0	50.6	44.3	37.7	22.2	21.7	97.4
Hay fever or allergic rhinitis without asthma . . . . .	12,910	100.9	65.1	125.3	109.6	88.3	67.1	1.4	1.4	74.3
Nasal polyps . . . . .	378	3.0	*1.3	2.2	4.9	6.3	*4.7	*0.8	*13.2	84.9
Chronic sinusitis . . . . .	19,902	155.5	63.3	183.6	204.1	181.3	153.0	0.5	2.4	73.3
Deviated nasal septum . . . . .	714	5.6	*0.6	8.1	6.1	5.9	*6.8	*—	11.8	96.2
Chronic disease of tonsils and adenoids . . . . .	1,750	13.7	29.5	12.5	4.2	*2.3	*0.9	*0.5	11.2	95.0
Chronic laryngitis . . . . .	1,174	9.2	2.7	11.5	10.3	14.9	8.9	*—	*2.8	69.4
Pleurisy . . . . .	478	3.7	*0.1	4.4	5.5	7.0	*4.1	*1.5	*8.2	90.2
Pneumoconiosis and asbestosis . . . . .	*18	*0.1	*0.1	*—	*0.2	*0.9	*—	*22.2	*11.1	*100.0
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	74	0.6	*—	*0.1	*1.3	*2.3	*2.0	*56.8	*48.6	100.0
Other diseases of the lung . . . . .	570	4.5	3.3	2.8	5.4	8.8	11.7	15.6	29.8	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\*— Figure does not meet standard of reliability or precision and quantity zero.

\* Figure does not meet standard of reliability or precision.

**Table 11. Average annual number of selected chronic respiratory conditions among white persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic respiratory condition	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons				Percent		
Chronic bronchitis . . . . .	11,464	55.0	51.8	58.1	67.3	1.8	9.3	94.8
Emphysema . . . . .	1,746	8.4	0.6	14.5	39.5	44.4	27.5	97.7
Asthma . . . . .	9,511	45.7	48.4	42.2	36.9	20.2	20.7	97.1
Hay fever or allergic rhinitis without asthma . .	21,132	101.5	106.2	102.4	75.6	1.3	1.6	70.8
Nasal polyps . . . . .	678	3.3	2.5	5.2	4.5	*0.4	18.9	89.8
Chronic sinusitis . . . . .	29,116	139.8	124.6	183.8	152.2	0.4	2.5	71.1
Deviated nasal septum . . . . .	1,576	7.6	6.3	10.9	9.0	*0.3	11.9	95.5
Chronic disease of tonsils and adenoids . . .	2,488	11.9	16.6	3.0	*1.5	*0.5	11.0	94.5
Chronic laryngitis . . . . .	1,394	6.7	5.9	7.8	9.1	—	*3.2	69.0
Pleurisy . . . . .	636	3.1	2.1	5.0	5.1	*1.7	10.2	86.6
Pneumoconiosis and asbestosis . . . . .	297	1.4	0.6	2.4	4.3	26.6	*11.4	84.2
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	205	1.0	*0.1	2.1	4.0	61.5	70.2	100.0
Other diseases of the lung . . . . .	1,045	5.0	3.6	6.1	10.8	15.4	29.2	100.0

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 12. Average annual number of selected chronic respiratory conditions among black persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic respiratory conditions	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons				Percent		
Chronic bronchitis . . . . .	1,176	38.0	34.6	53.5	39.8	*4.3	15.9	95.7
Emphysema . . . . .	93	3.0	*0.2	*7.4	*20.7	*44.1	*28.0	100.0
Asthma . . . . .	1,648	53.3	56.3	42.6	46.0	30.3	29.0	96.1
Hay fever or allergic rhinitis without asthma . .	2,108	68.2	64.8	88.5	60.5	*1.9	*1.8	78.6
Nasal polyps . . . . .	96	3.1	*1.9	*7.0	*7.0	—	—	89.6
Chronic sinusitis . . . . .	3,975	128.6	116.3	183.8	136.2	*1.0	2.3	69.5
Deviated nasal septum . . . . .	*42	*1.4	*1.7	*0.6	—	—	*11.9	*100.0
Chronic disease of tonsils and adenoids . . .	309	10.0	12.2	*3.3	*2.3	—	18.8	94.2
Chronic laryngitis . . . . .	101	3.3	2.7	*4.7	*5.9	—	*5.9	61.4
Pleurisy . . . . .	*46	*1.5	*1.0	*3.3	*2.7	—	*8.7	*84.8
Pneumoconiosis and asbestosis . . . . .	*18	*0.6	—	*0.6	*5.9	*33.3	*33.3	*100.0
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	*9	*0.3	—	*0.8	*2.0	*33.3	*100.0	*100.0
Other diseases of the lung . . . . .	76	2.5	*1.2	*5.5	*9.0	*25.0	*47.4	94.7

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 13. Average annual number of selected chronic respiratory conditions and rates per 1,000 persons, by family income: United States, 1990–92**

[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](#)]

Chronic respiratory conditions	Family income									
	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more	All income	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more
	Number in thousands					Rate per 1,000 persons				
Chronic bronchitis . . . . .	12,884	1,554	2,094	2,685	4,611	51.8	64.1	54.1	51.2	51.4
Emphysema . . . . .	1,861	319	525	261	326	7.5	13.2	13.6	5.0	3.6
Asthma . . . . .	11,482	1,601	1,888	2,147	4,085	46.2	66.1	48.8	40.9	45.6
Hay fever or allergic rhinitis without asthma . .	24,060	1,752	3,158	4,804	11,241	96.7	72.3	81.6	91.5	125.4
Nasal polyps . . . . .	805	94	138	190	243	3.2	3.9	3.6	3.6	2.7
Chronic sinusitis . . . . .	33,736	3,609	5,545	7,558	11,613	135.6	148.9	143.2	144.0	129.6
Deviated nasal septum . . . . .	1,646	109	175	335	864	6.6	4.5	4.5	6.4	9.6
Chronic disease of tonsils and adenoids . . . .	2,836	431	478	556	1,014	11.4	17.8	12.3	10.6	11.3
Chronic laryngitis . . . . .	1,508	138	255	307	560	6.1	5.7	6.6	5.8	6.2
Pleurisy . . . . .	690	111	159	140	169	2.8	4.6	4.1	2.7	1.9
Pneumoconiosis and asbestosis . . . . .	324	*22	100	86	62	1.3	*0.9	2.6	1.6	0.7
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	218	*16	70	*39	56	0.9	*0.7	1.8	*0.7	0.6
Other diseases of the lung . . . . .	1,141	179	205	277	292	4.6	7.4	5.3	5.3	3.3

<sup>1</sup>Includes unknown family income.

\* Figure does not meet standard of reliability or precision.

**Table 14. Average annual number of selected chronic respiratory conditions and rates per 1,000 persons, by geographic region: United States, 1990–92**

[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](#)]

Chronic respiratory conditions	Geographic region									
	All regions	Northeast	Midwest	South	West	All regions	Northeast	Midwest	South	West
	Number in thousands					Rate per 1,000 persons				
Chronic bronchitis . . . . .	12,884	2,475	3,444	4,331	2,635	51.8	49.4	57.1	51.4	48.7
Emphysema . . . . .	1,861	343	431	761	326	7.5	6.9	7.1	9.0	6.0
Asthma . . . . .	11,482	2,272	2,772	3,721	2,717	46.2	45.4	45.9	44.2	50.2
Hay fever or allergic rhinitis without asthma . .	24,060	4,234	4,948	8,556	6,323	96.7	84.6	82.0	101.6	116.8
Nasal polyps . . . . .	805	132	165	266	241	3.2	2.6	2.7	3.2	4.5
Chronic sinusitis . . . . .	33,736	4,710	9,487	14,754	4,784	135.6	94.1	157.2	175.2	88.4
Deviated nasal septum . . . . .	1,646	428	419	425	374	6.6	8.5	6.9	5.0	6.9
Chronic disease of tonsils and adenoids . . . .	2,836	377	871	1,010	579	11.4	7.5	14.4	12.0	10.7
Chronic laryngitis . . . . .	1,508	208	403	564	333	6.1	4.2	6.7	6.7	6.2
Pleurisy . . . . .	690	77	235	283	96	2.8	1.5	3.9	3.4	1.8
Pneumoconiosis and asbestosis . . . . .	324	77	60	130	57	1.3	1.5	1.0	1.5	1.1
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	218	*35	*52	83	*47	0.9	*0.7	*0.9	1.0	*0.9
Other diseases of the lung . . . . .	1,141	214	307	383	236	4.6	4.3	5.1	4.5	4.4

\* Figure does not meet standard of reliability or precision.

**Table 15. Average annual number of selected chronic digestive conditions, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic digestive conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Gallbladder stones . . . . .	1,068	4.3	*0.2	3.4	7.8	12.2	8.8	11.0	54.9	99.1
Liver diseases including cirrhosis . . . . .	766	3.1	0.9	2.7	5.7	4.7	5.2	17.0	26.9	97.4
Ulcer, gastric, duodenal and/or peptic. . . . .	4,201	16.9	1.0	18.1	27.1	31.3	30.9	7.8	26.5	97.3
Gastric ulcer. . . . .	3,121	12.5	0.9	14.1	20.2	19.9	20.9	7.7	25.1	96.8
Duodenal ulcer . . . . .	613	2.5	*0.1	2.0	4.0	7.3	6.2	10.4	29.5	100.0
Peptic ulcer . . . . .	468	1.9	*0.1	2.0	2.9	4.1	*3.8	*5.3	32.1	97.2
Hernia of abdominal cavity . . . . .	4,768	19.2	3.4	10.1	35.5	55.0	66.3	9.8	21.5	96.8
Disease of the esophagus. . . . .	834	3.4	*0.6	2.7	6.1	5.7	9.7	*5.4	27.7	97.6
Gastritis and duodenitis . . . . .	3,003	12.1	2.4	12.0	19.3	23.1	20.8	*1.0	12.8	88.4
Indigestion and other functional disorders of the stomach and digestive system . . . . .	6,437	25.9	2.9	28.3	38.3	48.2	47.6	1.1	5.8	64.1
Enteritis and colitis . . . . .	2,333	9.4	2.7	9.4	12.8	17.4	20.1	6.9	20.6	85.6
Spastic colon. . . . .	1,686	6.8	*0.4	7.5	11.3	11.5	10.2	*2.7	13.3	94.7
Diverticula of intestines . . . . .	1,999	8.0	*0.0	1.8	12.3	42.2	37.9	4.3	27.9	97.7
Constipation . . . . .	4,302	17.3	6.5	13.1	18.1	36.4	80.7	*0.7	3.8	69.4
Other stomach and intestinal disorders. . . . .	2,060	8.3	2.6	7.2	11.9	17.6	20.5	8.9	16.1	85.4
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	322	1.3	*—	*0.2	2.2	6.5	6.2	62.1	67.7	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

0.0 Quantity more than zero but less than 0.05.

**Table 16. Average annual number of selected chronic digestive conditions among males, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic digestive conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Gallbladder stones . . . . .	308	2.6	*0.2	1.4	4.9	9.0	*9.2	*11.0	49.4	98.1
Liver diseases including cirrhosis . . . . .	406	3.4	*0.9	3.3	6.1	*4.4	*6.9	23.2	22.2	96.1
Ulcer, gastric, duodenal and/or peptic. . . . .	1,967	16.3	*1.1	16.9	26.6	34.2	37.6	9.0	29.0	97.1
Gastric ulcer. . . . .	1,474	12.2	*0.9	13.0	20.8	21.4	27.9	9.5	28.3	97.0
Duodenal ulcer . . . . .	281	2.3	*0.1	1.9	3.8	8.3	*5.1	*7.5	34.9	100.0
Peptic ulcer . . . . .	212	1.8	*0.1	2.0	*2.1	*4.5	*4.7	*7.1	25.9	93.9
Hernia of abdominal cavity . . . . .	2,347	19.4	4.8	11.4	38.5	52.0	66.6	9.8	26.6	96.5
Disease of the esophagus. . . . .	399	3.3	*0.7	2.6	6.7	*5.1	*11.2	*4.5	23.8	99.2
Gastritis and duodenitis . . . . .	1,154	9.6	2.1	10.5	14.1	14.9	20.8	*0.6	13.4	84.8
Indigestion and other functional disorders of the stomach and digestive system . . . . .	3,086	25.6	2.1	29.7	38.5	43.2	55.7	*1.0	4.7	59.6
Enteritis and colitis . . . . .	817	6.8	2.6	6.9	9.3	14.3	*9.6	7.2	20.1	82.6
Spastic colon. . . . .	295	2.4	*0.2	2.9	3.1	*5.3	*4.7	*0.3	*9.2	90.2
Diverticula of intestines . . . . .	591	4.9	*0.1	1.5	6.8	35.2	15.4	*4.4	30.1	97.8
Constipation . . . . .	1,099	9.1	6.5	4.5	8.8	24.0	55.7	*1.9	*3.3	71.6
Other stomach and intestinal disorders. . . . .	815	6.7	3.1	5.9	9.5	15.5	13.2	10.4	14.0	81.5
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	146	1.2	*—	*0.2	*2.2	7.0	*7.2	65.1	63.7	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.



**Table 17. Average annual number of selected chronic digestive conditions among females, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic digestive conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Gallbladder stones . . . . .	760	5.9	*0.2	5.2	10.5	14.8	8.6	10.9	57.1	99.5
Liver diseases including cirrhosis . . . . .	360	2.8	*1.0	2.1	5.4	*4.9	*4.1	*10.0	32.2	98.9
Ulcer, gastric, duodenal and/or peptic. . . . .	2,235	17.5	*1.0	19.2	27.5	28.9	26.8	6.8	24.3	97.4
Gastric ulcer. . . . .	1,647	12.9	*0.8	15.3	19.6	18.7	16.9	6.0	22.2	96.6
Duodenal ulcer . . . . .	332	2.6	*0.1	2.0	4.3	6.4	*6.8	*12.7	25.0	100.0
Peptic ulcer . . . . .	256	2.0	*—	1.9	3.6	*3.8	*3.3	*3.9	37.1	100.0
Hernia of abdominal cavity . . . . .	2,421	18.9	2.0	8.8	32.7	57.4	66.0	9.8	16.6	97.1
Disease of the esophagus. . . . .	435	3.4	*0.6	2.8	5.6	6.2	8.8	*6.4	31.5	96.1
Gastritis and duodenitis . . . . .	1,849	14.4	2.6	13.3	24.1	29.6	20.7	*1.3	12.4	90.6
Indigestion and other functional disorders of the stomach and digestive system . . . . .	3,351	26.2	3.7	26.8	38.2	52.2	42.9	*1.2	6.8	68.3
Enteritis and colitis . . . . .	1,517	11.9	2.9	11.7	16.1	19.9	26.4	6.7	20.9	87.1
Spastic colon. . . . .	1,391	10.9	*0.6	11.8	18.9	16.6	13.6	*3.2	14.2	95.8
Diverticula of intestines . . . . .	1,407	11.0	*—	2.0	17.4	47.8	51.3	4.2	26.9	97.8
Constipation . . . . .	3,203	25.0	6.5	21.4	26.6	46.4	95.4	*0.2	4.0	68.7
Other stomach and intestinal disorders. . . . .	1,245	9.7	2.1	8.3	14.2	19.3	24.7	8.0	17.4	88.0
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	175	1.4	*—	*0.3	2.3	6.1	*5.6	60.0	71.4	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 18. Average annual number of selected chronic digestive conditions among white persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic digestive conditions	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons				Percent		
Gallbladder stones . . . . .	929	4.5	2.2	7.7	11.0	9.7	53.8	98.9
Liver diseases including cirrhosis . . . . .	682	3.3	2.0	6.2	5.2	17.4	26.5	97.7
Ulcer, gastric, duodenal and/or peptic. . . . .	3,580	17.2	12.1	25.7	30.4	7.2	26.8	97.6
Gastric ulcer. . . . .	2,600	12.5	9.3	18.9	19.2	7.1	25.0	97.2
Duodenal ulcer . . . . .	575	2.8	1.4	4.2	7.4	*9.4	31.1	100.0
Peptic ulcer . . . . .	405	1.9	1.4	2.6	3.8	*4.9	32.3	96.8
Hernia of abdominal cavity . . . . .	4,422	21.2	8.0	38.8	63.3	9.0	20.8	96.7
Disease of the esophagus. . . . .	795	3.8	2.2	6.7	7.9	*5.7	26.8	97.5
Gastritis and duodenitis . . . . .	2,604	12.5	8.5	19.9	22.1	*0.8	13.7	88.0
Indigestion and other functional disorders of the stomach and digestive system. . . . .	5,726	27.5	20.1	38.8	48.4	1.0	5.6	64.8
Enteritis and colitis . . . . .	2,195	10.5	7.7	14.2	19.4	6.8	20.3	87.2
Spastic colon. . . . .	1,622	7.8	5.6	12.2	12.2	*2.7	13.2	94.9
Diverticula of intestines . . . . .	1,928	9.3	1.3	13.4	44.1	4.2	27.5	97.8
Constipation . . . . .	3,556	17.1	10.3	16.7	52.5	*0.6	4.0	70.8
Other stomach and intestinal disorders. . . . .	1,814	8.7	5.8	12.4	18.3	8.9	16.3	85.0
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	287	1.4	*0.1	2.1	6.7	60.6	66.6	100.0

\* Figure does not meet standard of reliability or precision.

**Table 19. Average annual number of selected chronic digestive conditions among black persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic digestive conditions	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons				Percent		
Gallbladder stones . . . . .	93	3.0	*1.8	*5.9	*9.0	*23.7	69.9	100.0
Liver diseases including cirrhosis . . . . .	61	2.0	*1.9	*2.9	*0.8	*18.0	*41.0	100.0
Ulcer, gastric, duodenal and/or peptic. . . . .	495	16.0	8.8	37.1	42.5	12.3	25.5	99.2
Gastric ulcer. . . . .	415	13.4	7.8	30.5	33.2	*12.0	25.3	99.3
Duodenal ulcer . . . . .	*21	*0.7	*0.5	*0.6	*2.3	*28.6	*9.5	*100.0
Peptic ulcer . . . . .	59	1.9	*0.5	*5.9	*7.0	*8.5	*32.2	100.0
Hernia of abdominal cavity . . . . .	310	10.0	6.6	17.0	28.1	19.7	31.3	97.1
Disease of the esophagus. . . . .	*34	*1.1	*0.7	*2.9	*2.0	—	*52.9	*100.0
Gastritis and duodenitis . . . . .	350	11.3	8.5	18.0	24.2	*2.9	*8.0	91.1
Indigestion and other functional disorders of the stomach and digestive system . . . . .	571	18.5	11.4	39.1	43.7	*2.3	*8.1	62.9
Enteritis and colitis . . . . .	91	2.9	2.5	*3.1	*7.0	*12.1	*35.2	68.1
Spastic colon. . . . .	*45	*1.5	*0.9	*4.5	*0.8	*4.4	*15.6	*95.6
Diverticula of intestines . . . . .	71	2.3	*0.3	*7.0	*10.9	*5.6	*36.6	97.2
Constipation . . . . .	646	20.9	13.9	28.9	70.2	*0.9	*2.5	62.7
Other stomach and intestinal disorders. . . . .	223	7.2	4.1	11.5	27.7	*9.9	*16.1	87.4
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	*35	*1.1	*0.2	*3.9	*4.3	*74.3	*77.1	*100.0

\* Figure does not meet standard of reliability or precision.

— Figure does not meet standard of reliability or precision and quantity zero.

**Table 20. Average annual number of selected chronic digestive conditions and rates per 1,000 persons, by family income: United States, 1990–92**

[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](#)]

Chronic digestive conditions	Family income									
	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more
	Number in thousands					Rate per 1,000 persons				
Gallbladder stones . . . . .	1,068	114	271	185	326	4.3	4.7	7.0	3.5	3.6
Liver diseases including cirrhosis . . . . .	766	192	127	142	153	3.1	7.9	3.3	2.7	1.7
Ulcer, gastric, duodenal and/or peptic. . . . .	4,201	757	898	928	911	16.9	31.2	23.2	17.7	10.2
Gastric ulcer. . . . .	3,121	573	676	699	617	12.5	23.6	17.5	13.3	6.9
Duodenal ulcer . . . . .	613	90	116	137	191	2.5	3.7	3.0	2.6	2.1
Peptic ulcer . . . . .	468	93	107	92	103	1.9	3.8	2.8	1.8	1.1
Hernia of abdominal cavity . . . . .	4,768	660	872	1,066	1,344	19.2	27.2	22.5	20.3	15.0
Disease of the esophagus. . . . .	834	96	115	203	321	3.4	4.0	3.0	3.9	3.6
Gastritis and duodenitis . . . . .	3,003	462	481	612	996	12.1	19.1	12.4	11.7	11.1
Indigestion and other functional disorders of the stomach and digestive system . . . . .	6,437	864	1,214	1,427	2,094	25.9	35.7	31.4	27.2	23.4
Enteritis and colitis . . . . .	2,333	316	374	467	836	9.4	13.0	9.7	8.9	9.3
Spastic colon. . . . .	1,686	207	259	335	651	6.8	8.5	6.7	6.4	7.3
Diverticula of intestines . . . . .	1,999	284	429	408	479	8.0	11.7	11.1	7.8	5.3
Constipation . . . . .	4,302	846	897	899	962	17.3	34.9	23.2	17.1	10.7
Other stomach and intestinal disorders. . . . .	2,060	348	376	440	557	8.3	14.4	9.7	8.4	6.2
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	322	63	76	59	65	1.3	*2.6	2.0	*1.1	0.7

<sup>1</sup>Includes unknown family income.

\* Figure does not meet standard of reliability or precision.

**Table 21. Average annual number of selected chronic digestive conditions and rates per 1,000 persons, by geographic region: United States, 1990–92**

[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](#)]

Chronic digestive conditions	Geographic region									
	All regions	Northeast	Midwest	South	West	All regions	Northeast	Midwest	South	West
	Number in thousands					Rate per 1,000 persons				
Gallbladder stones . . . . .	1,068	228	249	365	226	4.3	4.6	4.1	4.3	4.2
Liver diseases including cirrhosis . . . . .	766	133	161	276	196	3.1	2.7	2.7	3.3	3.6
Ulcer, gastric, duodenal and/or peptic. . . . .	4,201	625	1,024	1,706	847	16.9	12.5	17.0	20.3	15.6
Gastric ulcer. . . . .	3,121	449	767	1,301	604	12.5	9.0	12.7	15.4	11.2
Duodenal ulcer . . . . .	613	104	167	197	145	2.5	2.1	2.8	2.3	2.7
Peptic ulcer . . . . .	468	72	90	208	98	1.9	1.4	1.5	2.5	1.8
Hernia of abdominal cavity . . . . .	4,768	848	1,088	2,071	762	19.2	16.9	18.0	24.6	14.1
Disease of the esophagus. . . . .	834	147	229	359	98	3.4	2.9	3.8	4.3	1.8
Gastritis and duodenitis . . . . .	3,003	579	802	1,009	613	12.1	11.6	13.3	12.0	11.3
Indigestion and other functional disorders of the stomach and digestive system . . . . .	6,437	863	1,663	2,583	1,328	25.9	17.2	27.6	30.7	24.5
Enteritis and colitis . . . . .	2,333	530	569	723	511	9.4	10.6	9.4	8.6	9.4
Spastic colon. . . . .	1,686	329	420	592	344	6.8	6.6	7.0	7.0	6.4
Diverticula of intestines . . . . .	1,999	349	433	877	339	8.0	7.0	7.2	10.4	6.3
Constipation . . . . .	4,302	691	984	1,706	921	17.3	13.8	16.3	20.3	17.0
Other stomach and intestinal disorders. . . . .	2,060	403	519	717	421	8.3	8.0	8.6	8.5	7.8
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	322	79	73	106	64	1.3	1.6	1.2	1.3	1.2

**Table 22. Average annual number of selected impairments and of chronic conditions of the nervous system and sense organs, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92—Con.**

[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](#)]

Impairment and chronic condition of the nervous system and sense organs	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Impairment		Rate per 1,000 persons						Percent		
Blindness and other visual impairments . . . . .	8,169	32.8	8.2	29.2	45.0	59.8	110.6	15.8	14.9	82.7
Blind, both eyes . . . . .	551	2.2	*0.5	1.5	2.3	3.3	16.1	60.3	22.3	98.2
Other visual impairments . . . . .	7,618	30.6	7.7	27.7	42.8	56.5	94.4	12.6	14.3	81.6
Deafness and other hearing impairments . . . . .	23,266	93.5	17.3	50.7	148.6	262.6	410.3	5.5	6.1	74.8
Deaf, both ears . . . . .	1,465	5.9	*0.9	1.8	7.4	17.7	45.0	14.5	8.2	90.9
Other hearing impairments . . . . .	21,801	87.6	16.4	48.9	141.3	244.9	365.3	4.9	6.0	73.7
Speech impairments . . . . .	2,725	11.0	17.3	7.9	7.9	10.4	15.9	20.4	5.4	69.4
Impairment of sensation . . . . .	1,142	4.6	*0.1	2.7	7.7	12.2	21.3	5.8	9.6	64.4
Mental retardation . . . . .	1,562	6.3	11.5	6.0	3.0	*0.6	*1.5	87.5	8.4	85.9
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	1,479	5.9	1.0	4.2	9.9	17.0	16.3	19.7	59.2	100.0
Absence of upper extremities or parts of upper extremities . . . . .	946	3.8	*0.7	3.0	6.0	9.7	9.8	12.4	52.3	100.0
Absence of lower extremities or parts of lower extremities . . . . .	533	2.1	*0.3	1.2	3.8	7.3	6.5	32.8	71.5	100.0
Absence of lung . . . . .	236	0.9	*—	*0.3	2.1	3.9	*2.6	*22.5	80.9	100.0
Absence of kidney . . . . .	556	2.2	*0.7	1.3	3.6	6.6	6.9	11.5	75.9	99.1
Absence of breast . . . . .	1,153	4.6	*—	0.7	8.2	18.8	28.5	*4.7	91.8	100.0
Absence of bone, joint, or muscle of extremity . . . . .	876	3.5	*0.2	2.0	4.4	11.4	19.8	32.0	66.1	99.1
Absence of tips of fingers or toes . . . . .	366	1.5	*0.2	1.4	2.3	4.1	*1.8	*5.7	29.5	100.0
Paralysis of extremities, complete or partial . . . . .	1,464	5.9	2.7	3.1	8.0	16.0	24.3	60.7	42.5	99.5
Paralysis of extremities, complete . . . . .	626	2.5	*0.6	1.2	4.6	6.5	10.8	54.5	53.8	100.0
Paralysis of extremities, partial . . . . .	838	3.4	2.2	1.9	3.4	9.5	13.4	65.5	34.0	99.2
Cerebral palsy . . . . .	258	1.0	2.0	1.0	*0.4	*—	*0.3	74.4	43.8	100.0
Paralysis of other site, complete or partial . . . . .	371	1.5	*0.6	0.8	2.5	*2.6	6.6	48.0	37.5	98.7
Deformities or orthopedic impairments, total . . . . .	34,964	140.6	30.7	161.7	195.4	203.5	242.2	25.2	18.6	90.4
Deformities or orthopedic impairments of back . . . . .	18,144	72.9	10.3	90.8	103.7	92.6	106.5	22.4	15.6	92.2
Curvature or other deformity of back or spine . . . . .	5,078	20.4	7.9	25.1	21.8	23.3	37.8	12.2	8.9	93.4
Deformities or orthopedic impairments of upper extremities . . . . .	3,846	15.5	2.1	16.2	23.5	29.3	29.0	30.0	26.1	94.2
Orthopedic impairment, shoulder . . . . .	2,919	11.7	1.2	13.1	18.6	18.8	19.2	36.4	24.6	94.6
Deformities or orthopedic impairments of lower extremities . . . . .	12,518	50.3	18.0	52.8	66.1	79.2	98.6	26.8	20.8	86.4
Flat feet . . . . .	3,698	14.9	10.0	15.7	18.6	17.9	15.0	*1.2	2.6	69.5
Other deformities or orthopedic impairment . . . . .	456	1.8	*0.4	1.8	2.1	*2.4	8.1	54.4	13.4	96.3
Cleft palate . . . . .	217	0.9	1.0	0.8	1.2	*0.7	*0.3	*3.2	63.1	95.4
Condition of nervous system and sense organs										
Glaucoma . . . . .	2,433	9.8	*0.4	2.1	12.2	43.3	67.7	13.4	10.5	99.8
Cataracts . . . . .	6,416	25.8	1.1	2.7	22.7	122.1	229.0	6.1	9.9	98.4
Color blindness . . . . .	2,697	10.8	4.0	12.7	15.0	13.7	11.8	*0.2	*—	58.0
Diseases of retina . . . . .	1,293	5.2	*0.4	2.0	4.8	18.7	40.9	28.9	20.7	99.8
Tinnitus . . . . .	7,144	28.7	1.8	16.8	54.6	91.6	82.5	0.8	1.5	69.2
Epilepsy . . . . .	1,243	5.0	4.4	5.6	5.0	3.9	4.6	44.4	47.8	98.9
Migraine headache . . . . .	9,992	40.2	13.2	57.2	51.6	22.9	19.1	3.4	7.7	81.8
Other headache (excluding tension headache) . . . . .	10,279	41.3	12.7	57.6	50.3	34.7	29.1	1.8	2.8	63.6
Multiple sclerosis . . . . .	180	0.7	*—	0.9	1.4	*0.9	*0.2	69.4	43.9	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 23. Average annual number of selected impairments and of chronic conditions of the nervous system and sense organs among males, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Impairment and chronic condition of the nervous system and sense organs	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Impairment		Rate per 1,000 persons						Percent		
Blindness and other visual impairments . . . . .	5,099	42.2	11.6	41.0	59.8	80.9	125.4	12.8	15.0	77.8
Blind, both eyes . . . . .	286	2.4	*0.5	2.0	2.6	*4.4	16.1	57.7	23.1	97.2
Other visual impairments . . . . .	4,813	39.9	11.1	39.1	57.2	76.5	109.3	10.1	14.5	76.7
Deafness and other hearing impairments . . . . .	13,205	109.4	20.5	62.5	197.8	334.4	456.4	4.8	5.3	75.0
Deaf, both ears . . . . .	843	7.0	*0.7	2.3	11.6	24.1	52.7	10.4	7.8	90.7
Other hearing impairments . . . . .	12,362	102.4	19.8	60.2	186.2	310.3	403.7	4.4	5.2	73.9
Speech impairments . . . . .	1,722	14.3	24.0	10.3	9.4	12.2	15.4	22.4	6.0	67.4
Impairment of sensation . . . . .	624	5.2	*0.1	3.3	8.9	15.2	27.7	*8.3	13.8	64.6
Mental retardation . . . . .	902	7.5	14.2	6.8	2.4	*0.7	*2.5	91.4	7.5	85.1
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	1,137	9.4	*1.0	7.0	16.0	31.2	26.6	19.3	60.7	100.0
Absence of upper extremities or parts of upper extremities . . . . .	786	6.5	*1.0	5.0	11.2	19.6	17.7	12.0	53.8	100.0
Absence of lower extremities or parts of lower extremities . . . . .	351	2.9	*0.1	2.0	4.8	11.6	*8.9	35.6	76.1	100.0
Absence of lung . . . . .	130	1.1	*—	*0.4	*2.3	*5.5	*2.7	*31.5	83.8	100.0
Absence of kidney . . . . .	215	1.8	*0.6	*0.9	2.7	7.0	*6.0	*12.6	76.7	100.0
Absence of breast . . . . .	*20	*0.2	*—	*—	*0.3	*0.5	*2.2	*—	*75.0	*100.0
Absence of bone, joint, or muscle of extremity . . . . .	375	3.1	*0.4	2.4	5.1	8.6	12.3	32.5	62.1	100.0
Absence of tips of fingers or toes . . . . .	319	2.6	*0.4	2.2	4.7	7.7	*4.9	*6.6	29.5	100.0
Paralysis of extremities, complete or partial . . . . .	785	6.5	3.1	3.8	10.5	18.2	21.9	64.2	44.3	99.6
Paralysis of extremities, complete . . . . .	364	3.0	*0.6	1.7	6.2	8.4	*11.4	59.3	56.9	100.0
Paralysis of extremities, partial . . . . .	421	3.5	2.5	2.1	4.4	9.9	*10.5	68.4	33.5	99.3
Cerebral palsy . . . . .	158	1.3	2.4	1.1	*0.8	*—	*—	74.7	39.9	100.0
Paralysis of other site, complete or partial . . . . .	198	1.6	*0.7	*0.8	3.3	*2.2	*9.2	55.1	34.3	100.0
Deformities or orthopedic impairments, total . . . . .	16,504	136.7	27.9	166.3	199.3	191.6	190.2	26.0	21.4	90.4
Deformities or orthopedic impairments of back . . . . .	7,825	64.8	8.0	82.8	98.6	86.1	70.6	23.8	17.7	91.7
Curvature or other deformity of back or spine . . . . .	1,547	12.8	5.6	16.2	15.1	14.5	12.7	12.8	9.4	92.4
Deformities or orthopedic impairments of upper extremities . . . . .	2,124	17.6	*1.2	20.5	27.4	32.3	30.0	29.7	31.7	94.4
Orthopedic impairment, shoulder . . . . .	1,578	13.1	*0.6	15.5	21.4	22.7	18.6	36.8	30.6	94.2
Deformities or orthopedic impairments of lower extremities . . . . .	6,298	52.2	18.0	60.7	71.1	70.8	78.7	26.6	22.9	87.5
Flat feet . . . . .	1,841	15.2	11.0	16.1	19.1	17.6	12.7	*1.0	*2.7	72.1
Other deformities or orthopedic impairment . . . . .	257	2.1	*0.7	2.2	*2.2	*2.3	*10.7	46.3	*14.0	93.4
Cleft palate . . . . .	142	1.2	*1.3	1.1	*1.5	*0.4	*0.9	*4.9	62.7	95.1
Condition of nervous system and sense organs										
Glaucoma . . . . .	1,103	9.1	*0.5	2.6	12.5	44.9	66.6	14.6	12.4	100.0
Cataracts . . . . .	2,148	17.8	*1.0	2.2	17.4	99.8	175.7	5.4	11.6	97.3
Color blindness . . . . .	2,425	20.1	7.4	22.7	28.9	27.3	26.4	*0.2	*—	58.6
Diseases of retina . . . . .	521	4.3	*0.4	2.0	4.9	17.6	33.8	34.7	25.7	100.0
Tinnitus . . . . .	3,687	30.5	2.1	17.2	64.3	105.3	90.1	*0.5	1.7	71.4
Epilepsy . . . . .	608	5.0	4.7	5.4	4.7	*4.5	*6.3	50.2	47.5	98.8
Migraine headache . . . . .	2,643	21.9	12.5	30.9	22.9	9.9	*4.7	3.1	7.0	75.9
Other headache (excluding tension headache) . . . . .	3,179	26.3	10.3	34.7	32.9	24.7	18.6	2.0	3.1	57.1
Multiple sclerosis . . . . .	68	0.6	*—	*0.7	*1.0	*1.0	*—	*55.9	*23.5	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 24. Average annual number of selected impairments and of chronic conditions of the nervous system and sense organs among females, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Impairment and chronic condition of the nervous system and sense organs	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Impairment										
Blindness and other visual impairments . . . . .	3,070	24.0	4.6	17.7	31.4	42.6	101.8	20.7	14.7	90.9
Blind, both eyes . . . . .	265	2.1	*0.5	1.1	*1.9	*2.3	16.2	63.0	21.9	99.2
Other visual impairments . . . . .	2,805	21.9	4.1	16.7	29.5	40.3	85.6	16.8	14.1	90.1
Deafness and other hearing impairments . . . . .	10,061	78.6	14.1	39.4	103.3	204.6	382.9	6.4	7.2	74.5
Deaf, both ears . . . . .	622	4.9	*1.2	1.3	3.4	12.6	40.3	19.9	*8.5	91.3
Other hearing impairments . . . . .	9,439	73.7	12.9	38.0	99.9	192.0	342.5	5.5	7.1	73.4
Speech impairments . . . . .	1,003	7.8	10.2	5.7	6.5	9.0	16.3	16.7	*4.4	72.8
Impairment of sensation . . . . .	518	4.0	*0.2	2.2	6.5	9.9	17.5	*2.7	*4.6	64.3
Mental retardation . . . . .	661	5.2	8.7	5.3	3.4	*0.5	*0.9	81.8	9.5	86.7
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	341	2.7	*1.0	1.4	4.2	5.5	10.1	21.1	54.5	100.0
Absence of upper extremities or parts of upper extremities . . . . .	160	1.3	*0.5	1.1	*1.3	*1.8	*5.0	*14.4	45.0	100.0
Absence of lower extremities or parts of lower extremities . . . . .	181	1.4	*0.5	*0.3	2.9	*3.9	*5.0	*27.1	63.0	100.0
Absence of lung . . . . .	106	*0.8	—	*0.2	*2.0	*2.7	*2.5	*11.3	78.3	100.0
Absence of kidney . . . . .	341	2.7	*0.9	1.6	4.4	6.2	7.4	*10.9	75.4	98.5
Absence of breast . . . . .	1,134	8.9	—	1.4	15.6	33.6	44.1	*4.8	92.1	100.0
Absence of bone, joint, or muscle of extremity . . . . .	500	3.9	—	1.6	3.8	13.7	24.2	31.4	69.2	98.6
Absence of tips of fingers or toes . . . . .	*46	*0.4	—	*0.6	*0.1	*1.2	—	—	*30.4	*100.0
Paralysis of extremities, complete or partial . . . . .	679	5.3	2.4	2.4	5.6	14.0	25.6	56.8	40.4	99.4
Paralysis of extremities, complete . . . . .	262	2.0	*0.6	*0.7	3.1	*5.0	10.5	47.7	49.6	100.0
Paralysis of extremities, partial . . . . .	417	3.3	1.8	1.7	2.6	9.1	15.1	62.6	34.5	99.0
Cerebral palsy . . . . .	100	0.8	*1.7	*0.8	—	—	*0.5	74.0	*51.0	100.0
Paralysis of extremities, complete or partial . . . . .	173	1.4	*0.5	*0.9	*1.8	*2.9	*5.2	39.3	41.0	97.1
Deformities or orthopedic impairments, total . . . . .	18,461	144.2	33.7	157.2	191.9	213.1	273.1	24.6	16.1	90.3
Deformities or orthopedic impairments of back . . . . .	10,319	80.6	12.6	98.5	108.4	97.8	127.8	21.4	14.1	92.6
Curvature or other deformity of back or spine . . . . .	3,530	27.6	10.2	33.7	27.9	30.6	52.6	11.9	8.6	93.9
Deformities or orthopedic impairments of upper extremities . . . . .	1,723	13.5	3.0	12.1	19.9	26.8	28.4	30.4	19.3	93.8
Orthopedic impairment, shoulder . . . . .	1,341	10.5	1.8	10.9	16.0	15.6	19.4	36.0	17.4	95.1
Deformities or orthopedic impairments of lower extremities . . . . .	6,220	48.6	18.0	45.2	61.5	86.1	110.3	27.0	18.6	85.3
Flat feet . . . . .	1,857	14.5	8.9	15.2	18.2	18.1	16.3	*1.5	*2.5	66.9
Other deformities or orthopedic impairment . . . . .	199	1.6	—	1.4	*2.0	*2.4	*6.5	64.8	*12.6	100.0
Cleft palate . . . . .	76	0.6	*0.7	*0.5	*0.8	*0.8	—	—	*63.2	94.7
Condition of nervous system and sense organs										
Glaucoma . . . . .	1,329	10.4	*0.3	1.7	11.9	41.9	68.2	12.5	9.0	99.7
Cataracts . . . . .	4,268	33.3	*1.1	3.2	27.6	140.2	260.9	6.4	9.0	98.9
Color blindness . . . . .	272	2.1	*0.4	2.9	*2.1	*2.7	*3.1	—	—	53.3
Diseases of retina . . . . .	773	6.0	*0.4	2.0	4.7	19.6	45.2	25.0	17.3	99.5
Tinnitus . . . . .	3,457	27.0	*1.5	16.4	45.6	80.6	78.1	*1.1	*1.4	66.8
Epilepsy . . . . .	636	5.0	4.1	5.8	5.4	*3.5	*3.6	39.0	48.0	98.7
Migraine headache . . . . .	7,349	57.4	14.0	82.5	78.1	33.4	27.6	3.5	7.9	83.9
Other headache (excluding tension headache) . . . . .	7,100	55.5	15.2	79.7	66.4	42.7	35.2	1.7	2.7	66.5
Multiple sclerosis . . . . .	112	0.9	—	1.1	*1.8	*0.8	*0.3	77.7	56.3	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

— Figure does not meet standard of reliability or precision and quantity zero.

**Table 25. Average annual number of selected impairments and of chronic conditions of the nervous system and sense organs among white persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Impairment and chronic condition of the nervous system and sense organs	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Impairment		Rate per 1,000 persons				Percent		
Blindness and other visual impairments . . . . .	7,111	34.1	22.1	44.7	80.1	15.1	15.0	82.3
Blind, both eyes . . . . .	480	2.3	1.3	1.9	8.3	60.0	21.5	97.9
Other visual impairments . . . . .	6,631	31.8	20.9	42.8	71.9	11.9	14.5	81.2
Deafness and other hearing impairments . . . . .	21,135	101.5	40.8	156.6	331.6	5.4	6.2	75.3
Deaf, both ears . . . . .	1,387	6.7	1.6	8.2	30.4	14.5	7.9	91.1
Other hearing impairments . . . . .	19,748	94.8	39.2	148.4	301.2	4.8	6.1	74.2
Speech impairments . . . . .	2,064	9.9	10.6	6.5	11.5	20.9	5.6	73.0
Impairment of sensation . . . . .	1,005	4.8	1.8	7.4	16.4	*4.6	10.0	64.0
Mental retardation . . . . .	1,221	5.9	7.7	2.8	*1.0	86.7	7.1	85.3
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	1,320	6.3	3.2	10.4	16.2	19.9	59.5	100.0
Absence of upper extremities or parts of upper extremities . . . . .	837	4.0	2.3	6.3	9.4	12.5	52.2	100.0
Absence of lower extremities or parts of lower extremities . . . . .	483	2.3	0.9	4.1	6.8	32.7	72.3	100.0
Absence of lung . . . . .	203	1.0	*0.2	2.1	3.1	*20.7	79.8	100.0
Absence of kidney . . . . .	497	2.4	1.2	3.5	7.0	*10.5	75.5	99.0
Absence of breast . . . . .	1,064	5.1	0.5	8.7	23.6	*4.7	91.9	100.0
Absence of bone, joint, or muscle of extremity . . . . .	822	3.9	1.4	5.0	15.7	31.9	66.7	99.0
Absence of tips of fingers or toes . . . . .	348	1.7	1.1	2.3	3.4	*4.9	30.2	100.0
Paralysis of extremities, complete or partial . . . . .	1,213	5.8	2.9	7.6	18.0	60.6	43.4	99.4
Paralysis of extremities, complete . . . . .	504	2.4	*0.9	4.5	7.2	53.6	56.2	100.0
Paralysis of extremities, partial . . . . .	709	3.4	2.0	3.1	10.9	65.6	34.4	99.2
Cerebral palsy . . . . .	219	1.1	1.4	*0.4	*0.1	70.8	46.1	100.0
Paralysis other site, complete or partial . . . . .	321	1.5	0.7	2.5	4.4	47.4	38.9	99.1
Deformities or orthopedic impairments, total . . . . .	30,612	147.0	118.3	196.3	220.9	24.5	18.7	90.8
Deformities or orthopedic impairments of back . . . . .	16,218	77.9	65.1	106.1	101.1	21.5	15.4	92.2
Curvature or other deformity of back or spine . . . . .	4,696	22.5	20.7	23.4	30.8	11.3	8.9	93.5
Deformities or orthopedic impairments of upper extremities . . . . .	3,367	16.2	11.3	24.0	29.5	29.8	25.5	93.9
Orthopedic impairment, shoulder . . . . .	2,526	12.1	8.9	18.6	19.0	36.5	23.3	94.5
Deformities or orthopedic impairments of lower extremities . . . . .	10,703	51.4	40.8	64.4	86.6	26.6	21.7	87.5
Flat feet . . . . .	3,080	14.8	13.4	17.9	17.1	*1.4	2.7	71.7
Other deformities or orthopedic impairment . . . . .	325	1.6	1.1	1.8	3.7	48.6	*14.2	97.8
Cleft palate . . . . .	200	1.0	0.9	1.3	*0.6	*1.5	65.5	95.0
Condition of nervous system and sense organs								
Glaucoma . . . . .	2,054	9.9	1.6	11.4	49.9	12.3	9.3	99.8
Cataracts . . . . .	5,762	27.7	2.2	22.6	166.6	5.8	10.3	98.4
Color blindness . . . . .	2,506	12.0	10.6	15.9	13.8	*0.2	—	58.5
Diseases of retina . . . . .	1,237	5.9	1.5	5.2	30.0	28.7	21.3	99.7
Tinnitus . . . . .	6,369	30.6	11.3	56.4	91.1	*0.8	1.4	70.1
Epilepsy . . . . .	996	4.8	5.0	4.7	3.9	41.5	47.6	98.8
Migraine headache . . . . .	8,743	42.0	42.2	54.2	22.3	3.4	8.0	82.2
Other headache (excluding tension headache) . . . . .	8,806	42.3	41.8	51.1	31.4	1.7	2.5	63.0
Multiple sclerosis . . . . .	154	0.7	0.6	*1.3	*0.7	70.1	46.1	100.0

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.



**Table 26. Average annual number of selected impairments and of chronic conditions of the nervous system and sense organs among black persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Impairment and chronic condition of the nervous system and sense organs	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Impairment		Rate per 1,000 persons				Percent		
Blindness and other visual impairments . . . . .	892	28.9	18.2	52.3	81.5	20.6	14.8	86.1
Blind, both eyes . . . . .	69	2.2	*0.5	*5.9	*10.9	*63.8	*29.0	100.0
Other visual impairments . . . . .	823	26.6	17.7	46.3	70.6	16.9	13.6	85.1
Deafness and other hearing impairments . . . . .	1,638	53.0	24.5	97.6	229.8	6.5	3.6	67.3
Deaf, both ears . . . . .	64	2.1	*1.1	*0.4	*14.4	*17.2	*15.6	84.4
Other hearing impairments . . . . .	1,574	50.9	23.4	97.2	215.0	6.1	*3.1	66.6
Speech impairments . . . . .	589	19.1	17.9	21.3	25.8	17.1	*3.4	56.4
Impairment of sensation . . . . .	117	3.8	*1.6	*9.8	*12.5	*17.1	*8.5	72.6
Mental retardation . . . . .	308	10.0	12.0	*5.1	*0.8	89.3	*13.3	86.7
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	126	4.1	*1.4	*6.1	23.8	*18.3	56.3	100.0
Absence of upper extremities or parts of upper extremities . . . . .	87	2.8	*1.4	*4.1	*13.7	*9.2	*55.2	100.0
Absence of lower extremities or parts of lower extremities . . . . .	*39	*1.3	*0.1	*2.3	*10.1	*38.5	*59.0	*100.0
Absence of lung . . . . .	*26	*0.8	*—	*2.7	*5.1	*38.5	*80.8	*100.0
Absence of kidney . . . . .	*48	*1.6	*0.7	*5.3	*2.3	*18.8	*72.9	*100.0
Absence of breast . . . . .	78	2.5	*0.5	*6.1	*14.4	*—	100.0	100.0
Absence of bone, joint, or muscle of extremity . . . . .	*46	*1.5	*0.9	*1.4	*7.0	*39.1	*67.4	*100.0
Absence of tips of fingers or toes . . . . .	*14	*0.5	*—	*2.3	*1.2	*28.6	*21.4	*100.0
Paralysis of extremities, complete or partial . . . . .	213	6.9	3.2	*9.8	34.7	60.1	35.7	100.0
Paralysis of extremities, complete . . . . .	105	3.4	*1.3	*3.9	21.5	57.1	*43.8	100.0
Paralysis of extremities, partial . . . . .	108	3.5	*2.0	*5.7	*13.3	63.0	*27.8	100.0
Cerebral palsy . . . . .	*33	*1.1	*1.4	*—	*—	*97.0	*27.3	*100.0
Paralysis other site, complete or partial . . . . .	*50	*1.6	*1.1	*3.5	*2.7	*52.0	*28.0	*96.0
Deformities or orthopedic impairments, total . . . . .	3,455	111.8	85.6	197.6	188.1	29.4	18.4	87.7
Deformities or orthopedic impairments of back . . . . .	1,433	46.4	35.8	90.0	60.1	30.7	18.3	93.1
Curvature or other deformity of back or spine . . . . .	278	9.0	8.7	*10.9	*7.4	21.6	*7.9	93.2
Deformities or orthopedic impairments of upper extremities . . . . .	377	12.2	9.0	21.1	24.6	32.4	33.4	98.9
Orthopedic impairment, shoulder . . . . .	325	10.5	7.7	19.9	*18.7	35.1	36.0	98.5
Deformities or orthopedic impairments of lower extremities . . . . .	1,552	50.2	38.4	84.4	94.0	25.9	15.3	79.9
Flat feet . . . . .	546	17.7	16.1	26.6	*14.4	*0.5	*2.4	57.1
Other deformities or orthopedic impairments . . . . .	93	3.0	2.4	*2.3	*9.8	*57.0	*9.7	89.2
Cleft palate . . . . .	*17	*0.6	*0.7	*—	*—	*23.5	*35.3	*100.0
Condition of nervous system and sense organs								
Glaucoma . . . . .	341	11.0	*0.7	20.5	87.4	21.7	18.5	100.0
Cataracts . . . . .	574	18.6	*1.9	28.3	152.2	*9.2	*6.3	98.4
Color blindness . . . . .	156	5.0	3.9	*10.5	*5.5	*—	*—	50.6
Diseases of retina . . . . .	*45	*1.5	*1.0	*2.5	*3.9	*35.6	*11.1	*100.0
Tinnitus . . . . .	618	20.0	10.3	41.2	68.3	*1.0	*2.9	59.1
Epilepsy . . . . .	221	7.2	6.6	*8.8	*9.0	56.6	52.5	99.1
Migraine headache . . . . .	924	29.9	30.6	36.5	*10.5	*4.0	*5.8	82.4
Other headache (excluding tension headache) . . . . .	1,151	37.2	34.1	48.2	44.5	*1.9	*4.3	68.1
Multiple sclerosis . . . . .	*21	*0.7	*0.5	*2.0	*—	*61.9	*38.1	*100.0

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 27. Average annual number of selected impairments and of chronic conditions of the nervous system and sense organs and rates per 1,000 persons, by family income: United States, 1990–92**

[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](#)]

Impairment and chronic condition of the nervous system and sense organs	Family income									
	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more
Impairment	Number in thousands					Rate per 1,000 persons				
Blindness and other visual impairments . . . . .	8,169	1,345	1,413	1,707	2,486	32.8	55.5	36.5	32.5	27.7
Blind, both eyes . . . . .	551	81	97	95	137	2.2	3.3	2.5	1.8	1.5
Other visual impairments . . . . .	7,618	1,264	1,316	1,612	2,349	30.6	52.2	34.0	30.7	26.2
Deafness and other hearing impairments . . . . .	23,266	3,281	4,512	4,872	6,393	93.5	135.4	116.6	92.8	71.3
Deaf, both ears . . . . .	1,465	221	332	296	359	5.9	9.1	8.6	5.6	4.0
Other hearing impairments . . . . .	21,801	3,061	4,180	4,576	6,034	87.6	126.3	108.0	87.2	67.3
Speech impairments . . . . .	2,725	550	514	423	783	11.0	22.7	13.3	8.1	8.7
Impairment of sensation . . . . .	1,142	129	288	263	254	4.6	5.3	7.4	5.0	2.8
Mental retardation . . . . .	1,562	316	310	243	330	6.3	13.0	8.0	4.6	3.7
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	1,479	218	288	353	365	5.9	9.0	7.4	6.7	4.1
Absence of upper extremities or parts of upper extremities . . . . .	946	153	158	251	230	3.8	6.3	4.1	4.8	2.6
Absence of lower extremities or parts of lower extremities . . . . .	533	65	130	101	134	2.1	2.7	3.4	1.9	1.5
Absence of lung . . . . .	236	*51	*37	*49	*42	0.9	*2.1	*1.0	*0.9	*0.5
Absence of kidney . . . . .	556	74	76	119	176	2.2	3.1	2.0	2.3	2.0
Absence of breast . . . . .	1,153	159	233	259	281	4.6	6.6	6.0	4.9	3.1
Absence of bone, joint, or muscle of extremity . . . . .	876	123	219	179	221	3.5	5.1	5.7	3.4	2.5
Absence of tips of fingers or toes . . . . .	366	*52	73	70	108	1.5	*2.1	1.9	1.3	1.2
Paralysis of extremities, complete or partial . . . . .	1,464	307	306	326	316	5.9	12.7	7.9	6.2	3.5
Paralysis of extremities, complete . . . . .	626	113	129	142	149	2.5	4.7	3.3	2.7	1.7
Paralysis of extremities, partial . . . . .	838	194	178	183	166	3.4	8.0	4.6	3.5	1.9
Cerebral palsy . . . . .	258	*38	*50	57	71	1.0	*1.6	*1.3	1.1	0.8
Paralysis of other site, complete or partial . . . . .	371	87	80	*45	79	1.5	3.6	2.1	*0.9	0.9
Deformities or orthopedic impairment, total . . . . .	34,964	4,872	5,936	7,687	11,413	140.6	201.1	153.3	146.4	127.3
Deformities or orthopedic impairments of back . . . . .	18,144	2,295	2,915	4,110	6,235	72.9	94.7	75.3	78.3	69.6
Curvature or other deformity of back or spine . . . . .	5,078	664	836	1,101	1,855	20.4	27.4	21.6	21.0	20.7
Deformities or orthopedic impairments of upper extremities . . . . .	3,846	643	723	803	1,112	15.5	26.5	18.7	15.3	12.4
Orthopedic impairment, shoulder . . . . .	2,919	483	540	581	864	11.7	19.9	13.9	11.1	9.6
Deformities or orthopedic impairments of lower extremities . . . . .	12,518	1,814	2,205	2,682	3,969	50.3	74.9	57.0	51.1	44.3
Flat feet . . . . .	3,698	403	582	876	1,380	14.9	16.6	15.0	16.7	15.4
Other deformities or orthopedic impairments . . . . .	456	119	94	92	98	1.8	4.9	2.4	1.8	1.1
Cleft palate . . . . .	217	*16	*24	54	93	0.9	*0.7	*0.6	1.0	1.0
Condition of nervous system and sense organs										
Glaucoma . . . . .	2,433	410	481	473	548	9.8	16.9	12.4	9.0	6.1
Cataracts . . . . .	6,416	1,345	1,417	1,195	1,006	25.8	55.5	36.6	22.8	11.2
Color blindness . . . . .	2,697	227	312	636	1,193	10.8	9.4	8.1	12.1	13.3
Diseases of retina . . . . .	1,293	132	284	350	334	5.2	5.4	7.3	6.7	3.7
Tinnitus . . . . .	7,144	1,183	1,473	1,410	2,025	28.7	48.8	38.1	26.9	22.6
Epilepsy . . . . .	1,243	300	200	225	243	5.0	12.4	5.2	4.3	2.7
Migraine headache . . . . .	9,992	1,219	1,592	2,110	3,720	40.2	50.3	41.1	40.2	41.5
Other headache (excluding tension headache) . . . . .	10,279	1,425	1,989	2,275	3,140	41.3	58.8	51.4	43.3	35.0
Multiple sclerosis . . . . .	180	*21	*20	*41	56	0.7	*0.9	*0.5	*0.8	0.6

<sup>1</sup>Includes unknown family income.

\* Figure does not meet standard of reliability or precision.

**Table 28. Average annual number of selected impairments and of chronic conditions of the nervous system and sense organs and rates per 1,000 persons, by geographic region: United States, 1990–92**

[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](#)]

Impairment and chronic condition of the nervous system and sense organs	Geographic region									
	All regions	Northeast	Midwest	South	West	All regions	Northeast	Midwest	South	West
Impairment	Number in thousands					Rate per 1,000 persons				
Blindness and other visual impairments . . . . .	8,169	1,466	2,239	2,718	1,745	32.8	29.3	37.1	32.3	32.2
Blind, both eyes . . . . .	551	98	181	189	82	2.2	2.0	3.0	2.2	1.5
Other visual impairments . . . . .	7,618	1,368	2,058	2,529	1,663	30.6	27.3	34.1	30.0	30.7
Deafness and other hearing impairments . . . . .	23,266	4,126	6,438	7,791	4,911	93.5	82.4	106.7	92.5	90.7
Deaf, both ears . . . . .	1,465	263	382	466	354	5.9	5.3	6.3	5.5	6.5
Other hearing impairments . . . . .	21,801	3,863	6,056	7,325	4,557	87.6	77.2	100.4	87.0	84.2
Speech impairments . . . . .	2,725	489	649	1,118	469	11.0	9.8	10.8	13.3	8.7
Impairment of sensation . . . . .	1,142	178	359	354	251	4.6	3.6	6.0	4.2	4.6
Mental retardation . . . . .	1,562	315	445	509	293	6.3	6.3	7.4	6.0	5.4
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	1,479	255	472	559	193	5.9	5.1	7.8	6.6	3.6
Absence of upper extremities or parts of upper extremities . . . . .	946	141	322	359	124	3.8	2.8	5.3	4.3	2.3
Absence of lower extremities or parts of lower extremities . . . . .	533	113	150	200	69	2.1	2.3	2.5	2.4	1.3
Absence of lung . . . . .	236	*40	96	60	*40	0.9	*0.8	1.6	0.7	*0.7
Absence of kidney . . . . .	556	95	169	191	102	2.2	1.9	2.8	2.3	1.9
Absence of breast . . . . .	1,153	270	276	368	239	4.6	5.4	4.6	4.4	4.4
Absence of bone, joint, or muscle of extremity . . . . .	876	171	260	258	187	3.5	3.4	4.3	3.1	3.5
Absence of tips of fingers or toes . . . . .	366	58	91	107	109	1.5	1.2	1.5	1.3	2.0
Paralysis of extremities, complete or partial . . . . .	1,464	287	415	489	273	5.9	5.7	6.9	5.8	5.0
Paralysis of extremities, complete . . . . .	626	122	191	200	113	2.5	2.4	3.2	2.4	2.1
Paralysis of extremities, partial . . . . .	838	165	224	290	159	3.4	3.3	3.7	3.4	2.9
Cerebral palsy . . . . .	258	59	80	71	*48	1.0	1.2	1.3	0.8	*0.9
Paralysis of other site, complete or partial . . . . .	371	*37	109	155	70	1.5	*0.7	1.8	1.8	1.3
Deformity or orthopedic impairments, total . . . . .	34,964	6,296	9,170	10,592	8,907	140.6	125.8	152.0	125.8	164.5
Deformities or orthopedic impairments of back . . . . .	18,144	3,236	4,759	5,313	4,836	72.9	64.6	78.9	63.1	89.3
Curvature or other deformity of back or spine . . . . .	5,078	977	1,373	1,436	1,293	20.4	19.5	22.8	17.1	23.9
Deformities or orthopedic impairments of upper extremities . . . . .	3,846	697	923	1,134	1,093	15.5	13.9	15.3	13.5	20.2
Orthopedic impairment, shoulder . . . . .	2,919	454	743	921	800	11.7	9.1	12.3	10.9	14.8
Deformities or orthopedic impairments of lower extremities . . . . .	12,518	2,243	3,410	3,987	2,878	50.3	44.8	56.5	47.3	53.2
Flat feet . . . . .	3,698	778	1,058	1,123	739	14.9	15.5	17.5	13.3	13.7
Other deformity or orthopedic impairment . . . . .	456	120	78	158	100	1.8	2.4	1.3	1.9	1.8
Cleft palate . . . . .	217	*50	57	70	*41	0.9	*1.0	0.9	0.8	*0.8
Condition of nervous system and sense organs										
Glaucoma . . . . .	2,433	522	556	914	441	9.8	10.4	9.2	10.9	8.1
Cataracts . . . . .	6,416	1,257	1,692	2,314	1,153	25.8	25.1	28.0	27.5	21.3
Color blindness . . . . .	2,697	501	764	815	617	10.8	10.0	12.7	9.7	11.4
Diseases of retina . . . . .	1,293	224	440	353	277	5.2	4.5	7.3	4.2	5.1
Tinnitus . . . . .	7,144	1,193	2,003	2,331	1,616	28.7	23.8	33.2	27.7	29.8
Epilepsy . . . . .	1,243	259	295	474	216	5.0	5.2	4.9	5.6	4.0
Migraine headache . . . . .	9,992	2,018	2,426	3,223	2,324	40.2	40.3	40.2	38.3	42.9
Other headache (excluding tension headache) . . . . .	10,279	1,609	2,737	3,497	2,436	41.3	32.1	45.4	41.5	45.0
Multiple sclerosis . . . . .	180	*39	*48	*46	*46	0.7	*0.8	*0.8	*0.5	*0.8

\* Figure does not meet standard of reliability or precision.

**Table 29. Average annual number of selected chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic condition of skin and subcutaneous tissue and of the musculoskeletal system and connective tissue	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
		Rate per 1,000 persons						Percent		
Condition of skin and subcutaneous tissue										
Sebaceous skin cyst. . . . .	1,249	5.0	1.6	6.2	6.4	7.4	4.6	*0.2	6.0	93.3
Acne . . . . .	4,904	19.7	25.7	28.4	4.3	*1.2	*0.3	*—	*0.4	67.6
Psoriasis . . . . .	2,378	9.6	2.6	9.3	16.2	14.4	16.1	*2.1	2.9	88.4
Dermatitis . . . . .	9,273	37.3	34.5	39.5	38.5	36.7	29.2	1.5	1.6	85.2
Dry (itching) skin, not elsewhere classified . . . . .	5,123	20.6	10.0	21.1	23.9	31.3	44.8	*0.1	*0.5	54.0
Chronic ulcer of skin. . . . .	332	1.3	*0.1	0.9	1.8	4.4	5.9	24.1	20.8	93.4
Ingrown nails . . . . .	6,078	24.4	8.2	24.5	30.6	45.1	56.5	*0.3	1.0	54.1
Corns and calluses . . . . .	4,731	19.0	1.0	16.3	33.1	40.4	52.9	*0.5	1.5	46.7
Benign neoplasms of the skin . . . . .	862	3.5	1.1	3.0	5.4	7.4	7.3	*2.1	*3.4	97.2
Malignant neoplasms of the skin . . . . .	2,269	9.1	*0.1	2.0	16.9	34.4	51.8	3.9	3.4	97.1
Condition of musculoskeletal system and connective tissue										
Arthritis . . . . .	31,788	127.8	2.3	49.8	250.2	433.0	550.0	21.2	7.4	82.6
Rheumatism, unspecified. . . . .	454	1.8	*0.1	1.2	3.0	5.6	6.8	17.0	*8.6	78.9
Sciatica (including lumbago) . . . . .	2,058	8.3	*—	6.5	17.5	19.6	15.3	6.5	6.9	88.1
Intervertebral disc disorders . . . . .	4,976	20.0	*0.3	19.3	43.1	33.6	21.5	45.2	38.4	98.7
Bone spur or tendinitis, not otherwise specified . . . . .	2,633	10.6	0.9	9.2	21.1	23.1	15.6	9.6	9.6	92.1
Disorders of bone or cartilage . . . . .	1,568	6.3	1.5	3.7	9.3	19.7	23.5	37.9	18.0	97.2
Bunions . . . . .	2,907	11.7	0.9	7.9	22.3	28.0	37.2	*0.9	5.0	58.0
Bursitis, not elsewhere classified . . . . .	4,674	18.8	*0.8	14.1	40.6	42.3	36.7	*5.3	3.9	88.8
Neuritis or neuralgia, unspecified . . . . .	518	2.1	*0.0	0.9	4.2	6.8	7.9	*4.6	*8.7	77.8

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

0.0 Quantity more than zero but less than 0.05.

**Table 30. Average annual number of selected chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue among males, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic condition of skin and subcutaneous tissue and of the musculoskeletal system and connective tissue	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Condition of skin and subcutaneous tissue		Rate per 1,000 persons						Percent		
Sebacous skin cyst. . . . .	649	5.4	*1.6	6.5	6.2	10.3	*7.8	*—	*5.9	93.5
Acne . . . . .	2,218	18.4	28.8	22.3	3.4	*2.0	*—	*—	*0.4	67.2
Psoriasis . . . . .	1,220	10.1	2.3	8.9	19.2	19.0	20.3	*3.3	*4.1	88.7
Dermatitis . . . . .	3,521	29.2	31.1	28.1	29.3	29.6	25.7	*1.1	2.4	83.0
Dry (itching) skin, not elsewhere classified . . . . .	2,063	17.1	8.3	17.2	20.4	28.5	43.6	*—	*0.7	58.3
Chronic ulcer of skin. . . . .	163	1.3	*0.2	*1.0	*1.7	*4.0	*7.6	*14.1	*20.2	95.7
Ingrown nails . . . . .	2,795	23.1	9.3	26.4	28.5	34.5	40.9	*0.1	*0.8	51.9
Corns and calluses . . . . .	1,577	13.1	*0.8	13.6	23.5	18.3	36.0	*0.5	*1.6	37.2
Benign neoplasms of the skin . . . . .	402	3.3	*0.7	3.0	4.9	11.5	*4.7	*3.7	*4.0	97.8
Malignant neoplasms of the skin . . . . .	1,315	10.9	*0.1	1.6	22.2	45.8	77.8	4.6	*4.1	98.1
Condition of musculoskeletal system and connective tissue										
Arthritis . . . . .	11,547	95.6	1.7	41.0	199.2	358.0	425.8	18.0	8.2	78.3
Rheumatism, unspecified. . . . .	199	1.6	*—	*0.8	3.3	*4.4	*11.0	*7.5	*5.0	78.4
Sciatica (including lumbago) . . . . .	718	5.9	*—	5.3	13.0	14.1	*7.8	*2.9	*4.9	85.5
Intervertebral disc disorders . . . . .	2,750	22.8	*0.1	22.9	50.0	39.7	22.1	45.5	40.2	98.1
Bone spur or tendinitis, not otherwise specified . . . . .	1,094	9.1	*1.2	8.4	17.4	21.2	*11.0	6.9	10.6	93.5
Disorders of bone or cartilage . . . . .	441	3.7	2.0	3.1	4.8	8.6	*6.7	37.9	23.8	94.6
Bunions . . . . .	434	3.6	*0.4	2.5	8.4	*6.2	*11.2	*—	*4.6	45.2
Bursitis, not elsewhere classified . . . . .	1,901	15.7	*0.3	13.2	33.1	40.8	27.0	3.5	*1.8	84.3
Neuritis or neuralgia, unspecified . . . . .	166	1.4	*0.1	*0.5	3.0	6.6	*2.9	*4.2	*11.4	75.9

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 31. Average annual number of selected chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue among females, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic condition of skin and subcutaneous tissue and of the musculoskeletal system and connective tissue	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Condition of skin and subcutaneous tissue		Rate per 1,000 persons						Percent		
Sebaceous skin cyst. . . . .	600	4.7	*1.7	5.9	6.6	*5.0	*2.5	*0.5	*6.2	92.8
Acne . . . . .	2,687	21.0	22.4	34.2	5.1	*0.7	*0.5	—	*0.4	67.9
Psoriasis . . . . .	1,157	9.0	3.0	9.6	13.5	10.8	13.6	*0.8	*1.6	88.1
Dermatitis . . . . .	5,752	44.9	38.1	50.5	47.0	42.5	31.2	1.7	1.1	86.5
Dry (itching) skin, not elsewhere classified . . . . .	3,060	23.9	11.7	24.8	27.2	33.6	45.6	*0.2	*0.5	51.1
Chronic ulcer of skin. . . . .	168	1.3	—	*0.7	*1.9	*4.6	*4.9	33.9	*21.4	91.7
Ingrown nails . . . . .	3,283	25.6	6.9	22.7	32.6	53.7	65.6	*0.5	*1.2	56.0
Corns and calluses . . . . .	3,154	24.6	*1.2	18.9	41.9	58.3	63.0	*0.4	*1.5	51.5
Benign neoplasms of the skin . . . . .	460	3.6	*1.5	3.0	5.8	*4.2	8.9	*0.7	*3.0	96.7
Malignant neoplasms of the skin . . . . .	954	7.5	*0.1	2.3	12.1	25.1	36.4	*3.0	*2.4	95.6
Condition of musculoskeletal system and connective tissue										
Arthritis . . . . .	20,241	158.1	2.9	58.3	297.2	493.6	623.9	23.1	6.9	85.1
Rheumatism, unspecified. . . . .	254	2.0	*0.1	1.6	2.7	6.5	*4.4	24.8	*11.4	79.5
Sciatica (including lumbago) . . . . .	1,341	10.5	—	7.7	21.6	24.1	19.7	8.4	8.0	89.5
Intervertebral disc disorders . . . . .	2,226	17.4	*0.5	15.9	36.8	28.6	21.1	44.8	36.2	99.2
Bone spur or tendinitis, not otherwise specified . . . . .	1,539	12.0	*0.6	9.9	24.4	24.5	18.3	11.4	9.0	91.2
Disorders of bone or cartilage . . . . .	1,127	8.8	*1.0	4.2	13.4	28.6	33.5	37.9	15.8	98.2
Bunions . . . . .	2,474	19.3	*1.4	13.1	35.1	45.7	52.5	*1.0	5.1	60.2
Bursitis, not elsewhere classified . . . . .	2,773	21.7	*1.2	15.0	47.5	43.5	42.4	6.5	5.3	91.8
Neuritis or neuralgia, unspecified . . . . .	352	2.8	—	1.3	5.2	7.0	10.9	*4.8	*7.4	78.7

<sup>1</sup>Includes races other than white and black and unknown family income.

\* Figure does not meet standard of reliability or precision.

—Figure does not meet standard of reliability or precision and quantity zero.

**Table 32. Average annual number of selected chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue among white persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic condition of skin and subcutaneous tissue and of the musculoskeletal system and connective tissue	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Condition of skin and subcutaneous tissue		Rate per 1,000 persons				Percent		
Sebaceous skin cyst. . . . .	1,116	5.4	4.6	6.9	6.8	*—	*3.9	92.5
Acne . . . . .	4,181	20.1	28.3	4.6	*1.0	*—	*0.3	68.7
Psoriasis . . . . .	2,219	10.7	7.5	17.6	16.3	*2.2	3.1	88.0
Dermatitis . . . . .	8,026	38.5	39.0	39.2	35.3	1.5	1.4	84.9
Dry (itching) skin, not elsewhere classified . . . . .	4,397	21.1	17.0	23.6	38.4	*0.1	*0.6	53.2
Chronic ulcer of skin. . . . .	284	1.4	0.6	1.5	5.3	22.9	18.7	94.0
Ingrown nails . . . . .	5,324	25.6	19.6	30.5	48.6	*0.3	*0.9	55.1
Corns and calluses . . . . .	3,907	18.8	9.9	31.7	45.0	*0.6	*1.2	48.3
Benign neoplasms of the skin . . . . .	860	4.1	2.7	6.2	8.2	*2.1	*3.4	97.2
Malignant neoplasms of the skin . . . . .	2,230	10.7	1.4	19.4	45.6	3.8	3.5	97.0
Condition of musculoskeletal system and connective tissue								
Arthritis. . . . .	28,113	135.0	33.5	251.7	482.7	20.2	7.4	82.2
Rheumatism, unspecified . . . . .	406	1.9	0.8	3.2	6.1	15.8	*9.1	80.8
Sciatica (including lumbago) . . . . .	1,989	9.6	4.6	19.6	19.8	6.0	6.5	88.2
Intervertebral disc disorders . . . . .	4,521	21.7	13.3	45.2	29.8	44.4	37.5	98.6
Bone spur or tendinitis, not otherwise specified . . . . .	2,452	11.8	6.4	23.9	21.4	9.4	10.0	92.1
Disorders of bone or cartilage . . . . .	1,481	7.1	3.2	10.1	22.8	38.6	17.9	98.0
Bunions . . . . .	2,501	12.0	5.4	21.4	32.0	*1.0	5.4	59.9
Bursitis, not elsewhere classified . . . . .	4,141	19.9	9.6	41.0	41.1	5.1	3.4	88.5
Neuritis or neuralgia, unspecified . . . . .	455	2.2	0.6	4.1	7.2	*4.6	*9.0	76.7

\*— Figure does not meet standard of reliability or precision and quantity zero.

\* Figure does not meet standard of reliability or precision.

**Table 33. Average annual number of selected chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue among black persons, rates per 1,000 persons by age, and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic condition of skin and subcutaneous tissue and of the musculoskeletal system and connective tissue	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Condition of skin and subcutaneous tissue		Rate per 1,000 persons				Percent		
Sebaceous skin cyst . . . . .	100	3.2	3.1	*4.3	*2.3	*3.0	*16.0	100.0
Acne . . . . .	453	14.7	19.0	*1.4	—	—	*1.8	56.3
Psoriasis. . . . .	111	3.6	2.7	*8.8	*1.6	—	—	91.9
Dermatitis . . . . .	853	27.6	28.2	32.2	*13.3	*1.6	*2.9	89.1
Dry (itching) skin, not elsewhere classified . . . . .	529	17.1	14.8	27.1	*19.5	—	—	55.8
Chronic ulcer of skin . . . . .	*44	*1.4	*0.5	*4.9	*3.1	*34.1	*36.4	*100.0
Ingrown nails . . . . .	574	18.6	10.9	33.6	60.5	—	*2.8	46.7
Corns and calluses . . . . .	743	24.0	15.0	51.0	55.8	—	*3.2	37.8
Benign neoplasms of the skin. . . . .	*2	*0.1	—	—	*0.8	—	—	*100.0
Malignant neoplasms of the skin . . . . .	*18	*0.6	*0.1	*1.8	*2.3	*27.8	—	*100.0
Condition of musculoskeletal system and connective tissue		Rate per 1,000 persons				Percent		
Arthritis. . . . .	3,090	100.0	23.7	267.5	479.1	30.7	7.5	86.1
Rheumatism, unspecified. . . . .	*34	*1.1	*0.3	*2.3	*5.9	*38.2	*5.9	*76.5
Sciatica (including lumbago). . . . .	*42	*1.4	*1.1	*2.5	*2.0	*16.7	*21.4	*85.7
Intervertebral disc disorders . . . . .	324	10.5	5.0	32.2	*19.5	54.0	55.9	98.5
Bone spur or tendinitis, not otherwise specified . . . . .	129	4.2	3.5	*3.7	*10.9	*17.1	*6.2	98.4
Disorders of bone or cartilage. . . . .	71	2.3	*1.3	*4.1	*8.6	*32.4	*19.7	87.3
Bunions . . . . .	308	10.0	4.6	26.8	26.9	—	*3.6	45.1
Bursitis, not elsewhere classified . . . . .	436	14.1	6.4	39.1	36.7	*7.8	*8.3	92.2
Neuritis or neuralgia, unspecified. . . . .	*40	*1.3	*0.1	*3.3	*8.2	—	—	*75.0

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.



**Table 34. Average annual number of selected chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue and rates per 1,000 persons, by family income: United States, 1990–92**

[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](#)]

Chronic condition of skin and subcutaneous tissue and of the musculoskeletal system and connective tissue	Family income									
	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more	All income <sup>1</sup>	Less than \$10,000	\$10,000–19,999	\$20,000–34,999	\$35,000 or more
Condition of skin and subcutaneous tissue	Number in thousands					Rate per 1,000 persons				
Sebaceous skin cyst . . . . .	1,249	187	197	244	504	5.0	7.7	5.1	4.6	5.6
Acne . . . . .	4,904	629	657	1,068	2,084	19.7	26.0	17.0	20.3	23.3
Psoriasis . . . . .	2,378	288	405	488	878	9.6	11.9	10.5	9.3	9.8
Dermatitis . . . . .	9,273	823	1,366	2,001	3,982	37.3	34.0	35.3	38.1	44.4
Dry (itching) skin, not elsewhere classified . . . . .	5,123	620	987	1,136	1,680	20.6	25.6	25.5	21.6	18.7
Chronic ulcer of skin . . . . .	332	58	55	65	65	1.3	2.4	1.4	1.2	0.7
Ingrown nails . . . . .	6,078	921	1,111	1,312	1,785	24.4	38.0	28.7	25.0	19.9
Corns and calluses . . . . .	4,731	619	848	1,036	1,484	19.0	25.5	21.9	19.7	16.6
Benign neoplasms of the skin . . . . .	862	105	111	186	345	3.5	4.3	2.9	3.5	3.8
Malignant neoplasms of the skin . . . . .	2,269	213	499	361	717	9.1	8.8	12.9	6.9	8.0
Condition of musculoskeletal system and connective tissue										
Arthritis . . . . .	31,788	4,824	6,810	6,189	7,492	127.8	199.1	175.9	117.9	83.6
Rheumatism, unspecified . . . . .	454	72	118	*49	116	1.8	3.0	3.0	*0.9	1.3
Sciatica (including lumbago) . . . . .	2,058	197	281	395	865	8.3	8.1	7.3	7.5	9.7
Intervertebral disc disorders . . . . .	4,976	522	932	1,050	1,672	20.0	21.5	24.1	20.0	18.7
Bone spur or tendinitis, not elsewhere classified . . . . .	2,633	284	418	553	999	10.6	11.7	10.8	10.5	11.1
Disorders of bone or cartilage . . . . .	1,568	195	347	374	352	6.3	8.0	9.0	7.1	3.9
Bunions . . . . .	2,907	354	550	643	927	11.7	14.6	14.2	12.2	10.3
Bursitis, not elsewhere classified . . . . .	4,674	483	943	1,017	1,582	18.8	19.9	24.4	19.4	17.6
Neuritis or neuralgia, unspecified . . . . .	518	85	100	79	131	2.1	3.5	2.6	1.5	1.5

<sup>1</sup>Includes unknown family income.

\* Figure does not meet standard of reliability or precision.

**Table 35. Average annual number of selected chronic conditions of the skin and subcutaneous tissue and of the musculoskeletal system and connective tissue and rates per 1,000 persons, by geographic region: United States, 1990–92**

[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](#)]

Chronic condition of skin and subcutaneous tissue and of the musculoskeletal system and connective tissue	Geographic region									
	All regions	Northeast	Midwest	South	West	All regions	Northeast	Midwest	South	West
Condition of skin and subcutaneous tissue	Number in thousands					Rate per 1,000 persons				
Sebaceous skin cyst . . . . .	1,249	205	329	447	268	5.0	4.1	5.5	5.3	5.0
Acne . . . . .	4,904	747	1,475	1,547	1,136	19.7	14.9	24.4	18.4	21.0
Psoriasis . . . . .	2,378	437	693	698	550	9.6	8.7	11.5	8.3	10.2
Dermatitis . . . . .	9,273	1,825	2,498	2,743	2,208	37.3	36.5	41.4	32.6	40.8
Dry (itching) skin, not elsewhere classified . . . . .	5,123	820	1,590	1,598	1,116	20.6	16.4	26.4	19.0	20.6
Chronic ulcer of skin . . . . .	332	86	110	99	*37	1.3	1.7	1.8	1.2	*0.7
Ingrown nails . . . . .	6,078	937	1,510	2,345	1,286	24.4	18.7	25.0	27.8	23.8
Corns and calluses . . . . .	4,731	959	1,186	1,603	983	19.0	19.2	19.7	19.0	18.2
Benign neoplasms of the skin . . . . .	862	142	216	302	201	3.5	2.8	3.6	3.6	3.7
Malignant neoplasms of the skin . . . . .	2,269	320	388	1,000	561	9.1	6.4	6.4	11.9	10.4
Condition of musculoskeletal system and connective tissue										
Arthritis . . . . .	31,788	6,260	8,583	11,267	5,677	127.8	125.0	142.3	133.8	104.9
Rheumatism, unspecified . . . . .	454	*48	101	205	100	1.8	*1.0	1.7	2.4	1.8
Sciatica (including lumbago) . . . . .	2,058	625	543	416	474	8.3	12.5	9.0	4.9	8.8
Intervertebral disc disorders . . . . .	4,976	1,034	1,214	1,655	1,073	20.0	20.7	20.1	19.7	19.8
Bone spur or tendinitis, not elsewhere classified . . . . .	2,633	489	721	872	550	10.6	9.8	12.0	10.4	10.2
Disorders of bone or cartilage . . . . .	1,568	287	419	571	290	6.3	5.7	6.9	6.8	5.4
Bunions . . . . .	2,907	487	815	1,000	606	11.7	9.7	13.5	11.9	11.2
Bursitis, not elsewhere classified . . . . .	4,674	889	1,201	1,644	939	18.8	17.8	19.9	19.5	17.3
Neuritis or neuralgia, unspecified . . . . .	518	95	144	181	99	2.1	1.9	2.4	2.1	1.8

\* Figure does not meet standard of reliability or precision.

**Table 36. Average annual number of selected chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions; rates per 1,000 persons by age; and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Endocrine, nutritional, and metabolic diseases and immunity disorders		Rate per 1,000 persons						Percent		
Gout . . . . .	2,167	8.7	*—	3.8	18.0	31.1	29.2	9.6	5.8	93.8
Goiter . . . . .	478	1.9	*0.3	1.6	3.4	5.6	*1.6	*5.6	15.5	100.0
Other diseases of the thyroid . . . . .	3,303	13.3	1.0	9.3	26.6	34.9	30.3	6.5	13.0	99.3
Diabetes . . . . .	6,962	28.0	1.0	11.7	54.7	106.7	92.8	34.7	26.5	100.0
Diseases of the blood and blood-forming organs										
Anemias . . . . .	3,739	15.0	9.2	17.7	12.9	19.2	25.9	4.2	9.3	97.9
Genitourinary conditions										
Kidney stones . . . . .	1,009	4.1	*0.1	4.1	7.7	8.5	4.5	*3.4	50.0	98.8
Kidney infections . . . . .	1,325	5.3	1.5	6.1	6.6	8.5	9.7	*3.5	24.0	96.2
Other kidney trouble, not elsewhere classified . . . . .	862	3.5	1.8	2.5	3.8	8.5	11.4	27.5	35.8	95.0
Bladder infections . . . . .	1,616	6.5	1.7	7.8	7.4	8.9	14.2	*2.5	11.1	97.3
Other disorders of bladder . . . . .	1,822	7.3	2.3	5.0	8.6	17.3	34.9	4.9	20.1	90.0
Diseases of prostate . . . . .	1,513	6.1	*—	1.9	11.0	27.2	24.2	5.2	28.3	97.2
Inflammatory disease of female genital organs . . . . .	184	0.7	*0.3	1.3	*0.4	*0.2	*—	*2.2	*21.7	100.0
Noninflammatory disease of female genital organs . . . . .	1,219	4.9	0.8	9.1	3.4	*1.6	*1.3	*3.0	37.7	99.7
Menstrual disorders . . . . .	1,984	8.0	3.3	14.3	5.4	*0.2	*0.3	*0.9	10.5	89.5
Other diseases of female genital organs . . . . .	2,382	9.6	2.5	15.4	9.8	4.2	4.5	7.7	21.0	92.0
Female trouble, not otherwise specified . . . . .	144	0.6	*—	0.8	*1.1	*0.3	*—	*4.9	*29.9	93.1
Malignant neoplasm of breast . . . . .	802	3.2	*—	0.7	5.4	14.3	17.3	23.7	85.3	100.0
Malignant neoplasm of female genital organs . . . . .	221	0.9	*—	1.1	*1.0	*2.0	*1.4	*16.3	57.5	100.0
Malignant neoplasm of prostate . . . . .	344	1.4	*—	*0.1	1.3	8.8	9.4	22.1	70.6	100.0
Benign neoplasm of breast . . . . .	73	0.3	*—	*0.4	*0.3	*0.5	*0.8	*2.7	*30.1	100.0
Benign neoplasm of female genital organs . . . . .	746	3.0	*—	4.1	5.4	*2.3	*1.1	*5.0	49.6	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\*— Figure does not meet standard of reliability or precision and quantity zero.

\* Figure does not meet standard of reliability or precision.

**Table 37. Average annual number of selected chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions among males, rates per 1,000 persons by age; and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Endocrine, nutritional, and metabolic diseases and immunity disorders		Rate per 1,000 persons						Percent		
Gout . . . . .	1,456	12.1	*–	6.2	25.4	47.7	37.8	8.7	5.8	94.4
Goiter . . . . .	65	0.5	*0.2	*0.5	*0.5	*2.1	*0.9	*10.8	*26.2	100.0
Other diseases of the thyroid . . . . .	490	4.1	*0.2	3.0	8.0	11.5	*11.8	*4.3	14.1	99.2
Diabetes . . . . .	3,041	25.2	*0.8	10.0	53.1	106.5	93.0	33.4	26.0	100.0
Diseases of the blood and blood-forming organs										
Anemias . . . . .	607	5.0	7.6	2.1	2.6	11.5	19.9	*5.4	13.3	97.5
Genitourinary conditions										
Kidney stones . . . . .	636	5.3	*–	5.0	11.7	10.6	*4.9	*1.9	53.1	99.4
Kidney infections . . . . .	172	1.4	*0.8	1.2	*2.0	*2.4	*4.0	*–	*18.6	90.7
Other kidney trouble, not elsewhere classified . . . . .	341	2.8	*0.8	1.9	4.4	7.1	13.0	28.2	35.8	90.6
Bladder infections . . . . .	161	1.3	*0.4	*0.9	*2.1	*2.2	*7.6	*10.6	*29.8	98.1
Other disorders of bladder . . . . .	320	2.6	*1.0	*1.0	3.3	*5.7	25.9	*7.5	25.0	90.6
Diseases of prostate . . . . .	1,513	12.5	*–	4.0	22.9	60.8	64.8	5.2	28.3	97.2
Inflammatory disease of female genital organs . . . . .	...	...	...	...	...	...	...	...	...	...
Noninflammatory disease of female genital organs . . . . .	...	...	...	...	...	...	...	...	...	...
Menstrual disorders . . . . .	...	...	...	...	...	...	...	...	...	...
Other diseases of female genital organs . . . . .	...	...	...	...	...	...	...	...	...	...
Female trouble, not otherwise specified . . . . .	...	...	...	...	...	...	...	...	...	...
Malignant neoplasm of breast . . . . .	...	...	...	...	...	...	...	...	...	...
Malignant neoplasm of female genital organs . . . . .	...	...	...	...	...	...	...	...	...	...
Malignant neoplasm of prostate . . . . .	344	2.8	*–	*0.2	2.7	19.7	25.3	22.1	70.6	100.0
Benign neoplasm of breast . . . . .	...	...	...	...	...	...	...	...	...	...
Benign neoplasm of female genital organs . . . . .	...	...	...	...	...	...	...	...	...	...

<sup>1</sup>Includes races other than white and black and unknown family income.

\*– Figure does not meet standard of reliability or precision and quantity zero.

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

**Table 38. Average annual number of selected chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions among females, rates per 1,000 persons by age; and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions	Number of conditions in thousands <sup>1</sup>	Age						Conditions causing—		
		All ages	Under 18 years	18–44 years	45–64 years	65–74 years	75 years and over	Limitation of activity	1 or more hospitali- zations	1 or more physician visits
Endocrine, nutritional, and metabolic diseases and immunity disorders		Rate per 1,000 persons						Percent		
Gout . . . . .	711	5.6	*–	1.4	11.1	17.7	24.1	11.4	*5.9	92.4
Goiter . . . . .	413	3.2	*0.5	2.8	6.1	8.5	*2.0	*4.8	13.8	100.0
Other diseases of the thyroid . . . . .	2,813	22.0	1.8	15.3	43.7	53.8	41.3	6.9	12.8	99.4
Diabetes . . . . .	3,922	30.6	*1.2	13.4	56.2	106.9	92.8	35.7	27.0	100.0
Diseases of the blood and blood-forming organs										
Anemias . . . . .	3,132	24.5	10.8	32.6	22.4	25.5	29.6	3.9	8.6	98.0
Genitourinary conditions										
Kidney stones . . . . .	373	2.9	*0.1	3.2	3.9	6.8	*4.4	*5.9	44.8	97.6
Kidney infections . . . . .	1,153	9.0	2.3	10.7	10.8	13.5	13.0	*4.1	24.8	97.1
Other kidney trouble, not elsewhere classified . . . . .	520	4.1	3.0	3.2	3.2	9.6	10.5	27.1	36.2	98.1
Bladder infections . . . . .	1,455	11.4	3.1	14.4	12.3	14.1	18.2	*1.7	9.1	97.2
Other disorders of bladder . . . . .	1,502	11.7	3.6	8.9	13.5	26.6	40.3	4.3	19.1	89.8
Diseases of prostate . . . . .	...	...	...	...	...	...	...	...	...	...
Inflammatory disease of female genital organs . . . . .	184	1.4	*0.7	2.6	*0.8	*0.4	*–	*2.2	*21.7	100.0
Noninflammatory disease of female genital organs . . . . .										
Menstrual disorders . . . . .	1,219	9.5	1.7	17.9	6.4	*2.9	*2.1	*3.0	37.7	99.7
Other diseases of female genital organs . . . . .	1,984	15.5	6.8	28.0	10.3	*0.4	*0.5	*0.9	10.5	89.5
Female trouble, not otherwise specified . . . . .	2,382	18.6	5.1	30.2	18.9	7.6	7.2	7.7	21.0	92.0
Female trouble, not otherwise specified . . . . .	144	1.1	*–	1.6	*2.1	*0.5	*–	*4.9	*29.9	93.1
Malignant neoplasm of breast . . . . .	802	6.3	*–	1.4	10.4	25.9	27.6	23.7	85.3	100.0
Malignant neoplasm of female genital organs . . . . .	221	1.7	*–	2.2	*2.0	*3.7	*2.3	*16.3	57.5	100.0
Malignant neoplasm of prostate . . . . .	...	...	...	...	...	...	...	...	...	...
Benign neoplasm of breast . . . . .	73	0.6	*–	*0.8	*0.6	*0.9	*1.2	*2.7	*30.1	100.0
Benign neoplasm of female genital organs . . . . .	746	5.8	*–	8.1	10.5	*4.2	*1.7	*5.0	49.6	100.0

<sup>1</sup>Includes races other than white and black and unknown family income.

\*– Figure does not meet standard of reliability or precision and quantity zero.

\* Figure does not meet standard of reliability or precision.

... Category not applicable.

**Table 39. Average annual number of selected chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions among white persons; rates per 1,000 persons by age; and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitalizations	1 or more physician visits
Endocrine, nutritional, and metabolic diseases and immunity disorders		Rate per 1,000 persons				Percent		
Gout . . . . .	1,779	8.5	2.5	16.0	28.6	8.2	5.1	93.4
Goiter . . . . .	394	1.9	1.2	3.2	3.6	*5.3	*12.9	100.0
Other diseases of the thyroid . . . . .	3,020	14.5	6.7	28.0	34.6	5.7	12.7	99.4
Diabetes . . . . .	5,661	27.2	7.5	50.7	93.5	33.1	25.7	100.0
Diseases of the blood and blood-forming organs								
Anemias . . . . .	2,749	13.2	12.1	11.1	22.0	3.0	9.4	97.7
Genitourinary conditions								
Kidney stones . . . . .	928	4.5	2.9	8.3	6.7	*3.7	49.1	99.1
Kidney infections . . . . .	1,125	5.4	4.5	6.6	8.4	*2.1	21.9	95.8
Other kidney trouble, not elsewhere classified . . . .	700	3.4	2.2	3.5	9.1	26.0	37.4	96.1
Bladder infections . . . . .	1,483	7.1	6.1	7.8	11.5	*2.8	11.5	97.3
Other disorders of bladder . . . . .	1,591	7.6	4.2	8.5	24.3	4.7	20.7	90.3
Diseases of prostate . . . . .	1,362	6.5	1.3	11.4	26.2	4.3	27.5	96.8
Inflammatory disease of female genital organs . . . .	160	0.8	1.0	*0.2	*0.1	*2.5	*18.8	100.0
Noninflammatory disease of female								
genital organs . . . . .	1,114	5.3	6.5	3.8	*1.7	*3.3	35.6	99.6
Menstrual disorders. . . . .	1,743	8.4	10.7	5.6	*0.3	*0.6	10.6	89.8
Other diseases of female genital organs . . . . .	2,074	10.0	10.9	10.2	4.7	8.1	21.6	92.8
Female trouble, not otherwise specified . . . . .	126	0.6	0.5	*1.1	*0.2	*3.2	*27.0	94.4
Malignant neoplasm of breast . . . . .	728	3.5	0.5	5.8	15.6	23.2	86.3	100.0
Malignant neoplasm of female genital organs. . . . .	202	1.0	0.8	*1.0	2.0	*15.8	55.9	100.0
Malignant neoplasm of prostate . . . . .	288	1.4	*0.1	*0.9	8.9	21.9	70.8	100.0
Benign neoplasm of breast . . . . .	62	0.3	*0.2	*0.4	*0.7	*—	*35.5	100.0
Benign neoplasm of female genital organs . . . . .	569	2.7	2.2	4.9	2.0	*5.3	47.3	100.0

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 40. Average annual number of selected chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions among black persons; rates per 1,000 persons by age; and percent of conditions causing activity limitation, hospitalization, and physician visits: United States, 1990–92**

[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](#)]

Chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions	Number of conditions in thousands	Age				Conditions causing—		
		All ages	Under 45 years	45–64 years	65 years and over	Limitation of activity	1 or more hospitali- zations	1 or more physician visits
Endocrine, nutritional, and metabolic diseases and immunity disorders		Rate per 1,000 persons				Percent		
Gout . . . . .	362	11.7	*1.5	39.1	52.7	16.6	*8.8	95.6
Goiter. . . . .	77	2.5	*1.3	*4.7	*9.4	*6.5	*29.9	100.0
Other diseases of the thyroid . . . . .	186	6.0	2.5	15.8	*19.9	*21.0	*19.4	97.8
Diabetes . . . . .	1,119	36.2	8.8	93.3	178.7	42.3	32.4	100.0
Diseases of the blood and blood-forming organs								
Anemias . . . . .	828	26.8	26.8	28.7	23.0	8.3	9.8	99.3
Genitourinary conditions								
Kidney stones. . . . .	*51	*1.7	*0.8	*3.1	*6.6	*—	*45.1	*100.0
Kidney infections . . . . .	166	5.4	4.0	*8.4	*12.1	*13.9	*29.5	98.2
Other kidney trouble, not elsewhere classified . . . . .	136	4.4	2.9	*4.3	*17.9	*35.3	*26.5	91.9
Bladder infections . . . . .	100	3.2	2.9	*4.1	*4.3	*—	*4.0	100.0
Other disorders of bladder . . . . .	210	6.8	4.0	11.3	23.4	*6.7	*14.8	86.2
Diseases of prostate. . . . .	134	4.3	*0.8	*8.2	28.9	*11.9	*37.3	100.0
Inflammatory disease of female genital organs. . . . .	*24	*0.8	*0.6	*1.6	*—	*—	*41.7	*100.0
Noninflammatory disease of female genital organs . . . . .								
Menstrual disorders . . . . .	87	2.8	3.5	*1.0	*—	*—	*56.3	100.0
Other diseases of female genital organs . . . . .	197	6.4	7.6	*3.7	*—	*1.0	*9.6	85.8
Female trouble, not otherwise specified . . . . .	242	7.8	8.9	*6.1	*1.6	*6.2	*11.2	82.6
Malignant neoplasm of breast . . . . .	*18	*0.6	*0.6	*1.0	*—	*16.7	*50.0	*88.9
Malignant neoplasm of female genital organs . . . . .	56	1.8	*0.3	*2.9	*14.0	*37.5	*73.2	100.0
Malignant neoplasm of prostate. . . . .	*12	*0.4	*0.2	*1.2	*—	*33.3	*83.3	*100.0
Benign neoplasm of breast. . . . .	*43	*1.4	*—	*3.3	*10.5	*20.9	*72.1	*100.0
Benign neoplasm of female genital organs . . . . .	*11	*0.4	*0.5	*—	*—	*18.2	*—	*100.0
Benign neoplasm of female genital organs . . . . .	164	5.3	4.5	11.9	*—	*4.3	54.3	100.0

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 41. Average annual number of selected chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions; and rates per 1,000 persons, by family income: United States, 1990–92**

[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](#)]

<i>Chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions</i>	<i>Family income</i>									
	<i>All incomes<sup>1</sup></i>	<i>Less than \$10,000</i>	<i>\$10,000–19,999</i>	<i>\$20,000–34,999</i>	<i>\$35,000 or more</i>	<i>All incomes<sup>1</sup></i>	<i>Less than \$10,000</i>	<i>\$10,000–19,999</i>	<i>\$20,000–34,999</i>	<i>\$35,000 or more</i>
Endocrine, nutritional, and metabolic diseases and immunity disorders	Number in thousands					Rate per 1,000 persons				
Gout . . . . .	2,167	288	470	407	565	8.7	11.9	12.1	7.8	6.3
Goiter . . . . .	478	64	100	75	180	1.9	2.6	2.6	1.4	2.0
Other diseases of the thyroid . . . . .	3,303	386	601	639	1,099	13.3	15.9	15.5	12.2	12.3
Diabetes . . . . .	6,962	1,218	1,508	1,279	1,414	28.0	50.3	39.0	24.4	15.8
Diseases of the blood and blood-forming organs										
Anemias . . . . .	3,739	677	699	697	1,058	15.0	27.9	18.1	13.3	11.8
Genitourinary conditions										
Kidney stones . . . . .	1,009	107	166	140	411	4.1	4.4	4.3	2.7	4.6
Kidney infections . . . . .	1,325	262	310	214	274	5.3	10.8	8.0	4.1	3.1
Other kidney trouble, not elsewhere classified . . . . .	862	210	141	180	172	3.5	8.7	3.6	3.4	1.9
Bladder infections . . . . .	1,616	151	271	351	620	6.5	6.2	7.0	6.7	6.9
Other disorders of bladder . . . . .	1,822	402	417	324	365	7.3	16.6	10.8	6.2	4.1
Diseases of prostate . . . . .	1,513	116	266	327	559	6.1	4.8	6.9	6.2	6.2
Inflammatory disease of female genital organs . . . . .	184	*25	*44	*35	68	0.7	*1.0	*1.1	*0.7	0.8
Noninflammatory disease of female genital organs . . . . .	1,219	93	202	331	446	4.9	3.8	5.2	6.3	5.0
Menstrual disorders . . . . .	1,984	285	320	422	735	8.0	11.8	8.3	8.0	8.2
Other diseases of female genital organs . . . . .	2,382	286	303	529	1,008	9.6	11.8	7.8	10.1	11.2
Female trouble, not otherwise specified . . . . .	144	*15	*39	*18	*53	0.6	*0.6	*1.0	*0.3	*0.6
Malignant neoplasm of breast . . . . .	802	110	160	158	206	3.2	4.5	4.1	3.0	2.3
Malignant neoplasm of female genital organs . . . . .	221	*30	*32	*38	69	0.9	*1.2	*0.8	*0.7	0.8
Malignant neoplasm of prostate . . . . .	344	*7	100	84	89	1.4	*0.3	2.6	1.6	1.0
Benign neoplasm of breast . . . . .	73	*—	*—	*9	*40	0.3	*—	*—	*0.2	*0.4
Benign neoplasm of female genital organs . . . . .	746	57	105	172	325	3.0	2.4	2.7	3.3	3.6

<sup>1</sup>Includes unknown family income.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.



**Table 42. Average annual number of selected chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions; and rates per 1,000 persons, by geographic region: United States, 1990–92**

[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](#)]

<i>Chronic endocrine, nutritional, and metabolic diseases and immunity disorders; diseases of the blood and blood-forming organs; and genitourinary conditions</i>	<i>Geographic region</i>									
	<i>All regions</i>	<i>Northeast</i>	<i>Midwest</i>	<i>South</i>	<i>West</i>	<i>All regions</i>	<i>Northeast</i>	<i>Midwest</i>	<i>South</i>	<i>West</i>
Endocrine, nutritional, and metabolic diseases and immunity disorders	Number in thousands					Rate per 1,000 persons				
Gout . . . . .	2,167	337	474	926	429	8.7	6.7	7.9	11.0	7.9
Goiter . . . . .	478	95	99	164	121	1.9	1.9	1.6	1.9	2.2
Other diseases of the thyroid . . . . .	3,303	690	863	985	765	13.3	13.8	14.3	11.7	14.1
Diabetes . . . . .	6,962	1,470	1,643	2,673	1,176	28.0	29.4	27.2	31.7	21.7
Diseases of the blood and blood-forming organs										
Anemias . . . . .	3,739	821	800	1,303	815	15.0	16.4	13.3	15.5	15.1
Genitourinary conditions										
Kidney stones . . . . .	1,009	195	196	459	158	4.1	3.9	3.2	5.5	2.9
Kidney infections . . . . .	1,325	125	264	703	234	5.3	2.5	4.4	8.3	4.3
Other kidney trouble, not elsewhere classified . . . . .	862	146	191	331	193	3.5	2.9	3.2	3.9	3.6
Bladder infections . . . . .	1,616	313	402	489	412	6.5	6.3	6.7	5.8	7.6
Other disorders of bladder . . . . .	1,822	225	487	744	365	7.3	4.5	8.1	8.8	6.7
Diseases of prostate . . . . .	1,513	285	323	609	295	6.1	5.7	5.4	7.2	5.4
Inflammatory disease of female genital organs . . . . .	184	*24	65	62	*33	0.7	*0.5	1.1	0.7	*0.6
Noninflammatory disease of female genital organs . . . . .	1,219	240	376	374	230	4.9	4.8	6.2	4.4	4.2
Menstrual disorders . . . . .	1,984	283	568	732	402	8.0	5.7	9.4	8.7	7.4
Other diseases of female genital organs . . . . .	2,382	403	705	769	505	9.6	8.0	11.7	9.1	9.3
Female trouble, not otherwise specified . . . . .	144	*18	*48	*29	*49	0.6	*0.4	*0.8	*0.3	*0.9
Malignant neoplasm of breast . . . . .	802	197	183	280	141	3.2	3.9	3.0	3.3	2.6
Malignant neoplasm of female genital organs . . . . .	221	*32	70	91	*29	0.9	*0.6	1.2	1.1	*0.5
Malignant neoplasm of prostate . . . . .	344	56	91	127	69	1.4	1.1	1.5	1.5	1.3
Benign neoplasm of breast . . . . .	73	*4	*14	*37	*17	0.3	*0.1	*0.2	*0.4	*0.3
Benign neoplasm of female genital organs . . . . .	746	142	181	289	133	3.0	2.8	3.0	3.4	2.5

\* Figure does not meet standard of reliability or precision.

**Table 43. Average annual number of days of restricted activity from selected chronic conditions and number of days per condition, by age and sex: United States, 1990–92**

[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](#)]

Selected chronic conditions	Age						Sex			
	All persons		Under 65 years		65 years and over		Male		Female	
	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition
<b>Circulatory conditions</b>										
Heart disease . . . . .	399,680	19.5	167,480	14.8	232,201	25.3	183,875	19.0	215,805	20.0
Ischemic heart disease . . . . .	177,698	23.0	82,367	25.0	95,331	21.5	94,041	20.2	83,657	27.3
Heart rhythm disorders . . . . .	45,208	5.7	20,614	3.7	24,594	10.7	13,414	4.6	31,794	6.4
Tachycardia . . . . .	15,456	8.1	*9,492	*8.2	*5,964	*8.0	*6,671	*10.5	*8,784	*6.9
Other and unspecified heart rhythm disorders . . . . .	24,820	14.8	*8,300	*10.6	16,520	18.4	*5,589	*8.2	19,232	19.3
Other selected diseases of the heart (excludes hypertension) . . . . .	169,380	40.9	60,016	31.8	109,364	48.4	70,153	38.2	99,227	42.9
Rheumatic fever with or without heart disease. . . . .	26,456	13.0	16,225	9.9	*10,230	*26.2	*7,068	*12.3	19,387	13.3
High blood pressure (hypertension) . . . . .	141,758	5.1	71,378	4.3	70,380	6.3	52,486	4.3	89,272	5.8
Cerebrovascular disease. . . . .	118,046	39.3	32,627	33.5	85,418	42.2	59,507	41.0	58,539	37.7
Hardening of the arteries . . . . .	34,772	16.8	13,067	21.7	21,705	14.8	15,297	14.9	19,474	18.6
Phlebitis, thrombophlebitis. . . . .	15,193	20.9	*5,521	*13.9	*9,672	*29.5	*5,140	*21.0	*10,053	*20.9
Varicose veins of lower extremities . . . . .	19,125	2.6	13,345	2.6	*5,780	*2.6	*5,353	*3.7	13,772	2.3
Hemorrhoids . . . . .	14,871	1.6	*10,309	*1.4	*4,562	*2.4	*5,725	*1.4	*9,146	*1.7
Poor circulation . . . . .	25,336	25.9	*6,942	*16.5	18,394	32.9	*9,832	*26.5	15,504	25.5
<b>Respiratory conditions</b>										
Chronic bronchitis . . . . .	51,490	4.0	29,808	2.7	21,683	11.2	18,771	3.7	32,720	4.2
Emphysema . . . . .	88,976	47.9	36,636	50.5	52,340	46.2	60,685	52.1	28,291	40.7
Asthma . . . . .	133,845	11.7	98,793	9.6	35,052	30.6	63,019	11.8	70,826	11.5
Hay fever or allergic rhinitis without asthma. . . . .	28,553	1.2	23,518	1.1	*5,035	*2.2	*11,235	*1.0	17,318	1.3
Chronic sinusitis . . . . .	73,264	2.2	56,101	1.9	17,164	3.8	20,386	1.5	52,878	2.7
Malignant neoplasms of lung, bronchus, and other respiratory sites . . . . .	20,955	96.1	*6,247	*61.9	14,708	125.7	15,401	107.0	*5,554	*75.1
Other diseases of the lung . . . . .	25,833	20.9	*8,550	*10.5	15,283	47.3	18,094	31.7	*5,739	*10.1
<b>Digestive conditions</b>										
Gallbladder stones . . . . .	13,264	12.4	*9,717	*13.2	*3,547	*10.7	—	—	13,264	17.5
Liver disease including cirrhosis . . . . .	18,453	24.1	12,489	20.2	*5,963	*40.3	12,078	29.7	*6,374	*17.7
Ulcer, gastric, duodenal, and/or peptic . . . . .	33,937	8.1	19,115	5.9	14,822	15.7	14,420	7.3	19,517	8.7
Gastric ulcer . . . . .	22,855	7.3	13,150	5.3	*9,706	*15.8	*11,201	*7.6	*11,654	*7.1
Hernia of abdominal cavity . . . . .	41,720	8.8	30,283	10.2	*11,438	*6.4	24,184	10.3	17,536	7.2
Disease of esophagus . . . . .	15,520	18.6	*8,931	*14.6	*6,588	*29.8	*11,390	*28.5	*4,129	*9.5
Gastritis and duodenitis . . . . .	17,686	5.9	12,635	5.4	*5,050	*7.5	*8,287	*7.2	*9,398	*5.1
Indigestion and other functional disorders of the stomach . . . . .	34,618	5.4	16,988	3.4	17,630	12.1	13,300	4.3	21,318	6.4
Enteritis and colitis . . . . .	31,515	13.5	21,546	12.2	*9,969	*17.8	*10,307	*12.6	21,208	14.0
Spastic colon . . . . .	12,978	7.7	*10,499	*7.8	*2,480	*7.4	*2,047	*6.9	*10,932	*7.9
Other stomach and intestinal disorders . . . . .	26,977	13.1	17,830	12.0	*9,147	*16.1	*10,606	*13.0	16,371	13.2
Malignant neoplasms of stomach, intestines, colon, and rectum . . . . .	19,421	60.3	*9,228	*71.5	*10,193	*53.1	12,176	83.4	*7,245	*41.4
<b>Impairments</b>										
Blindness and other visual impairments . . . . .	32,253	3.9	18,244	3.2	14,010	5.8	14,663	2.9	17,591	5.7
Other visual impairments . . . . .	27,547	3.6	16,256	3.0	*11,291	*5.2	*11,977	*2.5	15,570	5.6
Speech impairments . . . . .	19,062	7.0	*8,526	*3.6	*10,535	*27.6	*9,268	*5.4	*9,794	*9.8

See footnotes at end of table.

**Table 43. Average annual number of days of restricted activity from selected chronic conditions and number of days per condition, by age and sex: United States, 1990–92—Con.**

[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](#)]

Selected chronic conditions	Age						Sex			
	All persons		Under 65 years		65 years and over		Male		Female	
	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition
Impairments—Con.										
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) . . . . .	15,036	10.2	*6,536	*6.7	*8,500	*16.8	*10,265	*9.0	*4,771	*14.0
Absence of lower extremities or parts of lower extremities . . . . .	14,312	26.9	*5,812	*18.0	*8,500	*40.3	*9,542	*27.2	*4,771	*26.4
Absence of bone, joint, or muscle of extremity . . . . .	17,025	19.5	*10,010	*23.3	*7,015	*15.8	*5,563	*14.8	*11,462	*22.9
Paralysis of extremities, complete or partial . . . . .	68,005	46.5	33,298	37.8	34,707	59.5	29,196	37.2	38,809	57.2
Paralysis of extremities, complete . . . . .	36,962	59.0	16,533	44.0	20,429	81.7	17,945	49.3	19,017	72.6
Paralysis of extremities, partial . . . . .	31,043	37.0	16,765	33.2	14,278	42.9	*11,252	*26.7	19,791	47.5
Paralysis of other site, complete or partial . . . . .	21,005	56.6	15,835	64.6	*5,170	*41.0	*10,039	*50.7	*10,965	*63.4
Deformities or orthopedic impairments, total . . . . .	599,569	17.1	444,481	15.7	155,089	23.4	271,687	16.5	327,883	17.8
Deformities or orthopedic impairments of back . . . . .	276,130	15.2	218,869	14.4	57,261	19.3	134,725	17.2	141,405	13.7
Curvature or other orthopedic impairment of back or spine . . . . .	55,440	10.9	39,996	9.5	15,445	17.6	20,994	13.6	34,447	9.8
Deformities or orthopedic impairments of upper extremities . . . . .	86,190	22.4	70,257	23.7	15,933	18.0	35,965	16.8	50,225	29.1
Orthopedic impairment, shoulder . . . . .	69,353	23.8	59,714	25.5	*9,639	*16.8	29,517	18.7	39,836	29.7
Deformities or orthopedic impairments of lower extremities . . . . .	217,909	17.4	144,527	14.6	73,383	27.9	89,495	14.2	128,414	20.6
Other deformities or orthopedic impairments . . . . .	19,339	42.4	*10,828	*34.3	*8,512	*60.8	*11,502	*44.8	*7,838	*39.4
Conditions of nervous system and sense organs										
Cataracts . . . . .	16,600	2.6	*2,470	*1.7	14,130	2.8	*3,890	*1.8	12,709	3.0
Epilepsy . . . . .	21,912	17.6	18,072	16.2	*3,839	*30.0	14,277	23.5	*7,634	*12.0
Migraine headache . . . . .	75,734	7.6	71,822	7.7	*3,911	*6.0	23,998	9.1	51,736	7.0
Other headache (excludes tension headache) . . . . .	68,334	6.7	54,025	5.8	14,310	14.6	29,625	9.3	38,709	5.5
Conditions of musculoskeletal system and connective tissue										
Arthritis . . . . .	445,381	14.0	227,438	13.2	217,943	15.0	150,371	13.0	295,010	14.6
Sciatica (including lumbago) . . . . .	25,902	12.6	16,322	10.8	*9,581	*17.7	*6,206	*8.6	19,696	14.7
Intervertebral disc disorders . . . . .	187,530	37.7	166,973	40.7	20,556	23.6	108,122	39.3	79,408	35.7
Bone spur or tendinitis, not otherwise specified . . . . .	33,511	12.7	24,359	12.0	*9,153	*15.0	12,216	11.2	21,295	13.8
Disorders of bone or cartilage . . . . .	45,083	28.8	27,400	29.6	17,684	27.5	*10,223	*23.2	34,860	30.9
Bursitis, not elsewhere classified . . . . .	22,952	4.9	18,837	5.4	*4,115	*3.4	*4,226	*2.2	18,725	6.8
Condition of skin and subcutaneous tissue										
Chronic ulcer of skin . . . . .	14,064	42.5	*9,110	*50.3	*4,953	*32.8	*6,273	*38.5	*7,790	*46.4

See footnotes at end of table.

**Table 43. Average annual number of days of restricted activity from selected chronic conditions and number of days per condition, by age and sex: United States, 1990–92—Con.**

[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](#)]

Selected chronic conditions	Age						Sex			
	All persons		Under 65 years		65 years and over		Male		Female	
	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition
Endocrine, nutritional, and metabolic diseases and immunity disorders										
Gout . . . . .	25,573	11.8	12,908	10.3	12,664	13.4	12,248	8.4	13,325	18.7
Diabetes. . . . .	115,715	16.6	60,811	15.6	54,905	17.9	45,343	14.9	70,372	18.0
Diseases of the blood and blood-forming organs										
Anemias. . . . .	22,242	6.0	16,943	5.5	*5,299	*8.0	*3,486	*5.8	18,756	6.0
Genitourinary conditions										
Other kidney trouble, not elsewhere classified. . . . .	18,313	21.3	*8,018	*14.1	*10,295	*35.1	*5,843	*17.1	12,470	24.0
Other disorders of bladder. . . . .	12,816	7.0	*8,588	*7.9	*4,229	*5.8	*5,485	*17.1	*7,331	*4.9
Diseases of prostate . . . . .	14,409	9.5	*5,807	*8.0	*8,601	*10.9	14,408	9.5	...	...
Other diseases of female genital organs . . . . .	24,330	10.2	23,588	10.5	*742	*5.7	...	...	24,330	10.2
Malignant neoplasms of breast . . . . .	15,124	18.9	*7,679	*23.1	*7,445	*15.9	...	...	15,124	18.9
Malignant neoplasms of prostate. . . . .	15,818	46.1	*5,533	*79.0	*10,285	*37.5	15,818	46.1	...	...

... Category not applicable.

\* Figure does not meet standard of reliability or precision.

\*— Figure does not meet standard of reliability or precision and quantity zero.

**Table 44. Average annual number of days of bed disability from selected chronic conditions and number of days per condition, by age and sex: United States, 1990–92**

[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](#)]

Selected chronic conditions	Age						Sex			
	All persons		Under 65 years		65 years and over		Male		Female	
	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition	Number of days in thousands	Days per condition
Circulatory conditions										
Heart Disease . . . . .	157,911	7.7	70,177	6.2	87,734	9.6	72,083	7.4	85,828	8.0
Ischemic heart disease . . . . .	66,195	8.6	30,664	9.3	35,531	8.0	35,246	7.6	30,949	10.1
Heart rhythm disorders . . . . .	17,124	2.2	*9,177	*1.6	*7,947	*3.5	*6,674	*2.3	*10,450	*2.1
Other selected diseases of the heart (excludes hypertension) . . . . .	71,840	17.3	29,475	15.6	42,366	18.7	27,802	15.1	44,038	19.0
High blood pressure . . . . .	47,875	1.7	25,689	1.6	22,186	2.0	17,998	1.5	29,877	1.9
Cerebrovascular disease . . . . .	51,190	17.1	*11,293	*11.6	39,897	19.7	24,761	17.1	26,428	17.0
Poor circulation . . . . .	14,202	14.5	*2,055	*4.9	12,147	21.7	*6,826	*18.4	*7,376	*12.1
Respiratory conditions										
Chronic bronchitis . . . . .	16,413	1.3	*10,773	*1.0	*5,640	*2.9	*3,814	*0.7	12,599	1.6
Emphysema . . . . .	33,644	18.1	12,699	17.5	20,945	18.5	24,979	21.4	*8,665	*12.4
Asthma . . . . .	63,893	5.6	46,443	4.5	17,450	15.2	29,999	5.6	33,894	5.5
Chronic sinusitis . . . . .	22,242	0.6	17,561	0.6	*4,681	*1.0	*6,571	*0.5	15,672	0.8
Other diseases of the lung . . . . .	14,946	13.1	*6,961	*8.5	*7,984	*24.7	*11,534	*20.2	*3,412	*6.0
Digestive conditions										
Hernia of abdominal cavity . . . . .	13,441	2.8	*6,442	*2.2	*6,998	*3.9	*7,635	*3.3	*5,805	*2.4
Enteritis and colitis . . . . .	14,701	6.3	*9,757	*5.5	*4,944	*8.8	*3,700	*4.5	*11,002	*7.3
Other stomach and intestinal disorders . . . . .	12,800	6.2	*8,918	*6.0	*3,882	*6.8	*2,996	*3.7	*9,804	*7.9
Impairments										
Paralysis of extremities, complete or partial . . . . .	30,021	20.5	*11,221	*12.7	18,801	32.2	13,264	16.9	16,757	24.7
Paralysis of extremities, complete . . . . .	18,778	30.2	*5,866	*15.6	12,912	51.6	*9,227	*25.3	*9,551	*36.5
Paralysis of other site, complete or partial . . . . .	12,408	33.3	*7,238	*29.5	*5,170	*41.0	*4,587	*23.2	*7,820	*45.2
Deformities or orthopedic impairments, total . . . . .	160,919	4.6	115,866	4.1	45,053	6.8	63,364	3.8	97,556	5.3
Deformities or orthopedic impairments of back . . . . .	93,215	5.1	74,377	4.9	18,838	6.3	41,496	5.3	51,719	5.0
Curvature of other deformity of back or spine . . . . .	21,429	4.2	14,678	3.5	*6,751	*7.7	*6,959	*4.5	14,470	4.1
Deformities or orthopedic impairments of lower extremities . . . . .	54,178	4.3	32,252	3.3	21,926	8.3	18,637	3.0	35,541	5.7
Conditions of nervous system and sense organs										
Migraine headache . . . . .	34,398	3.4	32,955	3.5	*1,443	*2.2	*9,203	*3.5	25,195	3.4
Other headache (excludes tension headache) . . . . .	27,256	2.7	20,934	2.3	*6,322	*6.4	*8,974	*2.8	18,282	2.6
Conditions of musculoskeletal system and connective tissue										
Arthritis . . . . .	152,141	4.8	79,484	4.6	72,656	5.0	49,544	4.3	102,596	5.1
Intervertebral disc disorders . . . . .	57,158	11.5	50,249	12.2	*6,909	*7.9	27,207	9.9	29,951	13.4
Disorders of bone or cartilage . . . . .	23,971	15.3	14,807	16.0	*9,165	*14.3	*5,208	*11.8	18,762	16.6
Endocrine, nutritional, and metabolic diseases and immunity disorders										
Gout . . . . .	12,998	6.0	*5,350	*4.3	*7,648	*8.3	*5,034	*3.5	*7,964	*11.2
Diabetes . . . . .	54,539	7.8	27,599	7.1	26,940	8.8	17,999	5.9	36,540	9.3

\* Figure does not meet standard of reliability or precision.

**Table 45. Population used in computing rates shown in this report, by selected characteristics and age: United States, 1990–92**

<i>Characteristic</i>	<i>All ages</i>	<i>Under 18 years</i>	<i>18–44 years</i>	<i>Under 45 years</i>	<i>45–64 years</i>	<i>65–74 years</i>	<i>75 years and over</i>
Population in thousands							
All persons <sup>1</sup> . . . . .	248,754	65,553	105,498	171,050	47,416	18,289	11,999
Sex							
Male . . . . .	120,759	33,550	51,805	85,355	22,752	8,179	4,474
Female . . . . .	127,995	32,002	53,693	85,696	24,664	10,110	7,525
Race							
White . . . . .	208,265	...	...	140,186	40,903	16,307	10,868
Black . . . . .	30,909	...	...	23,467	4,879	1,609	954
Family income							
Less than \$10,000 . . . . .	24,231	...	...	...	...	...	...
\$10,000–\$19,999 . . . . .	38,712	...	...	...	...	...	...
\$20,000–\$34,999 . . . . .	52,492	...	...	...	...	...	...
\$35,000 or more . . . . .	89,632	...	...	...	...	...	...
Geographic region							
Northeast . . . . .	50,067	...	...	...	...	...	...
Midwest . . . . .	60,332	...	...	...	...	...	...
South . . . . .	84,217	...	...	...	...	...	...
West . . . . .	54,132	...	...	...	...	...	...

<sup>1</sup>Includes races other than white and black and unknown family income.

... Category not applicable.

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# Appendix I

## Technical notes on methods

### Background

This report is one of a series of statistical reports published by the staff of the National Center for Health Statistics (NCHS). It is based on information collected in a continuing nationwide sample of households included in the National Health Interview Survey (NHIS). Data are obtained on the personal, sociodemographic, and health characteristics of the family members and unrelated individuals living in these households.

Field operations for the survey are conducted by the U.S. Bureau of the Census under specifications established by NCHS. The Bureau of the Census participates in the survey planning, selects the sample, and conducts the interviews. The data are then transmitted to NCHS for preparation, processing, and analysis.

Summary reports and reports on special topics for each year's data are prepared by the staff of the Division of Health Interview Statistics for publication in Series 10 publications of NCHS. Data are also tabulated for other reports published by NCHS staff and for use by other organizations and by researchers within and outside the Government. Since 1969, public use tapes have been prepared for each year of data collection.

It should be noted that the health characteristics described by NHIS estimates pertain only to the resident, civilian noninstitutionalized population of the United States living at the time of the interview. The sample does not include persons residing in nursing homes, members of the Armed Forces, institutionalized persons, or U.S. nationals living abroad.

### Statistical design of the National Health Interview Survey

#### General design

Data from NHIS have been collected continuously since 1957. The sample design of the survey has undergone changes following each decennial census. This periodic redesign of the NHIS sample allows the incorporation of the latest population information and statistical methodology into the survey design. The data presented in this report are from an NHIS sample design first used in 1985. It is anticipated that this design will be used until 1995.

The sample design plan of the NHIS follows a multistage probability design that permits a continuous sampling of the civilian noninstitutionalized population residing in the United

States. The survey is designed in such a way that the sample scheduled for each week is representative of the target population, and the weekly samples are additive over time. This design permits estimates for high-frequency measures or for large population groups to be produced from a short period of data collection. Estimates for low-frequency measures or for smaller population subgroups can be obtained from a longer period of data collection. The annual sample is designed so that tabulations can be provided for each of the four major geographic regions. Because interviewing is done throughout the year, there is no seasonal bias for annual estimates.

The continuous data collection also has administrative and operational advantages because fieldwork can be handled on a continuing basis with an experienced, stable staff.

#### Sample selection

The target population for NHIS is the civilian noninstitutionalized population residing in the United States. For the first stage of the sample design, the United States is considered to be a universe composed of approximately 1,900 geographically defined primary sampling units (PSU's). A PSU consists of a county, a small group of contiguous counties, or a metropolitan statistical area. The PSU's collectively cover the 50 States and the District of Columbia. The 52 largest PSU's are selected into the sample with certainty and are referred to as self-representing PSU's. The other PSU's in the universe are referred to as non-self-representing PSU's. These PSU's are clustered into 73 strata, and 2 sample PSU's are chosen from each stratum with probability proportional to population size. This gives a total of 198 PSU's selected in the first stage.

Within a PSU, two types of second stage units are used: area segments and permit area segments. Area segments are defined geographically and contain an expected eight households. Permit area segments cover geographical areas containing housing units built after the 1980 census. The permit area segments are defined using updated lists of building permits issued in the PSU since 1980 and contain an expected four households.

Within each segment, all occupied households are targeted for interview. On occasion, a sample segment may contain a large number of households. In this situation the households are subsampled to provide a manageable interviewer workload.

The sample was designed so that a typical NHIS sample for the data collection years 1985 to 1995 will consist of



approximately 7,500 segments containing about 59,000 assigned households. Of these households, an expected 10,000 will be vacant, demolished, or occupied by persons not in the target population of the survey. The expected sample of 49,000 occupied households will yield a probability sample of about 127,000 persons.

### Features of the National Health Interview Survey sample redesign

Starting in 1985, the NHIS design incorporated several new design features (26). The major changes include the following:

- *The use of an all-area frame*—The NHIS sample is now designed so that it can serve as a sample frame for other NCHS population-based surveys. In previous NHIS designs, about two-thirds of the sample was obtained from lists of addresses compiled at the time of the decennial census, that is, a list frame. Due to Bureau of the Census confidentiality restrictions, these sample addresses could be used for only those surveys being conducted by the Bureau of the Census. The methodology used to obtain addresses in the 1985 NHIS area frame does not use the census address lists. The sample addresses thus obtained can be used as a sampling frame for other NCHS surveys.
- *The NHIS as four panels*—Four national subdesigns, or panels, constitute the full NHIS. Each panel contains a representative sample of the U.S. civilian noninstitutionalized population. Each of the four panels has the same sampling properties, and any combination of panels defines a national design. Panels were constructed to facilitate the linkage of NHIS to other surveys and also to efficiently make large reductions in the size of the sample by eliminating panels from the survey.

During 1990–92 the sample consisted of 25,253 segments containing 182,850 assigned households. Of the 179,176 households eligible for interview, 142,638 households were actually interviewed, resulting in a sample of 368,075 persons.

- *The oversampling of black persons*—One of the goals in designing the current NHIS was to improve the precision of estimates for black persons. This was accomplished by the use of differential sampling rates in PSU's with between about 5 and 50 percent black population. Sampling rates for selection of segments were increased in areas known to have the highest concentrations of black persons. Segment sampling rates were decreased in other areas within the PSU to ensure that the total sample in each PSU was the same size as it would have been without oversampling black persons.
- *The reduction of the number of sampled PSU's*—Interviewer travel to sample PSU's constitutes a large component of the total field costs for the NHIS. The previous NHIS design included 376 PSU's. Research showed that reducing the number of sample PSU's while increasing the sample size within PSU's would reduce travel costs and also maintain the reliability of health estimates. The design now contains 198 PSU's (27).

- *The selection of two PSU's per non-self-representing stratum*—In the previous design, one PSU was selected from each non-self-representing stratum. This feature necessitated the use of less efficient variance estimation procedures; the selection of two PSU's allows more efficient variance estimation methodology (27).

### Collection and processing of data

The NHIS questionnaire contains two major parts: The first consists of topics that remain relatively the same from year to year. Among these topics are the incidence of acute conditions, the prevalence of chronic conditions, persons limited in activity due to chronic conditions, restriction in activity due to impairment or health problems, and utilization of health care services involving physician care and short-stay hospitalization. Occasionally new questions are incorporated into the main questionnaire. Since 1985, questions that ask the household members' city and State of birth, social security number, and father's last name, have been included. In 1989 questions were added that ask the location (city, county, and State) of any physician contact whether by telephone or in person; and for household members born in the United States, how many years they have lived in the State of residence, and for household members born in a foreign country, how many years they have lived in the United States. Since 1992, a question was added for persons 12–21 years of age concerning whether they were either now going to school or on vacation from school. Race was expanded into 15 detailed racial groupings and included an "Other race" category. In 1992 the Hispanic origin question was moved from section L (questions 4a and 4b) to section A (questions 4e and 4f).

The second part consists of special topics added as supplements to each year's questionnaire. Beginning in August 1987, a special set of supplemental questions on the adult population's knowledge and attitudes about acquired immunodeficiency syndrome (AIDS) was added to the National Health Interview Survey using Computer Assisted Personal Interview (CAPI).

Careful procedures are followed to ensure the quality of data collected in the interview. Most households in the sample are contacted by mail before the interviewers arrive. Potential respondents are informed of the importance of the survey and assured that all information obtained in the interview will be held in strict confidence. Interviewers make repeated trips to a household when a respondent is not immediately found. The success of these procedures is indicated by the response rate for the survey, which has been between 95 and 98 percent over the years.

When contact is made, the interviewer attempts to have all family members of the household 19 years of age and over present during the interview. When this is not possible, proxy responses for absent adult family members are accepted. In most situations, proxy respondents are used for persons under 19 years of age. Persons 17 and 18 years of age may respond for themselves, however.

Interviewers undergo extensive training and retraining. The quality of their work is checked by means of periodic

observation and by reinterview. Their work is also evaluated by statistical studies of the data they obtain in their interviews. A field edit is performed on all completed interviews so that if there are any problems with the information on the questionnaire, respondents may be recontacted to solve the problem.

Completed questionnaires are sent from the Bureau of the Census field offices to NCHS for coding and editing. To ensure the accuracy of coding, a 5-percent sample of all questionnaires is recoded and keyed by other coders. A 100-percent verification procedure is used if certain error tolerances are exceeded. Staff of the Division of Health Interview Statistics then edit the files to remove impossible and inconsistent codes.

The interview, fieldwork, and data processing procedures summarized previously are described in detail in Series 1, No. 18 (28).

## Estimation procedures

Because the design of NHIS is a complex multistage probability sample, it is necessary to reflect these complex procedures in the derivation of estimates (26). The estimates presented in this report are based on 1990–92 sample person counts weighted to produce national estimates. The weight for each sample person is the product of four component weights:

- *Probability of selection*—The basic weight for each person is obtained by multiplying the reciprocals of the probabilities of selection at each step in the design: PSU, segment, and household.
- *Household nonresponse adjustment within segment*—In NHIS, interviews are completed in about 95 percent of all eligible households. Because of household nonresponse, a weighting adjustment is required. The nonresponse adjustment weight is a ratio with the number of households in a sample segment as the numerator and the number of households actually interviewed in that segment as the denominator. This adjustment reduces bias in an estimate to the extent that persons in the noninterviewed households have the same characteristics as the persons in the interviewed households in the same segment.
- *First-stage ratio adjustment*—The weight for persons in the non-self-representing PSU's is ratio adjusted to the 1980 population within four race-residence classes of the non-self-representing strata within each geographic region.
- *Poststratification by age-sex-race*—Within each of 60 age-sex-race cells (table I), a weight is constructed each quarter to ratio adjust the first-stage population estimate based on the NHIS to an independent estimate of the population of each cell. These independent estimates are prepared by the Bureau of the Census and are updated quarterly.

The main effect of the ratio-estimating process is to make the sample more closely representative of the target population by age, sex, race, and residence. The poststratification adjustment helps to reduce the component of bias resulting from sampling frame undercoverage; furthermore, this adjustment frequently reduces sampling variance.

## Types of estimates

As noted, NHIS data were collected on a weekly basis, with each week's sample representing the resident, civilian noninstitutionalized population of the United States living during that week. The weekly samples are consolidated to produce quarterly files (each consisting of data for 13 weeks). Weights to adjust the data to represent the U.S. population are assigned to each of the four quarterly files. These quarterly files are later consolidated to produce the annual file, which is the basis of most tabulations of NHIS data.

NHIS uses various reference periods to reduce the amount of bias associated with respondent memory loss. A 2-week reference period is used in collecting data on the incidence of acute conditions, restriction in activity due to a health problem, and physician contacts. Each of these measures health events that may be forgotten soon after they occur. Examples of such events are telephoning a physician about a minor illness, missing a day from work because of a routine health problem, or having a cold. Either a 12- or 6-month (depending on the type of statistic) reference period is used for hospitalization data because hospitalization ordinarily involves a major event in a person's life and is not quickly forgotten. Chronic condition prevalence estimates are based on a 12-month reference period.

Because most NHIS estimates based on a 2-week reference period are designed to represent the number of health events for a 12-month period, these data must be adjusted to an annual basis. Data based on a 2-week reference period are multiplied by 6.5 to produce the 13-week estimate for the quarter. These reference period adjustments are made at the time that the quarterly files are produced. Therefore, the data can be used to produce estimates for each quarter and are used that way to study seasonal variation. The data from the four quarterly files (representing the number of events in each quarter) are summed to produce the annual estimate. Although these data are collected for only 2 weeks for each person included in the survey, any unusual event that may have occurred during a particular 2-week period does not bias the estimate because the quarterly estimate is a sum of the estimates produced for each week's sample during the entire quarter and the annual estimate is the sum of the four quarters.

For prevalence statistics, such as the number of persons limited in activity due to chronic conditions, the annual estimate results from summing the weighted quarterly files and dividing by 4. This division is necessary because, as noted above, each quarterly file has been weighted to produce an estimate of the number of persons in the U.S. population with a given characteristic. Summing the four quarters and dividing by 4 in effect averages these quarterly results for the year. Thus, the type of prevalence estimate ordinarily derived from NHIS data is an annual average prevalence estimate. Similarly, an estimate for 3 years is obtained by averaging 12 quarterly figures.

For data related to short-stay hospital discharges that are based on a 6-month reference period, cases identified during any quarter of data collection are multiplied by 2 to produce a quarterly estimate of the annual number of characteristics

associated with short-stay hospital discharges. The NHIS average annual estimate of hospital discharges is derived by summing the four quarterly estimates and dividing by 4, just as the prevalence estimates are.

## Reliability of the estimates

Because NHIS estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same survey and processing procedures. There are two types of errors possible in an estimate based on a sample survey: Sampling and nonsampling errors. To the extent possible, these types of errors are kept to a minimum by methods built into the survey procedures described earlier (29). Although it is very difficult to measure the extent of bias in NHIS, several studies have been conducted to examine this problem. The results have been published in several reports (30–34).

## Nonsampling errors

### Interviewing process

Information, such as the number of days of restricted activity caused by the condition, can be obtained more accurately from household members than from any other source because only the persons concerned are in a position to report this information. However, there are limitations to the accuracy of diagnostic and other information collected in household interviews. For example, 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. Further, a respondent may not answer a question in the intended manner because he or she has not properly understood the question, has forgotten the event, does not know, or does not wish to divulge the answer. Regardless of the type of measure, all NHIS data are estimates of known reported morbidity, disability, and so forth.

### Reference period bias

NHIS estimates do not represent a complete measure of any given topic during the specified calendar period because data are not collected in the interview for persons who died or became institutionalized during the reference period. For many types of statistics collected in the survey, the reference period is 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 (such as 1 year) might be significant, especially for older persons.

Underreporting associated with a long reference period is most germane to data on hospitalization. Analysis has shown that there is an increase in underreporting of hospitalizations with an increase in the time interval between the discharge and the interview. Exclusive of the hospital experience of decedents, the net underreporting using a 12-month recall period is

in the neighborhood of 10 percent (35). The underreporting of discharges within 6 months of the week of interview is estimated to be about 5 percent (35). For this reason, hospital discharge data are based on hospital discharges reported to have occurred within 6 months of the week of interview.

Because hospitalization is common in the period immediately preceding death or institutionalization and older persons are much more likely to die than younger ones, the data should not be used to estimate the volume of hospitalization of the elderly—although the data can be used to measure characteristics of elderly people.

It should further be noted that, although the reported frequencies and rates related to hospital episodes are presented by the year in which the data were collected, the estimates are, in most cases, based on hospitalizations that occurred during the year of data collection and the prior year. Overall, approximately one-half of the reported hospitalizations for the 12-month reference period occurred in the year prior to the year of data collection.

## Population estimates

Some of the published tables include population figures for specified categories. Except for overall totals for the 60 age, sex, and race groups, which are adjusted to independent estimates, these figures are based on the sample of households in NHIS. They are given primarily to provide denominators for rate computation, and for this purpose they 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 race mentioned previously, the population figures may 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.

The population estimates for 1990, 1991, and 1992 are inflated to national population controls by age, race, and sex. The population controls are based on the 1980 census carried forward to 1990, 1991, and 1992. Therefore, the estimates may differ from 1990 census results brought forward to the survey date. Population controls incorporating census results will be used for survey estimation beginning later in the decade.

## Rounding of numbers

In published tables, the figures are rounded to the nearest thousand, although they are not necessarily accurate to that detail. Derived statistics, such as rates and percent distributions, are computed after the estimates on which these are based have been rounded to the nearest thousand.

## Combining data years

To reduce sampling error, data for number of years may be combined. However, in so doing, the questionnaire for each of the years should be checked, because even a small change in the questionnaire design may lead to large changes in the

derived estimates. This caution also applies to using NHIS data on health measures where changes in other events, such as legislative changes, have occurred over time.

## Sampling errors

The standard error is primarily a measure of sampling error, that is, the variations that might occur by chance because only a sample of the population is surveyed. The chances are about 68 in 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 in 100 that the difference would be less than twice the standard error and about 99 in 100 that it would be less than 2 1/2 times as large.

Individual standard errors were not computed for each estimate in this report. Instead, standard errors were computed for a broad spectrum of estimates. Regression techniques were then applied to produce equations from which a standard error for any estimate can be approximated. The regression equations, represented by parameters *a* and *b*, are presented in table II. Rules explaining their use are presented in the following section.

The reader is cautioned that this procedure will give an approximate standard error of an estimate rather than the precise standard error. The reader is further cautioned that particular care should be exercised when the denominator is small.

## General rules for determining standard errors

To produce approximate standard errors for NHIS estimates, the reader must first determine the type of characteristic to be estimated, that is, the parameter set in table II to be used. The reader must then determine the type of estimate for which the standard error is needed. The type of estimate corresponds to one of five general rules for determining standard errors. Examples of their use are available in the *Current Estimates* reports for 1990, 1991, and 1992 (2–4).

**Rule 1. Estimated number of people or events**—For the estimated number of people or events published in this report, there are two cases to consider. For the first case, if the estimated number is any combination of the poststratification age-sex-race cells in table I, then its value has been adjusted to official Bureau of the Census figures and its standard error is assumed to be 0.0. This corresponds to parameter set IV in table II. As an example, this would be the case for the number of persons in the U.S. target population or the number of black persons in the 45–64 year age group. Although the race class “white” is not specifically adjusted to Bureau of the Census figures, it dominates the poststratification “all other” race class; consequently, age-sex-“all other” race combinations of table I can be treated as age-sex-white combinations for the purpose of approximating standard errors.

For the second case, the standard errors for all other estimates of numbers of people or events, such as the number of people limited in activity or the number of acute conditions,

**Table I. The 60 poststratification age-sex-race cells in the National Health Interview Survey**

Age	Black		All other	
	Male	Female	Male	Female
Under 1 year . . . . .	x	x	x	x
1–4 years . . . . .	x	x	x	x
5–9 years . . . . .	x	x	x	x
10–14 years . . . . .	x	x	x	x
15–17 years . . . . .	x	x	x	x
18–19 years . . . . .	x	x	x	x
20–24 years . . . . .	x	x	x	x
25–29 years . . . . .	x	x	x	x
30–34 years . . . . .	x	x	x	x
35–44 years . . . . .	x	x	x	x
45–49 years . . . . .	x	x	x	x
50–54 years . . . . .	x	x	x	x
55–64 years . . . . .	x	x	x	x
65–74 years . . . . .	x	x	x	x
75 years and over . . . . .	x	x	x	x

are approximated by using the parameters provided in table II and formula 1 below.

If the aggregate *x* for a characteristic has associated parameters *a* and *b*, then the approximate standard error for *x*, SE(*x*), can be computed by the formula

$$SE(x) = \sqrt{ax^2 + bx} \quad (1)$$

**Rule 2. Proportions and percents when the denominator is not generated by the poststratification age-sex-race classes**—If *p* represents an estimated percent, *b* is the parameter from table II associated with the numerator characteristics, and *y* is the number of persons in the denominator on which *p* is based, then the standard error of *p* may be approximated by

$$SE(p) = \sqrt{\frac{bp(100 - p)}{y}} \quad (2)$$

(If *p* is a proportion, then the above formula can be used but with 100 replaced by 1.0.)

**Table II. Estimated standard error parameters for the National Health Interview Survey, 1990–92**

Parameter	Characteristic	Estimated parameters set	
		<i>a</i>	<i>b</i>
I	Number of chronic conditions . . . . .	–0.0000218	4,700.0
II	Days of restricted activity or bed days . . .	0.0001214	173,333.3
III	Population estimates for demographic, socioeconomic, and health characteristics . . . . .	–0.0000048	1,190.0
IV	Age-sex-race population based on combining the poststratification cells of table I . . . . .	0.0	0.0

NOTE: The National Health Interview Survey contained a full sample in 1990, 1991, and 1992. Therefore, 142,368 households were interviewed resulting in a sample of 368,075 persons. Standard error parameters for disability days are for the whole sample; 30% variance cut-offs were estimated by multiplying by a factor of 6.  
0.0 Quantity more than zero but less than 0.05.

**Rule 3.** For rates, proportions, and percents when the denominator is generated by the poststratification age-sex-race classes [table 1](#)—In this case, the denominator has no sampling error. For example, rule 2 would apply to the estimated number of females 18–44 years of age with deafness or other hearing problems because the denominator is a combination of the poststratification cells. Approximate standard errors for such estimates can be computed using [table II](#),  $a$  and  $b$  parameters associated with the numerator characteristics along with formula 3 below.

If the estimate of rate, proportion, or percent  $p$  is the ratio of two estimated numbers,  $p = x/Y$  (where  $p$  may be inflated by 100 for percents or 1,000 for rates per 1,000 persons), with  $Y$  having no sampling error, then the approximate standard error for  $p$  is given by the formula

$$SE(p) = p \sqrt{a + \frac{b}{x}} \quad (3)$$

In this report, the value of the denominator  $Y$  is always provided, but in a number of cases the numerator value  $x$  is not published. For these cases, the values of  $x$  may be computed by the formula

$$\begin{aligned} x &= pY && \text{If } p \text{ is a proportion or rate per unit} \\ &&& \text{or} \\ x &= \frac{pY}{100} && \text{if } p \text{ is a percent or rate per 100 units} \\ &&& \text{or} \\ x &= \frac{pY}{1,000} && \text{if } p \text{ is a rate per 1,000 units} \end{aligned}$$

**Rule 4.** Rates when the denominator is not generated by the poststratification age-sex-race classes—If the estimated rate  $p$  is expressed as the ratio of two estimates,  $p = x/y$  (inflated by 100 or 1,000 when appropriate), then the estimated standard error for  $p$  is given by the formula

$$SE(p) = p \sqrt{\frac{SE(x)^2}{x^2} + \frac{SE(y)^2}{y^2} - 2r \frac{SE(x)}{x} \frac{SE(y)}{y}} \quad (4)$$

Where  $SE(x)$  and  $SE(y)$  are computed using rule 1 and  $x$  and  $y$  are obtained from the tables. No estimates of  $r$ , the correlation between the numerator and denominator, are presented in this report; therefore, only the first two terms are available. The reader must assume that  $r = 0.0$ . Assuming  $r = 0.0$  will yield an overestimate of the standard error if  $r$  is actually positive and an underestimate if  $r$  is negative.

**Rule 5.** Difference between two statistics (mean, rate, total, and proportion)—If  $x_1$  and  $x_2$  are two estimates, then the standard error of the difference ( $x_1 - x_2$ ) can be computed as follows:

$$SE_{x_1 - x_2} = \sqrt{SE(x_1)^2 + SE(x_2)^2 - 2r SE(x_1) SE(x_2)} \quad (5)$$

where  $SE(x_1)$  and  $SE(x_2)$  are computed using rules 1–4 as appropriate and  $r$  is the correlation coefficient between  $x_1$  and  $x_2$ .

Assuming  $r = 0.0$  will result in an accurate standard error if the two estimates are actually uncorrelated and will result in an overestimate of the standard error if the correlation is positive or an underestimate if the correlation is negative.

## Relative standard errors

Prior to 1985, relative standard error (RSE) curves were present in *Current Estimates* for approximating relative standard errors. For readers who wish to continue using them, the following provides guidance. The RSE of an estimate is obtained by dividing the standard error (SE) of the estimate by the estimate  $x$  itself. This quantity is expressed as a percent of the estimate:

$$RSE = 100 \frac{SE_{x}}{x}$$

# Appendix II

## Definitions of certain terms used in this report

### Terms relating to conditions

*Condition*—Condition is a general term that includes any specific illness, injury, or impairment. Condition data are derived from the survey in two ways. First, respondents are asked to identify any conditions that caused certain types of impact associated with health, such as a visit to a doctor or a day spent in bed. Second, respondents are read lists of selected chronic conditions and asked whether they or any family members have any of these conditions. The latter information is used in making the prevalence estimates in this report.

At a later point in the survey, a series of questions is asked about each of the conditions identified in either of the two ways just described. The information obtained on each condition helps to clarify the nature of the condition and whether medical services have been involved in its diagnosis or treatment. It also aids in the coding of the condition. All conditions except impairments are coded according to the ninth revision of the *International Classification of Diseases* (5) with certain modifications adopted to make the codes more suitable for information derived from a household survey. A special set of codes devised by NHIS is used to code impairments (6).

*Chronic condition*—A condition is considered chronic if the respondent indicates it was first noticed more than 3 months before the reference date of the interview, or it is a type of condition that ordinarily has a duration of more than 3 months. Examples of conditions that are considered chronic regardless of their time of onset are diabetes, heart conditions, emphysema, and arthritis. A complete list of these conditions may be obtained by contacting the Division of Health Interview Statistics, National Center for Health Statistics.

*Impairment*—An impairment is a chronic or permanent defect, usually static in nature, that results from disease, injury, or congenital malformation. It represents a decrease in or loss of ability to perform various functions, particularly those of the musculoskeletal system and the sense organs. Impairments are grouped according to type of functional impairment and etiology in the special NHIS impairment codes.

The impairment classification is shown in the NCHS Medical Coding Manual. (6). It should be noted that the statistics on selected chronic conditions shown in this report are for the number of chronic conditions, not the number of persons with chronic conditions. Because a person may have

more than one condition in summary categories, such as heart disease, the number of conditions exceeds the number of persons with conditions.

*Chronic condition groupings*—Data in this report are presented in six sets of chronic condition groups. These groupings with their respective ICD codes and X codes for impairments are as follows:

#### 1. Chronic circulatory conditions

Heart disease . . . . .	410–417,420.9,421.0,9, 422.9, 423,424, 425.0–5,9,426,427.0–6,8,9,428,429.0–6, 8,9, 745,746,785.0–2
Ischemic heart disease . . . . .	410–414,429.6
Heart rhythm disorders . . . . .	427.0–6,8,9,785.0–2
Tachycardia or rapid heart . . . . .	427.0–3,785.0
Heart murmurs . . . . .	785.2
Other and unspecified heart rhythm disorders . . . . .	427.4–6,8,9, 785.1
Congenital heart disease . . . . .	745,746
Other selected diseases of the heart (excludes hypertension) . . . . .	415–417,420.9,421.0,9,422.9, 423,424,425.0–5,9, 426,428,429.0–5,8,9
Rheumatic fever with or without heart disease . . . . .	390,392–399
High blood pressure (hypertension) . . . . .	401–405
Cerebrovascular disease . . . . .	430–435,436–438
Hardening of the arteries . . . . .	440
Aneurysm . . . . .	441.0–6,442
Phlebitis, thrombophlebitis . . . . .	451
Varicose veins of lower extremities . . . . .	454
Hemorrhoids . . . . .	455
Poor circulation . . . . .	459,8,9

#### 2. Chronic respiratory conditions

Chronic bronchitis . . . . .	490,491
Emphysema . . . . .	492
Asthma . . . . .	493
Hayfever or allergic rhinitis without asthma . . . . .	477
Nasal polyps . . . . .	471
Chronic sinusitis . . . . .	473
Deviated nasal septum . . . . .	470
Chronic disease of tonsils and adenoids . . . . .	474
Chronic laryngitis . . . . .	476
Pleurisy . . . . .	511
Pneumoconiosis and asbestosis . . . . .	500–505

Malignant neoplasms of lung and bronchus and other respiratory sites .....	160,161,162,0,2–9,163
Other diseases of the lung .....	515–518

### 3. Chronic digestive conditions

Gallbladder stones .....	574
Liver diseases including cirrhosis .....	571,572,573.0,3–9
Ulcer, gastric, duodenal and/or peptic .....	531–533
Gastric ulcer .....	531
Duodenal ulcer .....	532
Peptic ulcer .....	533
Hernia of abdominal cavity .....	550–553
Disease of the esophagus .....	530
Gastritis and duodenitis .....	535
Indigestion and other functional disorders of the stomach and digestive system .....	536,787
Enteritis and colitis .....	555,556,558
Spastic colon .....	564.1
Diverticula of intestines .....	562
Constipation .....	564.0
Other stomach and intestinal disorders ...	534,537,560,569
Malignant neoplasms of stomach, intestines, colon, and rectum .....	151–154

### 4. Impairment and chronic condition of nervous system and sense organs

Blindness and other visual impairments .....	X00–X03
Blind, both eyes .....	X00
Other visual impairments .....	X01–X03
Deafness and other hearing impairments .....	X05–X09
Deaf, both ears .....	X05
Other hearing impairments .....	X06–X09
Speech impairments .....	X10–X11
Impairment of sensation .....	X12
Mental retardation .....	X19
Absence of extremities or parts of extremities (excluding absence of tips of fingers or toes only) .....	X20–X29
Absence of upper extremities or parts of upper extremities .....	X20–X25
Absence of lower extremities or parts of lower extremities .....	X26–X29
Absence of lung .....	X30
Absence of kidney .....	X31
Absence of breast .....	X32
Absence of bone, joint, or muscle of extremity .....	X34
Absence of tips of fingers, toes .....	X35
Paralysis of extremities, complete or partial .....	X40–X59
Paralysis of extremities, complete .....	X40–X49
Paralysis of extremities, partial .....	X50–X59
Cerebral palsy .....	X50
Paralysis of other site, complete or partial .....	X60–X64
Deformities or orthopedic impairments, total .....	X70,X71,X73–X80, X84–X86,X89
Deformities or orthopedic impairments of back .....	X70,X71,X80

Curvature or other deformity of back or spine .....	X70
Deformities or orthopedic impairments of upper extremities .....	X73,X74,X84
Orthopedic impairment, shoulder .....	X84
Deformities or orthopedic impairments of lower extremities .....	X75–78,X85,X86
Flat feet .....	X77
Other deformities or orthopedic impairments ..	X79,X89
Cleft palate .....	X91

### Conditions of nervous system and sense organs

Glaucoma .....	365
Cataracts .....	366
Color blindness .....	368.5
Diseases of retina .....	361,362.1–9
Tinnitus .....	388.3
Epilepsy .....	345
Migraine headache .....	340
Other headache (excludes tension headache) .....	784.0
Multiple sclerosis .....	340

### 5. Chronic conditions of skin and subcutaneous tissue and musculoskeletal system and connective tissue

#### Condition of skin and subcutaneous tissue

Sebaceous skin cyst .....	706.2
Acne .....	706.0,1
Psoriasis .....	696
Dermatitis .....	690–694
Dry (itching) skin, not elsewhere classified .....	698.9
Chronic ulcer of skin .....	707
Ingrown nails .....	703.0
Corns and calluses .....	700
Benign neoplasms of the skin .....	216
Malignant neoplasmss of the skin .....	172,173

#### Condition of musculoskeletal system and connective tissue

Arthritis .....	711.0,9,712.8,9,714–716,720.0,721
Rheumatism, unspecified .....	729.0
Sciatica (including lumbago) .....	724.2,3
Intervertebral disc disorders .....	722
Bone spur or tendinitis, not otherwise specified .....	726.9
Disorders of bone or cartilage ..	730.0–3,9,731.0,2,732,733
Bunions .....	727.1
Bursitis, not elsewhere classified .....	726.0–8,727.0,2–9

### 6. Endocrine, nutritional, and metabolic disease and immunity disorders, diseases of the blood and blood-forming organs, and chronic genitourinary conditions

#### Endocrine, nutritional, and metabolic disease and immunity disorder

Gout .....	274
Goiter .....	240,241,242.0–3
Other diseases of the thyroid .....	242.4,8,9,243–246



Diabetes .....	250
Diseases of the blood and blood-forming organs	
Anemias .....	280–285
Genitourinary conditions	
Kidney stones .....	592
Kidney infections .....	590
Other kidney trouble, not elsewhere classified .....	581–583,593
Bladder infections .....	595.0–3,8,9
Other disorders of bladder .....	594.1,596
Diseases of prostate .....	600.0–3,5–9,601,602
Inflammatory disease of female genital organs ....	614–616
Noninflammatory disease of female genital organs .....	620–624
Menstrual disorders .....	626
Other diseases of female genital organs .....	617–619, 625,627,628.0,2–9,629.0,1,8
Female trouble, not otherwise specified .....	629.9
Malignant neoplasm of breast .....	174
Malignant neoplasm of female genital organs ....	179–184
Malignant neoplasm of prostate .....	185
Benign neoplasm of breast .....	217
Benign neoplasm of female genital organs .....	218–221

**Prevalence of condition**—In general, prevalence of condition 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 interview are cases specified by the respondent as present on the selected chronic condition list or described by the respondent in terms of one of the diseases on the list of conditions always considered chronic (see definition of chronic condition above) and reported to have been present at some time during the 12-month period prior to the interview.

**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 or her family was first told by a physician that the person had a condition of which he or she had been previously unaware.

## Terms relating to disability

**Disability**—Disability is a general term that refers to any long- or short-term reduction of a person's activity as a result of an acute or chronic condition. *Limitation of activity* refers to a long-term reduction in a person's capacity to perform the average kind or amount of activities associated with his or her age group. *Restriction of activity* refers to particular kinds of behavior usually associated with a reduction in activity due to either long- or short-term conditions. Thus limitation of activity refers to what a person is generally capable of doing, but

restriction of activity ordinarily refers to a relatively short-term reduction in a person's activities below his or her normal capacity.

*Limitation of activity because of chronic conditions*—Persons are classified in terms of the major activity usually associated with their particular age group. The major activities for the age groups are:

1. Ordinary play for children under 5 years of age
2. Attending school for those 5–17 years of age
3. Working or keeping house for persons 18–69 years of age
4. Capacity for independent living (for example, the ability to bathe, shop, dress, eat, and so forth, without needing the help of another person) for those 70 years of age and over

People 18–69 years of age who are classified as keeping house are also classified by their ability to work at a job or business. (In this report, the major activity of persons 65–69 years is assumed to be working or keeping house; however, questions were also asked about the capacity for independent living in this age group, which would permit an alternative definition of limitation.)

In regard to these activities, each person is classified into one of four categories:

1. Unable to perform the major activity
2. Able to perform the major activity but limited in the kind or amount of this activity
3. Not limited in the major activity but limited in the kind or amount of other activities
4. Not limited in any way

In regard to these four categories, NHIS publications often classify persons only by whether they are limited (groups 1–3) or not limited (group 4). Persons are not classified as limited in activity unless one or more chronic conditions are reported as the cause of the activity limitation. If more than one condition is reported, the respondent is asked to identify the condition that is the major cause of the limitation.

**Restriction of activity**—Four types of restricted activity are measured in NHIS: *bed days*, *work-loss days* for currently employed persons 18 years of age and over, *school-loss days* for children 5–17 years of age, and *cut-down days*.

A *bed day* is one during which a person stayed in bed more than half a day because of illness or injury. All hospital days for inpatients are considered bed days even if the patient was not in bed more than half a day.

A *work-loss day* is one on which a currently employed person 18 years of age and over missed more than half a day from a job or business.

A *school-loss day* is one on which a student 5–17 years of age missed more than half a day from the school in which he or she was currently enrolled.

A *cut-down day* is a day on which a person cuts down for more than half a day on the things he or she usually does.

Work-loss, school-loss, and cut-down days refer to the short-term effects of illness or injury. However, bed days are a measure of both long- and short-term disability, because a



chronically ill bedridden person and a person with a cold could both report having spent more than half a day in bed due to an illness.

The number of restricted-activity days is the number of days a person experienced at least one of the four types of activity restriction just described. It is the most inclusive measure of disability days and the least descriptive; 4 days of restricted activity may mean 4 bed days associated with serious illness or 4 days during which a person merely cut down on his or her activities due to a mild illness.

A single restricted-activity day may involve both a bed day and a work-loss or school-loss day. However, a cut-down day cannot overlap with any of these three types of disability days. In calculating the sum of restricted-activity days, each day is counted only once even if more than one type of activity restriction was involved.

Restricted-activity days may be associated with either persons or conditions. *Person days* are the number of days during which a person restricted his or her activity. *Condition days* are the number of days during which a condition caused a person to restrict his or her activity. A person day of restricted activity can be caused by more than one condition. In such a case, each condition causing restriction is associated with that day of restricted activity. Therefore, the number of condition days of restricted activity may exceed the number of person days of restricted activity. This relationship holds for each type of restricted-activity day.

When two or more conditions cause a day of restricted activity, the conditions may be (1) both (all) acute, (2) one (some) acute and the other (some) chronic, or (3) both (all) chronic. The number of restricted-activity days associated with acute conditions includes groups (1) and (2); the number of such days associated with chronic conditions includes groups (2) and (3). The phrase “associated with” rather than “caused by” is used to indicate that some days associated with acute or chronic conditions are not necessarily caused solely by that type of condition.

## Terms relating to physician contacts

*Physician contact*—A physician contact is defined as consultation with a physician, in person or by telephone, for examination, diagnosis, treatment, or advice. (Physician contacts with hospital inpatients are not included.) The contact is considered to be a physician contact if the service is provided directly by the physician or by a nurse or other person acting under a physician’s supervision. For the purpose of this definition, “physician” includes doctors of medicine and osteopathic physicians. The term “doctor” is used in the interview rather than “physician” because of popular usage. However, the concept toward which all instructions are directed is that which is described here.

Physician contacts for services provided on a mass basis are not included in the tabulations. A service received on a mass basis is defined as any service involving only a single test (such as a test for diabetes) or a single procedure (such as a measles inoculation) when this single service is administered identically to all persons who are at the place for this purpose.

Hence obtaining a chest x-ray in a tuberculosis chest x-ray trailer is not included as a physician contact. However, a special chest x-ray given in a physician’s office or in an outpatient clinic is considered a physician contact.

If a physician is called to a house to see more than one person, the call is considered a separate physician contact for each person about whom the physician is consulted.

A physician contact is associated with the person about whom the advice is sought, even if that person does not actually see or consult the physician. For example, if a mother consults a physician about one of her children, the physician contact is ascribed to the child.

## Terms relating to hospitalization

*Hospital*—For this survey, a hospital is defined as any institution either named in the listing of hospitals in the current *American Hospital Association Guide to the Health Care Field* or found on the *Master Facility Inventory List* maintained by the National Center for Health Statistics.

*Hospital episode*—A hospital episode is any continuous period of stay of 1 night or more in a hospital as an inpatient except the period of stay of a well newborn infant.

## 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.

*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 Bureau of the Census, are as follows:

<i>Region</i>	<i>States included</i>
Northeast	Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania
Midwest	Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, and Nebraska
South	Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Oklahoma, Arkansas, and Texas
West	Washington, Oregon, California, Nevada, New Mexico, Arizona, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii

*Race*—The population is divided into three racial groups, “white,” “black,” and “all other.” “All other” includes Aleut, Eskimo or American Indian, Asian or Pacific Islander, and any other races. Race characterization is based on the respondent’s description of his or her racial background.

*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 or she 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 incomes.

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—for example, wages, salaries, rents from property, pensions, government payments, and help from relatives—is included.

# Appendix III

## Questionnaire items and flashcards

CDC NCHS 6401 OMB No. 0920-0214: Approval Expires March 31, 1991

**NOTICE** — Information contained on this form which would permit identification of any individual or establishment has been collected with a guarantee that it will be held in strict confidence, will be used only for purposes stated for this study, and will not be disclosed or released to others without the consent of the individual or the establishment in accordance with section 308(d) of the Public Health Service Act (42 USC 242m). Public reporting burden for this collection of information is estimated 25 average minutes per response. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to PHS Reports Clearance Officer, ATTN: PRA; Humphrey Building, Room 721-H, 200 Independence Avenue, SW; Washington, DC 20201; and to the Office of Management and Budget, Paperwork Reduction Project (0920-0214), Washington, DC 20503.

FORM **HIS-1 (1990)**  
(6-23 89)

U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
ACTING AS COLLECTING AGENT FOR THE  
U.S. PUBLIC HEALTH SERVICE

**1. Book** \_\_\_ of \_\_\_ books

**2. R.O. number** **3. Sample**

**4. Segment type**  
☐ Area ☐ Permit ☐ Block

**5. Control number**  
PSU Segment Serial

**NATIONAL HEALTH INTERVIEW SURVEY**

**6a. What is your exact address? (Include House No., Apt. No., or other identification, county and ZIP Code)**

City State County ZIP Code

**b. Is this your mailing address? (Mark box or specify if different. Include county and ZIP Code.)** ☐ Same as 6a

City State County ZIP Code

**c. Special place name** Sample unit number Type code

**7. YEAR BUILT**  
☐ Ask  
☐ Do not ask  
**When was this structure originally built?**  
☐ Before 4-1-80 (Continue interview)  
☐ After 4-1-80 (Complete item 8c when required; and interview)

**8. COVERAGE QUESTIONS**  
☐ Ask items that are marked  
☐ Do not ask

**a. Are there any occupied or vacant living quarters besides your own in this building?** ☐ Yes (Fill Table X) ☐ No

**b. Are there any occupied or vacant living quarters besides your own on this floor?** ☐ Yes (Fill Table X) ☐ No

**c. Is there any other building on this property for people to live in, either occupied or vacant?** ☐ Yes (Fill Table X) ☐ No

**9a. LAND USE**  
1 ☐ URBAN (10)  
2 ☐ RURAL  
— Reg. units and SP. PL. units coded 85—88 in 6c — Ask item 9b  
— SP. PL. units not coded 85—88 in 6c — Mark "No" in item 9b without asking

**b. During the past 12 months did sales of crops, livestock, and other farm products from this place amount to \$1,000 or more?**  
1 ☐ Yes } (10)  
2 ☐ No }

**10. CLASSIFICATION OF LIVING QUARTERS — Mark by observation**

**a. LOCATION of unit**  
Unit is:  
☐ In a Special Place — Refer to Table A in Part C of manual; then complete 10c or d  
☐ NOT in a Special Place (10b)

**b. Access**  
☐ Direct (10c)  
☐ Through another unit — Not a separate HU; combine with unit through which access is gained. (Apply merged unit procedures if additional living quarters space was listed separately.)

**c. HOUSING unit (Mark one, THEN page 2)**  
01 ☐ House, apartment, flat  
02 ☐ HU in nontransient hotel, motel, etc.  
03 ☐ HU-permanent in transient hotel, motel, etc.  
04 ☐ HU in rooming house  
05 ☐ Mobile home or trailer with no permanent room added  
06 ☐ Mobile home or trailer with one or more permanent rooms added  
07 ☐ HU not specified above — Describe in footnotes

**d. OTHER unit (Mark one)**  
08 ☐ Quarters not HU in rooming or boarding house  
09 ☐ Unit not permanent in transient hotel, motel, etc.  
10 ☐ Unoccupied site for mobile home, trailer, or tent  
11 ☐ Student quarters in college dormitory  
12 ☐ OTHER unit not specified above — Describe in footnotes

**11. What is the telephone number here?** Area code/number ☐ None

**12. Interview observed?**  
1 ☐ Yes 2 ☐ No

**13a. Interviewer's name** Code

**b. Language of interview**  
1 ☐ English 3 ☐ Both English and Spanish  
2 ☐ Spanish 8 ☐ Other

**14. Noninterview reason**

**TYPE A**  
01 ☐ Refusal — Describe in footnotes  
02 ☐ No one at home, repeated calls  
03 ☐ Temporarily absent — Footnote  
04 ☐ Other (Specify) \_\_\_\_\_

**TYPE B**  
05 ☐ Vacant — nonseasonal  
06 ☐ Vacant — seasonal  
07 ☐ Occupied entirely by persons with URE  
08 ☐ Occupied entirely by Armed Forces members  
09 ☐ Unfit or to be demolished  
10 ☐ Under construction, not ready  
11 ☐ Converted to temporary business or storage  
12 ☐ Unoccupied site for mobile home, trailer, or tent  
13 ☐ Permit granted, construction not started  
14 ☐ Other (Specify) \_\_\_\_\_

**TYPE C**  
15 ☐ Unused line of listing sheet  
16 ☐ Demolished  
17 ☐ House or trailer moved  
18 ☐ Outside segment  
19 ☐ Converted to permanent business or storage  
20 ☐ Merged  
21 ☐ Condemned  
22 ☐ Built after April 1, 1980  
23 ☐ Other (Specify) \_\_\_\_\_

**15. Record of calls**

Month	Date	Beginning time	Ending time	Completed Mark (X)
1		P T	a.m. p.m.	
2		P T	a.m. p.m.	
3		P T	a.m. p.m.	
4		P T	a.m. p.m.	
5		P T	a.m. p.m.	
6		P T	a.m. p.m.	

**16. List column numbers of persons requiring callbacks, and mark appropriately.**  
☐ None

Person No.	Household Resp.	SS No.	Sect. M—O	Income	Sect. P	Sample Person	Sect. Q—Z	AIDS

**17. Record of additional contacts**

Month	Date	Beginning time	Ending time	Completed Person No.
1		P T	a.m. p.m.	
2		P T	a.m. p.m.	
3		P T	a.m. p.m.	
4		P T	a.m. p.m.	

**GO TO HOUSEHOLD COMPOSITION PAGE**

# A. HOUSEHOLD COMPOSITION PAGE

1

1 a. What are the names of all persons living or staying here? Start with the name of the person or one of the persons who owns or rents this home. Enter name in **REFERENCE PERSON** column.

b. What are the names of all other persons living or staying here? Enter names in columns.

If "Yes," enter names in columns

c. I have listed (read names). Have I missed:

- any babies or small children? . . . . .
- any lodgers, boarders, or persons you employ who live here? . . . . .
- anyone who **USUALLY** lives here but is now away from home traveling or in a hospital? . . . . .
- anyone else staying here? . . . . .

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

d. Do all of the persons you have named usually live here? ☐ Yes (2)

☐ No (APPLY HOUSEHOLD MEMBERSHIP RULES. Delete nonhousehold members by an "X" from 1—C2 and enter reason.)

Probe if necessary:

Does — usually live somewhere else?

Ask for all persons beginning with column 2:

2. What is — relationship to (reference person)?

3. What is — date of birth? (Enter date and age and mark sex.)

## REFERENCE PERIODS

A1

2-WEEK PERIOD

12-MONTH DATE

13-MONTH HOSPITAL DATE

A2

ASK CONDITION LIST

A3

Refer to ages of all related HH members.

4a. Are any of the persons in this family now on full-time active duty with the armed forces? ☐ Yes ☐ No (5)

b. Who is this? Delete column number(s) by an "X" from 1—C2.

c. Anyone else? ☐ Yes (Reask 4b and c) ☐ No

Ask for each person in armed forces:

d. Where does — usually live and sleep, here or somewhere else? Mark box in person's column.

5. We would like to have all adult family members who are at home take part in the interview. Are (names of persons 17 and over) at home now? If "Yes," ask: Could they join us? (Allow time)

Read to respondent(s):

This survey is being conducted to collect information on the nation's health. I will ask about hospitalizations, disability, visits to doctors, illness in the family, and other health related items.

## HOSPITAL PROBE

6a. Since (13-month hospital date) a year ago, was — a patient in a hospital OVERNIGHT?

b. How many different times did — stay in any hospital overnight or longer since (13-month hospital date) a year ago?

Ask for each child under one:

7a. Was — born in a hospital?

Ask for mother and child:

b. Have you included this hospitalization in the number you gave me for —?

1. First name	Mid. init.	Age
Last name		Sex 1 <input type="checkbox"/> M 2 <input type="checkbox"/> F

2. Relationship **REFERENCE PERSON**

3. Date of birth Month Date Year

HOSP.	WORK	RD	2-WK. DV
00 <input type="checkbox"/> None	1 <input type="checkbox"/> Wa	1 <input type="checkbox"/> Yes	00 <input type="checkbox"/> None
Number	2 <input type="checkbox"/> Wb	2 <input type="checkbox"/> No	Number

C1

C2

LA TRA DV TINJ TOLTRI HSTCOND.

LA TRA DV TINJ TOLTRI HSTCOND.

LA TRA DV TINJ TOLTRI HSTCOND.

LA TRA DV TINJ TOLTRI HSTCOND.

LA TRA DV TINJ TOLTRI HSTCOND.

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LA TRA DV TINJ TOLTRI HSTCOND.

LA TRA DV TINJ TOLTRI HSTCOND.

LA TRA DV TINJ TOLTRI HSTCOND.

A3 ☐ All persons 65 and over (5)  
☐ Other (4)

4d. ☐ Living at home  
☐ Not living at home

6a. 1 ☐ Yes  
2 ☐ No (Mark "HOSP." box, THEN NP)

b. Number of times (Make entry in "HOSP." box THEN NP)

7a. 1 ☐ Yes  
2 ☐ No (NP)

b. ☐ Yes (NP)  
☐ No (Correct 6 and "HOSP." box)

FOOTNOTES

Page 4 B. LIMITATION OF ACTIVITIES PAGE			
<b>B1</b>	Refer to age.	<b>B1</b>	1 <input type="checkbox"/> 18–69 (1) 2 <input type="checkbox"/> Other (NP)
<b>1. What was — doing MOST OF THE PAST 12 MONTHS; working at a job or business, keeping house, going to school, or something else?</b> <i>Priority if 2 or more activities reported: (1) Spent the most time doing; (2) Considers the most important.</i>		<b>1.</b> 1 <input type="checkbox"/> Working (2) 2 <input type="checkbox"/> Keeping house (3) 3 <input type="checkbox"/> Going to school (5) 4 <input type="checkbox"/> Something else (5)	
<b>2a. Does any impairment or health problem NOW keep — from working at a job or business?</b> <b>b. Is — limited in the kind OR amount of work — can do because of any impairment or health problem?</b>		<b>2a.</b> 1 <input type="checkbox"/> Yes (7) <input type="checkbox"/> No <b>b.</b> 2 <input type="checkbox"/> Yes (7) 3 <input type="checkbox"/> No (6)	
<b>3a. Does any impairment or health problem NOW keep — from doing any housework at all?</b> <b>b. Is — limited in the kind OR amount of housework — can do because of any impairment or health problem?</b>		<b>3a.</b> 4 <input type="checkbox"/> Yes (4) <input type="checkbox"/> No <b>b.</b> 5 <input type="checkbox"/> Yes (4) 6 <input type="checkbox"/> No (5)	
<b>4a. What (other) condition causes this?</b> Ask if injury or operation: <b>When did [the (injury) occur?/ — have the operation?]</b> Ask if operation over 3 months ago: <b>For what condition did — have the operation?</b> If pregnancy/delivery or 0–3 months injury or operation — Reask question 3 where limitation reported, saying: <b>Except for — (condition), ...?</b> OR reask 4b/c. <b>b. Besides (condition) is there any other condition that causes this limitation?</b> <b>c. Is this limitation caused by any (other) specific condition?</b> Mark box if only one condition. <b>d. Which of these conditions would you say is the MAIN cause of this limitation?</b>		<b>4a.</b> (Enter condition in C2, THEN 4b) 1 <input type="checkbox"/> Old age (Mark "Old age" box, THEN 4c) <b>b.</b> <input type="checkbox"/> Yes (Reask 4a and b) <input type="checkbox"/> No (4d) <b>c.</b> <input type="checkbox"/> Yes (Reask 4a and b) <input type="checkbox"/> No <b>d.</b> <input type="checkbox"/> Only 1 condition Main cause	
<b>5a. Does any impairment or health problem keep — from working at a job or business?</b> <b>b. Is — limited in the kind OR amount of work — could do because of any impairment or health problem?</b>		<b>5a.</b> 1 <input type="checkbox"/> Yes (7) <input type="checkbox"/> No <b>b.</b> 2 <input type="checkbox"/> Yes (7) 3 <input type="checkbox"/> No	
<b>B2</b>	Refer to questions 3a and 3b.	<b>B2</b>	1 <input type="checkbox"/> "Yes" in 3a or 3b (NP) 2 <input type="checkbox"/> Other (6)
<b>6a. Is — limited in ANY WAY in any activities because of an impairment or health problem?</b> <b>b. In what way is — limited?</b> <i>Record limitation, not condition.</i>		<b>6a.</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (NP) <b>b.</b> Limitation	
<b>7a. What (other) condition causes this?</b> Ask if injury or operation: <b>When did [the (injury) occur?/ — have the operation?]</b> Ask if operation over 3 months ago: <b>For what condition did — have the operation?</b> If pregnancy/delivery or 0–3 months injury or operation — Reask question 2, 5, or 6 where limitation reported, saying: <b>Except for — (condition), ...?</b> OR reask 7b/c. <b>b. Besides (condition) is there any other condition that causes this limitation?</b> <b>c. Is this limitation caused by any (other) specific condition?</b> Mark box if only one condition. <b>d. Which of these conditions would you say is the MAIN cause of this limitation?</b>		<b>7a.</b> (Enter condition in C2, THEN 7b) 1 <input type="checkbox"/> Old age (Mark "Old age" box, THEN 7c) <b>b.</b> <input type="checkbox"/> Yes (Reask 7a and b) <input type="checkbox"/> No (7d) <b>c.</b> <input type="checkbox"/> Yes (Reask 7a and b) <input type="checkbox"/> No <b>d.</b> <input type="checkbox"/> Only 1 condition	

B. LIMITATION OF ACTIVITIES PAGE, Continued			
<b>B3</b>	Refer to age.	<b>B3</b>	0 <input type="checkbox"/> Under 5 (10)    2 <input type="checkbox"/> 18–69 (NP) 1 <input type="checkbox"/> 5–17 (11)    3 <input type="checkbox"/> 70 and over (8)
<b>8. What was — doing MOST OF THE PAST 12 MONTHS; working at a job or business, keeping house, going to school, or something else?</b> <i>Priority if 2 or more activities reported: (1) Spent the most time doing; (2) Considers the most important.</i>		<b>8.</b>	1 <input type="checkbox"/> Working 2 <input type="checkbox"/> Keeping house 3 <input type="checkbox"/> Going to school 4 <input type="checkbox"/> Something else
<b>9a. Because of any impairment or health problem, does — need the help of other persons with — personal care needs, such as eating, bathing, dressing, or getting around this home?</b> <b>b. Because of any impairment or health problem, does — need the help of other persons in handling — routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?</b>		<b>9a.</b>	1 <input type="checkbox"/> Yes (13) <input type="checkbox"/> No
		<b>b.</b>	2 <input type="checkbox"/> Yes (13)    3 <input type="checkbox"/> No (12)
<b>10a. Is — able to take part AT ALL in the usual kinds of play activities done by most children — age?</b> <b>b. Is — limited in the kind OR amount of play activities — can do because of any impairment or health problem?</b>		<b>10a.</b>	<input type="checkbox"/> Yes    0 <input type="checkbox"/> No (13)
		<b>b.</b>	1 <input type="checkbox"/> Yes (13)    2 <input type="checkbox"/> No (12)
<b>11a. Does any impairment or health problem NOW keep — from attending school?</b> <b>b. Does — attend a special school or special classes because of any impairment or health problem?</b> <b>c. Does — need to attend a special school or special classes because of any impairment or health problem?</b> <b>d. Is — limited in school attendance because of — health?</b>		<b>11a.</b>	1 <input type="checkbox"/> Yes (13) <input type="checkbox"/> No
		<b>b.</b>	2 <input type="checkbox"/> Yes (13) <input type="checkbox"/> No
		<b>c.</b>	3 <input type="checkbox"/> Yes (13) <input type="checkbox"/> No
		<b>d.</b>	4 <input type="checkbox"/> Yes (13)    5 <input type="checkbox"/> No
<b>12a. Is — limited in ANY WAY in any activities because of an impairment or health problem?</b> <b>b. In what way is — limited?</b> <i>Record limitation, not condition.</i>		<b>12a.</b>	1 <input type="checkbox"/> Yes    2 <input type="checkbox"/> No (NP)
		<b>b.</b>	_____ Limitation
<b>13a. What (other) condition causes this?</b> <i>Ask if injury or operation: When did [the (injury) occur?]/ — have the operation?</i> <i>Ask if operation over 3 months ago: For what condition did — have the operation?</i> <i>If pregnancy/delivery or 0–3 months injury or operation —</i> <i>Reask question where limitation reported, saying: Except for — (condition), ...?</i> <i>OR reask 13b/c.</i> <b>b. Besides (condition) is there any other condition that causes this limitation?</b> <b>c. Is this limitation caused by any (other) specific condition?</b> <i>Mark box if only one condition.</i> <b>d. Which of these conditions would you say is the MAIN cause of this limitation?</b>		<b>13a.</b>	(Enter condition in C2, THEN 13b) 1 <input type="checkbox"/> Old age (Mark "Old age" box, THEN 13c)
		<b>b.</b>	<input type="checkbox"/> Yes (Reask 13a and b) <input type="checkbox"/> No (13d)
		<b>c.</b>	<input type="checkbox"/> Yes (Reask 13a and b) <input type="checkbox"/> No
		<b>d.</b>	<input type="checkbox"/> Only 1 condition _____ Main cause
FOOTNOTES			

B. LIMITATION OF ACTIVITIES PAGE, Continued			
<b>B4</b>	Refer to age.	<b>B4</b>	0 <input type="checkbox"/> Under 5 (NP)    2 <input type="checkbox"/> 60–69 (14) 1 <input type="checkbox"/> 5–59 (B5)    3 <input type="checkbox"/> 70 and over (NP)
<b>B5</b>	Refer to "Old age" and "LA" boxes. Mark first appropriate box.	<b>B5</b>	<input type="checkbox"/> "Old age" box marked (14) <input type="checkbox"/> Entry in "LA" box (14) <input type="checkbox"/> Other (NP)
<b>14a. Because of any impairment or health problem, does — need the help of other persons with — personal care needs, such as eating, bathing, dressing, or getting around this home?</b> <i>If under 18, skip to next person; otherwise ask:</i> <b>b. Because of any impairment or health problem, does — need the help of other persons in handling — routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?</b>		<b>14a.</b> 1 <input type="checkbox"/> Yes (15) <input type="checkbox"/> No <b>b.</b> 2 <input type="checkbox"/> Yes    3 <input type="checkbox"/> No (NP)	
<b>15a. What (other) condition causes this?</b> <i>Ask if injury or operation: When did [the (injury) occur?/ — have the operation?]</i> <i>Ask if operation over 3 months ago: For what condition did — have the operation?</i> <i>If pregnancy/delivery or 0–3 months injury or operation —</i> <i>Reask question 14 where limitation reported, saying: Except for — (condition), ...?</i> <i>OR reask 15b/c.</i> <b>b. Besides (condition) is there any other condition that causes this limitation?</b> <b>c. Is this limitation caused by any (other) specific condition?</b> <i>Mark box if only one condition.</i> <b>d. Which of these conditions would you say is the MAIN cause of this limitation?</b>		<b>15a.</b> (Enter condition in C2, THEN 15b) 1 <input type="checkbox"/> Old age (Mark "Old age" box, THEN 15c) <b>b.</b> <input type="checkbox"/> Yes (Reask 15a and b) <input type="checkbox"/> No (15d) <b>c.</b> <input type="checkbox"/> Yes (Reask 15a and b) <input type="checkbox"/> No <b>d.</b> <input type="checkbox"/> Only 1 condition <div style="text-align: right;">Main cause</div>	
FOOTNOTES			

D. RESTRICTED ACTIVITY PAGE    PERSON 1	
<i>Hand calendar.</i> {The next questions refer to the 2 weeks outlined in red on that calendar, beginning Monday, (date) and ending this past Sunday (date).}	
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>D1</b>    Refer to age.           <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Under 5 (4)</span> <span><input type="checkbox"/> 5–17 (3)</span> <span><input type="checkbox"/> 18 and over (1)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>1a. DURING THOSE 2 WEEKS, did — work at any time at a job or business not counting work around the house? (Include unpaid work in the family [farm/business].)</b>  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>1 <input type="checkbox"/> Yes (Mark "Wa" box, THEN 2)</span> <span>2 <input type="checkbox"/> No</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>b. Even though — did not work during those 2 weeks, did — have a job or business?</b>  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>1 <input type="checkbox"/> Yes (Mark "Wb" box, THEN 2)</span> <span>2 <input type="checkbox"/> No (4)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>2a. During those 2 weeks, did — miss any time from a job or business because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Yes</span> <span>oo <input type="checkbox"/> No (4)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>b. During that 2-week period, how many days did — miss more than half of the day from — job or business because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span>oo <input type="checkbox"/> None (4)</span> <div style="border: 1px solid black; padding: 2px 10px; flex-grow: 1;">No. of work-loss days</div> <span>(4)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>3a. During those 2 weeks, did — miss any time from school because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Yes</span> <span>oo <input type="checkbox"/> No (4)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>b. During that 2-week period, how many days did — miss more than half of the day from school because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span>oo <input type="checkbox"/> None</span> <div style="border: 1px solid black; padding: 2px 10px; flex-grow: 1;">No. of school-loss days</div> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>4a. During those 2 weeks, did — stay in bed because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Yes</span> <span>oo <input type="checkbox"/> No (6)</span> </div> </div> <div style="border: 1px solid black; padding: 5px;"> <b>b. During that 2-week period, how many days did — stay in bed more than half of the day because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span>oo <input type="checkbox"/> None (6)</span> <div style="border: 1px solid black; padding: 2px 10px; flex-grow: 1;">No. of bed days</div> <span>(D2)</span> </div> </div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>D2</b>    Refer to 2b and 3b.  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> No days in 2b or 3b (6)</span> <span><input type="checkbox"/> 1 or more days in 2b or 3b (5)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>5. On how many of the (number in 2b or 3b) days missed from [work/school] did — stay in bed more than half of the day because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span>oo <input type="checkbox"/> None</span> <div style="border: 1px solid black; padding: 2px 10px; flex-grow: 1;">No. of days</div> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">           Refer to 2b, 3b, and 4b.         </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>6a. (Not counting the day(s) [missed from work missed from school (and) in bed],</b>  <b>Was there any (OTHER) time during those 2 weeks that — cut down on the things — usually does because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Yes</span> <span>oo <input type="checkbox"/> No (D3)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>b. (Again, not counting the day(s) [missed from work missed from school (and) in bed],</b>  <b>During that period, how many (OTHER) days did — cut down for more than half of the day because of illness or injury?</b>  <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <span>oo <input type="checkbox"/> None</span> <div style="border: 1px solid black; padding: 2px 10px; flex-grow: 1;">No. of cut-down days</div> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>D3</b>    Refer to 2–6.  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> No days in 2–6 (Mark "No" in RD, THEN NP)</span> <span><input type="checkbox"/> 1 or more days in 2–6 (Mark "Yes" in RD, THEN 7)</span> </div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">           Refer to 2b, 3b, 4b, and 6b.         </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>7a. What (other) condition caused — to [miss work miss school (or) stay in bed (or) cut down] during those 2 weeks?</b>  <div style="margin-top: 5px;">(Enter condition in C2, THEN 7b)</div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>b. Did any other condition cause — to [miss work miss school (or) stay in bed (or) cut down] during that period?</b>  <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span>1 <input type="checkbox"/> Yes (Reask 7a and b)</span> <span>2 <input type="checkbox"/> No</span> </div> </div>
<b>FOOTNOTES</b>	



## H. CONDITION LISTS 1 AND 2

Read to respondent(s) and ask list specified in A2:

Now I am going to read a list of medical conditions. Tell me if anyone in the family has had any of these conditions, even if you have mentioned them before.

<p><b>1</b></p> <p><b>1 a. Does anyone in the family <i>(read names)</i> NOW HAVE —</b> If "Yes," ask 1b and c.</p> <p><b>b. Who is this?</b></p> <p><b>c. Does anyone else NOW have —</b> Enter condition and letter in appropriate person's column.</p> <p><b>A. PERMANENT stiffness or any deformity of the foot, leg, fingers, arm, or back?</b> <i>(Permanent stiffness — joints will not move at all.)</i></p> <hr/> <p><b>B. Paralysis of any kind?</b></p> <hr/> <p><b>1d. DURING THE PAST 12 MONTHS, did anyone in the family have —</b> If "Yes," ask 1e and f.</p> <p><b>e. Who was this?</b></p> <p><b>f. DURING THE PAST 12 MONTHS, did anyone else have —</b> Enter condition and letter in appropriate person's column. C—L are conditions affecting the bone and muscle. M—W are conditions affecting the skin.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;"> <b>C. Arthritis of any kind or rheumatism?</b> </td> <td style="width: 50%; padding: 2px;"> <i>Reask 1d</i>  <b>M. A tumor, cyst, or growth of the skin?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>D. Gout?</b> </td> <td style="padding: 2px;"> <b>N. Skin cancer?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>E. Lumbago?</b> </td> <td style="padding: 2px;"> <b>O. Eczema or Psoriasis?</b>  <i>(ek'sa-ma) or (so-rye'uh-sis)</i> </td> </tr> <tr> <td style="padding: 2px;"> <b>F. Sciatica?</b> </td> <td style="padding: 2px;"> <b>P. TROUBLE with dry or itching skin?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>G. A bone cyst or bone spur?</b> </td> <td style="padding: 2px;"> <b>Q. TROUBLE with acne?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>H. Any other disease of the bone or cartilage?</b> </td> <td style="padding: 2px;"> <b>R. A skin ulcer?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>I. A slipped or ruptured disc?</b> </td> <td style="padding: 2px;"> <b>T. Dermatitis or any other skin trouble?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>J. REPEATED trouble with neck, back, or spine?</b> </td> <td style="padding: 2px;"> <b>U. TROUBLE with ingrown toenails or fingernails?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>K. Bursitis?</b> </td> <td style="padding: 2px;"> <b>V. TROUBLE with bunions, corns, or calluses?</b> </td> </tr> <tr> <td style="padding: 2px;"> <b>L. Any disease of the muscles or tendons?</b> </td> <td style="padding: 2px;"> <b>W. Any disease of the hair or scalp?</b> </td> </tr> </table> <p style="text-align: right;"><i>After list 1, go to page 25</i></p>	<b>C. Arthritis of any kind or rheumatism?</b>	<i>Reask 1d</i> <b>M. A tumor, cyst, or growth of the skin?</b>	<b>D. Gout?</b>	<b>N. Skin cancer?</b>	<b>E. Lumbago?</b>	<b>O. Eczema or Psoriasis?</b> <i>(ek'sa-ma) or (so-rye'uh-sis)</i>	<b>F. Sciatica?</b>	<b>P. TROUBLE with dry or itching skin?</b>	<b>G. A bone cyst or bone spur?</b>	<b>Q. 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## H. CONDITION LISTS 3 AND 4

Read to respondent(s) and ask list specified in A2:

Now I am going to read a list of medical conditions. Tell me if anyone in the family has had any of these conditions, even if you have mentioned them before.

3	<p><b>3a. DURING THE PAST 12 MONTHS, did anyone in the family {read names} have —</b> If "Yes," ask 3b and c.</p> <p><b>b. Who was this?</b></p> <p><b>c. DURING THE PAST 12 MONTHS, did anyone else have —</b> Enter condition and letter in appropriate person's column. Make no entry in item C2 for cold; flu; red, sore, or strep throat; or "virus" even if reported in this list. Conditions affecting the digestive system.</p>	4	<p><b>4a. DURING THE PAST 12 MONTHS, did anyone in the family {read names} have —</b> If "Yes," ask 4b and c.</p> <p><b>b. Who was this?</b></p> <p><b>c. DURING THE PAST 12 MONTHS, did anyone else have —</b> Enter condition and letter in appropriate person's column. A—B are conditions affecting the glandular system. C is a blood condition. D—I are conditions affecting the nervous system. J—Y are conditions affecting the genito-urinary system.</p>																																																				
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An ulcer?</td> <td style="padding: 2px;">U. Cancer of the stomach, intestines, colon, or rectum?</td> </tr> <tr> <td style="padding: 2px;">I. A hernia or rupture?</td> <td style="padding: 2px;">V. During the past 12 months, did anyone (else) in the family have any other condition of the digestive system?</td> </tr> <tr> <td style="padding: 2px;">J. Any disease of the esophagus?</td> <td style="padding: 2px;">If "Yes," ask: Who was this? — What was the condition? Enter in item C2, THEN reask V.</td> </tr> <tr> <td style="padding: 2px;">K. Gastritis?</td> <td></td> </tr> <tr> <td style="padding: 2px;">L. FREQUENT indigestion?</td> <td></td> </tr> <tr> <td style="padding: 2px;">M. Any other stomach trouble?</td> <td style="padding: 2px;">After list 3, go to page 25</td> </tr> </table>	A. Gallstones?	Reask 3a N. Enteritis?	B. Any other gallbladder trouble?	O. Diverticulitis? (Dye-ver-tic-yoo-lye'tis)	C. Cirrhosis of the liver?	P. Colitis?	D. Fatty liver?	Q. A spastic colon?	E. Hepatitis?	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Any disease of the genital organs?</td> </tr> <tr> <td style="padding: 2px;">D. Epilepsy?</td> <td style="padding: 2px;">Q. A missing breast?</td> </tr> <tr> <td style="padding: 2px;">E. REPEATED seizures, convulsions, or blackouts?</td> <td style="padding: 2px;">R. Breast cancer?</td> </tr> <tr> <td style="padding: 2px;">F. Multiple sclerosis?</td> <td style="padding: 2px;">S. *Cancer of the prostate?</td> </tr> <tr> <td style="padding: 2px;">G. Migraine?</td> <td style="padding: 2px;">T. *Any other prostate trouble?</td> </tr> <tr> <td style="padding: 2px;">H. FREQUENT headaches?</td> <td style="padding: 2px;">U. **Trouble with menstruation?</td> </tr> <tr> <td style="padding: 2px;">I. Neuralgia or neuritis?</td> <td style="padding: 2px;">V. **A hysterectomy? If "Yes," ask: For what condition did — have a hysterectomy?</td> </tr> <tr> <td style="padding: 2px;">J. Nephritis?</td> <td style="padding: 2px;">W. **A tumor, cyst, or growth of the uterus or ovaries?</td> </tr> <tr> <td style="padding: 2px;">K. Kidney stones?</td> <td style="padding: 2px;">X. **Any other disease of the uterus or ovaries?</td> </tr> <tr> <td style="padding: 2px;">L. REPEATED kidney infections?</td> <td style="padding: 2px;">Y. **Any other female trouble?</td> </tr> <tr> <td style="padding: 2px;">M. A missing kidney?</td> <td style="padding: 2px;">After list 4, go to page 25</td> </tr> </table>	A. A goiter or other thyroid trouble?	Reask 4a N. Any other kidney trouble?	B. Diabetes?	O. Bladder trouble?	C. Anemia of any kind?	P. Any disease of the genital organs?	D. Epilepsy?	Q. A missing breast?	E. REPEATED seizures, convulsions, or blackouts?	R. Breast cancer?	F. Multiple sclerosis?	S. *Cancer of the prostate?	G. Migraine?	T. *Any other prostate trouble?	H. FREQUENT headaches?	U. **Trouble with menstruation?	I. Neuralgia or neuritis?	V. **A hysterectomy? 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	<p>*Ask only if males in family. **Ask only if females in family.</p>																																																						

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## H. CONDITION LISTS 5 AND 6

Read to respondent(s) and ask list specified in A2.

Now I am going to read a list of medical conditions. Tell me if anyone in the family has had any of these conditions, even if you have mentioned them before.

<div style="text-align: center; font-weight: bold; font-size: 1.2em;">5</div> <p><b>5a. Has anyone in the family {read names} EVER had —</b> If "Yes," ask 5b and c.</p> <p><b>b. Who was this?</b></p> <p><b>c. Has anyone else EVER had —</b> Enter condition and letter in appropriate person's column. Conditions affecting the heart and circulatory system.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%; padding: 2px;">A. Rheumatic fever?</td> <td style="width: 50%; padding: 2px;">G. A stroke or a cerebrovascular accident? (ser'a-bro vas ku-lar)</td> </tr> <tr> <td style="padding: 2px;">B. Rheumatic heart disease?</td> <td style="padding: 2px;">H. A hemorrhage of the brain?</td> </tr> <tr> <td style="padding: 2px;">C. Hardening of the arteries or arteriosclerosis?</td> <td style="padding: 2px;">I. Angina pectoris? (pek'to-ris)</td> </tr> <tr> <td style="padding: 2px;">D. Congenital heart disease?</td> <td style="padding: 2px;">J. A myocardial infarction?</td> </tr> <tr> <td style="padding: 2px;">E. Coronary heart disease?</td> <td style="padding: 2px;">K. Any other heart attack?</td> </tr> <tr> <td style="padding: 2px;">F. Hypertension, sometimes called high blood pressure?</td> <td style="padding: 2px;"></td> </tr> </table> <p><b>5d. DURING THE PAST 12 MONTHS, did anyone in the family have —</b> If "Yes," ask 5e and f.</p> <p><b>e. Who was this?</b></p> <p><b>f. DURING THE PAST 12 MONTHS, did anyone else have —</b> Enter condition and letter in appropriate person's column. Conditions affecting the heart and circulatory system.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%; padding: 2px;">L. Damaged heart valves?</td> <td style="width: 50%; padding: 2px;">Q. Any blood clots?</td> </tr> <tr> <td style="padding: 2px;">M. Tachycardia or rapid heart?</td> <td style="padding: 2px;">R. Varicose veins?</td> </tr> <tr> <td style="padding: 2px;">N. A heart murmur?</td> <td style="padding: 2px;">S. Hemorrhoids or piles?</td> </tr> <tr> <td style="padding: 2px;">O. Any other heart trouble?</td> <td style="padding: 2px;">T. Phlebitis or thrombophlebitis?</td> </tr> <tr> <td style="padding: 2px;">P. An aneurysm? (an yoo-rizm)</td> <td style="padding: 2px;">U. Any other condition affecting blood circulation?</td> </tr> </table> <p style="text-align: right; margin-top: 5px;">▶ After list 5, go to page 25</p>	A. Rheumatic fever?	G. A stroke or a cerebrovascular accident? (ser'a-bro vas ku-lar)	B. Rheumatic heart disease?	H. A hemorrhage of the brain?	C. Hardening of the arteries or arteriosclerosis?	I. Angina pectoris? (pek'to-ris)	D. Congenital heart disease?	J. A myocardial infarction?	E. Coronary heart disease?	K. Any other heart attack?	F. Hypertension, sometimes called high blood pressure?		L. Damaged heart valves?	Q. Any blood clots?	M. Tachycardia or rapid heart?	R. Varicose veins?	N. A heart murmur?	S. Hemorrhoids or piles?	O. Any other heart trouble?	T. Phlebitis or thrombophlebitis?	P. An aneurysm? (an yoo-rizm)	U. Any other condition affecting blood circulation?	<div style="text-align: center; font-weight: bold; font-size: 1.2em;">6</div> <p><b>6a. DURING THE PAST 12 MONTHS, did anyone in the family {read names} have —</b> If "Yes," ask 6b and c.</p> <p><b>b. Who was this?</b></p> <p><b>c. DURING THE PAST 12 MONTHS, did anyone else have —</b> Enter condition and letter in appropriate person's column. Make no entry in item C2 for cold; flu; red, sore, or strep throat; or "virus" even if reported in this list. Conditions affecting the respiratory system.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%; padding: 2px;">A. Bronchitis?</td> <td style="width: 50%; padding: 2px;">Reask 6a. K. A missing lung?</td> </tr> <tr> <td style="padding: 2px;">B. Asthma?</td> <td style="padding: 2px;">L. Lung cancer?</td> </tr> <tr> <td style="padding: 2px;">C. Hay fever?</td> <td style="padding: 2px;">M. Emphysema?</td> </tr> <tr> <td style="padding: 2px;">D. Sinus trouble?</td> <td style="padding: 2px;">N. Pleurisy?</td> </tr> <tr> <td style="padding: 2px;">E. A nasal polyp?</td> <td style="padding: 2px;">O. Tuberculosis?</td> </tr> <tr> <td style="padding: 2px;">F. A deflected or deviated nasal septum?</td> <td style="padding: 2px;">P. Any other work-related respiratory condition, such as dust on the lungs, silicosis, asbestosis, or pneu-mo-co-ni-o-sis?</td> </tr> <tr> <td style="padding: 2px;">G. *Tonsillitis or enlargement of the tonsils or adenoids?</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">H. *Laryngitis?</td> <td style="padding: 2px;">Q. During the past 12 months did anyone (else) in the family have any other respiratory, lung, or pulmonary condition? If "Yes," ask: Who was this? — What was the condition? Enter in item C2, THEN reask Q.</td> </tr> <tr> <td style="padding: 2px;">I. A tumor or growth of the throat, larynx, or trachea?</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">J. A tumor or growth of the bronchial tube or lung?</td> <td style="padding: 2px;"></td> </tr> </table> <p><i>*If reported in this list only, ask:</i></p> <p><b>1. How many times did — have (condition) in the past 12 months?</b> If 2 or more times, enter condition in item C2. If only 1 time, ask:</p> <p><b>2. How long did it last? If 1 month or longer, enter in item C2.</b> If less than 1 month, do not record. If tonsils or adenoids were removed during past 12 months, enter the condition causing removal in item C2.</p> <p style="text-align: right; margin-top: 5px;">▶ After list 6, go to page 25</p>	A. Bronchitis?	Reask 6a. K. A missing lung?	B. Asthma?	L. Lung cancer?	C. Hay fever?	M. Emphysema?	D. Sinus trouble?	N. Pleurisy?	E. A nasal polyp?	O. Tuberculosis?	F. A deflected or deviated nasal septum?	P. Any other work-related respiratory condition, such as dust on the lungs, silicosis, asbestosis, or pneu-mo-co-ni-o-sis?	G. *Tonsillitis or enlargement of the tonsils or adenoids?		H. *Laryngitis?	Q. During the past 12 months did anyone (else) in the family have any other respiratory, lung, or pulmonary condition? If "Yes," ask: Who was this? — What was the condition? Enter in item C2, THEN reask Q.	I. A tumor or growth of the throat, larynx, or trachea?		J. A tumor or growth of the bronchial tube or lung?	
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CONDITION 1	PERSON NO. _____		
<b>1. Name of condition</b> _____			
Mark "2-wk. ref. pd." box without asking if "DV" or "HS" in C2 as source.			
<b>2. When did [---/anyone] last see or talk to a doctor or assistant about --- (condition)?</b>			
<input type="checkbox"/> Interview week (Reask 2) <input type="checkbox"/> 2-wk. ref. pd. <input type="checkbox"/> Over 2 weeks, less than 6 mos. <input type="checkbox"/> 6 mos., less than 1 yr. <input type="checkbox"/> 1 yr., less than 2 yrs.	<input type="checkbox"/> 2 yrs., less than 5 yrs. <input type="checkbox"/> 5 yrs. or more <input type="checkbox"/> Dr. seen, DK when <input type="checkbox"/> DK if Dr. seen <input type="checkbox"/> Dr. never seen } (3b)		
<b>3a. (Earlier you told me about --- (condition)) Did the doctor or assistant call the (condition) by a more technical or specific name?</b>			
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK			
Ask 3b if "Yes" in 3a, otherwise transcribe condition name from item 1 without asking:			
<b>b. What did he or she call it?</b> _____ (Specify)			
<input type="checkbox"/> Color Blindness (NC) <input type="checkbox"/> Normal pregnancy, normal delivery, vasectomy } (5)	<input type="checkbox"/> Cancer (3e) <input type="checkbox"/> Old age (NC) <input type="checkbox"/> Other (3c)		
<b>c. What was the cause of --- (condition in 3b)? (Specify)</b> _____			
Mark box if accident or injury. <input type="checkbox"/> Accident/injury (5)			
<b>d. Did the (condition in 3b) result from an accident or injury?</b>			
<input type="checkbox"/> Yes (5) <input type="checkbox"/> No			
Ask 3e if the condition name in 3b includes any of the following words:			
<b>Allment</b> Anemia Asthma Attack Bad	<b>Cancer</b> Condition Cyst Defect	<b>Disease</b> Disorder Growth Measles	<b>Problem</b> Rupture Trouble Tumor Ulcer
<b>e. What kind of (condition in 3b) is it?</b> _____ (Specify)			
Ask 3f only if allergy or stroke in 3b-e:			
<b>f. How does the [allergy/stroke] NOW affect ---? (Specify)</b> _____			
For Stroke, fill remainder of this condition page for the first present effect. Enter in item C2 and complete a separate condition page for each additional present effect.			

<b>Ask 3g if there is an impairment (refer to Card CP2) or any of the following entries in 3b-f:</b>	
<b>Abscess</b> <b>Ache</b> (except head or ear) <b>Bleeding</b> (except menstrual) <b>Blood clot</b> <b>Boll</b> <b>Cancer</b> <b>Cramps</b> (except menstrual) <b>Cyst</b>	<b>Damage</b> <b>Growth</b> <b>Hemorrhage</b> <b>Infection</b> <b>Inflammation</b> <b>Neuralgia</b> <b>Neuritis</b> <b>Pain</b>
	<b>Palay</b> <b>Paralysis</b> <b>Rupture</b> <b>Sore(ness)</b> <b>Stiff(ness)</b> <b>Tumor</b> <b>Ulcer</b> <b>Varicose veins</b> <b>Weak(ness)</b>
<b>g. What part of the body is affected?</b> _____ (Specify)	
Show the following detail:	
<b>Head</b> ..... skull, scalp, face <b>Back/spine/vertebrae</b> ..... upper, middle, lower <b>Side</b> ..... left or right <b>Ear</b> ..... inner or outer; left, right, or both <b>Eye</b> ..... left, right, or both <b>Arm</b> ..... shoulder, upper, elbow, lower or wrist; left, right, or both <b>Hand</b> ..... entire hand or fingers only; left, right, or both <b>Leg</b> ..... hip, upper, knee, lower, or ankle; left, right, or both <b>Foot</b> ..... entire foot, arch, or toes only; left, right, or both	
Except for eyes, ears, or internal organs, ask 3h if there are any of the following entries in 3b-f:	
<b>Infection      Sore      Soreness</b>	
<b>h. What part of the (part of body in 3b-g) is affected by the [infection, sore/soreness] — the skin, muscle, bone, or some other part?</b>	
(Specify) _____	
Ask if there are any of the following entries in 3b-f:	
<b>Tumor      Cyst      Growth</b>	
<b>4. Is this [tumor/cyst/growth] malignant or benign?</b>	
<input type="checkbox"/> Malignant <input type="checkbox"/> Benign <input type="checkbox"/> DK	
<b>5. a. When was --- (condition in 3b/3f) first noticed?</b>	
<input type="checkbox"/> 2-wk. ref. pd. <input type="checkbox"/> Over 2 weeks to 3 months <input type="checkbox"/> Over 3 months to 1 year <input type="checkbox"/> Over 1 year to 5 years <input type="checkbox"/> Over 5 years	
<b>b. When did --- (name of injury in 3b)?</b>	
Ask probes as necessary:	
<b>(Was it on or since (first date of 2-week ref. period) or was it before that date?)</b>	
<b>(Was it less than 3 months or more than 3 months ago?)</b>	
<b>(Was it less than 1 year or more than 1 year ago?)</b>	
<b>(Was it less than 5 years or more than 5 years ago?)</b>	

<p><b>K1</b> Refer to RD and C2.  1 <input type="checkbox"/> "Yes" in "RD" box AND more than 1 condition in C2 (6)  8 <input type="checkbox"/> Other (K2)</p> <p><b>6a. During the 2 weeks outlined in red on that calendar, did — (condition) cause — to cut down on the things — usually does?</b>  <input type="checkbox"/> Yes <input type="checkbox"/> No (K2)</p> <p><b>b. During that period, how many days did — cut down for more than half of the day?</b>  00 <input type="checkbox"/> None (K2) _____ Days</p> <p><b>7. During those 2 weeks, how many days did — stay in bed for more than half of the day because of this condition?</b>  00 <input type="checkbox"/> None _____ Days</p> <p><b>8. Ask if "Wa/Wb" box marked in C1: During those 2 weeks, how many days did — miss more than half of the day from — job or business because of this condition?</b>  00 <input type="checkbox"/> None _____ Days</p> <p><b>9. Ask if age 5–17: During those 2 weeks, how many days did — miss more than half of the day from school because of this condition?</b>  00 <input type="checkbox"/> None _____ Days</p> <p><b>K2</b> <input type="checkbox"/> Condition has "CL LTR" in C2 as source (10)  <input type="checkbox"/> Condition does not have "CL LTR" in C2 as source (K4)</p> <p><b>10. About how many days since (12-month date) a year ago, has this condition kept — in bed more than half of the day? (Include days while an overnight patient in a hospital.)</b>  000 <input type="checkbox"/> None _____ Days</p> <p><b>11. Was — ever hospitalized for — (condition in 3b)?</b>  1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p><b>K3</b> <input type="checkbox"/> Missing extremity or organ (K4)  <input type="checkbox"/> Other (12)</p> <p><b>12a. Does — still have this condition?</b>  1 <input type="checkbox"/> Yes (K4) <input type="checkbox"/> No</p> <p><b>b. Is this condition completely cured or is it under control?</b>  2 <input type="checkbox"/> Cured 8 <input type="checkbox"/> Other (Specify) _____ (K4)  3 <input type="checkbox"/> Under control (K4)</p> <p><b>c. About how long did — have this condition before it was cured?</b>  000 <input type="checkbox"/> Less than 1 month OR Number { 1 <input type="checkbox"/> Months  2 <input type="checkbox"/> Years</p> <p><b>d. Was this condition present at any time during the past 12 months?</b>  1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p><b>K4</b> 0 <input type="checkbox"/> Not an accident/injury (NC)  1 <input type="checkbox"/> First accident/injury for this person (14)  8 <input type="checkbox"/> Other (13)</p>	<p><b>13. Is this (condition in 3b) the result of the same accident you already told me about?</b>  <input type="checkbox"/> Yes (Record condition page number where accident questions first completed.) → _____ (NC)  <input type="checkbox"/> No</p> <p><b>14. Where did the accident happen?</b>  1 <input type="checkbox"/> At home (inside house)  2 <input type="checkbox"/> At home (adjacent premises)  3 <input type="checkbox"/> Street and highway (includes roadway and public sidewalk)  4 <input type="checkbox"/> Farm  5 <input type="checkbox"/> Industrial place (includes premises)  6 <input type="checkbox"/> School (includes premises)  7 <input type="checkbox"/> Place of recreation and sports, except at school  8 <input type="checkbox"/> Other (Specify) _____</p> <p>Mark box if under 18. <input type="checkbox"/> Under 18 (16)</p> <p><b>15a. Was — under 18 when the accident happened?</b>  1 <input type="checkbox"/> Yes (16) <input type="checkbox"/> No</p> <p><b>b. Was — in the Armed Forces when the accident happened?</b>  2 <input type="checkbox"/> Yes (16) <input type="checkbox"/> No</p> <p><b>c. Was — at work at — job or business when the accident happened?</b>  3 <input type="checkbox"/> Yes 4 <input type="checkbox"/> No</p> <p><b>16a. Was a car, truck, bus, or other motor vehicle involved in the accident in any way?</b>  1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (17)</p> <p><b>b. Was more than one vehicle involved?</b>  1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p><b>c. Was [it/either one] moving at the time?</b>  1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p><b>17a. At the time of the accident what part of the body was hurt? What kind of injury was it? Anything else?</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Part(s) of body *</th> <th style="width: 50%;">Kind of injury</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <p>Ask if box 3, 4, or 5 marked in Q. 5:</p> <p><b>b. What part of the body is affected now? How is — (part of body) affected? Is — affected in any other way?</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Part(s) of body *</th> <th style="width: 50%;">Present effects **</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table> <p>* Enter part of body in same detail as for 3g.  ** If multiple present effects, enter in C2 each one that is not the same as 3b or C2 and complete a separate condition page for it.</p>	Part(s) of body *	Kind of injury							Part(s) of body *	Present effects **						
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L. DEMOGRAPHIC BACKGROUND PAGE											
<b>L1</b>	Refer to age.	<b>L1</b>	<input type="checkbox"/> Under 5 (NP) <input type="checkbox"/> 5-17 (2) <input type="checkbox"/> 18 and over (1)								
<b>1a. Did — — EVER serve on active duty in the Armed Forces of the United States?</b>  <b>b. When did — — serve?</b> <i>Mark box in descending order of priority.            Thus, if person served in Vietnam and in Korea            mark VN.</i>		<b>1a.</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (2)  <b>b.</b> <table border="0"> <tr> <td>1 <input type="checkbox"/> VN</td> <td>5 <input type="checkbox"/> PVN</td> </tr> <tr> <td>2 <input type="checkbox"/> KW</td> <td>8 <input type="checkbox"/> OS</td> </tr> <tr> <td>3 <input type="checkbox"/> WWII</td> <td>9 <input type="checkbox"/> DK</td> </tr> <tr> <td>4 <input type="checkbox"/> WWI</td> <td></td> </tr> </table>		1 <input type="checkbox"/> VN	5 <input type="checkbox"/> PVN	2 <input type="checkbox"/> KW	8 <input type="checkbox"/> OS	3 <input type="checkbox"/> WWII	9 <input type="checkbox"/> DK	4 <input type="checkbox"/> WWI	
1 <input type="checkbox"/> VN	5 <input type="checkbox"/> PVN										
2 <input type="checkbox"/> KW	8 <input type="checkbox"/> OS										
3 <input type="checkbox"/> WWII	9 <input type="checkbox"/> DK										
4 <input type="checkbox"/> WWI											
<b>c. Was — — EVER an active member of a National Guard or military reserve unit?</b>  <b>d. Was ALL of — — active duty service related to National Guard or military reserve training?</b>		<b>c.</b> <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (2) 7 <input type="checkbox"/> DK (2)  <b>d.</b> 1 <input type="checkbox"/> Yes 3 <input type="checkbox"/> No 9 <input type="checkbox"/> DK									
<b>2a. What is the highest grade or year of regular school — — has ever attended?</b>   <b>b. Did — — finish the (number in 2a) (grade/year)?</b>		<b>2a.</b> 00 <input type="checkbox"/> Never attended or kindergarten (NP)  Elem: 1 2 3 4 5 6 7 8  High: 9 10 11 12  College: 1 2 3 4 5 6 +  <b>b.</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No									
<i>Hand Card R. Ask first alternative for first person; ask second alternative for other persons.</i> <b>3a. [What is the number of the group or groups which represents — — race?]</b> <b>[What is — — race?]</b>  <i>Circle all that apply</i> 1 — Aleut, Eskimo, or American Indian 2 — Asian or Pacific Islander 3 — Black 4 — White 5 — Another group not listed — Specify		<b>3a.</b> 1 2 3 4 5 <input type="checkbox"/>  (Specify)  <b>b.</b> 1 2 3 4 5 <input type="checkbox"/>  (Specify)  <b>c.</b> 1 <input type="checkbox"/> W 2 <input type="checkbox"/> B 3 <input type="checkbox"/> O									
<i>Hand Card O.</i> <b>4a. Are any of those groups — — national origin or ancestry? (Where did — — ancestors come from?)</b>  <b>b. Please give me the number of the group.</b> <i>Circle all that apply.</i> 1 — Puerto Rican 2 — Cuban 3 — Mexican/Mexicano 4 — Mexican American 5 — Chicano 6 — Other Latin American 7 — Other Spanish		<b>4a.</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (NP)  <b>b.</b> 1 2 3 4 5 6 7									

L.DEMOGRAPHIC BACKGROUND PAGE, Continued		Page 46																															
<p>Mark box if under 14. If "Married" refer to household composition and mark accordingly.</p> <p><b>7. Is — now married, widowed, divorced, separated, or has — never been married?</b></p>		<b>7.</b>	<input type="checkbox"/> Under 14 <input type="checkbox"/> Married — spouse in HH <input type="checkbox"/> Married — spouse not in HH <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Separated <input type="checkbox"/> Never married																														
<p><b>8a. Was the total combined FAMILY income during the past 12 months — that is, yours, (read names, including Armed Forces members living at home) more or less than \$20,000? Include money from jobs, social security, retirement income, unemployment payments, public assistance, and so forth. Also include income from interest, dividends, net income from business, farm, or rent, and any other money income received.</b></p> <p><i>Read if necessary: Income is important in analyzing the health information we collect. For example, this information helps us to learn whether persons in one income group use certain types of medical care services or have certain conditions more or less often than those in another group.</i></p>		<b>8a.</b>	<input type="checkbox"/> \$20,000 or more (Hand Card I) <input type="checkbox"/> Less than \$20,000 (Hand Card J)																														
<p><i>Read parenthetical phrase if Armed Forces member living at home or if necessary.</i></p> <p><b>b. Of those income groups, which letter best represents the total combined FAMILY income during the past 12 months (that is, yours, (read names, including Armed Forces members living at home))? Include wages, salaries, and other items we just talked about.</b></p> <p><i>Read if necessary: Income is important in analyzing the health information we collect. For example, this information helps us to learn whether persons in one income group use certain types of medical care services or have certain conditions more or less often than those in another group.</i></p>		<b>b.</b>	<table border="0"> <tr> <td>00 <input type="checkbox"/> A</td> <td>10 <input type="checkbox"/> K</td> <td>20 <input type="checkbox"/> U</td> </tr> <tr> <td>01 <input type="checkbox"/> B</td> <td>11 <input type="checkbox"/> L</td> <td>21 <input type="checkbox"/> V</td> </tr> <tr> <td>02 <input type="checkbox"/> C</td> <td>12 <input type="checkbox"/> M</td> <td>22 <input type="checkbox"/> W</td> </tr> <tr> <td>03 <input type="checkbox"/> D</td> <td>13 <input type="checkbox"/> N</td> <td>23 <input type="checkbox"/> X</td> </tr> <tr> <td>04 <input type="checkbox"/> E</td> <td>14 <input type="checkbox"/> O</td> <td>24 <input type="checkbox"/> Y</td> </tr> <tr> <td>05 <input type="checkbox"/> F</td> <td>15 <input type="checkbox"/> P</td> <td>25 <input type="checkbox"/> Z</td> </tr> <tr> <td>06 <input type="checkbox"/> G</td> <td>16 <input type="checkbox"/> Q</td> <td>26 <input type="checkbox"/> ZZ</td> </tr> <tr> <td>07 <input type="checkbox"/> H</td> <td>17 <input type="checkbox"/> R</td> <td></td> </tr> <tr> <td>08 <input type="checkbox"/> I</td> <td>18 <input type="checkbox"/> S</td> <td></td> </tr> <tr> <td>09 <input type="checkbox"/> J</td> <td>19 <input type="checkbox"/> T</td> <td></td> </tr> </table>	00 <input type="checkbox"/> A	10 <input type="checkbox"/> K	20 <input type="checkbox"/> U	01 <input type="checkbox"/> B	11 <input type="checkbox"/> L	21 <input type="checkbox"/> V	02 <input type="checkbox"/> C	12 <input type="checkbox"/> M	22 <input type="checkbox"/> W	03 <input type="checkbox"/> D	13 <input type="checkbox"/> N	23 <input type="checkbox"/> X	04 <input type="checkbox"/> E	14 <input type="checkbox"/> O	24 <input type="checkbox"/> Y	05 <input type="checkbox"/> F	15 <input type="checkbox"/> P	25 <input type="checkbox"/> Z	06 <input type="checkbox"/> G	16 <input type="checkbox"/> Q	26 <input type="checkbox"/> ZZ	07 <input type="checkbox"/> H	17 <input type="checkbox"/> R		08 <input type="checkbox"/> I	18 <input type="checkbox"/> S		09 <input type="checkbox"/> J	19 <input type="checkbox"/> T	
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<b>R</b>	<b>a. Mark first appropriate box.</b>	<b>Ra.</b>	<input type="checkbox"/> Under 17 <input type="checkbox"/> Present for all questions <input type="checkbox"/> Present for some questions <input type="checkbox"/> Not present																														
	<b>b. Enter person number of respondent.</b>	<b>b.</b>	Person number(s) of respondent(s)																														
<b>L3</b>	<b>Enter person number of first parent listed or mark box.</b>	<b>L3</b>	Person number of parent <input type="checkbox"/> None in household																														
<b>L4</b>	<b>Enter person number of spouse or mark box.</b>	<b>L4</b>	Person number of spouse <input type="checkbox"/> None in household																														
<b>FOOTNOTES</b>																																	

**CARD R**

**RACE**

1. Aleut, Eskimo, or American Indian
2. Asian or Pacific Islander
3. Black
4. White

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**CARD O**

**ORIGIN**

1. Puerto Rican
2. Cuban
3. Mexican/Mexicano
4. Mexican American
5. Chicano
6. Other Latin American
7. Other Spanish

H  
O

Cut along broken line

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**CARD I**

**INCOME**

- U .... \$20,000 — \$24,999
- V .... \$25,000 — \$29,999
- W ... \$30,000 — \$34,999
- X .... \$35,000 — \$39,999
- Y .... \$40,000 — \$44,999
- Z .... \$45,000 — \$49,999
- ZZ... \$50,000 and over

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**CARD J**

**INCOME**

- A ..... Less than \$1,000 (including loss)
- B ..... \$1,000 — \$1,999
- C ..... \$2,000 — \$2,999
- D ..... \$3,000 — \$3,999
- E ..... \$4,000 — \$4,999
- F ..... \$5,000 — \$5,999
- G ..... \$6,000 — \$6,999
- H ..... \$7,000 — \$7,999
- I ..... \$8,000 — \$8,999
- J ..... \$9,000 — \$9,999
- K ..... \$10,000 — \$10,999
- L ..... \$11,000 — \$11,999
- M ..... \$12,000 — \$12,999
- N ..... \$13,000 — \$13,999
- O ..... \$14,000 — \$14,999
- P ..... \$15,000 — \$15,999
- Q ..... \$16,000 — \$16,999
- R ..... \$17,000 — \$17,999
- S ..... \$18,000 — \$18,999
- T ..... \$19,000 — \$19,999

I  
J

Cut along broken line

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# Vital and Health Statistics series descriptions

- SERIES 1. **Programs and Collection Procedures**—These reports describe the data collection programs of the National Center for Health Statistics. They include descriptions of the methods used to collect and process the data, definitions, and other material necessary for understanding the data.
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For answers to questions about this report or for a list of reports published in these series, contact:

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HEALTH & HUMAN SERVICES**

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