## Vital and Health Statistics

## Educational Differences in Health Status and Health Care

Series 10: Data From the National Health Survey No. 179

Includes estimates by years of education for limitation of activity, restrictedactivity days, assessed health status, physician contacts, hospital discharges and days, incidence of acute conditions, and prevalence of chronic conditions. Level of education is cross-classified by age, sex, race, poverty status, Hispanic origin, geographic region, place of residence, major activity, marital status, and employment stafus. All estimates are shown as unadjusted and age adjusted and are based on data collected in household interviews by the U.S. Bureau of the Census for the National Health Interview Survey during 1989.

[^0]
## Copyright Information

All material appearing in this report is in the public domain and may be reproduced or copied without permission, citation as to source. however, ic, appreciated

## Suggested citation

Ries P Educational differences in health status and health care National Center for Health Statistics Vital Health Stat 10(179) 1991

## Library of Congress Cataloging-in-Publication Data

Ries, Peter W
Educational differences in health status and health care p cm. - (Vital and health statistics Series 10, Data from the National Health Intervew Survey; no 179) (DHHS publication : no (PHS) 91-1507)

By Peter Ries.
Includes biblıographical references.
ISBN 0-8406-0448-3

1. Diseases - United States - Statistics. 2 Education-United

States - Statistics 3 Health surveys - United States. 4. Medical care surveys - United States - Statistics 5. Education surveys - United
States - Statistics 1. National Center for Health Statıstics (U S.) II. Title. III Series. IV. Series: Vital and health statistics Series 10, Data from the National Health Survey; no. 179.
[DNLM: 1. Education-United States - statistics 2 Health Status-Untted States-statistics 3 Health Surveys -- United States. 4 Socoeconomic Factors - United States -- statistics W2 A N148vj no 179]
RA407 3. A346 no. 179
362.1'0973'021 s-dc20
[362.1'0973'021]
DNLM/DLC
for Library of Congress 91-6926

# National Center for Health Statistics 

Manning Feinleib, M.D., Dr.P.H., Director<br>Robert A. Israel, Deputy Director<br>Jacob J. Feldman, Ph.D., Associate Director for Analysis and Epidemiology<br>Gail F. Fisher, Ph.D., Associate Director for Planning and Extramural Programs<br>Peter L. Hurley, Associate Director for Vital and Health Statistics Systems<br>Robert A. Israel, Acting Associate Director for International Statistics<br>Stephen E. Nieberding, Associate Director for Management<br>Charles J. Rothwell, Associate Director for Data<br>Processing and Services<br>Monroe G. Sirken, Ph.D., Associate Director for Research and Methodology<br>David L. Larson, Assistant Director, Atlanta

## Division of Health Interview Statistics

Owen T. Thornberry, Jr., Ph.D., Director
Deborah M. Winn, Ph.D., Deputy Director
Gerry E. Hendershot, Ph.D., Chief, Illness and Disability Statistics Branch
Nelma B. Keen, Chief, Systems and Programming Branch
Stewart C. Rice, Jr., Chief, Survey Planning and Development Branch
Robert A. Wright, Chief, Utilization and Expenditure Statistics Branch

## Cooperation of the U.S. Bureau of the Census

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

In accordance with specifications established by the National Center for Health Statistics, the U.S. Bureau of the Census, under a contractual arrangement, participated in planning the survey and collecting the data.

## Contents

Introduction ..... 1
Highlights ..... 2
Source and limitations of data ..... 3
Presentation of the results ..... 4
Definition of years of education ..... 4
Education and income as socioeconomic measures ..... 5
Limitation of activity due to chronic conditions ..... 6
Restricted-activity days ..... 7
Bed days
8
8
Respondent-assessed health status ..... 9
Physician contacts. ..... 10
Short-stay hospital discharges. ..... 10
Short-stay hospital days. ..... 11
Incidence of acute conditions. ..... 11
Prevalence of chronic conditions ..... 12
References ..... 14
List of detailed tables ..... 15
Appendixes
I. Technical notes on methods ..... 38
II. Definitions of certain terms used in this report ..... 40
III. Questionnaire and flashcards ..... 45
List of text figures

1. Percent of persons assessed in fair or poor health, by years of education, for individual, family, and combined measures of years of education: United States, 1989 ..... 5
2. Percent of persons with unknown family income, by years of education: United States, 1989 ..... 6
3. Unadjusted and age-adjusted percents of persons limited in activity due to chronic conditions, by years of education and family income: United States, 1989 ..... 7
4. Unadjusted and age-adjusted numbers of restricted-activity days per person per year, by years of education and family income: United States, 1989 ..... 7
5. Unadjusted and age-adjusted numbers of bed days per person per year, by years of education and family income: United States, 1989 ..... 8
6. Unadjusted and age-adjusted percents of persons assessed in fair or poor health, by years of education and family income: United States, 1989 ..... 9
7. Unadjusted and age-adjusted numbers of physician contacts per person per year, by years of education and family income: United States, 1989 ..... 10
8. Unadjusted and age-adjusted numbers of short-stay hospital discharges per 100 persons per year, by years of education and family income: United States, 1989. ..... 11
9. Unadjusted and age-adjusted numbers of short-stay hospital days per 100 persons per year, by years of education and family income: United States, 1989 ..... 12
10. Unadjusted and age-adjusted numbers of acute conditions per 100 persons per year, by years of education and family income: United States, 1989 ..... 12

## List of text tables

A. Percent distribution of persons by age, according to years of education: United States, $1989 \ldots \ldots \ldots \ldots .$.
B. Number of selected chronic conditions per 1,000 persons, by age, years of education, and type of condition: United States, 1989

## Symbols

-     -         - Data not available
. . . Category not applicable
- Quantity zero
0.0 Quantity more than zero but less than 0.05

Z Quantity more than zero but less than 500 where numbers are rounded to thousands

* Figure does not meet standard of reliability or precision
\# Figure suppressed to comply with confidentiality requirements


# Educational Differences in Health Status and Health Care 

by Peter Ries, Division of Health Interview Statistics

## Introduction

Each year, the report "Current Estimates From the National Health Interview Survey" presents national estimates for basic health characteristics of the civilian noninstitutionalized population of the United States. These estimates are shown according to age, sex, race, family income, geographic region, and place of residence. From time to time, special reports have been published that focused on one or another of these sociodemographic characteristics and presented in greater detail the relationship of the characteristic to the basic health characteristics. Recent reports of this nature include "Health Characteristics by Occupation and Industry of Longest Employment" (1) and "Health of Black and White Americans, 1985-87" (2). No such presentation of National Health Interview Survey (NHIS) health estimates has yet appeared with level of education as the characteristic of this type of expanded focus.

The primary purpose of this report is to present estimates of basic health characteristics by detailed years of education, with the health characteristics including limitation of activity due to chronic conditions, restrictedactivity days, respondent-assessed health status, physician contacts, short-stay hospital discharges and days, incidence of acute conditions, and prevalence of chronic conditions. Not only is the variable years of education shown in great detail, it is also shown cross-tabulated with other sociodemographic characteristics, including age, sex, race, family income, poverty status, Hispanic origin, geographic region, place of residence, major activity, marital status, and employment status. All of the estimates are shown as unadjusted and age-adjusted rates or percents.

As noted above, the annual edition of Current estimates shows estimates of basic health characteristics by family income. Income is an important characteristic because it is an indicator of socioeconomic status and access
to medical care services, both of which are important determinants of health status and use of medical care services. In recent years, however, there has been a large increase in the proportion of NHIS respondents who do not report family income. In 1989 family income was not obtained for about one in six persons included in the survey. In contrast, level of education was not reported for only about 1 in 100 persons, and education also is strongly associated with socioeconomic status and access to medical care services. For this and other reasons, it may be timely to compare education and income as control variables in the presentation and analysis of NHIS health estimates. Thus, each section in the text of this report that summarizes the overall pattern of the relationship between level of education and a particular health characteristic includes a brief comparison between the use of education and the use of income as a control variable.

All of the estimates presented in this report relate to morbidity and health care utilization. For the relationship of level of education to mortality, see "National Trends in Educational Differentials in Mortality" (3).

Although published reports are the primary vehicle for disseminating estimates from NHIS, data also are available in the form of standardized microdata tapes that include the regular characteristics of each year's survey from 1969 through 1988. Questions pertaining to the cost and availability of these tapes should be directed to the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. Public use tapes also are available for special topics included in NHIS from 1973 through 1988. Information on tapes relating to special topics is available from the National Center for Health Statistics, Division of Health Interview Statistics, Systems and Programming Branch, 6525 Belcrest Road, Hyattsville, Maryland 20782.

## Highlights

The following summary highlights some of the associations between years of education and health characteristics for which estimates are shown in this report. The estimates do not include data on military personnel, persons living in institutions (including nursing homes), or those who died during the reference periods used in the survey.

Because older persons tend to have less education and poorer health than younger persons have, some of the differences between health estimates for persons with few and those with many years of education are due to age. The effects of age can be controlled for by the statistical technique of age adjusting: The age-adjusted estimate for an education group shows the value a health statistic would have if the education group had the same age composition as the total population. In this section, ageadjusted rates are shown in parentheses for health measures related to education.

Health status-For all of the measures of health status included in this report, low levels of education were highly associated with poor health and relatively higher levels of education were associated with good to excellent health. This may be seen by considering the ranges of the estimates of the following health characteristics by years of education.

- Limitation of activity due to chronic conditions-About 37.5 percent of persons with less than 4 years of education were limited in activity, but only about 7.7 percent of those with 16 years of education were so limited. (The corresponding age-adjusted percents are 28.0 and 9.4 , respectively.)
- Restricted-activity days - The number of days per person per year that people stayed in bed, missed work or school, or cut down on their usual activities because of illness, injury, or impairment was 31.8 for those with less than 4 years of education and 9.9 for persons with 16 years of education. (The corresponding ageadjusted rates are 20.5 and 11.0 , respectively.)
- Assessed health status-Respondents assessed their health or that of family members as excellent, very good, good, fair, or poor. About 32.7 percent of persons with less than 4 years of education but only about 3.0 percent of those with 17 or more years of education were assessed to be in fair or poor health. (The corresponding age-adjusted percents are 22.6 and 4.0, respectively.)
Utilization of health services - The pattern of fewer years of education being associated with poorer health was
also found for rates of short-stay hospitalization. However, there was no consistent pattern between years of education and the rate of physician contacts.
- Short-stay hospital discharges - The number of discharges per 100 persons per year ranged from 20.4 for persons with less than 4 years of education to 6.7 for those with 17 or more years of education. (The corresponding age-adjusted rates are 14.8 and 8.2 , respectively.)
- Short-stay hospital days-Persons with 4-7 years of education averaged 178.3 days in hospitals per 100 persons per year, but for persons with 16 years of education, the corresponding estimate was 39.6 days per 100 persons per year. (The corresponding ageadjusted rates are 109.1 and 48.6 , respectively.)
- Physician contacts-Although the highest estimate of the number of physician contacts per person per year was for persons with little education (a rate of 6.5 for those with 4-7 years of education) and the lowest rate was for persons with more education ( 5.1 for persons with 16 years of education), the level of the estimates was not even approximately monotonic as years of education increased. For instance, although the rates were low for those with 12 and with 16 years of education ( 5.0 and 5.1 , respectively), they were higher for those with 8-11 and with 13-15 years of education (5.8 and 5.6, respectively).

Incidence and prevalence of conditions-For most sociodemographic groups, there tends to be an inverse relationship between the incidence of acute conditions and the prevalence of chronic conditions; that is, groups with a high incidence of acute conditions tend to have a low prevalence of chronic conditions. This also tends to occur in relation to levels of education. Overall there was a tendency for lower levels of education to be associated with relatively low estimates for the incidence of acute conditions and relatively high estimates for the prevalence of chronic conditions, and the opposite pattern held for higher levels of education.

Educational differences independent of income-Education and income are highly correlated, but within income groups, educational differences in the major health characteristics remain. Among persons in the same income category, persons with lower education have less favorable health status and greater use of medical care services.

## Source and limitations of data

The information from the National Health Interview Survey presented in this report is based on data collected in a continuing nationwide survey by household interview. 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. The 1989 interviewed sample was composed of 47,485 households containing 122,310 persons. The total noninterview rate was 5.1 percent: 3.0 percent was the result of respondent refusal, and the remainder was the result of failure to locate an eligible respondent at home after repeated calls.

Because the estimates presented in this report are based on a sample of the population, they are subject to sampling errors. The parameters and formulas needed to calculate them are given in appendix I. The major concepts for which estimates are shown are defined in appendix II. Appendix III consists of a copy of the questionnaire and flashcards used in the interview. A more detailed description of the survey design, the methods used in estimation, the procedures for calculating standard errors, and general qualifications of the data are presented in appendix I to "Current Estimates from the National Health Interview Survey, 1989 " (4).

## Presentation of the <br> results

Tables 1-16 show detailed estimates of rates or percents for the following health characteristics: Percent of persons limited in activity due to chronic conditions (table 1), number of restricted-activity days per person per year (table 3), number of bed days per person per year (table 5), percent of persons assessed by respondents to be in fair or poor health (table 7), number of physician contacts per person per year (table 9), number of shortstay hospital discharges per 100 persons per year (table 11), number of short-stay hospital days per 100 persons per year (table 13), and number of acute conditions per 100 persons per year (table 15). The evennumbered table following each odd-numbered table identified above gives the age-adjusted rates or percents of the estimates shown in the previous table. Estimates of the prevalence of selected chronic conditions are shown in tables 17 (rates) and 18 (frequencies) by age and years of education. The population estimates used to calculate the rates and percents are shown in table 19.

The estimates for each health characteristic are shown according to years of completed education cross-tabulated with the following sociodemographic characteristics: Age, sex, race, family income, Hispanic origin, poverty status, geographic region, and place of residence. These characteristics are shown for persons of all ages. The following sociodemographic characteristics are shown crosstabulated by years of education only for persons 18 years of age and over: Major activity, marital status, and employment status.

Age adjusting was done using the four age groups shown in table A. As may be noted, the lower levels of education include a disproportionate number of older persons compared with the higher levels of education. For persons with 7 or fewer years of education, about one of three persons was 65 years of age or over. The correspond-
ing estimate for persons with 12 years of education is about 1 of 10 persons, and that for persons with 17 or more years of education is about 1 of 20 persons. Because relatively high proportions of morbidity and health service utilization occur among older persons, age adjusting of rates and percents can be expected to alter the estimates for persons with low levels of education more than the estimates for persons with high levels of education. The standard population used in age adjusting was the civilian noninstitutionalized population of the United States in 1989 (table 19).

Before summarizing the main results associated with each of the health characteristics, two issues will be considered: (a) the definition of years of education and (b) comparing education and income as alternative control variables for health estimates.

## Definition of years of education

The following questions are asked about each person 5 years of age and over in households interviewed in NHIS: (a) What is the highest grade or year of regular school $\qquad$ has ever attended? and (b) Did $\qquad$ finish the $\qquad$ (grade or year)? The responses are edited to produce two measures of education. The first is the number of years of education completed by each individual 5 years of age and over. The second attributes to each member of a family the years of education of the individual in the family 14 years of age and over who has completed the most years of education. Using this definition, any children in a family will be classified as having the educational level of the adult with the highest educational level. In general, all members of the family will be classified in terms of the same level of education.

Table A. Percent distribution of persons by age, according to years of education: United States, 1989

| Age | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 4 years | $\begin{aligned} & 4-7 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent distribution |  |  |  |  |  |  |  |
| All ages | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Under 18 years | 26.3 | 18.8 | 17.7 | 19.9 | 25.3 | 29.6 | 29.1 | 34.2 |
| 18-44 years | 42.8 | 23.7 | 23.0 | 31.5 | 44.4 | 49.4 | 49.4 | 41.4 |
| 45-64 years | 18.9 | 24.9 | 24.9 | 29.9 | 20.0 | 14.3 | 15.2 | 18.6 |
| 65 years and over. | 12.0 | 32.5 | 34.4 | 24.8 | 10.3 | 6.6 | 6.2 | 5.8 |

[^1]Although both measures are based on educational attainment, they show different aspects of education, the first being a measure of individual attainment and the second a measure of family attainment. The measure chosen will depend on the analysis undertaken. In analyses of health status and use of medical care services, education may be an important predictor: It may indicate the level of health awareness and knowledge, or it may indicate the financial resources available for health care. For persons who make their own health-related decisions, including most adults, individual educational attainment will usually be the best indicator of health knowledge and awareness and financial resources for medical care. For persons who do not make their own health-related decisions, including most children, individual educational attainment usually will not be the best indicator for analyses of health status and use of medical care services. Instead, the education of the person who makes their healthrelated decisions for them will be a better indicator.

In NHIS, it is not possible to determine precisely who that decisionmaker is, but it is possible to determine which adult member of the family has the highest level of education. If it is assumed that the person with the most education makes the health-related decisions for children in the family or that the person who does make those decisions has the same or a similar level of educationusually reasonable assumptions-then the educational level of the best educated adult is a good indicator of educational level to use in analyzing health status and use of medical care services by children.

For these reasons, a measure that combines these two concepts of years of education is used in this report. Persons 21 years of age and under are classified in terms of the family concept defined above. Persons 22 years of age and over are classified in terms of their own level of education, rather than in terms of the possibly higher educational level of another member of the family.

Using the example of assessed health status, figure 1 shows estimates of the percent of persons assessed in fair or poor health by each of these three measures of education. As may be noted, the estimates for persons classified as having 8 or more years of education are similar for all three measures. The major differences for the three measures are for the two levels indicating relatively few years of education.

The largest range in the estimates is for the "individual" measurement of years of education. Furthermore, this curve has the desirable property (at least for this health characteristic) of monotonically decreasing as the level of education increases. However, use of this measure means excluding children under 18 years of age. Not to do so would involve classifying children and youths 5-17 years of age in terms of their own educational level. This would be very misleading whether education is thought of as primarily a measure of health awareness and knowledge or as an indirect measure of ability to afford health care services.


Figure 1. Percent of persons assessed in fair or poor health, by years of education, for individual, family, and combined measures of years of education: United States, 1989

The range of estimates for fair or poor health is narrowest for the family measure of years of education. Furthermore, the estimates of the percents of persons assessed in fair or poor health do not decrease monotonically with increasing levels of education for the family measure.

The combined measure has a fairly wide range of estimates associated with its various levels. This is desirable, because a control variable with little variation is of little interest. It decreases monotonically as education increases and is thus less likely to substantially distort the result of statistical analyses based on the assumption of linear relationships. Finally, it does not exclude any persons based on their age. For these reasons, it is the measure of educational level used to present the estimates shown in this report.

## Education and income as socioeconomic measures

As noted earlier, each year's issue of Current estimates shows basic health characteristics by family income. This is a relatively standard measure of both socioeconomic status and the ability to afford health care services. However, a problem has emerged in analyzing NHIS data by income during the recent past: A high level of nonresponse. In 1972 about 5.9 percent of persons did not report family income. The corresponding estimate for 1989 is 16.2 percent. Although the causes of the increase in nonreporting of income are not well understood, two factors may have contributed: (a) over this period, respondents were asked to report income in increasingly specific
income ranges, and some may not have known or wanted to report their income so specifically; (b) there has been a general decline in public responsiveness to surveys, especially questions on sensitive matters such as income.

During this same period the percent of persons for whom education was not reported has remained relatively constant, the estimate falling from 1.2 percent in 1972 to 0.9 percent in 1989. In short, using income in presenting or analyzing NHIS health estimates results in excluding about 1 out of 6 persons, but using education excludes only about 1 out of 100 persons.

Aside from the magnitude of the unknown data for income and education, further considerations are involved in comparing these two variables. The first is the question of any biases associated with using one or the other variable. Figure 2 shows by years of education the percents of persons excluded from the analysis when family income is used. There is a wide range of percents of excluded persons, from 21.1 percent for persons with 4-7 years of education to 11.4 percent for persons with 17 or more years of education. In more general terms, excluding persons with unknown income tends to exclude about twice the proportion of persons with low levels of education as of persons with higher levels of education. Excluding such large proportions of persons with a characteristic known to be related to health can have a seriously biasing effect on some analyses.

Regarding differential exclusion of persons by family income when persons with unknown years of education are excluded, the estimates by family income are based on such a small proportion of the population ( 0.2 percent) and the sampling errors are so large that meaningful


Figure 2. Percent of persons with unknown family income, by years of education: United States, 1989
comparisons based on 1 year of data are unreliable. Substantively, this means that any income bias produced by excluding persons with unknown years of education is so small that it is negligible.

There are, of course, many considerations involved in choosing the best way of showing the relationship between socioeconomic status and a health characteristic. It is not the purpose of this report to attempt to resolve this issue. However, because education and income are among the more common measures used and because of the declining response rate associated with family income, described previously, the following discussion of the relationship between levels of education and estimates of health characteristics includes brief comparisons between education and income as socioeconomic measures for each health characteristic.

## Limitation of activity due to chronic conditions

Limitation of activity due to chronic conditions refers to a long-term inability or reduction in ability to perform the major activities of persons within a specific age range. The major activities for the age ranges are play for children under 5 years of age, going to school for children 5-17 years of age, working at a job or business or keeping house for those 18-64 years of age, and the capacity for independent living for persons 65 years of age and over.

Figure 3 shows a sharp decline in the percent of persons limited in activity as years of education increase, especially for persons with 12 or fewer years of education. Table 1 shows that overall about 14.1 percent of persons were limited in activity in 1989, the estimates ranging from 37.5 percent for persons with less than 4 years of education to 7.7 percent for those with 16 years of education. The percent limited among persons with less than 12 years of education (26.5) was about 2.8 times as large as was the percent limited among persons with 13 or more years of education (9.3). This relationship between level of education and level of limitation holds for all of the comparisons of estimates for the 40 groups defined by the sociodemographic categories shown in table 1 . The inverse relationship is particularly strong in relation to race, with the estimate of the proportion functionally limited among black persons being 3.6 times greater for those with less than 12 years of education ( 27.7 percent) than for those with 13 or more years of education ( 7.8 percent). Age adjusting the estimates (table 2 and figure 3 ) tends to reduce the magnitude of the differences in activity limitation between persons with lower and those with higher levels of education. The ratio of the estimates is reduced from the 2.8 noted above for the unadjusted percents to 1.8 for the age-adjusted percents ( 20.5 percent for those with less than 12 years of education and 11.1 percent for those with 13 or more years of education). However, the estimates are still larger for the lower than for the higher educational levels for all of the 33 age-adjusted comparisons of sociodemographic groups shown in table 2.


Figure 3. Unadjusted and age-adjusted percents of persons limited in activity due to chronic conditions, by years of education and family income: United States, 1989

Figure 3 shows that the range of estimates for persons limited in activity is greater for educational level than it is for level of family income. However, it may be noted that age adjusting the estimates of persons with limitation for both education and income tends to reduce the differences for corresponding levels, so that there is little difference between the age-adjusted estimates for education and for income.

## Restricted-activity days

Four types of restricted activity resulting from illness, injury, or impairment are included in the measure restricted-activity days: Days lost from work for currently employed persons 18 years of age and over; schooldays missed by youths $5-17$ years of age; days spent in bed (which may overlap either of the prior types); and other


Figure 4. Unadjusted and age-adjusted numbers of restricted-activity days per person per year, by years of education and family income: United States, 1989
days on which a person cuts down on his or her usual activities.

Figure 4 shows that, in general, as years of education increase, the incidence rate of restricted-activity days decreases. The range of these estimates is from a high of 31.8 days per person per year for less than 4 years of education to a low of 9.9 days per person per year for 16 years of education (table 3 ). Of the 40 comparisons based on sociodemographic characteristics by years of education shown in the table, the estimates of restricted-activity days are higher for persons with less than 12 years of education than they are for persons with 13 or more years of education in all but two comparisons (persons under 18 years of age and unemployed persons). The overall ratio of the rate for persons with less than 12 years of education (24.2) to the rate for those with 13 or more years of education (11.7) is about 2.1. Among the sociodemographic characteristics, the largest ratio between the estimated rates (2.5) is for persons living in the Midwest Region ( 24.6 and 9.7 days of restricted activity per person per year for the lower and higher educational levels, respectively).

Age adjusting the rates of restricted-activity days reduces the range of the rates from the lower to the higher educational levels (figure 4). The reduction in the range of estimates is from 21.9 days per person per year for the unadjusted rates to only 9.5 days per person per year for the age-adjusted rates shown in table 4 . Of the 33 sociodemographic comparisons shown in this table, 3 are not in the expected direction; that is, in these cases persons with less than 12 years of education have lower rates than persons with 13 or more years of education have. These
exceptions are for persons with an annual family income of $\$ 5,000-\$ 9,999$; persons whose major activity is not working, keeping house, or going to school (designated as "other"); and unemployed persons.

Figure 4 indicates that age adjusting greatly reduces the range of the rates associated with educational levels but has little effect on the range of the rates associated with different levels of family income (the unadjusted range of rates being 17.4 and the corresponding ageadjusted range being 18.0 days per person per year).

## Bed days

A bed day is defined as a day on which a person stayed in bed for more than half the day because of illness, injury, or impairment. As noted in the previous section, bed days are a subset of the more inclusive category of restricted-activity days. Estimates for bed days are shown separately here because they are a more behaviorally oriented measure than are the other types of restrictedactivity days and, unlike work- or school-loss days, they apply to all age groups of the population.

Figure 5 and table 5 show that the number of bed days per person per year ranges from 17.3 for persons with less than 4 years of education to 3.9 for persons with 16 years of education. The rate for the entire population is 6.5 bed days per person per year. For all but 1 (unemployed persons) of the 40 categories defined by the sociodemographic variables shown in table 5 , the estimates of bed days per person per year are higher for persons with less than 12 years of education than they are for persons with 13 or more years of education. The ratio of the rates


Figure 5. Unadjusted and age-adjusted numbers of bed days per person per year, by years of education and family income: United States, 1989
is 2.3 for the population as a whole ( 11.1 for the lower educational level and 4.8 for the higher). The ratios are particularly large for persons living in the Midwest (2.8), persons $45-64$ years of age (2.7), and those living outside of metropolitan statistical areas, or MSA's (2.6).

Age adjusting the rates (table 6) reduces their range by about half for the various levels of education (from 13.4 bed days per person per year for the unadjusted rates to 6.9 bed days for the age-adjusted rates). Again, most of the change occurs because of the reduction in the rates by age adjusting for those with fewer years of education (figure 5). The estimated rates are higher for those with less than 12 years of education than they are for persons with 13 years of education or more for all but 2 of the 33 sociodemographic comparisons shown in table 6 (persons with an annual family income of $\$ 5,000-\$ 9,999$ and unemployed persons).

Figure 5 shows that as in the case of restrictedactivity days, the estimates of bed days per person per year are similar for persons with 8 or more years of education and for those with an annual family income of $\$ 10,000$ or more in the case of both the unadjusted and the ageadjusted rates. Age adjusting has little effect on the rates of low-income groups, but it does significantly reduce the bed-day rate for persons with little education. The only major differences in estimated age-adjusted rates of bed days for the corresponding levels of education and income are for persons with 4-7 years of education (8.9) and persons with an annual family income of $\$ 5,000-\$ 9,999$ (12.3).

## Respondent-assessed health status

Estimates of levels of assessed health status are derived from respondents' answers to the following question: "Would you say $\qquad$ 's health in general is excellent, very good, good, fair, or poor?" Clearly the responses reflect lay judgment, and clinical evidence is at best only indirectly involved in the respondents' choice of one of the five possible answers.

The estimates of the percent of persons assessed in fair or poor health range from 32.7 percent for persons with fewer than 4 years of education to 3.0 percent for those with 17 or more years of education (figure 6 and table 7). The overall proportion of persons assessed in fair or poor health for all educational levels is 9.7 percent. For the 40 comparisons of the sociodemographic categories shown in table 7, the estimates for persons with less than 12 years of education are far larger than those for persons with 13 or more years of education in all cases. Overall, the estimate of the percent of persons assessed in fair or poor health is about 5.5 times larger for those with less than 12 years of education ( 23.3 percent) than it is for persons with 13 or more years of education ( 4.2 percent). Of all the health characteristics discussed in this report, this one shows the largest difference for this type of comparison. The ratios of the estimated percents for the sociodemographic subgroups are particularly large for persons living in the Midwest (6.5), those living outside of MSA's (6.4), non-Hispanic persons (6.1), persons living in


Figure 6. Unadjusted and age-adjusted percents of persons assessed in fair or poor health, by years of education and family income: United States, 1989
the Northeast (6.1), and those in families with an annual family income of $\$ 50,000$ or more (6.1).

Age adjusting reduces the ratios of the percents of persons assessed in fair or poor health from 5.5 for the unadjusted percents to 3.5 for the adjusted percents ( 18.3 and 5.3 percent, respectively, for the lower and higher educational levels). The highest ratio of age-adjusted percents (4.2) is for persons whose major activity is going to school ( 18.0 percent for those with less than 12 years of education and 4.3 for those with 13 or more years). The range of the age-adjusted estimates is from 22.6 percent for those with less than 4 years of education to 4.0 percent for persons with 17 or more years of education. This reduction of the range for all persons holds also for the sociodemographic subgroups, However, the reduction in the range of difference does not affect the general pattern, the percents of persons assessed in fair or poor health being higher for those with less than 12 years of education than it is for persons with 13 or more years of education for all of the 33 subgroups.

Comparing the estimates with regard to levels of education and income, figure 6 indicates that for the unadjusted percents, the estimates differ greatly only for persons with fewer years of education and lower annual family income, with the overall range in estimates being greater for levels of education than it is for levels of income. Age adjusting reduces the estimates for persons with less education while it increases the estimates for persons with low family income. The overall effect is to make the levels of the age-adjusted estimates similar for
education and income throughout the range of corresponding education and family income levels.

## Physician contacts

A physician contact is defined as a consultation with a physician in person or by telephone for diagnosis, treatment, or advice. A contact is included if the medical service is provided by either the physician or by a medical person working under the supervision of a physician. Telephone contacts for advice or consultation are included in this measure.

Figure 7 and table 9 show that the physician contact rate does not change consistently with increasing levels of education. The rate per person per year is highest (6.5) for persons with 4-7 years of education and lowest (5.0) for persons with 12 years of education. No regular pattern in the rates is discernible for the other levels of education. Table 9 shows that the rate of physician contacts per person per year is lower for persons with 12 years of education (5.0) than it is for the lower level of education ( 6.0 for those with fewer than 12 years of education) or the higher level of education ( 5.5 for persons with 13 or more years of education). There is no regular pattern regarding the comparison of the estimates for the lower and higher educational levels by sociodemographic subgroups. For major activity, the estimates of physician contacts are higher for all of the subgroups for those with 13 or more years of education, but for sex and race, the estimates are high for all of the subgroups for those with less than 12 years of education. Overall, the estimates are


Figure 7. Unadjusted and age-adjusted numbers of physician contacts per person per year, by years of education and family income: United States, 1989


Figure 8. Unadjusted and age-adjusted numbers of short-stay hospital discharges per 100 persons per year, by years of education and family Income: United States, 1989
higher for 21 of the 40 sociodemographic comparisons for persons with 13 or more years of education and higher for 18 of the subgroups for those with less than 12 years of education. The two groups were equal in two cases.

However, table 10 shows a dramatic change in these comparisons when the estimates are age adjusted. The age-adjusted estimate of physician contacts for persons with 13 or more years of education (5.9) is higher than the estimate for those with less than 12 years of education (5.1). This pattern holds for 31 of the 33 sociodemographic subgroups. Figure 7 shows the impact of age adjusting on the rates of physician contacts for persons with less than 12 years of education. The reduction results from the relatively high proportion of persons 65 years of age and over (who have very high physician contact rates) with fewer years of education.

## Short-stay hospital discharges

The estimates discussed in this section refer only to discharges from short-stay hospitals, where the normal length of stay is less than 30 days. Because hospitalizations of institutionalized and military people and of persons who died during the reference period are not included, these estimates do not include all of the hospital discharges in the United States during the reference period.

Figure 8 and table 11 show a relatively steady decline
in the number of short-stay hospital discharges per 100 persons per year as the level of education increases. The incidence rates range from a high of 20.4 per 100 persons per year for less than 4 years of education to a low of 6.7 per 100 persons per year for 17 or more years of education. This pattern holds for all of the sociodemographic categories included in table 13, and the differences are usually quite large. Because the rate of hospitalization is strongly associated with age, age adjusting these estimates (table 12) tends to reduce the magnitude of the difference. However, for only 1 of the 33 sociodemographic categories included in the table (persons whose major activity is not working, keeping house, or going to school) does the estimate of the incidence rate for less than 12 years of education fail to exceed that of the rate for 13 or more years of education.

Concerning the relationship of the estimates of shortstay hospital discharges by education and by income, figure 8 shows that the pattern is similar for each of the variables, the major difference being that the range of the unadjusted estimates is larger by education than it is by family income. Age adjusting the estimates for each of the variables tends to have little influence on estimates by family income. However, age adjusting does greatly reduce the estimates for the lower educational levels (fewer than 12 years of education) but not those for 12 or more years of education.


Figure 9. Unadjusted and age-adjusted numbers of short-stay hospital days per 100 persons per year, by years of education and family income: United States, 1989

## Short-stay hospital days

The measure called hospital days is really based on the number of nights a person spent as a patient admitted to a short-stay hospital. Thus it excludes days (or nights) on which a person used the services of the hospital emergency room or clinic but was not formally admitted. It should also be noted that because these estimates are based on a 6 -month reference period and because interviews were conducted throughout 1989, many of the days included occurred in the second half of 1988.

Table 13 and figure 9 show that the estimates of the number of short-stay hospital days per 100 persons per year range from 178.3 for persons with $4-7$ years of education to 39.6 for those with 16 years of education. Persons with less than 12 years of education had about 3.1 times more hospital days than persons with 13 or more years of education had ( 140.7 and 45.9 days per 100 persons per year, respectively). This relationship is particularly strong for persons living in the Northeast (with a ratio of 3.9) and persons in families with an annual family income of less than $\$ 5,000$ (with a ratio of 3.6).

Age adjusting the estimated rates greatly reduces their range across levels of education (table 14). The rates range from 109.1 for persons with $4-7$ years of education to 48.6 for those with 16 years of education. The ratio of the rate for persons with less than 12 years of education (103.7) to the rate for persons with 13 or more years of education (55.7) is reduced by a third from the ratio for the unadjusted rates (from 3.1 to 1.9). However, the pattern of the relationship still holds for all of the 33 sociodemographic subgroups shown in the table of ageadjusted rates.

Figure 9 shows that the range of unadjusted estimates of short-stay hospital days is much wider by level of education than it is by level of family income. However, age adjusting has relatively little effect on the estimates for family income, whereas it greatly reduces the range for education. This results in making the range of ageadjusted rates wider for income than it is for education.

## Incidence of acute conditions

An acute condition is one that usually lasts less than 3 months. The NHIS estimate of acute conditions includes only those conditions for which a physician was contacted or which involved at least 1 day of restricted activity.

Figure 10 and table 15 show that the number of acute conditions per 100 persons per year rises from a rate of 75.0 for persons with less than 4 years of education to a rate of 216.1 for persons with $13-15$ years of education and then varies little for the higher levels of education. The incidence of acute conditions is higher for those with 13 or more years of education than for those with less than 12 years of education for all but 1 of the 40 sociodemographic comparisons shown in table 15 (unemployed persons).

Age adjusting the incidence rates of acute conditions (table 16) has little effect on any of the rates or any of the sociodemographic comparisons, except to somewhat reduce the magnitude of the differences between lower and higher levels of education.

Figure 10 shows that there is little variation in the incidence rates of acute conditions for the various levels of family income, and the rates are only slightly affected


Figure 10. Unadjusted and age-adjusted numbers of acute conditions per 100 persons per year, by years of education and family income: United States, 1989
when they are age adjusted. The range of estimates is much greater for educational level than it is for family income. As in the case of family income, age adjusting the rates of acute conditions by years of education only marginally affects the levels of the estimates.

## Prevalence of chronic conditions

Respondents in NHIS are read a list of chronic conditions and asked to indicate whether they or family members for whom they are the respondents have any of the conditions. To reduce respondent burden, the full NHIS sample is divided into six subsamples for these questions, each household in a subsample being read only one of the six lists into which all of the chronic conditions are divided. Although reducing respondent burden, this procedure greatly increases the sampling variation of estimates of the prevalence of particular chronic conditions. For this reason, estimates of the prevalence of chronic conditions presented in tables 17 (rates) and 18 (frequencies) of this report are shown only for two age groups (under 65 and 65 years of age and over) and two educational levels (less than 12 years and 12 or more years of education).

Table B shows the prevalence rates by these age and educational groups for the four conditions affecting more than 100 persons per 1,000 . For three of the four conditions (arthritis, deformity or orthopedic impairment, and hypertension), the prevalence rate is higher for persons with less education than for those with more education for both age groups. In the case of chronic sinusitis, however, the prevalence rate is higher among persons with more education for those under 65 years of age but higher among persons with less education for those 65 years of age and over.

For most of the conditions included in table 17, the prevalence rates are higher for persons with less education. The only conditions for which the prevalence rates are higher for persons with 12 or more years of education than for those with less than 12 years of education within both age groups are psoriasis, dermatitis, disease of the female genital organs, and deviated nasal septum.

Estimates of the prevalence of chronic conditions by family income are not shown in this report. Those wishing to obtain such estimates may consult the 1989 issue of Current Estimates (4).

Table B. Number of selected chronic conditions per 1,000 persons, by age, years of education, and type of condition: United States, 1989

| Type of chronic condition | All ages |  |  | Under 65 years of age |  |  | 65 years of age and over |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 12 years | 12 years or more | All years | Less than 12 years | 12 years or more | All years | Less than 12 years | 12 years or more |
| Chronic sinusitis | 138.3 | 137.4 | 138.6 | 136.3 | 121.6 | 140.2 | 153.4 | 179.9 | 132.9 |
| Arthritis. | 127.3 | 241.9 | 99.0 | 78.8 | 138.8 | 67.4 | 483.0 | 518.7 | 452.6 |
| Deformity or orthopedic impairmen | 114.9 | 138.6 | 109.6 | 109.5 | 124.4 | 106.9 | 155.2 | 176.6 | 140.3 |
| Hypertension . . . . . . . . . . . . | 113.6 | 201.8 | 92.4 | 77.2 | 128.8 | 67.5 | 380.6 | 397.9 | 370.3 |

## References

1. Cooper SD, Buffler PA, Cooper CJ. Health characteristics by occupation and industry of longest employment. National Center for Health Statistics. Vital Health Stat 10(168). 1989.
2. Ries P. Health of black and white Americans, 1985-87. National Center for Health Statistics. Vital Health Stat 10(171). 1989.
3. Feldman JJ et al. National trends in educational differentials in mortality. Am J Epidemiol 129(5):919-33. 1989.
4. Adams PF, Benson V. Current estimates from the National Health Interview Survey, 1989. National Center for Health Statistics. Vital Health Stat $10(176) .1990$.
5. World Health Organization. Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, based on the recommendations of the Ninth Revision Conference, 1975. Geneva: World Health Organization. 1977.
6. U.S. Bureau of the Census. National Health Interview Survey Interviewer's Manual. HIS-100. U.S. Department of Commerce acting as a collecting agent for the U.S. Public Health Service. 1989.

## List of detailed tables

1. Percent of persons limited in activity due to chronic conditions, by years of education and selected sociodemographic characteristics: United States, 1989
2. Age-adjusted percent of persons limited in activity due to chronic conditions, by years of education and selected sociodemographic characteristics: United States, 1989
3. Number of days of restricted activity per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
4. Age-adjusted number of days of restricted activity per person per year, by years of education and selected sociodemographic characteristics: United States, 1989.
5. Number of days in bed due to illness, injury, or impairment per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
6. Age-adjusted number of days in bed due to illness, injury, or impairment per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
7. Percent of persons assessed by respondents to be in fair or poor health, by years of education and selected sociodemographic characteristics: United States, 1989.
8. Age-adjusted percent of persons assessed by respondents to be in fair or poor health, by years of education and selected sociodemographic characteristics: United States, 1989
9. Number of physician contacts per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
10. Age-adjusted number of physician contacts per person
per year, by years of education and selected sociode
mographic characteristics: United States, 1989
11. Number of short-stay hospital discharges per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
12. Age-adjusted number of short-stay hospital discharges
per 100 persons per year, by years of education and
selected sociodemographic characteristics: United
States, 1989
13. Number of short-stay hospital days per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
14. Age-adjusted number of short-stay hospital days per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
15. Number of acute conditions per 100 persons per year,
by years of education and selected sociodemographic
characteristics: United States, 1989
16. Age-adjusted number of acute conditions per 100
persons per year, by years of education and selected
sociodemographic characteristics: United States,
1989

17. Number of selected chronic conditions, by age and
years of education: United States, 1989. . . . . . . . . . 34
18. Number of persons, by years of education and selected sociodemographic characteristics: United States, 198932

31
31

Table 1. Percent of persons limited in activity due to chronic conditions, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\begin{gathered} A l l \\ \text { years }^{1} \end{gathered}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than <br> 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$ | 14.1 | 37.5 | 31.7 | 24.2 | 12.8 | 10.7 | 7.7 | 8.0 | 26.5 | 9.3 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. . | 5.3 | *3.1 | 4.4 | 7.5 | 6.0 | 5.6 | 3.3 | 3.4 | 6.7 | 4.5 |
| 18-44 years. . . | 9.0 | 26.5 | 14.6 | 14.5 | 9.0 | 8.3 | 5.9 | 6.0 | 15.2 | 7.1 |
| 18-24 years | 6.1 | *18.0 | 10.5 | 8.3 | 6.4 | 5.2 | 4.5 | 3.9 | 8.9 | 4.9 |
| 25-34 years | 8.0 | 27.4 | 9.6 | 13.5 | 8.2 | 7.5 | 4.3 | 4.8 | 13.7 | 6.0 |
| 35-44 years | 12.3 | 30.1 | 22.1 | 21.8 | 12.3 | 11.9 | - 8.6 | 7.4 | 22.4 | 9.7 |
| 45-64 years. . | 22.2 | 46.4 | 42.1 | 33.6 | 19.2 | 18.8 | 13.0 | 13.2 | 36.1 | 15.7 |
| 45-54 years | 17.1 | 41.3 | 35.1 | 27.3 | 15.3 | 15.4 | 10.0 | 10.6 | 29.6 | 12.6 |
| 55-64 years | 27.9 | 49.4 | 46.7 | 38.5 | 23.8 | 24.0 | 17.1 | 17.6 | 41.0 | 20.3 |
| 65 years and over | 38.3 | 58.6 | 49.6 | 40.9 | 33.7 | 34.0 | 29.2 | 33.1 | 44.4 | 32.5 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 13.7 | 40.8 | 29.7 | 23.4 | 12.6 | 10.5 | 8.1 | 8.0 | 25.9 | 9.2 |
| Female | 14.4 | 34.3 | 33.6 | 24.9 | 13.0 | 10.9 | 7.3 | 8.1 | 27.1 | 9.4 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 14.2 | 35.1 | 30.6 | 25.0 | 13.2 | 11.1 | 8.1 | 8.3 | 26.6 | 9.6 |
| Black | 14.9 | 55.2 | 39.4 | 22.0 | 11.3 | 8.8 | 5.1 | 7.7 | 27.7 | 7.8 |
| Other | 8.3 | 20.5 | 22.3 | 14.6 | 7.4 | 6.8 | 4.3 | 5.2 | 17.7 | 5.4 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 25.1 | 42.0 | 44.2 | 31.4 | 19.4 | 13.5 | *14.3 | *24.1 | 35.2 | 14.3 |
| \$5,000-\$9,999 | 27.7 | 46.0 | 37.6 | 30.2 | 22.7 | 20.0 | 22.1 | 19.9 | 33.4 | 20.3 |
| \$10,000-\$14,999. | 21.6 | 26.4 | 30.2 | 27.9 | 17.3 | 17.8 | 18.8 | 14.6 | 28.3 | 17.7 |
| \$15,000-\$24,999. | 15.7 | 31.6 | 23.7 | 23.3 | 13.9 | 12.6 | 9.8 | 13.6 | 23.8 | 12.1 |
| \$25,000-\$34,999. | 11.0 | 31.5 | 22.5 | 19.2 | 10.1 | 9.4 | 8.2 | 10.1 | 20.2 | 9.2 |
| \$35,000-\$49,999. | 8.7 | *42.1 | 22.2 | 13.2 | 9.4 | 8.6 | 5.8 | 6.8 | 15.1 | 7.3 |
| \$50,000 or more. | 7.6 | *55.9 | 25.4 | 15.8 | 9.1 | 7.4 | 6.3 | 6.2 | 18.2 | 6.6 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 10.6 | 20.3 | 11.4 | 13.5 | 8.6 | 8.3 | 6.6 | 5.5 | 13.8 | 7.4 |
| Non-Hispanic | 14.4 | 50.6 | 41.9 | 25.8 | 13.2 | 10.9 | 7.8 | 8.2 | 29.4 | 9.4 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 20.7 | 32.1 | 28.5 | 25.3 | 16.2 | 13.7 | 12.8 | 17.6 | 26.8 | 13.8 |
| Not in poverty. | 12.5 | 43.3 | 32.2 | 23.7 | 12.0 | 10.2 | 7.4 | 7.7 | 25.9 | 8.8 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 13.1 | 37.6 | 31.9 | 24.0 | 12.4 | 9.4 | 7.2 | 6.7 | 25.9 | 8.0 |
| Midwest . | 13.7 | 48.2 | 37.5 | 26.4 | 12.9 | 10.0 | 7.0 | 8.0 | 28.3 | 8.8 |
| South. . | 15.2 | 49.9 | 37.8 | 23.8 | 12.6 | 11.1 | 7.0 | 8.2 | 28.6 | 9.3 |
| West | 13.5 | 19.8 | 16.7 | 22.4 | 13.7 | 11.8 | 9.8 | 9.1 | 20.7 | 10.6 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 13.3 | 31.3 | 28.1 | 23.5 | 12.6 | 10.5 | 7.5 | 7.9 | 24.9 | 9.0 |
| Central city | 14.6 | 30.1 | 26.5 | 23.4 | 13.6 | 10.8 | 8.2 | 9.4 | 24.7 | 9.8 |
| Not central city. | 12.5 | 33.1 | 30.1 | 23.6 | 12.0 | 10.4 | 7.1 | 7.1 | 25.2 | 8.6 |
| Not MSA. | 16.6 | 58.0 | 42.4 | 26.1 | 13.6 | 11.4 | 8.7 | 8.6 | 30.9 | 10.2 |
| All persons 18 years of age and over | 17.2 | 45.5 | 37.5 | 28.4 | 15.1 | 12.9 | 9.5 | 10.4 | 31.3 | 11.4 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 8.9 | 16.7 | 13.0 | 13.1 | 8.5 | 8.7 | 6.4 | 7.9 | 13.2 | 7.8 188 |
| Keeping house | 26.6 | 40.7 | 42.2 | 34.1 | 23.1 | 20.9 | 15.2 | 17.0 | 36.2 | 18.8 |
| Going to school | 7.7 | *23.7 | *20.3 | 11.3 | 7.5 | 7.2 | 6.3 | 7.1 | 13.6 | 7.0 39.1 |
| Other. | 47.8 | 70.5 | 60.5 | 52.5 | 42.8 | 42.7 | 35.6 | 34.9 | 56.3 | 39.1 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 15.5 | 36.8 | 33.2 | 25.9 | 14.2 | 12.1 | 8.9 | 9.2 | 27.9 | 10.5 |
| Never married. . . . . . . . | 11.9 | 55.4 | 27.6 | 18.9 | 11.0 | 9.1 | 7.4 | 9.2 | 23.7 | 8.6 |
| Other | 29.3 | 54.4 | 48.6 | 38.6 | 23.8 | 22.4 | 17.7 | 20.0 | 42.0 | 20.8 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 8.9 | 16.9 | 13.1 | 13.3 | 8.6 | 8.7 | 6.6 | 7.5 $* 125$ | 13.4 | 7.8 |
| Unemployed. . . . . | 15.8 | *30.3 | *21.9 | 21.2 | 14.3 | 14.7 | 10.1 | *12.5 | 21.6 | 13.2 |
| Not in labor force | 34.1 | 57.1 | 51.4 | 41.9 | 29.6 | 25.7 | 21.4 | 23.8 | 45.3 | 24.2 |

${ }^{1}$ Includes unknown education.
${ }^{2}$ Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 2. Age-adjusted percent of persons limited in activity due to chronic conditions, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix 1 . Definitions of terms are given in appendix II]

| Characteristic | All years ${ }^{1}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $12$ <br> years | $13-15$ <br> years | 16 years | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age-adjusted percent |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 14.1 | 28.0 | 21.3 | 19.5 | 13.2 | 12.7 | 9.4 | 10.0 | 20.5 | 11.1 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. . | 14.3 | 29.7 | 20.9 | 20.0 | 13.7 | 12.7 | 9.7 | 9.6 | 21.0 | 11.0 |
| Female. | 13.9 | 26.3 | 21.8 | 19.0 | 12.7 | 12.7 | 9.1 | 10.7 | 19.9 | 11.3 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 13.9 | 27.3 | 20.6 | 19.3 | 13.1 | 12.8 | 9.7 | 10.1 | 20.0 | 11.3 |
| Black | 17.3 | 43.3 | 26.2 | 21.9 | 15.1 | 12.4 | 8.6 | 9.7 | 23.4 | 11.2 |
| Other | 10.7 | 19.3 | 22.6 | 13.7 | 9.3 | 11.1 | 8.6 | 8.8 | 16.7 | 9.4 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 28.2 | 32.8 | 34.5 | 33.4 | 25.5 | 22.5 | *15.9 | *28.0 | 33.5 | 22.5 |
| \$5,000-\$9,999 | 25.6 | 37.2 | 28.1 | 27.1 | 23.1 | 22.7 | 25.8 | 19.4 | 28.3 | 22.9 |
| \$10,000-\$14,999. | 19.9 | 22.9 | 22.8 | 22.4 | 17.4 | 19.2 | 17.6 | 13.5 | 22.5 | 18.4 |
| \$15,000-\$24,999. | 15.3 | 22.7 | 14.8 | 18.3 | 14.2 | 14.7 | 11.0 | 14.8 | 18.0 | 13.9 |
| \$25,000-\$34,999. | 12.4 | 25.1 | 14.8 | 15.8 | 11.1 | 12.4 | 11.2 | 11.3 | 16.2 | 11.9 |
| \$35,000-\$49,999. | 10.6 | *29.9 | 15.2 | 12.0 | 10.9 | 11.2 | 7.8 | 8.8 | 13.1 | 9.6 |
| \$50,000 or more . | 9.1 | *40.1 | 13.1 | 11.9 | 9.6 | 8.7 | 7.6 | 8.5 | 13.3 | 8.2 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic . . | 14.2 | 18.2 | 14.6 | 17.4 | 12.0 | 13.4 | 9.0 | 8.4 | 16.6 | 11.0 |
| Non-Hispanic | 14.1 | 38.6 | 28.4 | 19.8 | 13.2 | 12.7 | 9.4 | 10.1 | 21.6 | 11.2 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty . . . | 26.3 | 28.7 | 26.6 | 29.8 | 24.0 | 22.6 | 18.1 | 26.7 | 29.1 | 22.5 |
| Not in poverty. | 12.7 | 30.3 | 17.9 | 17.0 | 12.1 | 12.1 | 9.2 | 9.6 | 17.8 | 10.6 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 12.4 | 31.2 | 21.1 | 17.7 | 11.8 | 11.2 | 8.8 | 8.3 | 18.8 | 9.7 |
| Midwest. | 13.8 | 35.6 | 23.3 | 19.8 | 13.2 | 12.4 | 9.1 | 10.6 | 20.6 | 11.0 |
| South. | 15.3 | 36.4 | 25.5 | 20.4 | 13.6 | 13.1 | 8.7 | 10.3 | 22.5 | 11.2 |
| West | 14.1 | 18.5 | 16.3 | 19.4 | 14.0 | 13.5 | 11.4 | 10.8 | 18.4 | 12.3 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. . . . . | 13.6 | 25.0 | 19.6 | 19.3 | 12.8 | 12.4 | 9.3 | 10.1 | 19.8 | 10.9 |
| Central city . . | 14.8 | 25.1 | 19.4 | 20.8 | 14.0 | 12.8 | 10.1 | 11.3 | 20.9 | 11.7 |
| Not central city. | 12.8 | 24.9 | 20.0 | 18.2 | 12.2 | 12.2 | 8.8 | 9.3 | 18.9 | 10.5 |
| Not MSA. | 15.8 | 41.8 | 28.3 | 19.8 | 14.2 | 13.7 | 10.2 | 9.7 | 22.2 | 12.0 |
| All persons 18 years of age and over | 17.2 | 36.9 | 27.4 | 23.8 | 15.7 | 15.2 | 11.6 | 12.3 | 25.4 | 13.5 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working . . . | 10.5 | 17.0 | 13.2 | 13.4 | 9.8 | 11.1 | 7.8 | 10.2 | 13.6 | 10.0 |
| Keeping house. | 22.4 | 28.3 | 31.9 | 28.2 | 20.3 | 19.5 | 14.1 | 14.5 | 29.0 | 17.3 |
| Going to school | 18.0 | *28.1 | *23.6 | 15.8 | 14.6 | 20.6 | 6.2 | 24.0 | 20.8 | 20.2 |
| Other . . . . . . . | 48.2 | 75.2 | 59.9 | 53.2 | 43.2 | 45.4 | 36.3 | 34.7 | 56.9 | 41.4 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. . | 15.4 | 25.5 | 23.6 | 21.8 | 14.5 | 13.9 | 10.5 | 10.7 | 22.5 | 12.1 |
| Never married. | 20.1 | 57.0 | 30.2 | 26.0 | 16.7 | 19.6 | 14.8 | 16.4 | 29.7 | 17.1 |
| Other . . . | 23.0 | 35.5 | 35.7 | 30.1 | 19.9 | 20.5 | 15.7 | 18.0 | 31.6 | 18.8 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 10.7 | 16.7 | 12.9 | 13.7 | 10.2 | 11.2 | 8.4 | 9.6 | 13.7 | 10.0 |
| Unemployed. . . . . | 18.4 | *23.2 | *19.5 | 27.2 | 15.4 | 15.5 | 15.6 | *14.3 | 25.0 | 15.1 |
| Not in labor force | 28.1 | 48.3 | 40.8 | 35.7 | 25.3 | 23.6 | 17.6 | 18.8 | 37.9 | 21.2 |

${ }^{1}$ Includes unknown education.
Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 3. Number of days of restricted activity per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | 12 years | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of days of restricted activity per person per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 15.2 | 31.8 | 28.8 | 22.3 | 14.3 | 13.3 | 9.9 | 10.2 | 24.2 | 11.7 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. | 10.2 | *5.0 | 5.3 | 11.2 | 10.4 | 11.0 | 9.1 | 9.5 | 9.8 | 10.1 |
| 18-44 years. . | 12.0 | 11.3 | 13.3 | 16.4 | 12.8 | 12.2 | 8.1 | 8.4 | 15.7 | 10.3 |
| 18-24 years | 9.9 | *5.0 | 11.7 | 11.5 | 11.2 | 9.3 | 6.3 | 5.9 | 11.2 | 8.2 |
| 25-34 years | 12.3 | *6.9 | 9.3 | 16.9 | 12.9 | 13.9 | 8.1 | 8.2 | 15.3 | 10.9 |
| 35-44 years | 13.2 | 18.7 | 18.4 | 20.3 | 14.0 | 12.8 | 9.1 | 9.3 | 19.9 | 10.8 |
| 45-64 years. . | 18.9 | 40.1 | 35.2 | 28.8 | 16.0 | 16.3 | 12.1 | 10.8 | 30.8 | 13.6 |
| 45-54 years | 16.5 | 22.9 | 28.1 | 26.3 | 16.1 | 14.6 | 10.3 | 8.7 | 26.4 | 11.8 |
| 55-64 years | 21.7 | 50.4 | 39.9 | 30.8 | 15.9 | 18.7 | 14.4 | 14.4 | 34.1 | 16.4 |
| 65 years and over | 31.5 | 55.7 | 46.5 | 32.4 | 26.7 | 25.6 | 23.1 | 25.9 | 37.7 | 25.0 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 13.2 | 27.8 | 26.7 | 19.0 | 12.8 | 11.2 | 9.2 | 8.9 | 21.2 | 10.1 |
| Female | 17.0 | 35.7 | 30.8 | 25.2 | 15.5 | 15.3 | 10.7 | 11.9 | 26.9 | 13.4 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 15.0 | 28.9 | 28.7 | 22.7 | 14.2 | 13.3 | 10.1 | 10.6 | 24.2 | 11.8 |
| Black | 17.1 | 48.5 | 31.8 | 21.1 | 14.6 | 14.4 | 9.9 | 9.3 | 25.1 | 12.7 |
| Other | 11.4 | 19.2 | 17.8 | 17.1 | 13.8 | 10.7 | 6.4 | 6.8 | 17.7 | 8.0 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 25.7 | 27.2 | 43.1 | 29.4 | 22.0 | 17.9 | *24.1 | *23.0 | 32.1 | 18.8 |
| \$5,000-\$9,999 . | 26.9 | 37.6 | 30.3 | 26.9 | 24.9 | 24.9 | 25.3 | 20.8 | 28.7 | 24.5 |
| \$10,000-\$14,999. | 20.9 | 26.1 | 26.4 | 22.8 | 19.7 | 19.4 | 14.2 | *9.5 | 23.8 | 17.5 |
| \$15,000-\$24,999. | 15.2 | 28.8 | 22.1 | 18.6 | 13.7 | 14.9 | 12.0 | 12.4 | 19.8 | 13.9 |
| \$25,000-\$34,999. | 13.2 | 29.4 | 27.0 | 19.2 | 12.3 | 12.4 | 12.3 | 10.5 | 20.6 | 12.1 |
| \$35,000-\$49,999. | 10.5 | *18.9 | 21.2 | 15.2 | 10.2 | 10.5 | 8.0 | 10.8 | 16.0 | 9.8 |
| \$50,000 or more . | 9.5 | *2.2 | 24.7 | 12.5 | 10.3 | 9.6 | 8.4 | 9.0 | 14.1 | 9.0 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 13.2 | 20.8 | 12.3 | 16.1 | 11.7 | 12.7 | 8.5 | 10.6 | 15.5 | 11.3 |
| Non-Hispanic . | 15.4 | 40.0 | 37.3 | 23.3 | 14.5 | 13.4 | 10.0 | 10.3 | 26.2 | 11.7 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 21.6 | 25.3 | 25.3 | 23.5 | 20.0 | 17.8 | 19.9 | *16.6 | 24.1 | 17.9 |
| Not in poverty. | 13.6 | 34.2 | 29.2 | 20.6 | 13.1 | 12.7 | 9.6 | 10.1 | 22.6 | 11.2 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 13.7 | 38.2 | 26.2 | 20.4 | 12.9 | 11.7 | 10.9 | 8.7 | 22.2 | 10.6 |
| Midwest | 13.6 | *25.3 | 35.8 | 22.9 | 13.3 | 11.4 | 7.9 | 8.2 | 24.6 | 9.7 |
| South. | 16.7 | 37.6 | 32.4 | 23.4 | 15.1 | 14.1 | 9.7 | 11.2 | 26.3 | 12.2 |
| West | 15.8 | 23.0 | 19.9 | 21.3 | 15.7 | 15.5 | 11.6 | 12.5 | 21.2 | 13.8 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 15.0 | 29.2 | 28.0 | 22.2 | 14.4 | 13.3 | 10.1 | 10.2 | 23.8 | 11.7 |
| Central city | 16.3 | 30.0 | 25.4 | 22.3 | 14.9 | 14.5 | 11.5 | 11.9 | 23.6 | 13.1 |
| Not central city. | 14.1 | 28.1 | 31.1 | 22.2 | 14.1 | 12.6 | 9.4 | 9.3 | 24.0 | 10.9 |
| Not MSA. . . . . | 15.8 | 40.1 | 31.3 | 22.6 | 13.9 | 13.4 | 8.9 | 10.3 | 25.2 | 11.7 |
| All persons 18 years of age and over | 16.9 | 38.0 | 33.8 | 25.1 | 15.6 | 14.3 | 10.3 | 10.7 | 27.6 | 12.4 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 10.5 | *6.8 | 13.7 | 14.4 | 10.4 | 10.4 | 8.4 | 8.9 | 14.0 | 9.5 |
| Keeping house | 22.7 | 41.5 | 32.5 | 27.6 | 20.2 | 19.4 | 12.0 | 17.6 | 29.5 | 17.1 |
| Going to school | 9.6 | *2.4 | *16.5 | 15.6 | 8.6 | 11.2 | 6.7 | 7.4 | 14.6 | 9.5 |
| Other . . | 42.8 | 59.8 | 57.2 | 43.7 | 40.0 | 43.1 | 28.2 | 26.0 | 48.6 | 35.5 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 15.3 | 33.2 | 29.0 | 22.2 | 14.4 | 13.4 | 10.3 | 9.6 | 24.1 | 11.6 |
| Never married. . . . . | 11.6 | 23.6 | 24.7 | 14.2 | 12.2 | 11.0 | 7.2 | 9.8 | 16.8 | 9.7 21.2 |
| Other | 28.8 | 54.0 | 45.9 | 36.4 | 24.2 | 23.7 | 17.3 | 18.8 | 39.8 | 21.2 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed . | 10.3 | 8.5 | 13.2 | 14.0 | 10.6 | 10.3 | 8.0 | 8.4 | 13.6 | 9.2 |
| Unemployed. . . . . | 15.8 | *- | *15.8 | 12.8 | 14.3 | 19.4 | 14.0 | 22.3 | 12.9 | 18.7 |
| Not in labor force | 30.5 | 50.4 | 45.7 | 35.4 | 26.7 | 26.1 | 19.4 | 19.9 | 39.0 | 23.2 |

1 Includes unknown education.
2Includes unknowns of soclodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 4. Age-adjusted number of days of restricted activity per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | A/I years ${ }^{1}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | 8-11 <br> years | 12 years | 13-15 <br> years | 16 years | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - Age-adjusted number of days of restricted activity per person per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 15.2 | 20.5 | 19.4 | 19.4 | 14.5 | 14.3 | 11.0 | 11.3 | 19.7 | 12.7 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 13.6 | 17.5 | 18.3 | 16.8 | 13.4 | 12.0 | 10.2 | 9.9 | 17.5 | 11.0 |
| Female. | 16.7 | 23.8 | 20.6 | 21.7 | 15.4 | 16.2 | 11.8 | 13.3 | 21.9 | 14.5 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 14.9 | 19.4 | 14.9 | 19.3 | 14.9 | 14.1 | 14.9 | 14.9 | 14.9 | 14.9 |
| Black | 19.0 | 27.3 | 21.3 | 21.4 | 17.0 | 17.1 | 14.8 | 10.7 | 22.2 | 15.5 |
| Other | 13.5 | 18.0 | 15.8 | 16.3 | 15.2 | 11.7 | 8.6 | 9.9 | 16.9 | 10.1 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 28.6 | 17.2 | 28.5 | 30.9 | 26.9 | 26.7 | *19.6 | *16.2 | 29.4 | 24.3 |
| \$5,000-\$9,999 . | 26.2 | 26.5 | 23.0 | 24.6 | 26.3 | 28.5 | 33.1 | 21.2 | 24.6 | 28.5 |
| \$10,000-\$14,999. | 19.8 | 18.3 | 20.0 | 19.7 | 20.1 | 20.0 | 12.5 | *8.5 | 19.6 | 17.4 |
| \$15,000-\$24,999. | 15.0 | 17.1 | 15.6 | 16.8 | 13.8 | 16.0 | 12.4 | 13.4 | 16.8 | 14.7 |
| \$25,000-\$34,999. | 13.9 | 29.1 | 17.7 | 16.5 | 12.6 | 13.7 | 14.4 | 11.4 | 17.4 | 13.6 |
| \$35,000-\$49,999. | 11.5 | *8.5 | 13.1 | 15.3 | 11.2 | 10.8 | 9.5 | 12.5 | 15.3 | 10.9 |
| \$50,000 or more. | 10.6 | *1.9 | 10.4 | 10.2 | 11.0 | 11.2 | 8.8 | 10.8 | 10.8 | 10.2 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic. . . | 16.5 | 17.8 | 14.4 | 19.7 | 15.0 | 19.9 | 9.0 | 12.8 | 17.8 | 15.0 |
| Non-Hispanic | 15.2 | 22.8 | 22.9 | 19.6 | 14.6 | 14.3 | 11.1 | 11.3 | 20.5 | 12.7 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty . . | 26.3 | 21.0 | 22.6 | 27.1 | 26.0 | 24.3 | 25.0 | *16.4 | 25.4 | 24.1 |
| Not in poverty. | 13.7 | 20.6 | 18.0 | 17.1 | 13.3 | 13.6 | 10.6 | 11.1 | 17.6 | 12.2 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 13.2 | 20.3 | 17.5 | 16.7 | 12.6 | 12.7 | 11.9 | 10.1 | 17.1 | 11.8 |
| Midwest | 13.7 | *11.1 | 19.4 | 18.8 | 13.6 | 12.4 | 8.6 | 9.1 | 19.1 | 10.7 |
| South. | 16.8 | 21.4 | 21.8 | 21.1 | 15.8 | 15.1 | 10.8 | 12.8 | 21.7 | 13.4 |
| West | 16.2 | 20.9 | 18.8 | 19.3 | 15.9 | 16.3 | 12.6 | 13.0 | 19.0 | 14.5 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. . . . . . | 15.2 | 20.0 | 19.5 | 19.5 | 14.6 | 14.3 | 11.3 | 11.4 | 19.7 | 12.7 |
| Central city | 16.4 | 21.4 | 19.0 | 20.6 | 15.2 | 15.8 | 13.0 | 13.6 | 20.6 | 14.5 |
| Not central city. | 14.4 | 18.3 | 19.8 | 18.7 | 14.3 | 13.4 | 10.3 | 10.0 | 19.0 | 11.7 |
| Not MSA. . . . . | 15.4 | 25.1 | 20.4 | 19.2 | 14.1 | 14.3 | 9.2 | 10.8 | 19.9 | 12.4 |
| All persons 18 years of age and over | 17.0 | 26.0 | 24.4 | 22.3 | 15.9 | 15.5 | 11.6 | 11.9 | 23.2 | 13.6 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working . . . . | 11.0 | *5.9 | 14.6 | 14.1 | 10.6 | 10.8 | 9.1 | 10.8 | 13.9 | 10.4 |
| Keeping house. | 20.7 | 29.7 | 24.5 | 24.6 | 19.2 | 19.0 | 11.8 | 16.4 | 25.2 | 16.6 |
| Going to school | 15.5 | *5.8 | *12.1 | 34.8 | 7.9 | 10.2 | 5.9 | 8.7 | 29.4 | 9.2 |
| Other | 44.9 | 42.4 | 42.9 | 44.4 | 44.3 | 56.9 | 26.9 | 30.4 | 44.5 | 46.0 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 15.4 | 22.6 | 21.0 | 20.4 | 14.7 | 14.2 | 11.4 | 11.0 | 21.0 | 12.6 |
| Never married. . . . . . . . | 14.9 | 25.0 | 25.4 | 16.5 | 14.9 | 13.7 | 9.5 | 10.9 | 19.5 | 11.7 |
| Other . . . | 24.7 | 35.7 | 30.1 | 30.0 | 22.6 | 22.7 | 16.5 | 17.0 | 30.8 | 20.1 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 10.9 | 6.9 | 13.0 | 13.7 | 11.1 | 10.9 | 8.5 | 10.0 | 13.4 | 10.0 |
| Unemployed. . . . . | 16.5 | *- | *16.7 | 14.6 | 14.2 | 16.7 | 31.5 | 19.8 | 14.8 | 19.0 |
| Not in labor force | 27.0 | 34.9 | 34.3 | 32.2 | 25.0 | 25.9 | 17.1 | 16.6 | 33.1 | 22.1 |

${ }_{2}^{1}$ Includes unknown education.
2Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 5. Number of days in bed due to illness, injury, or impairment per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\underset{\text { years }}{ }{ }^{\text {All }}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | 12 years | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | 16 years | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of days in bed per person per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 6.5 | 17.3 | 14.0 | 9.8 | 5.9 | 5.6 | 3.9 | 4.2 | 11.1 | 4.8 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. | 5.0 | *2.8 | *3.3 | 6.2 | 5.0 | 5.4 | 4.4 | 3.9 | 5.5 | 4.8 |
| 18-44 years. . | 4.7 | *6.9 | 4.6 | 6.8 | 4.9 | 4.9 | 2.8 | 3.5 | 6.5 | 4.0 |
| 18-24 years | 4.1 | *0.5 | *3.3 | 5.8 | 4.4 | 3.8 | 2.4 | *2.9 | 5.3 | 3.4 |
| 25-34 years | 4.7 | *5.4 | *5.2 | 6.8 | 4.6 | 5.5 | 2.6 | 3.5 | 6.5 | 4.2 |
| 35-44 years | 5.3 | *11.6 | *4.9 | 7.7 | 5.8 | 5.2 | 3.3 | 3.7 | 7.5 | 4.3 |
| 45-64 years. . | 7.7 | 20.4 | 16.2 | 12.4 | 6.3 | 6.2 | 4.5 | 3.5 | 13.7 | 5.0 |
| 45-54 years | 7.0 | *14.7 | 13.7 | 11.9 | 6.6 | 5.9 | 4.2 | 3.0 | 12.4 | 4.6 |
| 55-64 years | 8.5 | 23.8 | 17.9 | 12.8 | 5.9 | 6.6 | 4.9 | 4.2 | 14.6 | 5.5 |
| 65 years and over | 14.2 | 30.8 | 24.3 | 14.0 | 11.2 | 10.1 | 9.3 | 13.5 | 17.8 | 10.6 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 5.5 | 16.3 | 12.4 | 8.0 | 5.3 | 4.5 | 3.7 | 3.4 | 9.4 | 4.0 |
| Female. | 7.4 | 18.3 | 15.7 | 11.4 | 6.4 | 6.6 | 4.2 | 5.2 | 12.6 | 5.7 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 6.3 | 14.8 | 14.1 | 10.1 | 5.7 | 5.5 | 3.9 | 4.2 | 11.1 | 4.7 |
| Black | 8.0 | 29.6 | 14.4 | 8.9 | 7.1 | 6.5 | 5.0 | 5.0 | 11.5 | 5.9 |
| Other | 5.2 | *9.8 | *10.8 | 7.6 | 5.3 | 6.0 | *2.3 | *3.4 | 8.8 | 3.9 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 11.5 | 14.9 | 19.2 | 12.5 | 10.7 | 7.1 | *10.1 | *12.5 | 14.2 | 7.7 |
| \$5,000-\$9,999 | 12.5 | 24.6 | 15.0 | 12.3 | 10.1 | 11.3 | *12.7 | *15.9 | 14.1 | 11.9 |
| \$10,000-\$14,999. | 9.6 | 13.5 | 12.9 | 10.4 | 9.4 | 7.6 | *4.5 | *5.2 | 11.2 | 1.8 |
| \$15,000-\$24,999. | 6.3 | 14.7 | 8.6 | 8.3 | 5.6 | 6.2 | 3.5 | 4.8 | 8.6 | 5.3 |
| \$25,000-\$34,999. | 5.1 | *18.8 | 13.9 | 6.9 | 4.5 | 5.2 | 4.7 | 3.2 | 8.3 | 4.8 |
| \$35,000-\$49,999. | 4.1 | *2.2 | *9.5 | 5.0 | 3.8 | 4.6 | 3.4 | 4.4 | 5.4 | 4.2 |
| \$50,000 or more . | 3.9 | *2.2 | *15.0 | 4.7 | 4.3 | 4.1 | 3.3 | 3.5 | 6.2 | 3.6 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic . . . | 7.0 | 12.2 | 6.4 | 9.5 | 6.3 | 5.8 | *3.5 | *5.1 | 8.8 | 5.2 |
| Non-Hispanic | 6.4 | 20.9 | 18.1 | 9.9 | 5.8 | 5.6 | 4.0 | 4.2 | 11.7 | 4.8 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty . . | 10.2 | 15.5 | 12.6 | 11.1 | 9.1 | 7.6 | 9.3 | *9.8 | 11.9 | 7.9 |
| Not in poverty. | 5.6 | 18.8 | 13.2 | 8.6 | 5.3 | 5.4 | 3.7 | 4.1 | 9.8 | 4.6 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 5.6 | 26.2 | 13.8 | 8.1 | 5.2 | 4.6 | 4.3 | 3.2 | 9.9 | 4.1 |
| Midwest | 5.5 | *6.5 | 16.5 | 9.8 | 5.1 | 4.4 | 2.9 | 3.4 | 10.6 | 3.8 |
| South. | 7.3 | 20.7 | 14.5 | 10.7 | 6.5 | 6.0 | 3.7 | 4.5 | 12.2 | 5.0 |
| West | 7.1 | 11.3 | 12.0 | 9.9 | 6.6 | 6.9 | 4.9 | 5.7 | 10.6 | 6.1 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 6.4 | 15.9 | 13.4 | 9.6 | 5.9 | 5.7 | 4.0 | 4.2 | 10.8 | 4.9 |
| Central city | 7.4 | 19.2 | 12.8 | 10.4 | 6.6 | 6.4 | 4.4 | 5.0 | 11.7 | 5.5 |
| Not central city. | 5.7 | 10.7 | 14.0 | 8.9 | 5.5 | 5.2 | 3.8 | 3.8 | 9.9 | 4.5 |
| Not MSA. | 6.8 | 21.8 | 16.1 | 10.3 | 5.6 | 5.3 | 3.5 | 4.1 | 12.1 | 4.6 |
| All persons 18 years of age and over | 7.0 | 20.6 | 16.4 | 10.7 | 6.1 | 5.7 | 3.7 | 4.4 | 12.4 | 4.8 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 3.8 | *3.6 | 4.4 | 5.2 | 3.6 | 4.0 | 2.8 | 3.5 | 5.0 | 3.5 |
| Keeping house | 8.6 | 16.2 | 14.5 | 10.2 | 7.7 | 6.8 | 3.6 | 7.3 | 11.4 | 5.9 |
| Going to school | 4.3 | *0.8 | *4.3 | *9.8 | 3.6 | 4.8 | *2.8 | 3.9 | 8.1 | 4.2 |
| Other. | 21.3 | 37.5 | 31.3 | 21.8 | 19.0 | 18.3 | 13.9 | 11.8 | 25.7 | 15.8 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 6.2 | 15.2 | 13.3 | 9.4 | 5.5 | 5.4 | 4.0 | 3.8 | 10.5 | 4.6 |
| Never married. . . . . . . . . | 4.6 | 15.2 | 10.0 | 5.6 | 4.9 | 4.2 | 2.3 | 4.0 | 7.2 | 3.6 |
| Other . | 12.5 | 33.1 | 24.0 | 15.9 | 10.1 | 9.0 | 5.3 | 8.6 | 18.9 | 8.0 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 3.6 | *3.3 | 4.1 | 4.7 | 3.6 | 3.8 | 2.7 | 3.4 | 4.5 | 3.4 |
| Unemployed. . . . | 7.3 | *- | *9.9 | 5.6 | 7.6 | 8.5 | *4.2 | *5.9 | 6.1 | 6.9 |
| Not in labor force | 13.9 | 27.9 | 23.2 | 16.2 | 11.6 | 11.2 | 8.2 | 8.8 | 18.8 | 10.0 |

${ }^{1}$ Includes unknown education.
Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 6. Age-adjusted number of days in bed due to iliness, injury, or impairment per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix 11]

| Characteristic | $\underset{\text { years }}{\text { All }}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | 12 years | $13-15$ <br> years | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age-adjusted number of days in bed per person per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 6.5 | 11.3 | 8.9 | 8.6 | 6.0 | 6.0 | 4.4 | 4.9 | 9.0 | 5.2 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. . | 5.7 | 10.1 | 7.8 | 7.1 | 5.6 | 4.9 | 4.2 | 4.1 | 7.7 | 4.5 |
| Female | 7.3 | 12.5 | 10.2 | 10.0 | 6.4 | 6.9 | 4.6 | 5.9 | 10.3 | 6.0 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 6.3 | 9.9 | 9.1 | 8.7 | 5.8 | 5.8 | 4.3 | 4.8 | 8.9 | 5.1 |
| Black | 8.9 | 20.1 | 9.3 | 9.1 | 8.5 | 8.0 | 7.5 | 6.0 | 10.2 | 7.6 |
| Other | 6.4 | *8.9 | *9.0 | 7.2 | 6.1 | 6.9 | *2.2 | *6.5 | 8.2 | 5.2 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 12.5 | 8.3 | 11.6 | 12.7 | 13.2 | 11.7 | *11.2 | *9.3 | 12.5 | 11.7 |
| \$5,000-\$9,999. | 12.3 | 17.4 | 11.6 | 11.7 | 11.0 | 12.9 | *15.6 | *15.6 | 12.5 | 13.5 |
| \$10,000-\$14,999. | 9.1 | 10.6 | 9.3 | 9.1 | 9.6 | 7.6 | *4.2 | *4.5 | 9.3 | 6.7 |
| \$15,000-\$24,999. | 6.2 | 7.0 | 6.2 | 7.6 | 5.7 | 6.5 | 3.7 | 5.0 | 7.4 | 5.6 |
| \$25,000-\$34,999. | 5.4 | *13.6 | 9.0 | 6.2 | 4.6 | 5.8 | 5.5 | 3.5 | 7.2 | 5.3 |
| \$35,000-\$49,999. | 4.6 | *1.2 | *5.6 | 4.6 | 4.4 | 4.6 | 3.9 | 5.2 | 4.7 | 4.6 |
| \$50,000 or more | 4.4 | *1.9 | *5.9 | 3.9 | 4.9 | 4.5 | 3.2 | 4.4 | 4.8 | 4.0 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 8.9 | 10.5 | 7.6 | 12.1 | 7.6 | 8.3 | *3.6 | *7.9 | 10.3 | 7.0 |
| Non-Hispanic | 6.4 | 12.6 | 9.5 | 8.4 | 5.9 | 5.9 | 4.4 | 4.8 | 9.0 | 5.2 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 12.4 | 12.5 | 10.7 | 12.6 | 12.0 | 10.5 | 12.4 | *11.2 | 12.4 | 11.2 |
| Not in poverty. | 5.7 | 10.7 | 8.2 | 7.4 | 5.4 | 5.7 | 4.1 | 4.6 | 7.8 | 5.0 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 5.5 | 13.7 | 7.9 | 6.9 | 5.1 | 5.0 | 4.5 | 4.1 | 7.6 | 4.6 |
| Midwest | 5.5 | *2.5 | 8.5 | 8.4 | 5.3 | 4.8 | 3.1 | 3.7 | 8.5 | 4.1 |
| South. | 7.4 | 11.9 | 9.1 | 9.7 | 6.8 | 6.3 | 4.2 | 5.4 | 10.0 | 5.5 |
| West | 7.3 | 10.5 | 10.9 | 8.8 | 6.7 | 7.3 | 5.5 | 6.0 | 9.2 | 6.5 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 6.5 | 10.8 | 8.9 | 8.5 | 6.1 | 6.1 | 4.4 | 5.0 | 8.8 | 5.3 |
| Central city. | 7.5 | 13.4 | 9.2 | 9.4 | 6.8 | 6.9 | 5.3 | 6.2 | 9.9 | 6.3 |
| Not central city. | 5.9 | 7.2 | 8.3 | 7.9 | 5.7 | 5.5 | 3.9 | 4.1 | 8.0 | 4.7 |
| Not MSA. | 6.6 | 16.3 | 9.1 | 8.9 | 5.8 | 5.5 | 3.7 | 4.4 | 9.5 | 4.9 |
| All persons 18 years of age and over. | 7.1 | 14.3 | 10.9 | 9.4 | 6.3 | 6.1 | 4.4 | 5.2 | 10.2 | 5.4 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working . . . . | 4.0 | *3.2 | 3.9 | 5.0 | 3.9 | 3.9 | 3.2 | 4.5 | 4.7 | 3.9 |
| Keeping house. | 8.1 | 11.8 | 11.5 | 9.3 | 7.7 | 6.8 | 3.8 | 6.2 | 10.0 | 5.9 |
| Going to school | 6.0 | *1.9 | *4.1 | *16.0 | 2.9 | 4.0 | *1.7 | 5.3 | 12.4 | 4.2 |
| Other . . | 21.7 | 28.5 | 18.2 | 23.7 | 21.2 | 22.3 | 13.5 | 9.5 | 23.8 | 18.3 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 6.3 | 10.4 | 9.1 | 8.6 | 5.7 | 5.8 | 4.5 | 4.6 | 8.9 | 5.1 |
| Never married. | 5.7 | 15.9 | 10.5 | 5.7 | 6.4 | 3.5 | 2.4 | 3.5 | 8.2 | 3.2 |
| Other. | 10.5 | 20.8 | 13.8 | 12.7 | 9.6 | 8.7 | 4.9 | 8.3 | 13.8 | 7.6 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 3.9 | *2.9 | 3.8 | 4.7 | 4.1 | 3.7 | 2.7 | 4.4 | 4.5 | 3.6 |
| Unemployed. | 7.8 | *- | *10.7 | 5.4 | 7.8 | 6.7 | *20.6 | *5.3 | 6.6 | 7.7 |
| Not in labor force | 12.4 | 19.9 | 15.5 | 15.7 | 11.1 | 11.2 | 7.2 | 6.6 | 16.3 | 9.5 |

${ }^{1}$ includes unknown education.
Includes unknowns of sociodemographic charactaristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 7. Percent of persons assessed by respondents to be in fair or poor health, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 9.7 | 32.7 | 29.9 | 20.8 | 8.6 | 5.3 | 3.2 | 3.0 | 23.3 | 4.2 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years | 2.6 | *2.4 | 3.1 | 6.2 | 3.2 | 1.7 | 1.2 | 0.9 | 5.4 | 1.4 |
| 18-44 years. | 5.9 | 17.1 | 15.3 | 14.2 | 6.2 | 4.1 | 2.0 | 1.9 | 14.6 | 3.1 |
| 18-24 years | 4.2 | *11.5 | 9.9 | 9.5 | 4.6 | 2.3 | *1.4 | *1.7 | 9.6 | 2.0 |
| 25-34 years | 5.1 | 14.5 | 12.2 | 12.6 | 5.4 | 3.7 | 1.6 | 1.6 | 12.7 | 2.6 |
| 35-44 years | 7.9 | 22.4 | 21.7 | 21.0 | 8.5 | 6.2 | 2.9 | 2.1 | 21.2 | 4.2 |
| 45-64 years. . | 16.1 | 43.5 | 43.7 | 28.5 | 13.3 | 10.0 | 5.8 | 5.1 | 32.5 | 7.5 |
| 45-54 years | 12.5 | 35.1 | 38.6 | 24.1 | 11.6 | 7.4 | 4.3 | 4.1 | 27.5 | 5.7 |
| 55-64 years | 20.3 | 48.5 | 47.1 | 31.9 | 15.3 | 13.9 | 7.7 | 6.5 | 36.3 | 10.3 |
| 65 years and over | 28.5 | 53.3 | 43.2 | 33.3 | 23.6 | 19.8 | 15.7 | 16.3 | 37.3 | 17.9 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 8.7 | 33.7 | 27.5 | 18.5 | 7.9 | 4.6 | 3.1 | 2.9 | 21.3 | 3.7 |
| Female. | 10.6 | 31.7 | 32.2 | 22.9 | 9.2 | 5.9 | 3.3 | 3.1 | 25.1 | 4.7 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 9.0 | 29.4 | 27.8 | 20.5 | 8.3 | 5.0 | 3.1 | 2.7 | 22.4 | 3.9 |
| Black | 14.5 | 51.9 | 42.6 | 22.8 | 11.1 | 7.0 | 4.8 | 7.0 | 28.6 | 6.5 |
| Other | 8.3 | 17.9 | 19.1 | 17.1 | 9.0 | 7.3 | 3.5 | 2.6 | 17.7 | 4.5 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 22.3 | 38.3 | 40.9 | 30.1 | 17.8 | 7.9 | *10.2 | *12.8 | 33.2 | 8.4 |
| \$5,000-\$9,999 | 22.8 | 38.0 | 36.5 | 27.2 | 17.0 | 12.3 | 12.0 | *9.0 | 30.3 | 11.9 |
| \$10,000-\$14,999. | 16.6 | 28.4 | 30.1 | 22.8 | 12.6 | 9.3 | 11.2 | *8.5 | 24.8 | 9.6 |
| \$15,000-\$24,999. | 10.8 | 30.2 | 24.2 | 18.8 | 9.1 | 6.6 | 4.4 | 6.6 | 20.3 | 6.1 |
| \$25,000-\$34,999. | 6.5 | 25.1 | 21.7 | 15.3 | 6.1 | 4.2 | 3.4 | 3.5 | 16.6 | 3.9 |
| \$35,000-\$49,999. | 4.3 | *21.5 | 18.2 | 12.0 | 4.8 | 3.5 | 2.0 | 2.1 | 13.0 | 2.7 |
| \$50,000 or more . | 3.2 | *29.4 | *19.1 | 12.0 | 4.7 | 2.8 | 2.0 | 1.8 | 13.4 | 2.2 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 9.9 | 19.0 | 13.7 | 14.5 | 7.3 | 5.9 | 3.8 | *4.2 | 14.9 | 5.1 |
| Non-Hispanic | 9.7 | 43.3 | 38.0 | 21.7 | 8.8 | 5.3 | 3.2 | 2.9 | 25.2 | 4.1 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 18.4 | 28.9 | 28.4 | 24.2 | 14.1 | 8.4 | 10.1 | *9.0 | 25.7 | 8.6 |
| Not in poverty. | 7.8 | 37.6 | 30.4 | 19.3 | 7.5 | 4.8 | 2.9 | 2.7 | 21.9 | 3.7 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 8.2 | 33.5 | 27.6 | 17.7 | 7.8 | 4.3 | 2.8 | 2.0 | 20.1 | 3.3 |
| Midwest | 8.8 | 40.0 | 35.5 | 22.0 | 7.9 | 4.4 | 2.9 | 2.7 | 24.1 | 3.7 |
| South. | 11.8 | 42.2 | 35.0 | 23.0 | 9.5 | 6.1 | 3.1 | 3.5 | 26.9 | 4.7 |
| West | 8.7 | 19.0 | 18.5 | 17.9 | 9.0 | 5.9 | 4.1 | 3.6 | 18.2 | 4.9 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 9.0 | 27.3 | 25.9 | 19.6 | 8.5 | 5.3 | 3.2 | 2.9 | 21.4 | 4.1 |
| Central city | 11.0 | 27.4 | 26.3 | 20.8 | 10.1 | 6.3 | 4.0 | 3.7 | 22.6 | 5.1 |
| Not central city. | 7.7 | 27.0 | 25.5 | 18.6 | 7.6 | 4.6 | 2.8 | 2.5 | 20.2 | 3.6 |
| Not MSA. | 12.1 | 50.4 | 41.8 | 24.0 | 8.9 | 5.5 | 3.2 | 3.2 | 28.7 | 4.5 |
| All persons 18 years of age and over | 12.2 | 39.7 | 35.6 | 24.4 | 10.5 | 6.8 | 4.0 | 4.0 | 27.6 | 5.4 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 5.8 | 18.2 | 17.9 | 12.5 | 5.8 | 4.0 | 2.4 | 2.4 | 13.6 | 3.2 |
| Keeping house. | 20.4 | 39.6 | 39.1 | 30.3 | 16.0 | 12.8 | 7.1 | 7.1 | 32.7 | 10.4 |
| Going to school | 3.6 | *8.5 | *17.2 | 13.9 | 3.2 | 3.0 | *1.6 | *2.0 | 14.0 | 2.5 |
| Other | 34.8 | 56.4 | 52.1 | 40.8 | 29.9 | 26.0 | 17.9 | 20.5 | 45.1 | 22.7 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 11.2 | 37.8 | 33.3 | 23.1 | 9.9 | 6.5 | 4.2 | 3.7 | 25.9 | 5.2 |
| Never married. . . . . . . . . | 7.2 | 30.2 | 24.8 | 16.2 | 7.1 | 4.4 | 2.6 | 3.0 | 18.9 | 3.6 |
| Other | 21.2 | 48.6 | 43.2 | 31.3 | 16.7 | 12.1 | 6.1 | 8.2 | 35.2 | 10.0 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 5.6 | 17.0 | 18.2 | 12.1 | 5.8 | 3.9 | 2.4 | 2.3 | 13.3 | 3.1 |
| Unemployed. . . . . | 11.0 | *45.5 | 24.2 | 15.6 | 11.2 | 7.6 | *54 | *3.6 | 17.8 | 6.3 |
| Not in labor force | 25.8 | 48.6 | 45.5 | 35.6 | 20.7 | 15.8 | 10.8 | 12.4 | 38.9 | 13.9 |

${ }^{1}$ includes unknown education.
${ }^{2}$ Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 8. Age-adjusted percent of persons assessed by respondents to be in fair or poor health, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | All years ${ }^{1}$ | Less than 4 years | $4-7$ <br> years | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age-adjusted percent |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 9.7 | 22.6 | 20.9 | 17.2 | 8.9 | 6.5 | 4.2 | 4.0 | 18.3 | 5.3 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 9.2 | 22.2 | 19.6 | 15.5 | 8.8 | 6.1 | 4.2 | 3.8 | 17.0 | 4.9 |
| Female | 10.2 | 23.1 | 22.3 | 18.7 | 9.0 | 6.9 | 4.3 | 4.2 | 19.7 | 5.7 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 8.8 | 21.6 | 19.6 | 16.0 | 8.2 | 6.0 | 4.0 | 3.6 | 17.0 | 4.9 |
| Black | 16.9 | 32.2 | 29.6 | 22.8 | 14.5 | 10.9 | 7.0 | 9.1 | 24.8 | 9.7 |
| Other | 10.2 | 18.0 | 17.8 | 16.4 | 10.6 | 9.6 | 4.1 | 4.7 | 17.0 | 6.2 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 25.1 | 29.4 | 31.9 | 32.0 | 22.7 | 16.3 | *12.9 | *19.2 | 32.4 | 16.1 |
| \$5,000-\$9,999 | 21.4 | 27.4 | 27.5 | 25.4 | 18.1 | 13.7 | 13.6 | *8.9 | 26.3 | 13.3 |
| \$10,000-\$14,999. | 15.3 | 24.1 | 24.1 | 18.6 | 12.7 | 10.1 | 10.6 | *9.5 | 20.3 | 10.2 |
| \$15,000-\$24,999. | 10.5 | 21.4 | 16.3 | 15.2 | 9.3 | 8.1 | 5.2 | 6.9 | 15.8 | 7.2 |
| \$25,000-\$34,999. | 7.4 | 18.0 | 14.3 | 12.3 | 6.8 | 6.0 | 4.9 | 3.9 | 12.9 | 5.3 |
| \$35,000-\$49,999. | 5.5 | *12.5 | 13.5 | 10.2 | 5.8 | 4.7 | 2.9 | 3.3 | 10.6 | 3.8 |
| \$50,000 or more | 4.1 | *20.8 | *9.5 | 8.9 | 5.0 | 3.8 | 2.3 | 2.6 | 9.3 | 2.8 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic . . | 13.1 | 17.0 | 16.7 | 18.0 | 9.7 | 9.7 | 4.6 | *6.7 | 17.5 | 7.6 |
| Non-Hispanic | 9.4 | 26.9 | 24.7 | 17.0 | 8.8 | 6.4 | 4.2 | 3.9 | 18.6 | 5.2 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty . . | 23.6 | 25.8 | 27.3 | 28.5 | 20.8 | 15.7 | 15.0 | *16.6 | 28.2 | 15.7 |
| Not in poverty. | 7.9 | 22.9 | 18.4 | 14.0 | 7.6 | 5.9 | 3.8 | 3.7 | 15.1 | 4.8 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 7.7 | 23.5 | 20.2 | 13.9 | 7.4 | 5.3 | 3.5 | 2.8 | 15.4 | 4.0 |
| Midwest | 8.9 | 27.8 | 23.6 | 16.8 | 8.1 | 5.7 | 3.9 | 3.7 | 17.9 | 4.8 |
| South. | 11.9 | 24.5 | 22.9 | 19.9 | 10.3 | 7.3 | 4.2 | 4.9 | 21.2 | 6.0 |
| West | 9.2 | 18.3 | 18.5 | 15.7 | 9.2 | 7.1 | 5.2 | 4.4 | 16.4 | 5.9 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 9.2 | 20.9 | 19.0 | 16.4 | 8.7 | 6.5 | 4.2 | 4.1 | 17.3 | 5.3 |
| Central city | 11.1 | 22.5 | 20.1 | 18.8 | 10.4 | 7.6 | 5.1 | 4.8 | 19.6 | 6.3 |
| Not central city. | 7.9 | 18.7 | 17.6 | 14.3 | 7.8 | 5.8 | 3.7 | 3.6 | 15.1 | 4.7 |
| Not MSA. | 11.4 | 28.6 | 28.0 | 19.2 | 9.2 | 6.8 | 4.0 | 3.8 | 21.4 | 5.5 |
| All persons 18 years of age and over | 12.2 | 29.8 | 27.2 | 21.1 | 10.9 | 8.2 | 5.3 | 5.1 | 22.9 | 6.7 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working . . . . | 6.8 | 18.2 | 17.1 | 12.5 | 6.7 | 5.1 | 3.6 | 3.2 | 13.6 | 4.2 |
| Keeping house. | 17.5 | 28.1 | 31.7 | 27.0 | 14.4 | 11.9 | 6.5 | 5.8 | 28.1 | 9.6 |
| Going to school | 8.0 | *13.5 | *16.5 | 18.8 | 8.6 | 6.2 | *1.0 | *2.7 | 18.0 | 4.3 |
| Other . . . . . . . | 32.8 | 48.5 | 48.4 | 39.9 | 29.2 | 27.9 | 15.9 | 16.4 | 42.7 | 23.3 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 11.2 | 26.5 | 24.8 | 19.8 | 10.2 | 7.7 | 5.4 | 4.6 | 21.2 | 6.3 |
| Never married. . . . . . | 12.7 | 30.5 | 26.1 | 20.4 | 11.6 | 11.2 | 6.4 | 5.8 | 22.5 | 8.0 |
| Other. | 17.0 | 32.9 | 32.4 | 26.8 | 14.7 | 11.3 | 5.3 | 7.3 | 28.6 | 9.1 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 6.8 | 17.5 | 17.4 | 12.2 | 6.8 | 4.9 | 3.5 | 3.3 | 13.4 | 4.1 |
| Unemployed. . | 13.3 | *36.3 | 24.1 | 18.6 | 12.5 | 8.8 | *10.8 | *5.0 | 20.6 | 8.2 |
| Not in labor force | 21.3 | 37.2 | 36.7 | 32.4 | 17.8 | 14.6 | 8.6 | 9.9 | 33.8 | 12.2 |

${ }^{1}$ Includes unknown education.
${ }^{2}$ Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 9. Number of physician contacts per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | 12 years | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of contacts per person per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 5.4 | 5.8 | 6.5 | 5.8 | 5.0 | 5.6 | 5.1 | 5.9 | 6.0 | 5.5 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. | 4.4 | *1.2 | 2.2 | 3.7 | 4.0 | 4.7 | 5.2 | 5.7 | 3.3 | 5.1 |
| 18-44 years. . | 4.8 | 2.8 | 4.2 | 4.5 | 4.5 | 5.4 | 4.6 | 4.9 | 4.4 | 5.1 |
| 18-24 years | 3.9 | *1.1 | *2.6 | 3.3 | 3.9 | 4.7 | 3.5 | 2.3 | 3.2 | 4.1 |
| 25-34 years | 5.1 | *2.9 | 2.9 | 5.1 | 4.9 | 5.9 | 5.0 | 4.6 | 4.7 | 5.4 |
| 35-44 years | 5.0 | *3.5 | 6.4 | 4.9 | 4.6 | 5.4 | 4.7 | 5.8 | 5.1 | 5.3 |
| 45-64 years. | 6.1 | 5.6 | 8.5 | 6.4 | 5.5 | 6.9 | 5.4 | 6.7 | 6.8 | 6.4 |
| 45-54 years | 5.9 | *5.2 | 9.3 | 6.5 | 5.4 | 6.7 | 4.8 | 6.3 | 6.9 | 6.0 |
| 55-64 years | 6.4 | 5.9 | 7.9 | 6.3 | 5.7 | 7.2 | 6.4 | 7.3 | 6.6 | 7.0 |
| 65 years and over | 8.9 | 10.8 | 9.0 | 8.6 | 8.7 | 8.7 | 8.1 | 11.8 | 8.9 | 9.2 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 4.7 | 6.5 | 6.3 | 5.0 | 4.3 | 4.5 | 4.5 | 5.2 | 5.3 | 4.7 |
| Female. | 6.1 | 5.2 | 6.8 | 6.6 | 5.7 | 6.6 | 5.8 | 6.8 | 6.5 | 6.4 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 5.6 | 5.1 | 6.6 | 6.0 | 5.3 | 5.8 | 5.3 | 6.1 | 6.0 | 5.7 |
| Black | 4.7 | 9.7 | 7.1 | 5.2 | 3.9 | 4.7 | 4.0 | 5.5 | 5.9 | 4.7 |
| Other | 4.2 | *3.3 | *3.8 | 6.0 | 3.9 | 4.8 | 3.6 | 3.8 | 4.9 | 4.1 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 6.7 | 9.0 | 7.5 | 6.7 | 6.3 | 6.4 | *7.0 | *3.7 | 7.1 | 6.3 |
| \$5,000-\$9,999 | 6.9 | 7.4 | 7.4 | 6.9 | 6.2 | 7.7 | 6.7 | 8.2 | 7.1 | 7.6 |
| \$10,000-\$14,999. | 6.2 | *2.7 | 7.6 | 6.1 | 5.5 | 7.7 | 5.5 | 9.1 | 6.2 | 7.4 |
| \$15,000-\$24,999. | 5.4 | *2.8 | 5.5 | 6.0 | 4.9 | 5.3 | 5.8 | 7.9 | 5.7 | 5.8 |
| \$25,000-\$34,999. | 5.4 | *6.2 | 6.8 | 5.6 | 5.0 | 5.9 | 5.1 | 5.9 | 5.8 | 5.7 |
| \$35,000-\$49,999. | 4.9 | *2.4 | 7.7 | 4.7 | 4.7 | 5.1 | 4.7 | 5.3 | 4.9 | 5.1 |
| \$50,000 or more . | 5.6 | *3.6 | *6.7 | 5.4 | 5.4 | 5.4 | 5.4 | 6.1 | 5.5 | 5.6 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 4.2 | 3.6 | 4.3 | 4.0 | 3.9 | 5.2 | 3.8 | 5.8 | 4.0 | 5.0 |
| Non-Hispanic | 5.5 | 7.5 | 7.6 | 6.1 | 5.1 | 5.7 | 5.2 | 5.9 | 6.4 | 5.6 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 5.7 | 5.5 | 5.1 | 6.1 | 5.4 | 6.3 | 6.4 | *3.7 | 5.8 | 6.1 |
| Not in poverty. | 5.5 | 5.4 | 7.8 | 5.9 | 5.1 | 5.6 | 5.1 | 5.9 | 6.2 | 5.5 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 5.4 | 6.6 | 7.0 | 5.9 | 4.9 | 5.2 | 5.4 | 6.2 | 6.1 | 5.5 |
| Midwest | 5.4 | *4.5 | 8.0 | 6.1 | 5.2 | 5.7 | 4.7 | 5.7 | 6.3 | 5.4 |
| South . | 5.4 | 7.5 | 7.1 | 5.8 | 4.9 | 5.5 | 5.4 | 6.0 | 6.2 | 5.6 |
| West | 5.5 | 3.6 | 4.4 | 5.5 | 5.4 | 6.1 | 5.0 | 5.7 | 5.0 | 5.7 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 5.5 | 5.0 | 6.5 | 5.7 | 5.1 | 5.7 | 5.1 | 6.0 | 5.8 | 5.6 |
| Central city | 5.6 | 5.8 | 6.0 | 5.6 | 5.2 | 5.8 | 5.2 | 6.4 | 5.7 | 5.7 |
| Not central city. | 5.4 | 3.9 | 7.1 | 5.7 | 5.1 | 5.7 | 5.1 | 5.8 | 5.9 | 5.5 |
| Not MSA . . . . . | 5.3 | 8.4 | 6.6 | 6.2 | 4.8 | 5.2 | 5.0 | 5.5 | 6.4 | 5.2 |
| All persons 18 years of age and over | 5.8 | 6.9 | 7.5 | 6.4 | 5.4 | 6.0 | 5.1 | 6.0 | 6.6 | 5.8 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 4.6 | *2.5 | 4.2 | 4.4 | 4.3 | 5.0 | 4.5 | 5.3 | 4.2 | 4.9 |
| Keeping house | 7.1 | 5.6 | 7.3 | 6.9 | 7.0 | 8.0 | 6.7 | 8.6 | 6.9 | 7.7 |
| Going to school | 4.5 | *1.4 | *3.3 | 4.3 | 3.8 | 5.0 | 4.0 | 5.0 | 3.9 | 4.8 11.7 |
| Other . . . . . . | 10.3 | 11.4 | 11.3 | 9.6 | 9.4 | 12.4 | 9.9 | 12.3 | 10.2 | 11.7 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 5.7 | 6.2 | 7.4 | 6.0 | 5.3 | 6.1 | 5.2 | 5.8 | 6.2 | 5.8 |
| Never married. . . . . . . . | 4.4 | 7.7 | 4.2 | 4.4 | 3.8 | 4.6 | 4.2 | 5.2 | 4.6 | 4.6 |
| Other. | 7.8 | 7.6 | 8.8 | 8.2 | 7.4 | 8.0 | 6.4 | 9.0 | 8.3 | 7.8 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 4.6 | *1.8 | 4.1 | 4.3 | 4.3 | 5.1 | 4.5 | 5.4 | 4.2 | 5.0 |
| Unemployed. . . . . | 5.5 | *1.8 | *4.7 | 4.1 | 5.6 | 6.0 | 6.0 | 7.3 | 4.2 | 6.3 |
| Not in labor force | 8.2 | 9.0 | 9.4 | 8.2 | 7.7 | 8.9 | 7.3 | 8.7 | 8.6 | 8.4 |

1 Includes unknown education.
2 Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 10. Age-adjusted number of physician contacts per person per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | 12 years | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age-adjusted number of physician contacts per person per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 5.5 | 3.9 | 5.1 | 5.2 | 5.1 | 5.9 | 5.4 | 6.3 | 5.1 | 5.9 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 4.8 | 4.1 | 4.6 | 4.5 | 4.6 | 4.9 | 4.9 | 5.5 | 4.6 | 5.1 |
| Female | 6.1 | 3.7 | 5.7 | 5.8 | 5.6 | 6.8 | 5.9 | 7.4 | 5.7 | 6.7 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 5.6 | 3.8 | 5.2 | 5.3 | 5.3 | 6.0 | 5.5 | 6.5 | 5.2 | 6.0 |
| Black | 5.1 | 5.2 | 5.3 | 5.3 | 4.6 | 5.6 | 5.2 | 6.0 | 5.3 | 5.6 |
| Other. | 4.6 | *2.6 | *3.6 | 5.9 | 4.3 | 4.9 | 4.3 | 4.3 | 4.7 | 4.5 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 6.9 | 5.9 | 5.9 | 6.5 | 6.8 | 7.4 | *6.4 | *2.9 | 6.4 | 6.7 |
| \$5,000-\$9,999 | 6.4 | 5.4 | 5.7 | 6.1 | 6.2 | 7.9 | 6.5 | 7.7 | 6.0 | 7.8 |
| \$10,000-\$14,999. | 6.0 | *2.0 | 6.5 | 5.6 | 5.6 | 7.6 | 5.3 | 8.9 | 5.6 | 7.3 |
| \$15,000-\$24,999. | 5.3 | *1.9 | 4.4 | 5.3 | 5.0 | 5.5 | 5.9 | 8.3 | 5.0 | 6.0 |
| \$25,000-\$34,999. | 5.7 | *4.5 | 5.7 | 5.1 | 5.2 | 6.6 | 5.7 | 6.0 | 5.2 | 6.2 |
| \$35,000-\$49,999. | 5.3 | *2.4 | 5.9 | 4.1 | 5.1 | 5.5 | 5.3 | 6.1 | 4.3 | 5.6 |
| \$50,000 or more. | 6.0 | *2.6 | *5.2 | 4.4 | 5.8 | 5.8 | 5.6 | 7.0 | 4.5 | 6.1 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 4.7 | 3.3 | 4.8 | 4.7 | 4.4 | 5.5 | 3.9 | 5.7 | 4.5 | 5.1 |
| Non-Hispanic | 5.6 | 4.5 | 5.3 | 5.3 | 5.2 | 6.0 | 5.4 | 6.3 | 5.4 | 5.9 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 6.3 | 4.3 | 4.6 | 6.4 | 6.5 | 7.4 | 7.3 | *3.0 | 5.8 | 7.1 |
| Not in poverty. | 5.5 | 3.5 | 5.9 | 5.0 | 5.1 | 5.9 | 5.4 | 6.4 | 5.1 | 5.9 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 5.3 | 4.6 | 5.4 | 5.0 | 4.8 | 5.6 | 5.7 | 6.8 | 5.0 | 5.9 |
| Midwest | 5.5 | *2.3 | 5.9 | 5.4 | 5.3 | 6.0 | 4.8 | 6.3 | 5.5 | 5.7 |
| South. | 5.5 | 4.0 | 5.4 | 5.2 | 5.1 | 5.9 | 5.7 | 6.2 | 5.2 | 5.9 |
| West | 5.6 | 3.5 | 4.4 | 5.3 | 5.5 | 6.2 | 5.2 | 6.0 | 4.8 | 5.9 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 5.5 | 3.7 | 5.2 | 5.1 | 5.2 | 6.0 | 5.4 | 6.4 | 5.0 | 5.9 |
| Central city. | 5.6 | 4.3 | 4.9 | 5.3 | 5.3 | 6.1 | 5.4 | 6.8 | 5.2 | 6.1 |
| Not central city. | 5.5 | 2.8 | 5.5 | 5.0 | 5.2 | 6.0 | 5.3 | 6.1 | 4.9 | 5.8 |
| Not MSA . . . . . | 5.3 | 4.9 | 5.0 | 5.5 | 4.9 | 5.5 | 5.2 | 5.8 | 5.5 | 5.5 |
| All persons 18 years of age and over | 5.8 | 4.9 | 6.1 | 5.7 | 5.5 | 6.4 | 5.4 | 6.5 | 5.8 | 6.1 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working . . . . . | 4.9 | *2.6 | 4.1 | 4.3 | 4.7 | 5.7 | 4.7 | 6.0 | 4.2 | 5.5 |
| Keeping house. | 6.9 | 3.8 | 6.9 | 6.2 | 6.7 | 8.1 | 6.7 | 8.4 | 6.2 | 7.7 |
| Going to school | 6.2 | *3.1 | *5.3 | 5.1 | 4.7 | 4.8 | 3.7 | 9.8 | 6.0 | 6.2 |
| Other | 9.9 | 8.0 | 8.9 | 8.2 | 8.6 | 16.0 | 12.3 | 9.3 | 8.4 | 14.4 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 5.7 | 4.3 | 6.2 | 5.5 | 5.5 | 6.3 | 5.5 | 6.2 | 5.6 | 6.1 |
| Never married. . . . . . . . | 5.4 | 8.5 | 4.4 | 4.8 | 5.0 | 5.5 | 4.7 | 7.3 | 5.3 | 5.9 |
| Other. | 7.1 | 4.8 | 6.4 | 6.7 | 6.8 | 7.9 | 6.4 | 9.1 | 6.6 | 7.7 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed. | 5.1 | *2.0 | 4.1 | 4.4 | 4.9 | 5.7 | 4.9 | 6.5 | 4.2 | 5.6 |
| Unemployed. . . . . | 5.5 | *2.0 | *4.3 | 4.9 | 5.6 | 6.3 | 4.4 | 6.8 | 4.5 | 6.1 |
| Not in labor farce . . . . . . . . | 7.6 | 6.6 | 7.8 | 7.2 | 7.1 | 9.0 | 6.9 | 7.6 | 7.3 | 8.3 |

[^2]Table 11. Number of short-stay hospital discharges per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of discharges per 100 persons per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 11.3 | 20.4 | 20.2 | 16.7 | 11.3 | 9.3 | 7.6 | 6.7 | 17.6 | 8.2 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. | 4.6 | *1.9 | 4.5 | 7.7 | 5.0 | 4.3 | 4.1 | 2.4 | 6.8 | 3.8 |
| 18-44 years. | 10.2 | 14.1 | 11.9 | 14.0 | 11.2 | 9.9 | 7.3 | 6.5 | 13.7 | 8.5 |
| 18-24 years | 11.5 | *10.8 | *5.6 | 15.6 | 13.5 | 10.8 | 5.7 | *3.6 | 14.1 | 8.8 |
| 25-34 years | 11.2 | *23.3 | 12.3 | 14.7 | 11.8 | 11.0 | 8.4 | 8.6 | 14.8 | 9.7 |
| 35-44 years | 8.2 | *6.8 | 15.3 | 11.6 | 8.6 | 7.6 | 6.9 | 5.6 | 11.9 | 6.9 |
| 45-64 years. . | 13.1 | 21.2 | 21.4 | 17.2 | 12.2 | 11.4 | 9.3 | 9.7 | 18.3 | 10.3 |
| 45-54 years | 11.3 | 27.1 | 20.4 | 13.1 | 11.3 | 9.6 | 9.8 | 8.5 | 15.3 | 9.3 |
| 55-64 years | 15.1 | 17.7 | 22.1 | 20.4 | 13.2 | 14.1 | 8.8 | 11.6 | 20.6 | 11.9 |
| 65 years and over | 26.6 | 34.9 | 32.9 | 26.8 | 25.2 | 22.2 | 22.6 | 24.7 | 28.9 | 22.8 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 9.6 | 21.0 | 20.0 | 14.8 | 9.6 | 6.9 | 6.4 | 6.4 | 16.2 | 6.6 |
| Female | 12.8 | 19.8 | 20.3 | 18.4 | 12.7 | 11.4 | 8.9 | 7.2 | 18.9 | 9.9 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 11.4 | 17.7 | 20.4 | 17.5 | 11.5 | 9.4 | 7.7 | 6.7 | 18.1 | 8.3 |
| Black | 11.5 | 30.8 | 22.7 | 13.5 | 10.2 | 8.8 | 8.3 | 7.8 | 16.5 | 8.5 |
| Other | 8.0 | *17.9 | *4.8 | 12.9 | 8.2 | 8.1 | 6.0 | 5.8 | 12.0 | 6.7 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 17.9 | 25.9 | 24.9 | 21.5 | 17.3 | 8.7 | *13.8 | *19.1 | 22.6 | 9.8 |
| \$5,000-\$9,999 | 18.0 | 25.9 | 20.6 | 19.8 | 16.3 | 12.5 | 20.1 | *10.9 | 20.6 | 13.5 |
| \$10,000-\$14,999. | 14.5 | *10.6 | 24.3 | 15.5 | 13.4 | 12.2 | 10.1 | *11.3 | 17.2 | 11.7 |
| \$15,000-\$24,999. | 11.6 | 18.9 | 19.5 | 13.7 | 11.3 | 10.4 | 7.8 | 8.1 | 14.9 | 9.4 |
| \$25,000-\$34,999. | 10.5 | *11.8 | 14.0 | 13.9 | 10.8 | 9.8 | 8.5 | 9.0 | 13.8 | 9.4 |
| \$35,000-\$49,999. | 8.1 | *15.8 | 23.6 | 12.8 | 8.2 | 7.7 | 6.4 | 7.1 | 14.2 | 7.2 |
| \$50,000 or more | 7.5 | *- | *13.8 | 11.9 | 9.5 | 7.6 | 7.2 | 5.3 | 11.9 | 6.6 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 9.7 | 11.9 | 12.1 | 11.3 | 9.5 | 7.1 | *4.8 | 9.9 | 11.7 | 7.1 |
| Non-Hispanic | 11.4 | 27.0 | 24.4 | 17.5 | 11.4 | 9.4 | 7.8 | 6.6 | 19.0 | 8.3 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 15.6 | 20.3 | 16.7 | 18.6 | 14.8 | 8.9 | 15.4 | *13.7 | 18.4 | 10.0 |
| Not in poverty. | 10.2 | 19.0 | 22.4 | 14.8 | 10.6 | 9.2 | 7.5 | 6.6 | 16.2 | 8.1 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 10.1 | 17.8 | 23.4 | 15.1 | 10.4 | 7.5 | 7.2 | 5.6 | 16.6 | 6.9 |
| Midwest | 11.7 | *14.4 | 27.2 | 19.5 | 11.7 | 8.9 | 9.2 | 5.8 | 20.4 | 8.3 |
| South . | 12.8 | 26.5 | 22.0 | 17.3 | 12.0 | 10.8 | 7.4 | 9.6 | 19.0 | 9.6 |
| West | 9.4 | 14.8 | 10.6 | 13.4 | 10.3 | 8.9 | 6.7 | 5.1 | 12.9 | 7.5 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 10.8 | 18.1 | 19.8 | 15.9 | 10.9 | 9.4 | 7.4 | 6.7 | 16.8 | 8.2 |
| Central city . | 11.4 | 21.3 | 18.1 | 15.3 | 11.3 | 9.5 | 8.2 | 6.9 | 16.4 | 8.5 |
| Not central city. | 10.4 | 13.3 | 21.8 | 16.4 | 10.6 | 9.3 | 6.9 | 6.6 | 17.2 | 8.0 |
| Not MSA. | 12.9 | 27.8 | 21.4 | 18.9 | 12.5 | 8.8 | 9.0 | 6.8 | 19.9 | 8.5 |
| All persons 18 years of age and over | 13.6 | 24.7 | 23.5 | 18.9 | 13.4 | 11.3 | 9.1 | 9.0 | 20.2 | 10.2 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working . . . | 8.4 | *6.6 | 11.7 | 9.7 | 8.9 | 8.1 | 6.7 | 7.7 | 9.9 | 7.6 |
| Keeping house | 20.0 | 22.8 | 23.8 | 21.1 | 20.1 | 19.3 | 15.3 | 14.6 | 21.7 | 17.6 |
| Going to school | 7.0 | *- | *6.8 | 12.7 | 6.7 | 7.3 | 7.4 | 4.9 | 10.7 | 6.8 |
| Other | 32.4 | 40.6 | 36.7 | 34.7 | 30.7 | 30.5 | 26.4 | 22.7 | 35.8 | 27.8 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 13.7 | 21.0 | 23.2 | 17.9 | 13.7 | 12.1 | 10.7 | 9.3 | 19.1 | 11.1 |
| Never married. | 8.0 | 20.8 | 11.4 | 12.1 | 9.1 | 7.0 | 4.3 | 4.7 | 12.8 | 5.7 |
| Other | 19.6 | 32.8 | 28.2 | 24.7 | 17.1 | 15.4 | 10.6 | 15.4 | 26.1 | 14.2 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 8.1 | *8.9 | 11.3 | 9.9 | 8.6 | 7.8 | 6.4 | 6.9 | 10.1 | 7.2 |
| Unemployed. . . . | 16.1 | *15.2 | *7.9 | 15.9 | 20.4 | 9.5 | 18.5 | *10.3 | 14.6 | 11.9 |
| Not in labor force | 24.6 | 31.1 | 30.7 | 27.0 | 23.3 | 22.6 | 19.2 | 18.7 | 28.2 | 21.0 |

${ }^{1}$ includes unknown education.
${ }^{2}$ Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 12. Age-adjusted number of short-stay hospital discharges per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix 1 . Definitions of terms are given in appendix II]

| Characteristic | All years ${ }^{1}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 16 \\ & \text { years } \end{aligned}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age-adjusted number of discharges per 100 persons per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$ | 11.3 | 14.8 | 14.3 | 14.6 | 11.5 | 10.2 | 8.7 | 8.2 | 14.6 | 9.3 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. . . | 10.1 | 12.9 | 13.7 | 12.1 | 10.5 | 8.3 | 7.8 | 7.8 | 12.6 | 8.1 |
| Female. | 12.6 | 16.9 | 15.3 | 17.2 | 12.5 | 11.9 | 9.6 | 8.7 | 16.9 | 10.6 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 11.2 | 13.6 | 14.6 | 14.8 | 11.4 | 10.2 | 8.6 | 8.2 | 14.8 | 9.2 |
| Black | 12.9 | 15.6 | 16.2 | 13.8 | 12.2 | 11.2 | 15.0 | 8.3 | 15.0 | 11.5 |
| Other | 9.8 | *19.5 | *4.6 | 12.0 | 10.7 | 9.8 | 7.2 | 10.5 | 11.6 | 8.8 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 18.6 | 18.5 | 19.5 | 21.4 | 19.6 | 10.6 | *9.7 | *15.4 | 20.9 | 11.8 |
| \$5,000-\$9,999 | 17.1 | 21.5 | 14.1 | 19.4 | 16.9 | 12.8 | 26.5 | *9.5 | 18.7 | 14.8 |
| \$10,000-\$14,999. | 13.3 | *10.2 | 18.3 | 14.4 | 12.9 | 12.8 | 8.4 | *8.9 | 15.0 | 11.5 |
| \$15,000-\$24,999. | 11.3 | 14.1 | 14.5 | 11.7 | 11.4 | 11.2 | 8.3 | 9.4 | 12.3 | 10.3 |
| \$25,000-\$34,999. | 11.4 | *9.1 | 9.3 | 11.8 | 11.2 | 11.5 | 10.2 | 10.3 | 11.3 | 11.1 |
| \$35,000-\$49,999. | 9.2 | *7.9 | 24.2 | 12.6 | 8.7 | 9.1 | 6.5 | 9.4 | 13.2 | 8.5 |
| \$50,000 or more | 8.7 | *- | *6.0 | 12.7 | 10.2 | 8.3 | 8.6 | 6.7 | 11.4 | 7.9 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 11.7 | 11.4 | 13.7 | 13.6 | 12.1 | 8.5 | *4.5 | 12.0 | 13.3 | 8.0 |
| Non-Hispanic | 11.3 | 17.7 | 13.3 | 14.8 | 11.4 | 10.3 | 8.8 | 8.1 | 15.0 | 9.4 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty . . . | 18.2 | 19.0 | 14.5 | 20.6 | 18.5 | 11.1 | 25.6 | *15.4 | 19.4 | 14.5 |
| Not in poverty. | 10.3 | 11.7 | 14.7 | 11.5 | 10.7 | 10.1 | 8.6 | 8.1 | 12.1 | 9.2 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 9.6 | 12.4 | 17.4 | 11.2 | 10.0 | 8.2 | 8.0 | 6.9 | 12.2 | 7.7 |
| Midwest . | 11.8 | *8.0 | 14.5 | 16.2 | 11.9 | 9.8 | 10.3 | 7.6 | 16.1 | 9.5 |
| South. | 12.9 | 16.3 | 15.4 | 16.1 | 12.9 | 12.0 | 8.4 | 11.5 | 16.3 | 10.9 |
| West . | 9.8 | 14.4 | 10.7 | 12.3 | 10.4 | 9.8 | 8.2 | 6.3 | 12.0 | 8.5 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. . . . | 10.9 | 14.2 | 14.9 | 14.0 | 11.0 | 10.2 | 8.5 | 8.4 | 14.2 | 9.3 |
| Central city | 11.4 | 18.2 | 14.2 | 14.4 | 11.6 | 10.3 | 9.5 | 8.5 | 14.8 | 9.7 |
| Not central city. | 10.6 | 8.4 | 15.7 | 13.5 | 10.7 | 10.1 | 7.9 | 8.3 | 13.7 | 9.0 |
| Not MSA. . . . . | 12.5 | 18.9 | 12.6 | 16.1 | 12.8 | 10.2 | 10.1 | 7.4 | 15.8 | 9.6 |
| All persons 18 years of age and over. | 13.7 | 19.4 | 17.8 | 17.0 | 13.8 | 12.3 | 10.4 | 10.3 | 17.4 | 11.3 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working . . . | 9.9 | *7.0 | 13.2 | 10.5 | 10.0 | 9.4 | 8.1 | 10.7 | 10.9 | 9.5 |
| Keeping house. | 20.3 | 24.3 | 22.2 | 22.9 | 20.9 | 18.8 | 14.8 | 12.8 | 23.0 | 16.9 |
| Going to school | 7.9 | *- | *9.6 | 21.3 | 4.0 | 4.3 | 9.4 | 7.2 | 16.2 | 6.3 |
| Other . . . . . . | 30.4 | 31.3 | 26.3 | 33.0 | 27.9 | 39.1 | 21.4 | 21.7 | 32.0 | 32.7 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 14.0 | 16.4 | 18.0 | 16.7 | 14.3 | 12.8 | 11.6 | 10.4 | 17.1 | 11.9 |
| Never married. | 10.5 | 22.4 | 12.4 | 12.9 | 11.6 | 9.2 | 6.1 | 6.5 | 14.2 | 7.7 |
| Other . . . . . | 16.1 | 26.8 | 24.2 | 20.2 | 15.0 | 14.5 | 9.2 | 13.7 | 21.2 | 13.1 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 9.7 | ${ }^{* 9} 9$ | 11.7 | 10.9 | 9.8 | 9.2 | 8.6 | 9.5 | 11.0 | 9.1 |
| Unemployed. . . . . | 19.7 | *16.1 | *10.1 | 27.5 | 20.3 | 7.5 | 34.2 | *11.6 | 22.8 | 13.1 |
| Not in labor force | 23.1 | 25.9 | 24.5 | 27.0 | 22.6 | 22.5 | 18.1 | 16.4 | 26.6 | 20.5 |

${ }_{2}^{1}$ incluces unknown education.
${ }^{2}$ Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 13. Number of short-stay hospital days per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Charactersitic |  | $\stackrel{\text { All }}{\text { years }^{1}}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | 12 years | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $16$ <br> years | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of short-stay hospital days per 100 persons per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$ |  | 73.6 | 169.7 | 178.3 | 128.5 | 68.3 | 50.6 | 39.6 | 43.5 | 140.7 | 45.9 |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. |  | 28.2 | *6.1 | *18.8 | 54.4 | 29.8 | 21.4 | 25.4 | 20.2 | 45.2 | 22.1 |
| 18-44 years. |  | 47.1 | *77.8 | 72.5 | 69.8 | 52.7 | 44.0 | 27.3 | 28.8 | 70.7 | 36.1 |
| 18-24 years |  | 474 | *28.1 | *21.5 | 62.7 | 58.6 | 41.9 | *20.5 | *17.6 | 56.0 | 34.0 |
| 25-34 years |  | 49.8 | *153.4 | *34.8 | 74.6 | 55.8 | 46.7 | 24.3 | 40.0 | 73.1 | 38.2 |
| 35-44 years |  | 43.6 | *25.7 | 140.6 | 69.6 | 43.8 | 42.5 | 34.5 | 23.1 | 79.6 | 35.1 |
| 45-64 years. |  | 93.8 | 170.3 | 174.5 | 140.5 | 80.2 | 75.0 | 56.1 | 68.2 | 149.2 | 67.9 |
| 45-54 years. |  | 77.5 | *175.0 | 156.5 | 96.4 | 77.8 | 45.5 | 59.9 | 81.7 | 112.2 | 59.6 |
| 55-64 years |  | 112.5 | *167.5 | 186.4 | 175.1 | 83.0 | 119.1 | 50.8 | *45.5 | 176.8 | 80.5 |
| 65 years and over |  | 236.1 | 330.4 | 333.6 | 250.8 | 207.7 | 177.7 | 162.7 | 2074 | 277.2 | 179.7 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |
| Male. |  | 70.0 | 172.2 | 192.0 | 133.5 | 61.6 | 42.4 | 40.2 | 44.7 | 147.9 | 42.3 |
| Female . |  | 77.1 | 167.3 | 164.7 | 124.1 | 74.2 | 58.1 | 39.0 | 42.1 | 134.2 | 49.6 |
| Race |  |  |  |  |  |  |  |  |  |  |  |
| White |  | 74.2 | 156.8 | 185.7 | 134.6 | 70.9 | 51.0 | 40.4 | 42.3 | 145.7 | 45.9 |
| Black |  | 77.8 | 269.1 | 182.2 | 107.1 | 51.7 | 49.5 | 44.8 | 85.4 | 133.1 | 53.5 |
| Other | . | 45.0 | *68.3 | *20.2 | *80.1 | 66.4 | *44.1 | *17.3 | *23.9 | 63.4 | 28.9 |
| Family income |  |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. |  | 131.6 | *189.7 | 235.1 | 173.4 | 110.4 | *45.9 | *74.5 | *95.0 | 187.9 | 51.8 |
| \$5,000-\$9,999 |  | 131.4 | 174.3 | 157.4 | 155.8 | 105.5 | 84.8 | *131.4 | *110.2 | 157.9 | 94.0 |
| \$10,000-\$14,999. |  | 104.0 | *108.6 | 235.0 | 109.6 | 95.0 | 62.2 | *61.1 | *39.9 | 138.3 | 59.9 |
| \$15,000-\$24,999. |  | 74.3 | *100.2 | 216.5 | 99.0 | 63.6 | 49.4 | 41.4 | 98.8 | 119.6 | 54.1 |
| \$25,000-\$34,999. |  | 64.6 | *65.0 | *99.7 | 117.0 | 61.7 | 51.4 | 43.2 | 78.5 | 112.5 | 53.4 |
| \$35,000-\$49,999. |  | 43.9 | *164.2 | *171.5 | 82.4 | 43.4 | 41.4 | 29.8 | 37.3 | 95.3 | 36.9 |
| \$50,000 or more |  | 45.1 | *- | *268.3 | 92.1 | 68.0 | 39.2 | 35.6 | 28.5 | 116.3 | 34.2 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |  |
| Hispanic. |  | 65.4 | 111.6 | 74.7 | 82.2 | 70.3 | 32.6 | *15.0 | *46.7 | 84.0 | 31.1 |
| Non-Hispanıc |  | 74.5 | 215.5 | 231.0 | 135.1 | 68.4 | 52.0 | 40.8 | 43.7 | 153.6 | 46.9 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |  |
| In poverty |  | 101.3 | 124.1 | 113.6 | 139.5 | 82.4 | 49.3 | *109.5 | *96.8 | 131.9 | 59.3 |
| Not in poverty. |  | 66.1 | 164.2 | 234.2 | 115.6 | 64.5 | 50.2 | 37.9 | 42.6 | 137.6 | 44.8 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |  |
| Northeast |  | 73.3 | *147.8 | 198.6 | 134.3 | 74.9 | 42.0 | 37.5 | 31.3 | 145.6 | 37.8 |
| Midwest |  | 76.9 | *74.4 | 317.7 | 146.4 | 69.3 | 47.7 | 53.9 | 47.3 | 167.2 | 49.4 |
| South |  | 81.3 | 265.0 | 180.7 | 122.2 | 67.8 | 59.9 | 33.6 | 65.2 | 144.6 | 53.7 |
| West |  | 58.0 | *74.4 | 81.4 | 111.7 | 60.7 | 47.9 | 34.7 | 25.4 | 100.1 | 39.4 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |  |
| MSA. |  | 72.7 | 159.3 | 173.3 | 128.6 | 70.3 | 51.5 | 38.3 | 42.9 | 139.4 | 45.7 |
| Central city . |  | 78.9 | 198.5 | 150.3 | 115.8 | 78.1 | 54.1 | 44.7 | 43.3 | 130.3 | 49.0 |
| Not central city. |  | 68.7 | *99.5 | 201.3 | 139.5 | 65.7 | 50.0 | 34.9 | 42.6 | 148.1 | 43.7 |
| Not MSA. |  | 77.0 | 203.7 | 193.4 | 128.3 | 62.5 | 46.9 | 47.1 | 47.5 | 144.5 | 47.0 |
| All persons 18 years of age and over |  | 89.8 | 207.5 | 212.5 | 146.9 | 81.4 | 62.9 | 45.4 | 55.7 | 163.7 | 56.3 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| Working . |  | 41.4 | *47.7 | 86.6 | 51.3 | 45.3 | 34.5 | 28.0 | 39.2 | 56.9 | 33.6 |
| Keeping house |  | 125.1 | 151.7 | 193.6 | 125.6 | 131.5 | 100.9 | 76.1 | *77.3 | 141.0 | 90.7 |
| Going to school |  | 33.9 | *- | *13.6 | *59.2 | 45.6 | 28.9 | *21.7 | *33.4 | *46.9 | 28.5 |
| Other |  | 294.6 | 373.6 | 378.1 | 363.9 | 219.4 | 283.8 | 197.0 | 224.7 | 368.3 | 248.1 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. . |  | 81.1 | 186.1 | 207.2 | 127.0 | 74.2 | 60.3 | 53.8 | 48.8 | 145.6 | 55.8 |
| Never married. . |  | 54.6 | *150.1 | 148.5 | 86.1 | 60.5 | 46.5 | *18.3 | 34.7 | 102.4 | 35.9 |
| Other |  | 159.9 | 272.2 | 244.7 | 222.1 | 135.0 | 101.6 | 56.5 | 137.0 | 230.7 | 97.5 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| Currently employed |  | 39.9 | *69.2 | 68.3 | 52.7 | 43.8 | 34.1 | 25.4 | 37.7 | 55.9 | 32.3 |
| Unemployed. . . . . | . | 73.0 | *115.2 | *34.8 | *93.9 | 89.4 | *30.7 | *81.2 | *43.2 | 85.1 | *45.6 |
| Not in labor force |  | 192.8 | 264.3 | 297.5 | 231.9 | 163.4 | 155.9 | 124.4 | 143.9 | 249.3 | 145.6 |

${ }^{1}$ Includes unknown education.
${ }^{2}$ Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 14. Age-adjusted number of short-stay hospital days per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household Interviews of the civilian noninstitutlonalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix il]

| Characteristic | $\begin{gathered} \text { All } \\ \text { years } \end{gathered}$ | Less than 4 years | $\begin{aligned} & 4-7 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $13-15$ <br> years | $\begin{aligned} & 16 \\ & \text { years } \end{aligned}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age-adjusted number of short-stay hospital days per 100 persons per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$ | 73.7 | 106.8 | 109.1 | 100.9 | 70.5 | 60.0 | 48.6 | 55.5 | 103.7 | 55.7 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 74.4 | 99.6 | 112.9 | 103.6 | 68.4 | 54.3 | 51.7 | 57.7 | 106.2 | 54.3 |
| Female. | 74.2 | 115.4 | 109.7 | 101.8 | 72.9 | 64.6 | 45.9 | 50.1 | 103.9 | 57.1 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 72.3 | 109.3 | 114.3 | 101.1 | 70.6 | 58.4 | 48.0 | 53.7 | 104.2 | 54.3 |
| Black | 91.2 | 96.1 | 112.3 | 106.7 | 66.6 | 88.5 | 93.0 | 86.8 | 111.6 | 85.7 |
| Other | 67.2 | *61.9 | *20.8 | *73.1 | 143.2 | *65.6 | *24.9 | *74.3 | 58.3 | 54.0 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 144.2 | *127.3 | 155.6 | 173.2 | 145.2 | *67.9 | *45.0 | *82.3 | 162.5 | 71.0 |
| \$5,000-\$9,999 | 114.3 | 119.2 | 81.6 | 144.0 | 99.2 | 87.4 | *197.6 | *109.0 | 130.2 | 107.0 |
| \$10,000-\$14,999. | 88.7 | *83.0 | 194.9 | 84.2 | 86.4 | 62.7 | *55.9 | *32.3 | 108.5 | 59.3 |
| \$15,000-\$24,999. | 70.1 | *67.3 | 115.1 | 71.7 | 64.5 | 57.3 | 42.5 | 146.1 | 80.3 | 66.2 |
| \$25,000-\$34,999. | 73.6 | *58.2 | *57.2 | 96.5 | 66.0 | 65.0 | 55.9 | 86.3 | 86.6 | 66.5 |
| \$35,000-\$49,999. | 55.9 | *83.5 | *120.7 | 83.6 | 61.2 | 64.2 | 32.5 | 49.1 | 88.1 | 48.9 |
| \$50,000 or more . | 56.4 | *- | *104.4 | 127.2 | 73.1 | 47.8 | 47.1 | 44.1 | 131.7 | 46.1 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic. . . | 89.0 | 98.1 | 93.1 | 110.7 | 91.4 | 56.1 | *14.0 | *56.5 | 104.1 | 43.7 |
| Non-Hispanic | 72.5 | 125.5 | 123.2 | 100.1 | 69.1 | 60.5 | 49.7 | 55.5 | 105.1 | 56.3 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty . . . | 125.7 | 102.4 | 90.0 | 156.4 | 119.0 | 82.4 | *197.6 | *130.2 | 134.6 | 111.6 |
| Not in poverty. | 67.2 | 108.1 | 129.5 | 79.3 | 66.2 | 59.4 | 47.2 | 54.2 | 89.0 | 54.7 |
| Geographic regian |  |  |  |  |  |  |  |  |  |  |
| Northeast | 68.4 | *92.8 | 118.6 | 85.1 | 71.6 | 47.3 | 45.0 | 46.4 | 91.1 | 45.9 |
| Midwest | 77.5 | * 41.5 | 124.7 | 105.8 | 71.3 | 56.6 | 61.1 | 69.0 | 110.1 | 60.5 |
| South. | 81.6 | 151.5 | 122.0 | 106.6 | 74.7 | 72.6 | 42.4 | 75.3 | 113.9 | 65.6 |
| West | 61.4 | *66.3 | 79.0 | 91.8 | 62.0 | 55.7 | 44.8 | 31.9 | 83.6 | 46.8 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. . . . . | 74.2 | 103.1 | 114.8 | 101.4 | 72.3 | 60.2 | 47.0 | 57.6 | 104.5 | 55.6 |
| Central city . | 79.6 | 140.4 | 112.7 | 101.4 | 80.4 | 65.1 | 54.8 | 56.4 | 108.0 | 60.0 |
| Not central city. | 70.7 | *51.1 | 114.5 | 99.7 | 66.7 | 57.1 | 41.9 | 57.8 | 100.2 | 52.6 |
| Not MSA. | 72.3 | 157.8 | 92.5 | 100.5 | 65.1 | 58.0 | 55.1 | 46.7 | 103.4 | 55.0 |
| All persons 18 years of age and over | 89.9 | 142.7 | 141.2 | 117.5 | 85.0 | 73.7 | 56.8 | 68.0 | 124.5 | 67.7 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 58.4 | *48.0 | 104.5 | 58.2 | 60.1 | 48.2 | 40.1 | 73.8 | 66.8 | 53.3 |
| Keeping house | 111.2 | 113.9 | 168.1 | 121.7 | 119.7 | 90.0 | 70.8 | *60.3 | 129.6 | 80.6 |
| Going to school | 63.3 | *- | *22.5 | *137.8 | 27.1 | 17.2 | *22.8 | *115.0 | *99.4 | 52.8 |
| Other. | 252.3 | 270.8 | 248.4 | 304.2 | 186.5 | 358.9 | 161.9 | 172.5 | 293.6 | 290.3 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 82.7 | 120.6 | 131.0 | 104.9 | 78.0 | 67.6 | 64.8 | 62.5 | 112.5 | 65.3 |
| Never married. . | 89.3 | *162.4 | 156.9 | 115.8 | 98.2 | 78.6 | *28.3 | 40.7 | 126.4 | 51.5 |
| Other . | 117.1 | 157.3 | 173.4 | 167.1 | 107.3 | 87.5 | 47.7 | 106.2 | 167.4 | 83.5 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 56.1 | *75.3 | 69.3 | 60.2 | 60.1 | 48.5 | 39.1 | 69.6 | 62.7 | 51.2 |
| Unemployed. . | 102.0 | *122.6 | *52.2 | *155.1 | 99.1 | *24.5 | *272.1 | *43.4 | 131.9 | *67.6 |
| Not in labor force | 157.0 | 175.8 | 212.2 | 189.7 | 140.8 | 149.7 | 108.3 | 123.7 | 193.6 | 135.3 |

${ }^{1}$ Inciudes unknown education.
${ }^{2}$ includes unknowns of soclodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 15. Number of acute conditions per 100 persons per year, by years of education and selected sociodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | All years ${ }^{1}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of acute conditions per 100 persons per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$ | 181.3 | 75.0 | 107.8 | 146.0 | 179.8 | 216.1 | 190.3 | 198.6 | 134.1 | 204.9 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. | 286.8 | *88.8 | 148.7 | 241.0 | 286.7 | 310.3 | 294.7 | 319.0 | 215.3 | 308.3 |
| 18-44 years. | 169.1 | *69.4 | 99.9 | 155.5 | 173.0 | 199.9 | 157.6 | 153.6 | 142.6 | 178.4 |
| 18-24 years | 180.8 | *120.1 | *123.0 | 173.0 | 168.3 | 228.8 | 125.9 | 159.0 | 164.4 | 196.1 |
| 25-34 years | 183.5 | *63.2 | *82.0 | 166.1 | 185.4 | 206.8 | 177.9 | 182.1 | 149.2 | 192.9 |
| 35-44 years | 143.8 | *51.7 | 104.0 | 124.3 | 142.5 | 166.5 | 149.0 | 130.0 | 115.7 | 151.9 |
| 45-64 years. . | 113.6 | *87.6 | 107.1 | 110.2 | 110.1 | 121.1 | 125.2 | 109.7 | 108.1 | 119.2 |
| 45-54 years | 122.7 | *79.5 | 113.0 | 117.6 | 125.5 | 128.7 | 125.9 | 112.0 | 114.6 | 123.3 |
| 55-64 years | 103.0 | *92.5 | 103.2 | 104.4 | 91.4 | 109.8 | 124.4 | 105.9 | 103.3 | 113.1 |
| 65 years and over | 100.2 | *61.7 | 92.7 | 92.3 | 101.8 | 121.5 | 121.4 | 93.7 | 90.0 | 115.7 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 170.3 | 73.1 | 97.0 | 141.1 | 168.4 | 203.2 | 180.6 | 179.9 | 127.6 | 190.9 |
| Female. | 191.6 | 77.0 | 118.5 | 150.4 | 189.5 | 227.8 | 200.9 | 222.6 | 140.0 | 219.4 |
| Pace |  |  |  |  |  |  |  |  |  |  |
| White | 187.2 | 69.0 | 108.5 | 151.6 | 184.2 | 219.8 | 199.0 | 207.1 | 138.6 | 210.9 |
| Black | 146.9 | 94.1 | 108.1 | 118.3 | 148.7 | 191.3 | 131.3 | 137.8 | 114.6 | 170.7 |
| Other | 159.1 | 77.5 | *94.2 | 158.9 | 191.5 | 209.6 | 119.5 | 139.5 | 126.0 | 157.9 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 206.6 | *73.9 | 139.2 | 195.3 | 242.5 | 246.4 | *49.0 | *153.9 | 171.2 | 222.2 |
| \$5,000-\$9,999 | 208.9 | 121.9 | 138.9 | 184.5 | 242.6 | 272.4 | 237.4 | *236.5 | 168.3 | 263.8 |
| \$10,000-\$14,999. | 169.8 | *72.7 | 101.8 | 126.4 | 193.1 | 235.2 | 188.2 | *165.6 | 117.4 | 219.6 |
| \$15,000-\$24,999. | 178.3 | *11.6 | 100.5 | 130.9 | 178.4 | 217.4 | 234.2 | 225.5 | 119.7 | 222.4 |
| \$25,000-\$34,999. | 197.7 | *50.7 | *92.1 | 128.9 | 196.4 | 239.0 | 189.1 | 208.5 | 120.6 | 221.2 |
| \$35,000-\$49,999. | 183.0 | *108.4 | *139.2 | 135.0 | 158.2 | 222.7 | 176.5 | 217.4 | 134.6 | 207.3 |
| \$50,000 or more . | 184.8 | *220.6 | *89.7 | 121.9 | 163.9 | 180.9 | 208.5 | 195.1 | 119.2 | 195.1 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 174.9 | 70.3 | 116.0 | 170.0 | 195.6 | 226.8 | 190.8 | 195.7 | 135.9 | 213.2 |
| Non-Hispanic | 181.4 | 79.3 | 103.7 | 141.0 | 178.8 | 215.4 | 190.8 | 198.0 | 132.4 | 204.4 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 206.6 | 102.6 | 132.9 | 188.7 | 241.6 | 258.2 | 141.8 | *175.5 | 166.4 | 239.2 |
| Not in poverty. | 181.1 | *49.7 | 103.4 | 130.6 | 175.2 | 212.2 | 194.5 | 200.0 | 122.6 | 204.1 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 144.6 | *43.6 | 80.2 | 118.9 | 143.5 | 153.5 | 173.4 | 166.5 | 109.0 | 162.9 |
| Midwest | 185.1 | *54.9 | 100.3 | 143.1 | 185.2 | 221.2 | 183.6 | 190.6 | 135.8 | 204.3 |
| South . | 176.4 | 74.9 | 112.2 | 154.0 | 181.8 | 195.2 | 187.3 | 196.4 | 139.6 | 193.2 |
| West | 219.2 | 91.5 | 122.9 | 164.4 | 207.9 | 280.5 | 217.3 | 240.3 | 145.8 | 254.7 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 179.7 | 72.4 | 104.0 | 141.6 | 178.0 | 213.4 | 190.6 | 193.0 | 129.5 | 202.0 |
| Central city | 176.7 | 72.0 | 103.3 | 141.4 | 175.3 | 214.9 | 198.5 | 186.6 | 127.2 | 204.0 |
| Not central city. | 181.7 | *73.0 | 104.9 | 141.7 | 179.6 | 212.4 | 186.4 | 196.5 | 131.7 | 200.9 |
| Not MSA. | 186.7 | *83.7 | 119.3 | 158.1 | 185.1 | 226.7 | 188.8 | 231.5 | 146.8 | 218.5 |
| All persons 18 years of age and over | 143.6 | 71.9 | 99.0 | 122.5 | 143.6 | 176.5 | 147.4 | 135.9 | 114.6 | 159.4 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 148.1 | *63.4 | 97.9 | 127.0 | 148.1 | 172.8 | 151.3 | 135.7 | 119.5 | 157.9 |
| Keeping house | 136.0 | *65.7 | 112.6 | 127.6 | 138.7 | 164.2 | 140.4 | 117.9 | 120.7 | 151.4 |
| Going to school | 187.8 | *162.7 | *47.5 | 173.4 | 164.4 | 231.2 | 136.9 | 183.8 | 151.9 | 202.1 |
| Other . | 116.0 | 79.7 | 94.0 | 103.5 | 120.5 | 155.8 | 125.1 | 89.7 | 98.8 | 133.7 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 137.7 | *55.2 | 82.5 | 117.7 | 138.2 | 166.8 | 149.3 | 127.6 | 107.4 | 152.7 |
| Never married. | 149.1 | *120.3 | 147.6 | 1124 | 141.1 | 192.5 | 125.9 | 148.2 | 119.0 | 164.4 |
| Other. | 156.6 | *65.4 | 112.4 | 137.4 | 166.2 | 186.2 | 186.6 | 161.6 | 126.7 | 181.6 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 152.6 | *48.9 | 96.5 | 130.7 | 148.8 | 182.3 | 154.6 | 143.0 | 121.6 | 165.2 |
| Unemployed. . . | 112.4 | *- | *146.6 | 110.6 | 137.4 | 87.3 | *79.3 | *89.4 | 113.1 | 85.7 |
| Not in labor force | 128.0 | 82.3 | 98.6 | 116.1 | 132.7 | 168.1 | 124.9 | 108.1 | 109.4 | 146.4 |

[^3]Table 16. Age-adjusted number of acute conditions per 100 persons per year, by years of education and selected sociodemographic characteristics: Unlted States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

| Characteristic | $\underset{\text { years }}{ }{ }^{\text {All }}$ | Less than 4 years | $\begin{gathered} 4-7 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age-adjusted number of acute conditions per 100 persons per year |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$. | 181.3 | 77.0 | 113.2 | 161.9 | 180.5 | 204.6 | 183.2 | 181.6 | 148.9 | 193.9 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 167.0 | 80.1 | 103.6 | 153.7 | 163.5 | 187.1 | 174.8 | 166.7 | 140.9 | 179.0 |
| Female | 194.3 | 72.8 | 124.6 | 168.6 | 194.1 | 219.8 | 192.6 | 201.4 | 156.3 | 209.1 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 189.7 | 73.5 | 112.0 | 175.5 | 189.0 | 210.3 | 190.4 | 190.1 | 158.1 | 200.3 |
| Black | 139.8 | 114.3 | 143.3 | 117.9 | 141.3 | 167.6 | 155.2 | 127.4 | 121.7 | 160.9 |
| Other | 155.8 | 72.3 | *93.9 | 157.7 | 172.6 | 206.5 | 159.7 | 120.5 | 125.4 | 166.9 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 205.9 | *59.5 | 127.3 | 190.8 | 223.9 | 184.3 | *62.7 | *235.1 | 168.5 | 176.4 |
| \$5,000-\$9,999 | 219.2 | 128.5 | 160.8 | 197.3 | 235.9 | 249.2 | 242.3 | *173.5 | 185.1 | 247.2 |
| \$10,000-\$14,999. | 176.3 | *73.7 | 112.4 | 144.8 | 189.5 | 217.0 | 181.7 | *174.7 | 132.5 | 207.0 |
| \$15,000-\$24,999. | 180.2 | *20.3 | 99.4 | 150.5 | 175.7 | 203.0 | 246.9 | 225.6 | 137.1 | 215.5 |
| \$25,000-\$34,999. | 191.1 | *112.8 | *104.6 | 146.7 | 192.5 | 221.4 | 177.1 | 196.2 | 138.8 | 205.0 |
| \$35,000-\$49,999. | 173.8 | *97.2 | *126.4 | 148.9 | 155.6 | 196.1 | 169.8 | 190.5 | 148.2 | 187.2 |
| \$50,000 or more . | 186.3 | *188.8 | *40.7 | 124.8 | 177.7 | 198.2 | 201.1 | 172.6 | 118.4 | 190.3 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 159.6 | 69.3 | 111.2 | 157.4 | 181.5 | 191.7 | 161.6 | 177.1 | 127.2 | 184.0 |
| Non-Hispanic | 184.0 | 87.1 | 114.2 | 162.2 | 181.9 | 205.7 | 184.6 | 182.0 | 155.8 | 194.7 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 192.8 | 101.4 | 132.6 | 174.7 | 210.5 | 218.7 | 134.9 | 145.2 | 159.0 | 205.2 |
| Not in poverty. | 183.0 | *71.8 | 113.9 | 154.8 | 179.7 | 202.0 | 186.7 | *182.6 | 146.8 | 193.2 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 149.7 | *58.0 | 94.3 | 142.9 | 150.8 | 148.5 | 173.6 | 154.1 | 132.5 | 158.0 |
| Midwest | 184.8 | *64.8 | 79.3 | 166.8 | 186.1 | 201.7 | 169.4 | 172.3 | 158.2 | 187.2 |
| South. | 175.6 | 51.9 | 129.2 | 162.6 | 178.6 | 187.8 | 179.8 | 179.6 | 152.8 | 184.5 |
| West | 215.3 | 91.9 | 116.5 | 174.4 | 208.3 | 266.4 | 208.6 | 222.7 | 149.0 | 241.0 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 179.4 | 73.3 | 108.6 | 155.3 | 179.6 | 203.5 | 184.4 | 175.7 | 141.6 | 192.0 |
| Central city . | 176.7 | 69.9 | 110.1 | 149.2 | 174.1 | 208.4 | 194.7 | 181.5 | 135.2 | 199.0 |
| Not central city. | 181.2 | *78.4 | 104.5 | 161.0 | 183.5 | 199.6 | 178.9 | 171.2 | 147.9 | 186.9 |
| Not MSA. | 188.6 | *92.9 | 127.3 | 181.1 | 182.9 | 210.4 | 177.2 | 219.5 | 172.5 | 204.8 |
| All persons 18 years of age and over | 143.7 | 72.9 | 100.6 | 133.6 | 142.6 | 166.9 | 143.4 | 132.6 | 125.2 | 153.0 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 142.3 | *58.0 | 99.2 | 124.2 | 145.2 | 165.1 | 144.2 | 133.4 | 117.6 | 151.5 |
| Keeping house | 151.6 | *56.0 | 116.2 | 152.0 | 151.8 | 171.6 | 143.3 | 118.3 | 141.4 | 156.5 |
| Going to school | 175.4 | *390.6 | *31.3 | 152.2 | 166.4 | 137.2 | 146.6 | 136.7 | 201.9 | 138.8 |
| Other . . | 135.1 | 109.5 | 72.2 | 113.4 | 141.8 | 203.8 | 62.3 | 119.7 | 106.2 | 161.8 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 139.4 | *44.9 | 85.9 | 131.1 | 139.2 | 161.0 | 145.2 | 126.8 | 119.5 | 148.9 |
| Never married. | 129.1 | *129.8 | 149.8 | 97.3 | 122.9 | 149.3 | 102.9 | 131.2 | 114.8 | 133.1 |
| Other. | 180.2 | *139.3 | 98.1 | 169.3 | 184.2 | 196.7 | 191.3 | 177.8 | 157.1 | 192.3 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 145.7 | * 43.4 | 94.7 | 127.9 | 145.7 | 169.8 | 149.4 | 140.7 | 119.1 | 157.4 |
| Unemployed. | 125.5 | *- | *217.2 | 128.8 | 165.0 | 72.5 | 55.1 | *79.4 | 146.9 | 70.4 |
| Not in labor force | 148.3 | 93.9 | 90.7 | 144.3 | 153.6 | 178.5 | 127.2 | 116.9 | 131.6 | 155.8 |

${ }^{1}$ Includes unknown education.
${ }^{2}$ includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

Table 17. Number of selected chronic conditions per 1,000 persons, by age and years of education: United States, 1989
[Data are based on household interviews of the clvillan noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix 1 . Definitions of terms are given in appendix II]

| Type of chronic condition | All ages |  |  | Under 65 years |  |  | 65 years and over |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total ${ }^{1}$ | Less than 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 1.2 years or more |


| Selected skin and musculoskeletal conditions | Number of chronic conditions per 1,000 persons |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 127.3 | 241.9 | 99.0 | 78.8 | 138.8 | 67.4 | 483.0 | 518.7 | 452.6 |
| Gout, including gouty arthritis | 8.5 | 16.0 | 6.7 | 5.8 | 7.8 | 5.5 | 28.4 | 38.1 | 20.6 |
| Intervertebral disc disorders. | 18.0 | 25.9 | 16.1 | 16.5 | 22.1 | 15.4 | 29.2 | 36.3 | 24.3 |
| Bone spur or tendinitis, unspecified | 8.2 | 8.2 | 8.1 | 7.6 | 7.0 | 7.6 | 12.5 | 11.5 | 13.7 |
| Disorders of bone or cartilage. | 5.3 | 6.7 | 5.0 | 3.0 | *2.3 | 3.1 | 22.7 | 18.3 | 25.7 |
| Trouble with bunions . . . . . | 11.4 | 16.9 | 9.9 | 7.5 | 8.2 | 7.4 | 40.0 | 40.5 | 37.5 |
| Bursitis, unclassified. | 18.1 | 20.0 | 17.7 | 15.5 | 15.0 | 15.6 | 37.7 | 33.5 | 41.5 |
| Sebaceous skin cyst | 6.9 | 6.8 | 7.0 | 7.0 | 7.7 | 6.9 | 6.2 | *4.4 | *7.7 |
| Trouble with anne. | 16.5 | 7.6 | 18.8 | 18.5 | 9.8 | 20.3 | *1. 7 | *1.7 | *1.8 |
| Psoriasis.. | 9.2 | 9.1 | 9.3 | 8.7 | 7.1 | 9.0 | 13.0 | 14.3 | 12.4 |
| Dermatitis | 34.6 | 23.9 | 37.4 | 34.8 | 23.6 | 37.1 | 33.3 | 24.7 | 41.1 |
| Trouble with dry (itching) skin, unclassified | 17.6 | 22.9 | 16.1 | 16.2 | 17.8 | 15.6 | 28.1 | 36.7 | 21.9 |
| Trouble with ingrown nails . . . | 23.5 | 37.3 | 20.2 | 20.3 | 28.6 | 18.7 | 47.3 | 60.6 | 37.0 |
| Trouble with corns and calluses | 17.8 | 26.2 | 15.9 | 14.0 | 18.1 | 13.2 | 46.2 | 48.1 | 46.0 |
| Impairments |  |  |  |  |  |  |  |  |  |
| Visual impairment | 32.4 | 54.0 | 27.3 | 25.6 | 37.6 | 23.5 | 81.9 | 97.9 | 69.8 |
| Color blindness. | 9.6 | 7.8 | 10.2 | 9.3 | 6.0 | 10.0 | 12.5 | 12.7 | 12.7 |
| Cataracts. | 23.4 | 53.6 | 16.1 | 5.2 | 11.2 | 4.1 | 156.8 | 167.6 | 150.5 |
| Glaucoma | 9.4 | 17.7 | 7.3 | 3.3 | 5.0 | 3.1 | 54.1 | 51.9 | 54.6 |
| Hearing impairment | 83.1 | 147.7 | 67.6 | 55.4 | 86.4 | 49.7 | 286.5 | 312.3 | 266.6 |
| Tinnitus. . | 24.1 | 39.2 | 20.7 | 17.4 | 28.6 | 15.3 | 73.5 | 67.6 | 80.2 |
| Speech impairment | 9.3 | 15.6 | 7.7 | 9.1 | 16.6 | 7.6 | 10.7 | 13.0 | 9.2 |
| Absence of extremities (excludes tips of fingers or toes only) | 6.3 | 11.7 | 4.8 | 4.8 | 8.1 | 3.9 | 17.6 | 21.5 | 14.3 |
| Paralysis of extremities, complete or partial. | 5.1 | 12.8 | 3.3 | 3.4 | 7.5 | 2.6 | 17.7 | 26.9 | 10.7 |
| Deformity or orthopedic impairment . | 114.9 | 138.6 | 109.6 | 109.5 | 124.4 | 106.9 | 155.2 | 176.6 | 140.3 |
| Back. . . . . . . . . . . . . | 68.3 | 83.8 | 64.8 | 66.4 | 79.6 | 64.1 | 81.9 | 95.3 | 73.5 |
| Upper extremities | 14.4 | 19.6 | 13.0 | 13.0 | 15.8 | 12.4 | 24.6 | 29.9 | 19.8 |
| Lower extremities | 45.4 | 51.9 | 44.2 | 41.9 | 44.4 | 41.8 | 71.0 | 72.2 | 71.2 |
| Selected digestive conditions |  |  |  |  |  |  |  |  |  |
| Ulcer | 17.1 | 28.1 | 14.6 | 15.2 | 26.7 | 13.1 | 30.7 | 31.8 | 30.6 |
| Hernia of abdominal cavity. | 18.8 | 31.8 | 15.8 | 13.8 | 22.1 | 12.3 | 55.2 | 57.8 | 54.7 |
| Gastritis or duodenitis. . . | 12.1 | 18.1 | 10.7 | 10.8 | 16.0 | 9.8 | 21.8 | 23.8 | 20.7 |
| Frequent indigestion. | 22.2 | 40.7 | 18.0 | 20.1 | 35.7 | 17.3 | 38.0 | 54.1 | 25.8 |
| Enteritis or colitis. . | 9.8 | 11.9 | 9.4 | 8.3 | 8.7 | 8.3 | 20.9 | 20.6 | 21.7 |
| Spastic colon | 5.6 | 5.3 | 5.7 | 5.4 | 6.7 | 5.3 | 6.6 | *1.7 | 10.8 |
| Diverticula of intestines | 8.2 | 14.0 | 6.9 | 4.3 | 5.0 | 4.2 | 36.9 | 38.3 | 36.9 |
| Frequent constipation. | 18.6 | 37.3 | 14.2 | 12.7 | 18.6 | 11.7 | 61.7 | 87.8 | 41.5 |
| Selected conditions of the genitourinary, nervous, endocrine, metabolic, and blood and blood-forming systems |  |  |  |  |  |  |  |  |  |
| Goiter or other disorders of the thyroid | 13.2 | 17.5 | 12.3 | 10.8 | 11.9 | 10.7 | 31.1 | 32.6 | 30.7 |
| Diabetes | 26.6 | 54.1 | 19.9 | 18.3 | 37.0 | 14.8 | 88.2 | 99.8 | 76.7 |
| Anemias | 16.0 | 16.8 | 16.0 | 15.3 | 13.1 | 15.8 | 21.4 | 26.6 | 17.8 |
| Epilepsy | 4.2 | 7.3 | 3.4 | 4.5 | 9.4 | 3.5 | *1.8 | *1.6 | *2.1 |
| Migraine headache | 41.0 | 34.1 | 42.9 | 43.5 | 37.0 | 44.9 | 22.8 | 26.3 | 20.6 |
| Neuralgia or neuritis, unspecified. | 2.6 | 3.5 | 2.3 | 2.0 | *2.3 | 2.0 | 6.7 | *6.9 | *5.8 |
| Kidney trouble . . . . . . . | 13.9 | 24.4 | 11.3 | 12.0 | 19.7 | 10.6 | 27.3 | 37.0 | 19.5 |
| Bladder disorders | 14.6 | 17.4 | 14.0 | 12.3 | 12.1 | 12.3 | 32.0 | 31.4 | 32.5 |
| Diseases of prostate. | 6.2 | 8.1 | 5.8 | 3.5 | *3.2 | 3.5 | 26.5 | 21.2 | 31.5 |
| Disease of female genital organs. | 19.2 | 14.7 | 20.5 | 20.5 | 17.1 | 21.3 | 10.3 | *8.2 | 12.2 |
| Selected circulatory conditions |  |  |  |  |  |  |  |  |  |
| Rheumatic fever, with or without heart disease | 6.9 | 6.8 | 7.1 | 6.3 | 6.3 | 6.3 | 11.6 | *8.1 | 14.8 |
| Heart disease. | 75.9 | 133.4 | 62.1 | 48.3 | 71.6 | 44.1 | 278.9 | 299.5 | 264.3 |
| Ischemic heart disease. | 28.5 | 57.9 | 21.4 | 13.8 | 25.9 | 11.7 | 136.2 | 143.9 | 130.3 |
| Heart rhythm disorders. | 30.4 | 41.4 | 27.8 | 24.5 | 31.1 | 23.4 | 73.7 | 69.0 | 77.9 |
| Tachycardla or rapid heart | 8.1 | 11.5 | 7.3 | 6.0 | 8.9 | 5.5 | 22.9 | 18.4 | 26.4 |
| Heart murmurs . . . . . | 16.1 | 15.4 | 16.3 | 15.0 | 15.3 | 15.0 | 23.9 | 15.9 | 31.0 |
| Other and unspecified heart rhythm disorders | 6.3 | 14.5 | 4.2 | 3.4 | 6.9 | 2.8 | 26.9 | 34.8 | 20.5 |
| Other selected diseases of heart, excluding hypertension. | 17.0 | 34.2 | 12.9 | 9.9 | 14.7 | 9.0 | 69.0 | 86.6 | 56.1 |

See note at end of table.

Table 17. Number of selected chronic conditions per 1,000 persons, by age and years of education: United States, 1989-Con.
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix 1 . Definitions of terms are given in appendix II]

| Type of chronic condition | All ages |  |  | Under 65 years |  |  | 65 years and over |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total ${ }^{1}$ | Less than <br> 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 12 years or more |
| Selected circulatory conditions-Con. | Number of chronic conditions per 1,000 persons |  |  |  |  |  |  |  |  |
| High blood pressure (hypertension) | 113.6 | 201.8 | 92.4 | 77.2 | 128.8 | 67.5 | 380.6 | 397.9 | 370.3 |
| Cerebrovascular dilsease | 10.8 | 26.0 | 6.9 | 4.5 | 12.0 | 3.1 | 57.0 | 63.6 | 50.2 |
| Hardening of arteries | 9.0 | 18.9 | 6.6 | 4.0 | 8.1 | 3.2 | 46.2 | 48.0 | 44.5 |
| Varicose veins of lower extremities. | 30.9 | 46.8 | 27.3 | 24.5 | 31.8 | 23.3 | 78.1 | 87.3 | 71.7 |
| Hemorrhoids | 47.2 | 52.0 | 46.5 | 44.1 | 47.0 | 43.9 | 69.6 | 65.2 | 75.2 |
| Selected respiratory conditions |  |  |  |  |  |  |  |  |  |
| Chronic bronchitis . | 49.2 | 50.4 | 49.1 | 48.3 | 44.4 | 49.0 | 55.5 | 66.7 | 46.4 |
| Asthma. . . . . . . | 47.7 | 48.6 | 47.6 | 47.2 | 44.0 | 48.0 | 51.5 | 60.9 | 43.8 |
| Hay fever or allergic rhinitis, without asthma | 86.9 | 55.1 | 95.3 | 89.5 | 50.0 | 97.7 | 67.9 | 68.8 | 68.4 |
| Chronic sinusitis | 138.3 | 137.4 | 139.6 | 136.3 | 121.6 | 140.2 | 153.4 | 179.9 | 132.9 |
| Deviated nasal septum | 5.4 | 4.0 | 5.8 | 5.0 | *3.9 | 5.3 | 8.0 | *4.3 | 11.2 |
| Chronic disease of tonsils or adenoids | 12.6 | 9.6 | 13.4 | 14.2 | 12.6 | 14.5 | *1.5 | *1.6 | *1.4 |
| Emphysema. | 8.2 | 22.8 | 4.5 | 4.3 | 14.4 | 2.4 | 36.3 | 45.2 | 27.5 |

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

Table 18. Number of selected chronic conditions, by age and years of education: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. information on the statistical reliability of the estimates is given in appendix I. Definitions of terms are given in appendix II]

|  | All ages |  |  | Under 65 years |  |  | 65 years and over |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of chronic condition | Total ${ }^{1}$ | Less than 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 12 years or more |


| Selected skin and musculoskeletal conditions | Number of chronic conditions in thousands |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30,999 | 11,451 | 19,218 | 16,886 | 4,788 | 12,009 | 14,113 | 6,663 | 7,209 |
| Gout, including gouty arthritis . | 2,069 | 757 | 1,299 | 1,239 | 269 | 971 | 830 | 489 | 328 |
| Intervertebral disc disorders | 4,381 | 1,227 | 3,127 | 3,528 | 761 | 2,741 | 853 | 466 | 387 |
| Bone spur or tendinitis, unspecified | 1,988 | 389 | 1,577 | 1,622 | 241 | 1,358 | 366 | 148 | 219 |
| Disorders of bone or cartilage. | 1,300 | 316 | 964 | 636 | 81 | 555 | 664 | 235 | 409 |
| Trouble with bunions | 2,776 | 802 | 1,920 | 1,609 | 282 | 1,322 | 1,168 | 520 | 598 |
| Bursitis, unclassified. | 4,420 | 947 | 3,436 | 3,318 | 517 | 2,775 | 1,102 | 430 | 661 |
| Sebaceous skin cyst | 1,673 | 323 | 1,349 | 1,492 | 267 | 1,226 | 180 | 57 | 123 |
| Trouble with acne | 4,019 | 360 | 3,647 | 3,969 | 339 | 3,619 | 49 | 22 | 28 |
| Psoriasis | 2,235 | 430 | 1,806 | 1,854 | 246 | 1,608 | 381 | 184 | 198 |
| Dermatitis | 8,420 | 1,132 | 7,256 | 7,449 | 815 | 6,601 | 972 | 317 | 654 |
| Trouble with dry (itching) skin, unclassified | 4,289 | 1,086 | 3,131 | 3,468 | 615 | 2,782 | 821 | 472 | 349 |
| Trouble with ingrown nails | 5,726 | 1,767 | 3,924 | 4,345 | 988 | 3,335 | 1,381 | 779 | 589 |
| Trouble with corns and calluses | 4,342 | 1,241 | 3,078 | 2,992 | 623 | 2,346 | 1,350 | 618 | 732 |
| Impairments |  |  |  |  |  |  |  |  |  |
| Visual impairment | 7,881 | 2,555 | 5,293 | 5.489 | 1,297 | 4,181 | 2,392 | 1,258 | 1,112 |
| Color blindness. | 2,350 | 369 | 1,980 | 1,985 | 207 | 1,778 | 365 | 163 | 202 |
| Cataracts. | 5,698 | 2,540 | 3,125 | 1,115 | 387 | 728 | 4,583 | 2,153 | 2,397 |
| Glaucoma | 2,299 | 838 | 1,417 | 717 | 171 | 546 | 1,582 | 667 | 870 |
| Hearing impairment | 20,246 | 6,992 | 13,108 | 11,874 | 2,979 | 8,861 | 8,372 | 4,012 | 4,247 |
| Tinnitus. | 5,867 | 1,856 | 4,011 | 3,720 | 987 | 2,733 | 2,147 | 869 | 1,278 |
| Speech impairment | 2,261 | 740 | 1,497 | 1,948 | 573 | 1,351 | 313 | 167 | 146 |
| Absence of extremities (excludes tips of fingers or toes only) | 1,535 | 554 | 927 | 1,019 | 278 | 699 | 515 | 276 | 228 |
| Paralysis of extremities, complete or partial | 1,254 | 605 | 638 | 738 | 260 | 467 | 516 | 345 | 171 |
| Deformity or orthopedic impairment | 27,993 | 6,561 | 21,272 | 23,457 | 4,293 | 19,038 | 4,536 | 2,268 | 2,234 |
| Back | 16,623 | 3,969 | 12,580 | 14,228 | 2,745 | 11,409 | 2,394 | 1,224 | 1,170 |
| Upper extremities | 3,496 | 929 | 2,520 | 2,776 | 545 | 2,204 | 720 | 384 | 316 |
| Lower extremitles | 11,066 | 2,459 | 8,580 | 8,990 | 1,531 | 7,446 | 2,075 | 928 | 1,134 |
| Selected digestive conditions |  |  |  |  |  |  |  |  |  |
| Ulcer | 4,154 | 1,329 | 2,825 | 3,258 | 921 | 2,337 | 896 | 408 | 488 |
| Hernia of abdominal cavity. | 4,576 | 1,507 | 3,069 | 2,963 | 764 | 2,198 | 1,613 | 742 | 871 |
| Gastritis or duodenitis. | 2,943 | 859 | 2,084 | 2,307 | 553 | 1,754 | 636 | 306 | 330 |
| Frequent indigestion. | 5,418 | 1,928 | 3,486 | 4,308 | 1,233 | 3,075 | 1,110 | 695 | 411 |
| Enteritis or colitis. | 2,394 | 565 | 1,829 | 1,783 | 300 | 1,483 | 611 | 265 | 346 |
| Spastic colon | 1,362 | 253 | 1,109 | 1,168 | 232 | 936 | 194 | 22 | 172 |
| Diverticula of intestines | 1,996 | 664 | 1,332 | 917 | 172 | 745 | 1,079 | 492 | 587 |
| Frequent constipation. | 4,529 | 1,768 | 2,747 | 2,726 | 640 | 2,086 | 1,802 | 1,128 | 661 |
| Selected conditions of the genitourinary, nervous, endocrine, metabolic, and blood and blood-forming systems |  |  |  |  |  |  |  |  |  |
| Goiter or other disorders of the thyroid | 3,223 | 828 | 2,395 | 2,314 | 409 | 1,906 | 908 | 419 | 489 |
| Diabetes | 6,489 | 2,559 | 3,857 | 3,913 | 1,278 | 2,635 | 2,576 | 1,282 | 1,222 |
| Anemias | 3,896 | 795 | 3,101 | 3,270 | 453 | 2,817 | 625 | 342 | 284 |
| Epilepsy | 1,019 | 346 | 662 | 965 | 326 | 628 | 54 | 20 | 34 |
| Migraine headache | 9,978 | 1,615 | 8,332 | 9,312 | 1,277 | 8,004 | 666 | 338 | 328 |
| Neuralgia or neuritis, unspecified. | 625 | 167 | 444 | 430 | 79 | 351 | 195 | 88 | 93 |
| Kidney trouble | 3,375 | 1,154 | 2,194 | 2,577 | 679 | 1,883 | 798 | 475 | 311 |
| Bladder disorders | 3,563 | 824 | 2,715 | 2,628 | 419 | 2,198 | 935 | 404 | 517 |
| Diseases of prostate. | 1,515 | 382 | 1,121 | 741 | 111 | 620 | 773 | 272 | 502 |
| Disease of female genital organs . . . . . . | 4,686 | 694 | 3,981 | 4,386 | 589 | 3,786 | 300 | 105 | 195 |
| Selected circulatory conditions |  |  |  |  |  |  |  |  |  |
| Rheumatic fever, with or without heart disease | 1,689 | 322 | 1,368 | 1,349 | 217 | 1,131 | 340 | 104 | 236 |
| Heart disease. | 18,493 | 6,318 | 12,054 | 10,343 | 2,470 | 7,846 | 8,150 | 3,847 | 4,209 |
| Ischemic heart disease. | 6,949 | 2,740 | 4,152 | 2,968 | 892 | 2,077 | 3,981 | 1,848 | 2,075 |
| Heart rhythm disorders. | 7,397 | 1,959 | 5,399 | 5,245 | 1,072 | 4,159 | 2,152 | 887 | 1,240 |
| Tachycardia or rapid heart | 1,962 | 543 | 1,409 | 1,294 | 307 | 988 | 668 | 236 | 421 |
| Heart murmurs Other and unspecified heart rhythm | 3,913 | 731 | 3,167 | 3,216 | 527 | 2,675 | 697 | 204 | 493 |
| Other and unspecified heart rhythm disorders | 1,523 | 685 | 824 | 735 | 238 | 497 | 787 | 447 | 327 |
| Other selected diseases of heart, excluding hypertension. | 4,147 | 1,618 | 2,503 | 2,130 | 507 | 1,610 | 2,017 | 1,112 | 893 |

See note at end of table.

Table 18. Number of selected chronic conditions, by age and years of education: United States, 1989-Con.
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix 1 . Definitions of terms are given in appendix II]

| Type of chronic condition | All ages |  |  | Under 65 years |  |  | 65 years and over |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total ${ }^{1}$ | Less than 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 12 years or more | Total ${ }^{1}$ | Less than 12 years | 12 years or more |
| Selected circulatory conditions - Con. | Number of chronic conditions in thousands |  |  |  |  |  |  |  |  |
| High blood pressure (hypertension) | 27,664 | 9,555 | 17,922 | 16,542 | 4,443 | 12,024 | 11,122 | 5,112 | 5,898 |
| Cerebrovascular disease. | 2,626 | 1,229 | 1,347 | 959 | 413 | 547 | 1,666 | 817 | 800 |
| Hardening of arteries . . . . . . . . | 2,200 | 897 | 1,277 | 849 | 281 | 568 | 1,351 | 616 | 709 |
| Varicose veins of lower extremities. | 1,536 | 2,218 | 5,300 | 5,254 | 1,096 | 4,158 | 2,282 | 1,122 | 1,142 |
| Hemorrhoids | 11,489 | 2,460 | 9,022 | 9,455 | 1,623 | 7,825 | 2,034 | +837 | 1,197 |
| Selected respiratory conditions | $\bigcirc$ |  |  |  |  |  |  |  |  |
| Chronic bronchitis | 11,974 | 2,387 | 9,537 | 10,352 | 1,530 | 8,798 | 1,622 | 857 | 739 |
| Asthma. . . . | 11,621 | 2,301 | 9,243 | 10,117 | 1,519 | 8,547 | 1,504 | 782 | 697 |
| Hay fever or allergic rhinitis, without asthma | 21,166 | 2,608 | 18,499 | 19,182 | 1,724 | 17,409 | 1,984 | 884 | 697 1,090 |
| Chronic sinusitis | 33,683 | 6,505 | 27,092 | 29,202 | 4,194 | 24,975 | 4,481 | 2,311 | 2,117 |
| Deviated nasal septum . | 1,316 | 188 | 1,128 | 1,081 | 133 | 948 | 235 | 2,55 | 2,179 |
| Chronic disease of tonsils or adenoids | 3,076 | 455 | 2,605 | 3,033 | 434 | 2,583 | 43 | 21 | 22 |
| Emphysema. . . . . . . . . . . . . . . | 1,993 | 1,078 | 871 | 931 | 497 | 2,434 | 1,062 | 581 | 438 |

Table 19. Number of persons, by years of education and selected soclodemographic characteristics: United States, 1989
[Data are based on household interviews of the civilian noninstitutionalized population. Information on the statistical reliability of the estimates is given in appendix 1 . Definitions of terms are given in appendix il]

| Characteristic | All years ${ }^{1}$ | Less than 4 years | $\begin{aligned} & 4-7 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 8-11 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 12 \\ \text { years } \end{gathered}$ | $\begin{aligned} & 13-15 \\ & \text { years } \end{aligned}$ | $\begin{gathered} 16 \\ \text { years } \end{gathered}$ | 17 years or more | Less than 12 years | 13 years or more |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of persons in thousands |  |  |  |  |  |  |  |  |  |
| Total ${ }^{2}$ | 243,532 | 3,080 | 9,079 | 35,185 | 91,437 | 50,469 | 28,901 | 23,233 | 47,344 | 102,604 |
| Age |  |  |  |  |  |  |  |  |  |  |
| Under 18 years. | 64,003 | 578 | 1,604 | 6,989 | 23,133 | 14,936 | 8,421 | 7,956 | 9,170 | 31,313 |
| 18-44 years. . | 104,196 | 731 | 2,089 | 11,069 | 40,623 | 24,945 | 14,280 | 9,609 | 13,889 | 48,834 |
| 18-24 years | 25,401 | 139 | 478 | 3,054 | 10,571 | 7,081 | 2,636 | 1,247 | 3,672 | 10,964 |
| 25-34 years | 42,814 | 296 | 805 | 4,716 | 16,956 | 9,720 | 6,346 | 3,662 | 5,816 | 19,728 |
| 35-44 years | 35,982 | 296 | 806 | 3,299 | 13,096 | 8,144 | 5,297 | 4,700 | 4,401 | 18,142 |
| 45-64 years. | 46,114 | 768 | 2,259 | 8,411 | 18,261 | 7,232 | 4,397 | 4,320 | 11,438 | 15,949 |
| 45-54 years | 24,685 | 288 | 901 | 3,696 | 9,999 | 4,338 | 2,539 | 2,705 | 4,884 | 9,582 |
| 55-64 years . | 21,429 | 480 | 1,358 | 4,715 | 8,263 | 2,894 | 1.858 | 1,615 | 6,554 | 6,367 |
| 65 years and over | 29,219 | 1,003 | 3,126 | 8,717 | 9,420 | 3,356 | 1,803 | 1,348 | 12,846 | 6,507 |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male. | 118,009 | 1,541 | 4,516 | 16,483 | 42,162 | 24,092 | 15,072 | 13,059 | 22,540 | 52,223 |
| Fermale | 125,523 | 1,539 | 4,563 | 18,702 | 49,275 | 26,377 | 13,830 | 10,174 | 24,804 | 50,381 |
| Race |  |  |  |  |  |  |  |  |  |  |
| White | 205,312 | 2,106 | 7,228 | 28,235 | 77,434 | 42,787 | 25,435 | 20,359 | 37,570 | 88,582 |
| Black | 29,891 | 627 | 1,473 | 6,071 | 11,845 | 6,105 | 2,094 | 1,327 | 8,171 | 9,525 |
| Other | 8,329 | 347 | 377 | 878 | 2,158 | 1,577 | 1,372 | 1,547 | 1,603 | 4,497 |
| Family income |  |  |  |  |  |  |  |  |  |  |
| Less than \$5,000. | 9,367 | 417 | 849 | 2,805 | 3,126 | 1,800 | 196 | 141 | 4,071 | 2,137 |
| \$5,000-\$9,999 | 16,819 | 795 | 1,844 | 5,608 | 5,665 | 2,148 | 417 | 266 | 8,247 | 2,832 |
| \$10,000-\$14,999. | 19,015 | 454 | 1,636 | 5,059 | 7,898 | 2,779 | 760 | 363 | 7,149 | 3,901 |
| \$15,000-\$24,999. | 41,201 | 465 | 1,654 | 7,365 | 18,812 | 8,048 | 3,026 | 1,703 | 9,485 | 12,777 |
| \$25,000-\$34,999. | 37,542 | 203 | 609 | 3,826 | 16,511 | 9,495 | 4,286 | 2,530 | 4,638 | 16,310 |
| \$35,000-\$49,999. | 39,450 | 95 | 347 | 2,552 | 14,917 | 9,859 | 6,574 | 5,012 | 2,994 | 21,444 |
| \$50,000 or more | 40,752 | 34 | 224 | 1,235 | 9,438 | 9,405 | 9,794 | 10,575 | 1,494 | 29,773 |
| Hispanic origin |  |  |  |  |  |  |  |  |  |  |
| Hispanic | 21,017 | 1,328 | 3,075 | 4,348 | 6,685 | 3,271 | 1,238 | 956 | 8,751 | 5,465 |
| Non-Hispanic | 220,297 | 1,738 | 5,964 | 30,646 | 84,240 | 46,878 | 27,509 | 22,119 | 38,348 | 96,507 |
| Poverty status |  |  |  |  |  |  |  |  |  |  |
| In poverty | 26,053 | 1,313 | 2,684 | 7,820 | 9,368 | 3,909 | 577 | 278 | 11,817 | 4,765 |
| Not in poverty. | 195,674 | 1,199 | 4,763 | 22,335 | 73,931 | 43,429 | 27,298 | 22,163 | 28,297 | 92,889 |
| Geographic region |  |  |  |  |  |  |  |  |  |  |
| Northeast | 48,930 | 433 | 1,522 | 7,250 | 18,559 | 8,954 | 6,256 | 5,549 | 9,206 | 20,759 |
| Midwest | 59,540 | 195 | 1,232 | 8,065 | 24,969 | 12,627 | 6,994 | 5,066 | 9,492 | 24,687 |
| South | 83,148 | 1,373 | 4,130 | 14,004 | 30,996 | 16,012 | 8,949 | 6,975 | 19,507 | 31,935 |
| West | 51,913 | 1,079 | 2,195 | 5,866 | 16,913 | 12,876 | 6,703 | 5,643 | 9,139 | 25,222 |
| Place of residence |  |  |  |  |  |  |  |  |  |  |
| MSA. | 189,860 | 2,358 | 6,833 | 25,705 | 68,438 | 40,294 | 24,601 | 19,837 | 34,895 | 84,732 |
| Central city | 74,410 | 1,424 | 3,750 | 11,878 | 25,576 | 15,456 | 8,527 | 7,052 | 17,052 | 31,035 |
| Not central city. | 115,450 | 934 | 3,083 | 13,827 | 42,862 | 24,838 | 16,074 | 12,785 | 17,844 | 53,697 |
| Not MSA. | 53,672 | 722 | 2,246 | 9,480 | 22,999 | 10,175 | 4,300 | 3,396 | 12,447 | 17,871 |
| All persons 18 years of age and over | 179,529 | 2,502 | 7,475 | 28,196 | 68,304 | 35,533 | 20,480 | 15,277 | 38,174 | 71,290 |
| Major activity ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Working | 111,721 | 694 | 2,569 | 12,623 | 44,290 | 23,890 | 15,235 | 11,543 | 15,885 | 50,668 |
| Keeping house. | 33,073 | 720 | 2,291 | 8,322 | 13,529 | 4,636 | 2,283 | 1,018 | 11,332 | 7,938 |
| Going to school | 10,306 | 59 | 118 | 542 | 2,605 | 4,023 | 1,371 | 1,525 | 719 | 6,919 |
| Other | 23,192 | 993 | 2,395 | 6,454 | 7,482 | 2,808 | 1,451 | 1,124 | 9,842 | 5,383 |
| Marital status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Married, living with spouse. | 113,369 | 1,289 | 4,272 | 16,994 | 45,002 | 21,562 | 13,300 | 10,214 | 22,554 | 45,077 |
| Never married. . | 34,309 | 453 | 826 | 3,660 | 12,153 | 8,682 | 4,957 | 3,288 | 4,939 | 16,927 |
| Other | 31,033 | 755 | 2,368 | 7,488 | 10,961 | 5,214 | 2,194 | 1,739 | 10,611 | 9,148 |
| Employment status ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |
| Currently employed | 117,227 | 704 | 2,567 | 12,678 | 45,666 | 26,187 | 166,152 | 12,371 | 15,949 | 54,710 |
| Unemployed. . | 4,714 | 33 | 178 | 904 | 1,908 | 920 | 405 | 329 | 1,115 | 1,653 |
| Not in labor force | 57,588 | 1,766 | 4,730 | 14,614 | 20,730 | 8,426 | 3,923 | 2,577 | 21,110 | 14,927 |

${ }_{2}^{1}$ includes unknown education.
${ }^{2}$ Includes unknowns of sociodemographic characteristics.
${ }^{3}$ For persons 18 years of age and over.
NOTE: MSA is metropolitan statistical area.

## Appendixes

Contents ..... $\exists$
I. Technical notes on methods ..... 38
Age standardization ..... 38
Reliability of the estimates ..... 38
II. Definitions of certain terms used in this report ..... 40
Terms relating to conditions ..... 40
Terms relating to disability ..... 40
Terms relating to physician contacts ..... 41
Terms relating to hospitalization ..... 42
Demographic terms. ..... 42
III. Questionnaire and flashcards ..... 45
Appendix table
I. Estimated standard error parameters and 30 -percent relative standard error cutoff points for the National Health Interview Survey, 1989 ..... 38

## Appendix I Technical notes on methods

## Age standardization

The method used to age standardize estimates is described above under Presentation of the results.

## Reliability of the estimates

To produce approximate standard errors for National Health Interview Survey (NHIS) estimates, the reader must first determine the type of characteristic to be estimated, that is, the parameter set in table I 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.

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 adjusted to U.S. Bureau of the Census estimates, then its standard error is assumed to be 0.0 . This corresponds to parameter set VIII in table I. As an example, this would be the case for the number of persons in the U.S. target population or the number of males $18-44$ years of age.

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, are approximated using the parameters provided in table $I$ and in formula 1 below.

If the aggregate $x$ for a characteristic has associated parameters $a$ and $b$, then $\operatorname{SE}(x)$, the approximate standard error for $x$, can be computed using the formula

$$
\begin{equation*}
\mathrm{SE}(x)=\sqrt{a x^{2}+b x} \tag{1}
\end{equation*}
$$

Rule 2. For rates, proportions, and percents when the denominator is generated by the poststratification age-sex-race classes - In this case, the denominator has no sampling error. For example, rule 2 would apply to the estimated number of bed days per person for black persons ages 65 years and over because the denominator is a combination of the poststratification cells. Approximate standard errors for such estimates can be computed using table I $a$ and $b$ parameters associated with the numerator characteristics along with formula 2 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

$$
\begin{equation*}
\mathrm{SE}(p)=p \sqrt{a+\frac{b}{x}} \tag{2}
\end{equation*}
$$

Rule 3. 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 I associated with the

Table I. Estimated standard error parameters and 30-percent relative standard error (RSE) cutoff points for the National Health Interview Survey, 1989

| Parameter set | Characteristic | Estimated parameters |  | 30-percent RSE cutoff points ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | $a$ | $b$ |  |
| 1 | Number of acute conditions. | 0.000225 | 67,800 | 755,000 |
| 11 | Days of restricted activity or bed days | 0.000363 | 475,000 | 5,300,000 |
| III | Prevalence of chronic conditions. . . . | 0.0000893 | 12,200 | 136,000 |
| N | Number of physician contacts based on a 2-week reference period | 0.0000282 | 166,000 | 1,800,000 |
| $V$ | Hospital discharges based on a 6-month reference period. | 0.000187 | 6,220 | 69,000 |
| VII | Hospital discharge days based on a 6-month reference period | 0.00194 | 82,300 | 935,000 |
| VII | Population estimates for demographic, socioeconomic, and health characteristics | 0.0000307 | 3,640 | 41,000 |
| VIII | Age-sex-race population based on combining the poststratification cells | 0.0 | 0.0 | 41,000 |

[^4]numerator characteristics, and $y$ is the number of persons in the denominator upon which $p$ is based, then the standard error of $p$ may be approximated by
\[

$$
\begin{equation*}
\mathrm{SE}(p)=\sqrt{\frac{b p(100-p)}{y}} \tag{3}
\end{equation*}
$$

\]

(If $p$ is a proportion, then the above formula can be used, but with 100 replaced by 1.0.)
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
$\mathrm{SE}(p)=$
$p \sqrt{\frac{\operatorname{SE}(x)^{2}}{x^{2}}+\frac{\operatorname{SE}(y)^{2}}{y^{2}}-2 r \frac{\operatorname{SE}(x)}{x} \frac{\operatorname{SE}(y)}{y}}$
where $S E(x)$ and $S E(y)$ 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 $\left(x_{1}-x_{2}\right)$ can be computed as follows:
$\mathrm{SE}\left(x_{1}-x_{2}\right)=$
$\sqrt{\mathrm{SE}\left(x_{1}\right)^{2}+\operatorname{SE}\left(x_{2}\right)^{2}-2 r \operatorname{SE}\left(x_{1}\right) \operatorname{SE}\left(x_{2}\right)}$
where $S E\left(x_{1}\right)$ and $S E\left(x_{2}\right)$ 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.
Prior to 1985, relative standard error (RSE) curves were presented in Current estimates reports 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:

$$
\mathrm{RSE}=100 \frac{\mathrm{SE}(x)}{x}
$$

## 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.

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.

Chronic condition-A condition is considered chronic if (a) the respondent indicates it was first noticed more than 3 months before the reference date of the interview, or (b) 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.

Acute condition-A condition is considered acute if (a) it was first noticed no longer than 3 months before the reference date of the interview and (b) it is not one of the conditions considered chronic regardless of the time of onset. (See definition of chronic condition.) However, any
acute condition not associated with either at least one doctor visit or at least one day of restricted activity during the reference period is considered to be of minor consequence and is excluded from the final data produced by the survey.

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

Incidence of conditions - The incidence of a condition is the number of cases that had their onset during a specified period of time. A person may have more than one acute condition during a period of time or may have the same condition, such as a headache, more than once. Ordinarily, however, a chronic condition can begin only one time during a given reference period.

Prevalence of conditions - The prevalence of a condition is the number of persons who have the condition at a given point in time. Although the prevalence of acute conditions is a meaningful concept, it is seldom used in health statistics, which generally focus on the incidence of acute conditions. If the prevalence of a chronic condition is measured during a period of time (say, each week during a year), then the resulting estimate of prevalence is an average of 52 weekly prevalence estimates. This is called an average annual point prevalence estimate.

## 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 because of 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 shortterm 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 (a) ordinary play for children under 5 years of age, (b) attending school for those 5-17 years of age, (c) working or keeping house for persons 18-69 years of age, and (d) capacity for independent living (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 aged 18-69 years 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 of age 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: (a) unable to perform the major activity, (b) able to perform the major activity but limited in the kind or amount of this activity, (c) not limited in the major activity but limited in the kind or amount of other activities, and (d) not limited in any way. In regard to these four categories, NHIS publications often classify persons only by whether they are limited (groups a-c) or not limited (group d). 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 cutdown 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 cut down for more than half a day on the things he or she usually did.

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 because of an illness.

The number of restricted-activity days is the number of days on which 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 because of a mild illness.

A single restricted-activity day may involve both a bed day and a work-loss or school-loss day. However, a cutdown 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 days during which a person restricted his or her activity. Condition days are 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 (a) both (all) acute, (b) one (some) acute and the other (some) chronic, or (c) both (all) chronic. The number of restricted-activity days associated with acute conditions includes groups (a) and (b); the number of such days associated with chronic conditions includes groups (b) and (c). 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.

Assessed health status - The categories related to this concept result from asking the respondent, "Would you say $\qquad$ 's health is excellent, very good, good, fair, or poor?" As such, it is based on a respondent's opinion and not directly on any clinical evidence.

## 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 (a) named in the listing of hospitals in the current American Hospital Association Guide to the Health Care Field or (b) found on the Master Facility Inventory List maintained by the National Center for Health Statistics.

Short-stay hospital-A short-stay hospital is one in which the type of service provided is general; maternity; eye, ear, nose, and throat; children's; or osteopathic, or it may be the hospital department of an institution.

Hospital day-A hospital day is a day on which a person is confined to a hospital. It is counted as a hospital day only if the patient stays overnight. Thus a patient who enters the hospital on Monday afternoon and leaves Wednesday noon is considered to have had two hospital days.

Hospital discharge - A hospital discharge is the completion of 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. A hospital discharge is recorded whenever a present member of the household is reported to have been discharged from a hospital in the 12 -month period prior to the interview week. (Estimates were based on discharges that occurred during the 6 -month period prior to the interview.)

## 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.

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 income.

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

Geographic region-For the purpose of classifying the population by geographic area, the States are grouped into four regions. These regions, which correspond to those used by the U.S. Bureau of the Census, are as follows:

Region
Northeast

Midwest

## States included

Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

Michigan, Ohio, Illinois, Indiana, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

South Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

West Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Hawaii, and Alaska.

Place of residence - The place of residence of a member of the civilian noninstitutionalized population is classified as inside a metropolitan statistical area (MSA) or outside an MSA. Place of residence inside an MSA is further classified as either central city or not central city.

Metropolitan statistical area - The definition and titles of MSA's are established by the U.S. Office of Management and Budget with the advice of the Federal Committee on Metropolitan Statistical Areas. Generally speaking, an MSA consists of a county or group of counties containing at least one city (or twin cities) having a population of 50,000 or more plus adjacent counties that are metropoli$\tan$ in character and are economically and socially integrated with the central city. In New England, towns and cities rather than counties are the units used in defining MSA's. There is no limit to the number of adjacent counties included in the MSA as long as they are integrated with the central city, nor is an MSA limited to a single State; boundaries may cross State lines. The
metropolitan population in this report is based on MSA's as defined in the 1980 census and does not include any subsequent additions or changes.

Central city of an MSA - The largest city in an MSA is always a central city. One or two additional cities may be secondary central cities in the MSA on the basis of either of the following criteria:

1. The additional city or cities must have a population one-third or more of that of the largest city and a minimum population of 25,000 .
2. The additional city or cities must have at least 250,000 inhabitants.

Not central city of an MSA - This comprises all of the MSA that is not part of the central city itself.

Not in an MSA - This comprises all other places in the country.

Currently employed -Persons 18 years of age and over who reported that at any time during the 2 -week period covered by the interview they either worked at or had a job or business are currently employed. Current employment includes paid work as an employee of someone else; self-employment in business, farming, or professional practice; and unpaid work in a family business or farm. Persons who were temporarily absent from a job or business because of a temporary illness, vacation, strike, or bad weather are considered currently employed if they expected to work as soon as the particular event causing the absence no longer existed.

Freelance workers are considered currently employed if they had a definite arrangement with one employer or more to work for pay according to a weekly or monthly schedule, either full time or part time.

Excluded from the currently employed population are persons who have no definite employment schedule but work only when their services are needed. Also excluded from the currently employed population are (a) persons receiving revenue from an enterprise but not participating in its operation; (b) persons doing housework or charity work for which they received no pay; (c) seasonal workers during the portion of the year they were not working; and (d) persons who were not working, even though having a job or business, but were on layoff and looking for work.

The number of currently employed persons estimated from NHIS will differ from the estimates prepared from the Current Population Survey (CPS) of the U.S. Bureau of the Census for several reasons. In addition to sampling variability, they include three primary conceptual differences:

1. NHIS estimates are for persons 18 years of age and over; CPS estimates are for persons 16 years of age and over.
2. NHIS uses a 2 -week reference period; CPS uses a 1 -week reference period.
3. NHIS is a continuing survey with separate samples taken weekly; CPS is a monthly sample taken for the survey week, which includes the 12 th of the month.

Currently unemployed-Persons 18 years of age and over who during the 2 -week period prior to interview did not work or had no job or business but were looking for work and those who had a job but were on layoff or were looking for work are considered currently unemployed.

Not in labor force-Persons not in the labor force include those under 18 years of age and those who did not at any time during the 2 -week period covered by the interview have a job or business, were not looking for work, and were not on layoff from a job. In general, persons excluded from the labor force are children under the age of 18 , retired persons, physically handicapped persons unable to work, and housewives or charity workers who receive no pay.

Hispanic origin-A person is Hispanic if any of the following groups describes his or her national origin or ancestry-Puerto Rican, Cuban, Mexican, Mexicano, Mexican American, Chicano, other Latin American, or other Spanish. Respondents make this determination by looking at a flashcard that contains the above-listed Hispanic groups and deciding whether any of them are the person's national origin or ancestry. The Hispanic population consists of all Hispanic people regardless of race.

NHIS poverty level-Persons are classified as being above or below the poverty level according to the poverty index originated at the Social Security Administration in 1964 and revised by the Federal Interagency Committees in 1969 and 1980. The poverty index is based solely on money income and does not reflect the fact that many low-income persons receive noncash benefits, such as food stamps, Medicaid, and public housing. The index is based on the Department of Agriculture's 1961 economy food plan and reflects the different consumption requirements of families according to their size and composition. The poverty thresholds are updated every year to reflect changes in the Consumer Price Index. Because NHIS data on family income are collected by income category rather than in specific amounts of money, the NHIS estimates of persons living in poverty will vary slightly from the Current Population Survey estimates.

Major activity - The categories of major activity shown in this report are derived from answers to the following question: "What was ___ doing most of the past 12 months; working at a job or business, keeping house, going to school, or something else?"

Marital status - Persons are classified as married only if they are living with their spouse. All other persons are classified as never married or other. "Other" includes married persons not living with their spouses, and widowed, separated, and divorced persons.

Education-The categories of educational status are based on the years of school completed. Only years completed in regular school, where persons are given a formal education, are included. A "regular" school is one that advances a person toward an elementary or high school diploma or a college, university, or professional school degree. Thus, education in vocational, trade, or
business school outside the regular school system is not counted in determining the highest grade of school completed.

The most detailed operational definitions of all of
these terms are found in the NHIS Interviewer's Manual (6). Instructions are given in the manual on how problem cases associated with each concept are to be handled.

## Appendix III Questionnaire and flashcards




| B. LIMITATION OF ACTIVITIES PAGE |  |  |  |
| :---: | :---: | :---: | :---: |
| 81 | Refer to age. | 81 | $\begin{aligned} & 1 \square 18-89(9) \\ & 2 \square \text { Other (NP) } \end{aligned}$ |
| 1. What was --doing MOST OF THE PAST 12 MONTHS; working at a job or business, keaplng house, going to school, or something else? <br> Priority if 2 or more activities reported: (1) Spent the most time doing; (2) Considers the most important. |  | 1. | $1 \square$ Working (2) <br> $2 \square$ Keeping house (3) <br> $3 \square$ Going to sehool (5) <br> $4 \square$ Something else (5) |
| 2a. Does any impairment or health problem NOW keop - - from working at a Job or business? <br> b. Is - - limited in the kind OR amount of work -- can do because of any impairment or health problem? |  | 2a. |  |
| 3a. Does any lmpeirment or health problem NOW keep - from doing any housowork at all? <br>  or hoalth problem? |  | 3a. |  |
| 4a. What (other) condition causes this? <br> Ask if injury or operation: When did [the (injury) occur?]-- have the operation?] <br> Ask if oporation over 3 months ago: For what condition did -- have the operation? <br> If pregnancy/dalivary or O-3 months injury or operation - <br> Roask question 3 where limitation reported, saying: Except for -- (condition), . . . 7 <br> OR reask 4b/c. |  |  | (Enter condition in C2, THEN 4b) Old age (Mark "Old age" box, THEN 4C) |
| b. Besidez (condition) is there any other condition that causes this limitation? <br> c. Is this limitation caused by any (other) specific condition? |  | - | Yes (Reask 4 and $b$ ) No (4d) |
|  |  | c. | $\square$ Yes (Reask 40 and $b$ ) No |
| Mark box if anly one condition. <br> d. Which of these conditions would you say is the MAIN eause of this ifmitation? |  | d. | Oonly 1 condition |
| 5m. Does any Impairment or hasith problem keop - - from working at a job or businase? <br> b. Is -二- limited in the kind or amount of work ---could do because of any Impairment or hasth problem? |  | 5a. |  |
| B2 | Refer to questions 3a and 3b. | B2 | 1号"Yas" in 3a or 3b (NP) <br> $2 \square$ Other (6) |
| 6m. Is -- limited in ANY WAY in any activities because of an impairmant or health probiem? <br> b. In what way ls ---limited? |  | 6n. | ${ }_{1} \square_{\text {Yes }}{ }^{2}$ ПNoiNPI |
| 7a. What (other) condition causes this? <br> Ask if injury or operation: Whan did [the finiunyl oceur?/- - have the operatlon7] <br> Ask if operation over 3 months ago: For what condition did - - have the operation? <br> If pregnancy/dalivery or 0-3 months injury or aperation - <br> Reask question 2, 5, or 6 where limitation reported, saying: Except for - (condition). . . . $?$ <br> OR reask $7 \mathrm{~b} / \mathrm{c}$. <br> b. Besides (condition) le there any othor condition that causes this limitation? <br> c. Is this timitation caused by min (othor) specific condition? <br> Mark box ff only one condition. <br> d. Which of these condifions would you say is the MAIN cause of this fimitation? |  | 7n. | $\begin{gathered} \text { Limitation } \\ \hline \text { (Enter condition in C2, THEN 7bl } \\ \text { ( Oid age (Mark "Old age" box. } \\ \text { THEN } \mathrm{Cc} \text { ) } \end{gathered}$ |
|  |  | b. | Yes (Reask 7s and bl No (7d) Yes (Rasak 7e end No |
|  |  | d. | $\qquad$ |

\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{2}{|r|}{B. LIMITATION OF ACTIVITIES PAGE, Continued} \& \& \\
\hline 83 \& Refer to age. \& 83 \& \[
\begin{aligned}
\& 0 \square \text { Under } 5 \text { (for) } 2 \square 18-69 \text { (NP) } \\
\& 1 \square_{5-17(11)} 3\lceil 70 \text { nnd } \\
\& \text { over (8) }
\end{aligned}
\] \\
\hline \multicolumn{2}{|l|}{\begin{tabular}{l}
8. What was -- doing MOST OF THE PAST 12 MONTHS; working at a Job or business, keeping house, going to schoot, or something else? \\
Priority if 2 or more activities reported; (1) Spent the most time doing; (2) Considers the most important.
\end{tabular}} \& 8. \& \begin{tabular}{l}

Working
Keeping houso <br>
3 - Going ro schbol <br>
[] Something else
\end{tabular} <br>

\hline \multicolumn{2}{|l|}{| 9n. Because of any impairment or health problem, does - - nead the help of other persons with - porsonal cara needs, such as eating, bathing, dressing, or getting around this homa? |
| :--- |
| b. Becruse of any impairmant or health probiom, dös - - need the hëlp of óther persons in handing -- routina neods, such as evoryday household chores, dolng necessary business, shopping, or gotting around for other purposes? |} \& 9n. \&  <br>


\hline \multicolumn{2}{|l|}{| 10a. ls - - able to take part AT ALL in the usual kinds of play activitios dono by most children - - ago? |
| :--- |
| b. İs--imited ìn tho kind ór amount of play activitios -- can do bocause of any impairment or haalth problom? |} \& 10a. \&  <br>


\hline \multicolumn{2}{|l|}{| 11a. Does any impsirment or health problem NOW keep - - from attending school? |
| :--- |
|  |
|  health problem? |
| d. is - limited in school attendancé bocause of - health? |} \&  \&  <br>


\hline \multicolumn{2}{|l|}{| 12a. 1s - - limited in ANY WAY in any activities because of an impairment or health problem? |
| :--- |
| 6. In what way is -こ limited? |
| Record limitation, not condition. |} \& 12a. \&  <br>


\hline \multicolumn{2}{|l|}{| 13a. What (ather) condition causes this? |
| :--- |
| Ask if injury or operation: When did [the (injury/ occur?/-- have the oparation?] |
| Ask if operation over 3 months ago: For what condition did -- have the operation? |
| If pregnancy/delivery or 0-3 months injury or operation - |
| Ressk question where limitation reported, saying: Except for - - (condition), ...? OR reask $13 \mathrm{~b} / \mathrm{c}$. |
| b. Besides (condition) lis there any othor condition that causes this limitation? |
| c. Is this limitation caused by any (other) spocific condition? |
| Mark box if only one condition. |
| d. Which of these conditions would you say is the MAIN cause of this limitation? |} \&  \& | (Enter condition in C2, THEN 13b) |
| :--- |
| 1 Old age /Mark "Old age" box, THEN 13C) Yes (Reask 13 e and b) No (13d) Yes (Rioask 13s and b) No Only 1 condtion | <br>

\hline \multicolumn{4}{|l|}{FOOTNOTES} <br>
\hline
\end{tabular}

| B. LIMITATION OF ACTIVITIES PAGE, Continued |  |  |  |
| :---: | :---: | :---: | :---: |
| 84 | Refer to age. | B4 |  |
| 85 | Refer to "Old age" and "LA" boxes. Mark first appropriate box. | B5 | "Old age" box marked (14) Entry in "LA" box (14) Other (NP) |
| 14a. Because of any impairment or health problom, does - - need the help of other parsons with ——parional care needs, such as eating, bathing, dressing, or getting around this home? <br> If under $\overline{18}$, skip to next person; otherwise ask: <br> b. Because of any impairment or health problom, does - - need the help of other persons in handing -- routine noods, such as everyday household chores, doing necessary business, shopping, or gotting around for other purposes? |  |  |  |
| 15s. What (other) eondition causes this? <br> Ask if injury or operstion: When did [the (injury) occur7)-- have the operation?] <br> Ask if operation over 3 months ago: For what condition did -- have the operation? <br> If pregnancy/delivery or O-3 months injury or operation - <br> Reask question 14 where limitation reported, saying: Except for - - (condition). . . . $?$ <br> OR reask $15 \mathrm{bb} / \mathrm{c}$. |  |  | (Enter condition in CZ. THEN 156) $\square$ Ohd age fMmk "OKd nge" box, THEN 15cl |
| 6. Besides (condition) le there any other condition shat causes this limitation? <br> c. Ts this imitation caused by any (other) specific condition? <br> Mark box if only one condition. |  | - $\overline{\mathbf{c}}$. |  |
|  |  | d. | Donly 1 condrion |
| d. Which of these conditions would you say is the MAIN eause of this limitation? |  |  | Main eause |





\begin{tabular}{|c|c|c|}
\hline G. HEALTH INDICATOR PAGE \& \& \\
\hline 1a. During the 2-week pariod outlined in red on that calender, has anyone in the family had an injury from an accident or othar cause that you heve not yat told me about?
\(\square\) Yes No (2) \& \& \\
\hline b. Who was this? Mark "injury" box in person's column. \& 15. \& - \(\square_{\text {Injury }}\) \\
\hline \begin{tabular}{l}
c. What was -- injury? \\
Enter injuryfies) in person's column.
\end{tabular} \& c. \& Injury \\
\hline d. Did anyone have any other injurles during that period? \& \& \\
\hline \(\square \square\) Yes (Reask tb, c, and d) DNo \& \& \\
\hline \begin{tabular}{l}
Āsk for esach injury in \(\overline{1} \bar{c}\) : \\
©. As m result of the (injury in 1c) did [--/anyone] sec or talk to a medical doctor or assistant (nbout --) or did - - cut down on -- usual metivities for more than half of a day?
\end{tabular} \& - \& Yes (Enfer injury in C2. THEN ta for next injury)
No (fe for next injury) \\
\hline 2. During the past 12 months, (that is, since (12-month date) y year ago\} ABOUT how many days did illness or injury keap - - in bedi more than half of the day? (Include days while an ovarnight patient in a hospital.) \& 2. \& \({ }^{200} \square_{\text {None }}\)
\(\qquad\) No. of days \\
\hline \begin{tabular}{l}
3a. During the past 12 months, ABOUT how many times did [--/anyonel see or talk to a medical doctor or assistant (about --)? (Do not count doctors seen while an overnight patient in a hospital.) (Include the (number in 2-WK DV box) visit(s) you already told me abou々.) \\
b. Abouthow Iong has it bean sinca \(\mathfrak{f}\)--lanyonajlast saw or talked to a medical doctor or assistant (about - -) Include doctors seen while a patient in a hospitul.
\end{tabular} \& 3a. \& \begin{tabular}{l}
\(000 \square\) \(\square\) None (3b) \\
000 \(\qquad\) \(\}(N P)\)
\(\qquad\) No. of visits

$\square$ Interview week (Reusk 3b)
Less than 1 Yr. (Reask 3a)
1 yr., less than 2 yrs.

yra., tess than 5 yrs.
5 yrs. or more
$\square$ Never
\end{tabular} <br>

\hline 4. Would you say - - health in general is exceltent, very good, good, falr, or poor? \& 4. \& | 1 $\square_{\text {Excellent }}$ Qfair |
| :--- |
| $2 \square$ very pood $5 \square$ Poor |
| ${ }_{3} \square$ Good | <br>


\hline | Mark box if under 18. |
| :--- |
| 5a. About how fall is -- without shoes? | \& 5. \& $\square$ <br>

\hline \& \& _ Pounds <br>
\hline FOOTNOTES \& \& <br>
\hline
\end{tabular}





| J. HOSPITAL PAGE |  |  | hospital stay 1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Refer to C1, "HOSP." box. |  |  | 1. | PERSON NUMBER _____ |  |  |
| 2. You said aerlier that - - was a patient in the hospltal since (13-month hospitel dare) a year ego. On what date did -- enter the hospital ([the last time/the time bufore that])? Record each entry date in a separate Hospital Stay column. |  |  | 2. | Month | Dite | Year <br> 19 |
| 3. How many nighte was -- in the hospltal? |  |  | 3. | 0000 $\qquad$ | (Next HS) ghts |  |
| 4. For what condition did -- enter the hospital? <br> - For delivery ask: <br> Was this a normal dellivery? <br> "f "No," ask: <br> What was the matter? <br> - For newborn ask: <br> Was the baby normal at birth? <br> /f "No." ask: <br> What was the matter? <br> - For initial "No conditian" ask: Why did -- enter the hospitai? <br> - For fests, ask: What were the results of the teste? If no results, ssk: Why were the tests performed? |  |  | 4. |  | $\left.\begin{array}{l} \text { al dollivery } \\ \text { al ni Lith } \end{array}\right\} \text { (5) }$ |  |
| \1 Refar to questions 2, 3, and 2-week reference period. |  |  | $J 1$ |  | ane night in 2 nce period /Ent THEN 5) <br> hts in 2 -weak ref | week condition ance period (5) |
| 5a. Did - - have any kind of surgery or operation during this atay in the hospital, including bona settinge and stitches? <br> b. What was the name of the surgery or operation? <br> If name of operation not known, describe what was done. <br> c. Wan therenny other aurgery or oporation during this stay? |  |  | 5 m . |  |  | $2 \square \mathrm{No}$ (6) |
|  |  |  | b. | (1) $\qquad$ <br> (2) $\qquad$ <br> 13) $\qquad$ |  |  |
|  |  |  | c. |  | heask 5b und C) | $\square \square_{0}$ |
| 6. What is the name and address of this hospital? |  |  | 6. | Mama |  |  |
|  |  |  | Number |  |  |
|  |  |  | City or C | - | State |
| FOOTNOTES |  |  |  |  |  |  |



Paga 28

K1 Rifer to AD and C2． 1 $\square$＂Yas＂in＂AD＂box AND more than 1 condition in C 2 （ 6 ${ }^{\square} \square$ Other（ $K 2$ ）
6e．During the 2 waeks outlined in red on that calendar，did－ fcondition／cause－－to cut down on the things－－ubuilly does？

b．During that period，how many daye did－ニーcut down formora than half of the day？

$$
\text { © } \square_{\text {None (K2) }} \text { _—_Daya }
$$

7．During those $\mathbf{2}$ wesks，how many days did－－stay in bed for more than half of the day bacause of this condition？

$$
\text { 00 } \square \text { None _Do_ Days }
$$

Ask if＂Wa／Wb＂box marked in C1：
3．During those 2 waeks，how many days did－－mise more than hall of the day from－－job or buainasy because of this condition？

$$
\text { OOLNone } \quad \text { Days }
$$

Ask if age 5－17：
9．Durlng those 2 weoks，how many daye did－miam more than half of the day from achool because of this condition？


10．About how many days since（12－month date）y yoar ago，has this condition kept－－In bed more than half of the day？（Include daye while an overnight putlent in a hospltil．）
ooo $\square$ None Days

11．Was－－ever hospltallzed for - －（condition in 3bl？

|  | ${ }^{1}$ DYos ${ }^{\text {2 }}$［ No |
| :---: | :---: |
| K3 | $\begin{aligned} & \square \text { Mlsalng extramily or organ (K4) } \\ & \square \text { Other (12) } \end{aligned}$ |

12a．Does－－still have this condition？

$$
\text { [IVYez (KA) } \square \text { No }
$$

b．Is this condition completely cured or isit under control？

$$
\begin{aligned}
& 2 \square \text { Cured } \\
& 3 \square \text { Under contral (K4) }
\end{aligned}
$$ $=0 \times 11$

c．About how long dild ニニ have this condition before tiwas cured？
000 Lese than 1 month
On $\qquad$ \｛ 1 Monshs

d．Was thls condition prosent at any time during the patt 12 months？
$\square$ Yos
$0 \square$ Not en accidentinjury（NC）
$1 \square$ First accident／injury for this person（14）
$\square$ Other（13）

3．Is this（condition in $3 b /$ the result of the same accident you aiready told me about？
$\square$ Yes（Record condition pege number where
$\square$ No $\rightarrow \frac{}{\text { Page Na．}}$（NC）
$\square$（Nunt

14．Where did the accident happen？
$1 \square$ At home（inslde thoute）
$2 \square$ At horne（edjacent promises）
$3 \square$ Street and highway fineludes roadiway and public sidewalk）
4．Farm
5 Industria！place fincluder premises）
$\square$ schoor（inchudes premises）
$7 \square$ Ptace of recreation and sports，except at schood
：Oher（Spacify）

Mark box if under $18 . \quad \square$ Under 18 （16）
5a．Was－－under 18 when the accicient happened？ ${ }^{1}$ 口 Yes（16）
$\square$ No
b．Was In the Armed Forces when the accident - －－－－－－－ $2 \square$ Yas（15）$\square \mathrm{N}_{0}$
 $3 \square$ Yas $\square$ No
16．Whe a car，truck，bus，or other motor vehicle involved in the accident In any way？

b．Was more than one vehicle involved？
1■ Yes＿－－－－－ $2 \square \mathrm{No}$
c．Was［it／either onel moving at the time？
$1 \square$ Yas $2 \square$ No
7．．At the time of the aceldent what part of the body was hurt？ What kind of injury wae ft？
Anything else7

| Partal of body＊ | Kind of injury |
| :---: | :---: |
|  |  |
|  |  |

Ask if box $3, \overline{4}$ ，or 5 marked in $\overline{0} .5$ ．
b．What part of the body is affected now？
How is－－（oart of body）affected？
How is－－offected in body other way？

| is 一－affected in any other way？ |
| :---: | :---: |
| Fert（s）of body ：Preaemt affects＊＊ |


| Fert（s）of body＊ | Presemt affects＊＊ |
| :---: | :---: |
|  |  |
|  |  |

－Enter part of body in same detail as for 3 g ．
－If multiple present offects，enter in C2 each one that is not the same as 3b or C2 and complete a separate condition page for it．


Page 42


| L.DEMOGRAPHIC BACKGROUND PAGE, Continued |  |  |  |
| :---: | :---: | :---: | :---: |
| 7. Is | box if under 14. If "Married" refer to household composition and mark accordingly. - now married, widowad, divorced, separated, or has -- never been married? | 7. |  |
|  | the total combined FAMILY income during the past 12 monthe - that is, yours, fread nomes, including d Forces members living st home/ more or less than $\$ \mathbf{2 0 , 0 0 0}$ ? Include monay from jobs, social security, ment income, unemployment paymenta, public mssistance, and so forth. Also Include income from est, dividends, net income from business, farm, or rent, and any other money income recoived. <br> if necessary: Income is important in analyzing the health information we collect. For example, thls rmation helps us to learn whether persons in one income group use cortain types of medical cara icas or have cartain conditions more or less ofton than those in anothar group. <br> d parenthetical phrase if Armed Forces member living at home or if necessary. <br> hose income groups, which letter best represents the total combined FAMILY income <br> ing the past 12 months that ls, yours, (read names, including Armed Forces members <br> gat home/f? Include wages, salaries, and othor ftems we just talked about. <br> dif necessary: Income is important in analyzing the health information we collect. For example, information helps us to learn whether persons in one income group use certain types of dical care sorvices or have certain conditions more or less often than those in another group. | 8a. | 120,000 of mora (Hisnd Cardi) $2 \square$ Less than $\$ 20,000$ (Hand Card J) |
| $R$ | a. Mark first appropriate box. <br> b. Enter person number of respondent. | Ra. b. | ```- Under 17 1\square Present for all questions \\square Present for some questions 3\square Not present``` Person number(s) of respondent(s) |
| 1.3 | Enter person number of first parent listed or mark box. | 13 | $\begin{aligned} & \text { Perxon number of parent } \\ & 00 \square \text { None in housethold } \end{aligned}$ |
| 14 | Enter person number of spouse or mark box. | L 4 | $\begin{aligned} & \text { Person number ol spouse } \\ & 00 \square \text { Norie in household } \\ & \hline \end{aligned}$ |
| FOOTN | ES |  |  |



## 1. DEMOGRAPHIC BACKGROUND PAGE, Continued



FOOTNOTES



## Reviews of

New Reports

# Current Estimates from the National Health Interview Survey, 1989 

Series 10, No. 176
(PHS) 90-0000
Authors: Adams, P.; Benson, V.
For information contact:
Sharon Ramirez
Scientific and Technical Information Branch 6525 Belcrest Road, Rm. 1064
Hyattsville, MD 20782
Tel: (301) 436-8500
Data from the 1989 National Health Interview Survey (NHIS) are now available in this year's edition of "Current Estimates from the National Health Interview Survey, 1989," an annual report of the National Center for Health Statistics.

As in previous editions, this report provides information on various health measures for all persons injured. These health measures include disability days, physician contacts, prevalence of chronic conditions, limitation of
activity, hospitalizations, and respondent-assessed health status. Estimates are presented for various groups in the population, including those defined by age, sex, race, family income, geographic region, and place of residence.

In 1989, the incidence rate of acute conditions was 181.3 per 100 persons. Approximately 61.6 percent of these conditions received some medical attention. Restricted activity days associated with the incidence of acute conditions totaled 749.1 days per 100 persons.

The reported chronic conditions with the highest prevalence rates per 1,000 persons in 1989 were sinusitis (138.3), arthritis (127.3), deformity or orthopedic impairment (114.9), and hypertension (113.6).

Overall, the 1989 estimates of respondent-assessed health status were similar to the estimates for 1987
and 1988. The percent of persons assessing their health as "excellent" or "very good" in 1989 was 39.7 and 28.1 percent, respectively. Only 2.6 percent of respondents assessed their health as "poor."

The NHIS is a continuous nationwide household survey of the civilian noninstitutionalized population of the United States. Data on health and other characteristics are obtained for each household member. 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 of this report.

Copies of the report can be obtained from the U.S. Government Printing Office by using the order form on the back of this release.

# Reviews of <br> New Reports <br> National Center for Health Statistics 

# Health Insurance and Medical Care: Health of Our Nation's Children, United States, 1988 

Advance Data No. 188
(PHS) 90-1250
Author: Bloom, B.
For information contact:
Sabra Lloyd
Scientific and Technical Information Branch 6525 Beicrest Road, Rm. 1064
Hyattsville, MD 20782
Tel: (301) 436-8500
Insurance coverage and health services for children are the topics of a new report, "Health Insurance and Medical Care," published by the National Center for Health Statistics.

Eighty-three percent of the Nation's children ages 17 years and under were covered by a health insurance plan in 1988. Overall, the proportion of white children covered ( 84 percent) was greater than the proportion of black children covered (81 percent). For infants under 1 year of age, however, there was no difference in health insurance coverage by race. Hispanic children of all ages were less likely to be covered by a health insurance plan (70 percent) than non-Hispanic children ( 85 percent). Hispanic infants were less likely to be covered
(62 percent) than non-Hispanic infants ( 83 percent).

Most children had a regular source of medical care in 1988. However, fewer black infants under 1 year of age had a regular source of medical care ( 80 percent) compared with white infants ( 92 percent). There was no difference in the proportions of Hispanic and non-Hispanic infants and toddlers with a regular source of routine medical care. At 5 years of age and over, however, Hispanic children were less likely to have a regular source of medical care than non-Hispanic children.

Where a child received medical care and how often a child visited a doctor depended on race and ethnicity. Black children were three times as likely as white children to receive routine care in a clinic setting. Nearly one-half of black infants under 1 year of age ( 47 percent) received routine medical care in a clinic setting, compared with 16 percent of white infants. Forty-eight percent of Hispanic infants, compared with 19 percent of non-Hispanic infants, received routine care in a clinic setting. Ninety-five percent of white
infants under 1 year of age had visited a doctor recently, compared with 88 percent of black infants.

Whether a child received private or clinic care and whether a child visited a doctor during the past. 12 months were also highly dependent on economic factors. Thirty-seven percent of children in families with annual incomes of less than $\$ 10,000$ received clinic care, compared with only 6 percent of children in families with incomes of $\$ 40,000$ or more. At all ages, more children in the highest income families than the lowest income families had a recent health visit.

This report is one of four Advance Data reports, subtitled "Health of Our Nation's Children," which present findings from the National Health Interview Survey on Child Health. Other reports are on child care arrangements; developmental, learning, and emotional problems; and exposure to environmental cigarette smoke. Single copies of this report can be obtained from the Scientific and Technical Information Branch.
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Public Health Service
Centers for Disease Control

## Vital and Health Statistics series descriptions

SERIES 1. Programs and Collecion Procedures-Reports describing the general programs of the National Center for Health Statistics and its offices and divisions and the data collection methods used. They also include definitions and other material necessary for understanding the data.

SERIES 2. Data Evaluation and Methods Research-Studies of new statistical methodology including experimental tests of new survey methods, studies of vital statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, and contributions to statistical theory. Studies also include comparison of U.S. methodology with those of other countries.
SERIES 3. Analytical and Epidemiological Studies-Reports presenting analytical or interpretive studies based on vita! and heaith statistics, carrying the analysis further than the expository types of reports in the other series.
SERIES 4. Documents and Committee Reporte-Final reports of major committees concerned with vital and health statistics and documents such as recommended model vital registration laws and revised birth and death certificates.
SERIES 5. Comparative International Vital and Health Statistics Reports-Analytical and descriptive reports comparing U.S. vital and health statistics with those of other countries.

SERIES 6. Cognition and Survey Measurement-Reports from the National Laboratory for Collaborative Research in Cognition and Survey Measurement using methods of cognitive science to design, evaluate, and test survey instruments.

SERIES 10. Data From the National Health Interview Survey Statistics on illness, accidental injuries, disability, use of hospital, medical, dental, and other services, and other health-related topics, all based on data collected in the continuing national household interview survey.
SERIES 11. Data From the National Health Examination Survey and the National Health and Nutrition Examination Survey Data from direct examination, testing, and measurement of national samples of the civilian noninstitutionalized population provide the basis for (1) estimates of the medically defined prevalence of specific diseases in the United States and the distributions of the population with respect to physical, physiological, and psychological characteristics and (2) analysis of relationships among the various measurements without reference to an explicit finite universe of persons.
SERIES 12. Data From the Institutionalized Population SurveysDiscontinued in 1975. Reports from these surveys are included in Series 13.

SERIES 13. Data on Health Resources Utilization-Statistics on the utilization of health manpower and facilities providing longterm care, ambulatory care, hospital care, and family planning services.

SERIES 14. Data on Health Resources: Manpower and Facilities Statistics on the numbers, geographic distribution, and characteristics of health resources including physicians, dentists, nurses, other heaith occupations, hospitals, nursing homes, and outpatient facilities.

SERIES 15. Data From Special Surveys-Statistics on health and health-related topics collected in special surveys that are not a part of the continuing data systems of the National Center for Health Statistics.

SERIES 16. Compilations of Advance Data From Vital and Health Statistics-These reports provide early release of data from the National Center for Health Statistics' health and demographic surveys. Many of these releases are followed by detailed reports in the Vital and Heath Statistics Series.

SERIES 20. Data on Mortality-Various statistics on mortality other than as included in regular annual or monthly reports. Special analyses by cause of death, age, and other demographic variables; geographic and time series analyses; and statistics on characteristics of death not available from the vital records based on sample surveys of those records.
SERIES 21. Data on Natality, Marriage, and Divorce-Various statistics on natality, marriage, and divorce other than as included in regular annual or monthly reports. Special analyses by demographic variables; geographic and time series analyses; studies of fertility; and statistios on characteristics of births not available from the vital records based on sample surveys of those records.
SERIES 22. Data From the National Mortality and Natality Surveys Discontinued in 1975. Reports from these sample surveys based on vital records are included in Series 20 and 21, respectively.
SERIES 23. Data From the National Survey of Family Growth Statistics on fertility, family formation and dissolution, family planning, and related maternal and infant health topics derived from a periodic survey of a nationwide probability sample of women 15-44 years of age.

SERIES 24. Compilations of Data on Natality, Mortality, Marriage, Divorce, and Induced Terminations of PregnancyAdvance reports of births, deaths, marriages, and divorces are based on final data from the National Vital Statistics System and are published annually as supplements to the Monthly Vital Statistics Report (MVSR). These reports are followed by the publication of detailed data in Vital Statistics of the United States annual volumes. Other reports including induced terminations of pregnancy issued periodically as supplements to the MVSR provide selected findings based on data from the National Vital Statistics System and may be followed by detailed reports in Vital and Health Statistics Series.

For answers to questions about this report or for a list of titles of reports published in these series, contact:

[^5]
## DEPARTMENTOF

HEALTH \& HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Center for Health Statistics
6525 Belcrest Road
Hyattsville, Maryland 20782
OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $\$ 300$


[^0]:    U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

    Public Health Service
    Centers for Disease Control
    National Center for Health Statistics

    September 1991
    DHHS Publication No. (PHS) 91-1507

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

[^2]:    ${ }^{1}$ includes unknown education.
    includes unknowns of sociodemographic characteristics.
    ${ }^{3}$ For persons 18 years of age and over.
    NOTE: MSA is metropolitan statistical area.

[^3]:    Includes unknown education.
    Includes unknowns of sociodemographic characteristics.
    ${ }^{3}$ For persons 18 years of age and over.
    NOTE: MSA is metropolitan statistical area.

[^4]:    ${ }^{1}$ Estimates below the cutoff points have an RSE of more than 30 percent and are considered to be statistically unreliable.

[^5]:    Scientific and Technical Information Branch
    National Center for Health Statistics
    Centers for Disease Control
    Public Health Service
    6525 Belcrest Road, Room 1064
    Hyattsville, Md. 20782
    301-436-8500

