Prevalence of Selected Impairments

United States - 1977

Statistics on the prevalence of impairments involving vision, hearing, speech, paralysis, absence of extremities, and orthopedic conditions by type, impact, and etiology. Distributed by age, sex, color, family income, education of head of family, usual activity status, place of residence, geographic region, and associated chronic activity limitation. Based on data collected in the National Health Interview Survey during 1977.

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PREVALENCE OF SELECTED IMPAIRMENTS

Barbara A. Feller, M.A., Division of Health Interview Statistics

INTRODUCTION

During 1977 data on selected impairments among the U.S. civilian noninstitutionalized population were collected in the National Health Interview Survey. This report describes the prevalence and impact of visual and hearing impairments, speech impairments, paralysis, absence of major and minor extremities, and four types of nonparalytic orthopedic impairments. Detailed tables show the number and rate per 1,000 persons for each type of impairment by selected sociodemographic characteristics including age, sex, color, family income, education of head of family, place of residence, and geographic region. The impact of these types of impairments, as indicated by chronic activity limitation, the number of bed and restricted-activity days, frequency and degree of bother, and the frequency of physician visits, is summarized in the text.

HIGHLIGHTS

● During 1977, an estimated 11.4 million persons had visual impairments. About 1.4 million of these persons included those with either an inability to see newsprint with corrective lenses or with no useful vision in one or both eyes. The prevalence rates tended to be highest[a] for persons 65 years of age and over for both severe and other less severe visual impairments.

● Cataracts and glaucoma caused approximately one-half of the severe visual impairments and more than one-third of other less severe visual impairments. Cataracts alone accounted for more than one-third of the severe visual impairments and more than one-fourth of the other less severe visual impairments.

● It is estimated that there were 16.2 million hearing impairments (including tinnitus), about half of which involved both ears. In general, the rate of hearing impairments was highest for persons 65 years of age and over and was higher for males than for females.

● It is estimated that there were about 2 million speech impairments in 1977, or a rate of 9.4 per 1,000 persons. The rate of speech impairments was relatively higher for males than for females and lower for white persons than for all other persons.

● Approximately 1.5 million persons had complete or partial paralysis, representing a rate of 7.2 impairments per 1,000 persons. Complete or partial paralysis was proportionately most prevalent among persons 65 years of age and over.

● Complete paralysis of the extremities and trunk accounted for almost one-half of

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[a]In this report the determination of statistical significance for comparisons is based on the t-test with a critical value of ±1.96 (0.05 level of significance). Terms relating to differences, such as "higher than" and "less than" indicate that the differences are statistically significant. Terms such as "no difference" and "similar" indicate that the difference between the statistics being compared is not statistically significant. Lack of comment regarding the difference does *not* mean that the difference was tested and found to be not significant.

the persons paralyzed. Slightly over one-half of those paralyzed had cerebral palsy or partial paralysis of the extremities or trunk.

- About 358,000 persons had major extremities missing; 1.9 million had minor extremities missing. These figures represent rates per 1,000 persons of 1.7 and 8.8, respectively. Rates of missing major extremities rose with age and were relatively higher for males than females. Injury accounted for most of the missing extremities.

- There were approximately 9 million non-paralytic orthopedic impairments of the back or spine, 7 million of the lower extremity or hip, 2.5 million of the upper extremity of shoulder, and 1 million multiple or other nonparalytic orthopedic impairments of the limbs, back, or trunk.

SOURCE AND LIMITATIONS OF THE DATA

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

During the 52 weeks in 1977, the sample was composed of approximately 41,000 households including about 111,000 persons living at the time of the interview. The total non-interview rate was approximately 3.3 percent, 1.9 percent of which was due to respondent refusal and the remainder due to the inability to find an eligible respondent at home after repeated calls.

The population figures used in computing annual rates shown in this report appear in table 13.

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

In addition to sampling errors, the estimates shown in this report were also subject to a variety of nonsampling errors. For example, although numerous techniques and checks were used in data collection, coding, and editing to keep nonsampling errors at a minimum, methodological studies have identified important effects that underreporting and other nonsampling errors in health interview surveys can have on conditions in general and on chronic conditions in particular (*Vital Health and Statistics* reports Series 1, No. 11 and Series 2, Nos. 7, 23, 52, 54, 57, and 69).[1-7] The comprehensiveness and accuracy of the data are dependent on respondent awareness of, knowledge of, and willingness to report the condition as well as whether or not the condition had some impact on the person. Conditions that are undiagnosed, for example, those that people are unaware of or unwilling to report are not included in the estimates based on household interview data.

Definitions of certain terms used in this report are provided in appendix II.

Organization of Report

The remainder of this report is organized into four main sections. Section one discusses the conceptualization and measurement of the prevalence of impairments in the 1977 NHIS. Section two describes the proportion of selected types of impairments that had their onset in the year prior to the interview. Section three presents data describing variations in the prevalence, etiology, and impact of 10 selected types of impairments. Finally, section four highlights

the extent to which changes have occurred in the prevalence of these selected impairments between 1971 and 1977.

PREVALENCE OF IMPAIRMENTS

Although the term "prevalence" sometimes refers to the number of some item at a given point (i.e., point prevalence), in the NHIS, prevalence is usually the average number of some condition during a *specified interval* (i.e., period prevalence). The latter definition is used in this report.

Although the term "impairment" does not have a definitive medical meaning, it refers here to chronic or permanent defects resulting from disease, injury, or congenital malformation. The functional aspect of the impairment is stressed; the conditions referred to as impairments result in a decrease in or loss of ability to perform various functions, especially those of the musculoskeletal system and sense organs (e.g., vision, hearing).

The unit of analysis in this report is an *impairment* rather than an impaired person. Nevertheless, within each of the impairment groups (except specified deformities of limbs, trunk, or back), the prevalence estimate can be considered as a count of persons with that type of impairment. A summation of each type of selected impairment will only provide an estimate of the extent to which those 10 types of selected impairments are prevalent in the population. Since a person may have more than one type of impairment, an estimate of the total number of selected impairments based on the 10 categories of impairments in this report should not be interpreted as an estimate of the number of persons with 1 or more of these 10 selected impairments.

In addition, the 10 types of impairments described in this report were not the only ones reported in the interview. Other types of reported impairments were excluded from this report because they were considered to be unreliably reported in the household interviews.

The main source for obtaining a report of impairments *included in this report* was question 32. A copy of the portions of the 1977 NHIS survey instrument pertinent to material presented in this report is provided in appendix III. A facsimile of the complete survey instrument is available in Series 10, No. 126.[8]

Table A. Number and rate per 1,000 persons of selected impairments reported in health interviews: United States, 1977 and 1971

Impairment and impairment code[1]	1977	1971	1977[2]	1971[2]
	Number in thousands		Rate per 1,000 persons	
Visual impairments X00-X05	11,415	9,596	53.8	47.4
Hearing impairments (includes tinnitus) X06-X09	16,219	14,491	76.4	71.6
Speech impairments.................... X10, X11	1,995	1,934	9.4	9.6
Absence of major extremities X20-X24, X26-X30, X32, X33	358	274	1.7	1.4
Absence of entire finger(s) or toe(s) only X25, X31, X34	1,867	[3]858	8.8	[3]4.2
Paralysis, complete or partial X40-X69	1,532	1,392	7.2	6.9
Impairments (except paralysis) of back or spine X70-X72, X80, X81.X	9,365	8,018	44.1	39.6
Impairments (except paralysis or absence) of upper extremity or shoulder X73, X74, X86-X88	2,500	2,440	11.8	12.1
Impairments (except paralysis or absence) of lower extremity or hip.................... X75-X77, X82-X85	7,147	7,387	33.7	36.5
Impairments (except paralysis or absence), other and multiple, NEC, and ill-defined, of limbs, back, or trunk X78, X79, X89	1,213	1,034	5.7	5.1

[1]A complete listing of impairment X-Codes is presented in appendix II.
[2]Population (in thousands) used in computation of rates for 1977 and 1971 was 212,153 and 202,360, respectively.
[3]Because of an error in coding the absence of finger(s) or toe(s), underestimation of perhaps 900,000 occurred in this category (National Center for Health Statistics: Prevalence of selected impairments: United States, 1971, by C. Wilder. *Vital and Health Statistics.* Series 10-No. 99. DHEW Pub. No. (HRA) 75-1526. Health Resources Administration. Washington. U.S. Government Printing Office, May 1975. p. 4).

NOTE: NEC = not elsewhere classified.
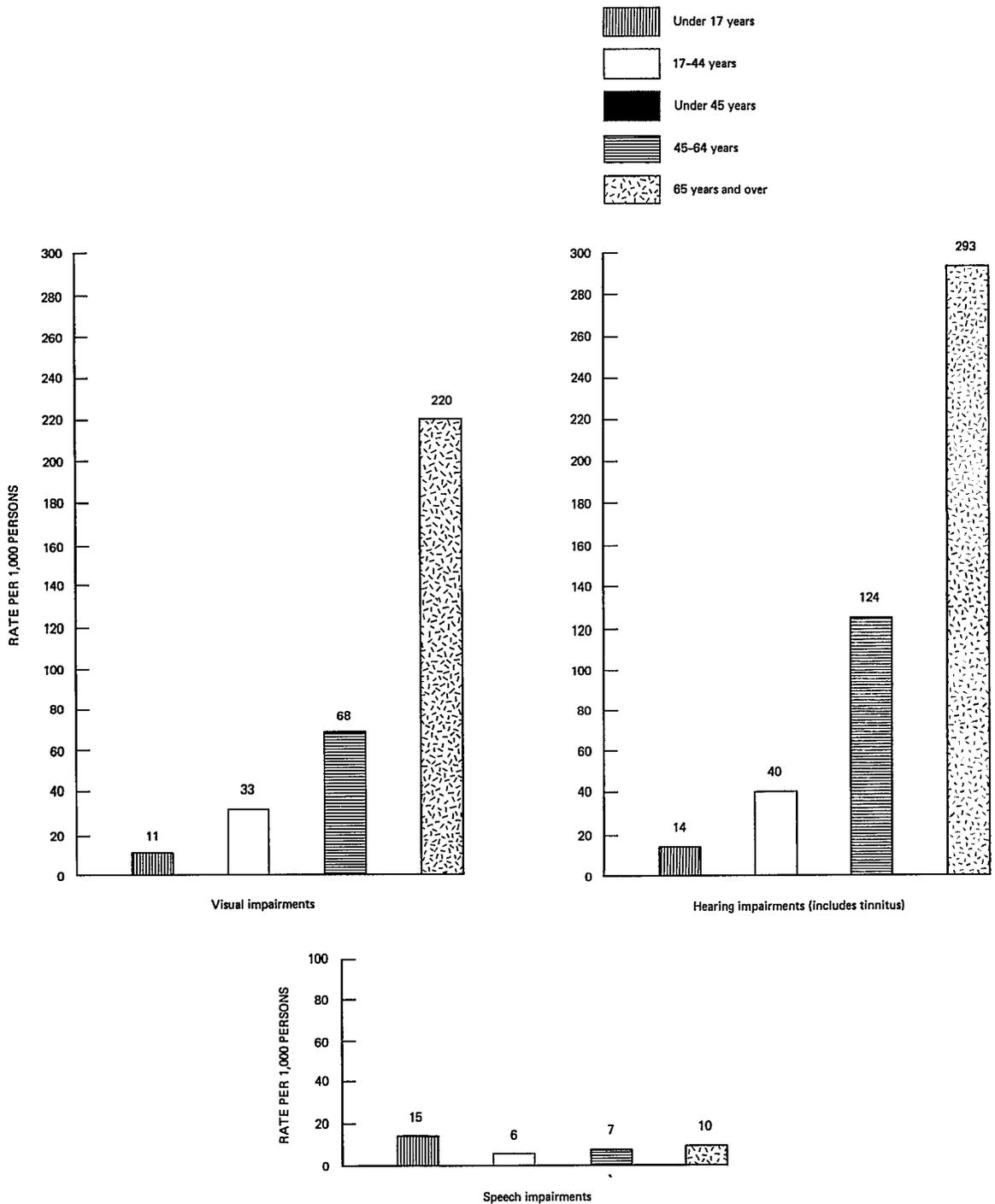
Figure 1. Rate of selected impairments per 1,000 persons, by type of impairment and age: United States, 1977
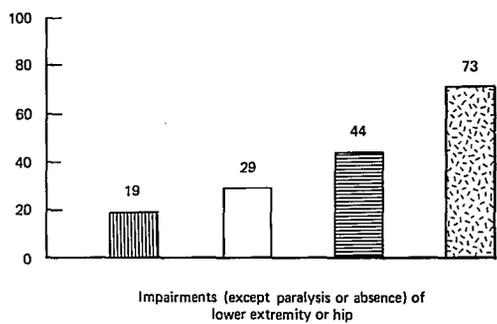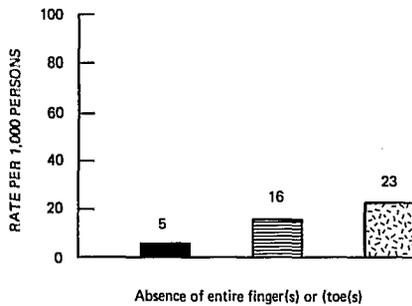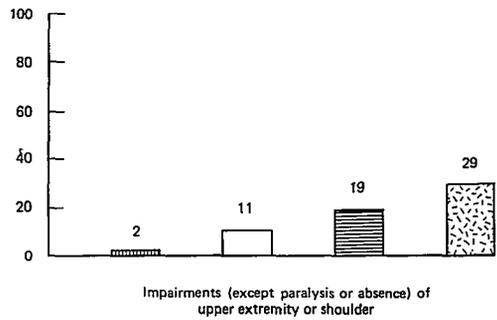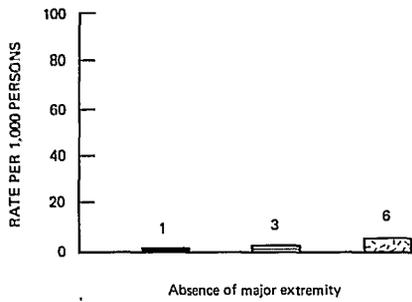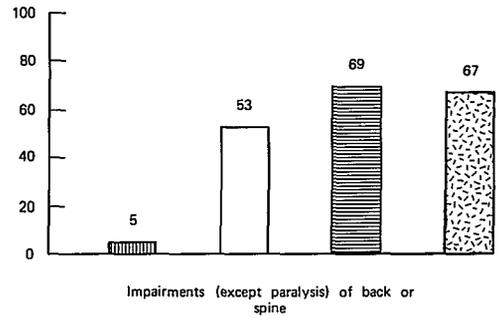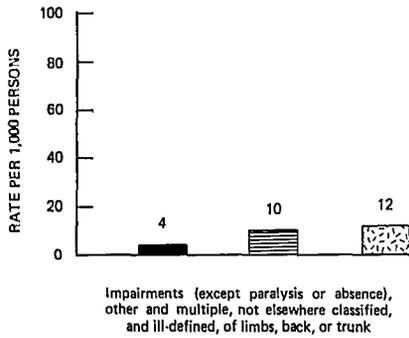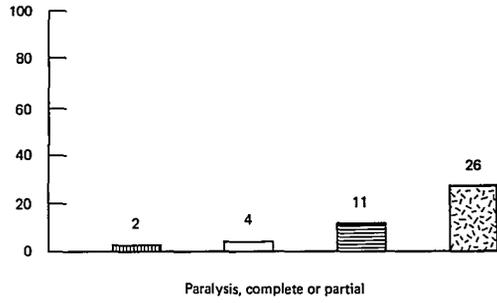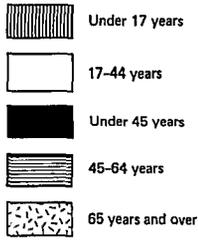
Figure 1. Rate of selected impairments per 1,000 persons, by type of impairment and age: United States, 1977—Con.

Information on impairments was coded by using a special classification scheme, developed by the U.S. Public Health Service, which groups impairments according to the type of functional impairment and etiology (cause). (See appendix II.)

Table A presents the number and rate per 1,000 persons for each type of impairment. Figure 1 shows the rate of impairments per 1,000 persons by type of impairment and age.

The estimates of selected impairments shown in table A and in figure 1 are for the civilian noninstitutionalized population. For that reason, anyone wishing to use these data as a basis for estimating the prevalence of these impairments in the U.S. *resident* population should be cautioned that persons confined to institutions are not included in the estimates shown in this report. For example, persons confined to nursing homes have a high prevalence of chronic conditions (see "The National Nursing Home Survey: 1977 Summary for the United States").[9]

INCIDENCE OF IMPAIRMENTS

The incidence of a condition or impairment refers to the number of conditions or impair- ments having their *onset* during a specified period. In this report, the term "incidence" includes all impairments that had their onset within the year prior to the week of the interview. The term "onset" refers to when the condition was first noticed, which could be before or after a physician has diagnosed a medically attended condition or impairment. Table B presents data on the number of impair- ments reported to have had their onset within the year prior to the week of interview for each of the 10 types of impairments discussed in this report and indicates the percent that the inci- dence of these impairments was of their preva- lence in 1977.

In examining this information, however, it is important to note that these data may under- estimate the incidence of impairments during 1977 to the extent that estimates of period prevalence exclude those cases associated with mortality or institutionalization.

In the context of that qualification, the data in table B appear to show that incidence as a percent of prevalence ranged from approxi- mately 6 percent (for severe visual, hearing, and speech impairments, and absence of minor ex- tremities) to 12 percent (for nonparalytic ortho- pedic impairments of the upper extremity or

Table B. Prevalence and incidence[1] in past 12 months of selected impairments reported in health interviews and percent incidence is of prevalence: United States, 1977

Impairment and impairment code[2]	Prevalence in thousands	Incidence[1] in thousands	Percent incidence is of prevalence
Visual impairments... X00-X05	11,415	884	7.7
Severe visual impairments...X00	1,391	85	6.1
Other visual impairments...X01-X05	10,024	798	8.0
Hearing impairments (includes tinnitus).......................... X06-X09	16,219	900	5.5
Speech impairments X10, X11	1,995	113	5.7
Paralysis, complete or partial.................................. X40-X69	1,532	151	9.9
Absence of major extremities.................X20-X24, X26-X30, X32, X33	358	*22	*6.1
Upper only.. X20-X24	91	.	.
Lower only.. X26-X30	264	*22	*8.3
Absence of entire finger(s) or toe(s) only X25, X31, X34	1,867	106	5.7
Orthopedic impairments (except paralysis or absence) of:			
Back or spine................................X70-X72, X80, X81	9,365	792	8.5
Upper extremity or shoulder.................X73, X74, X86-X88	2,500	304	12.2
Lower extremity or hip............... X75-X77, X78, X82-X85	7,147	684	9.6
Other and multiple, NEC, and ill-defined, of limbs, back, or trunk.................................X78, X79, X89	1,213	146	12.0

[1]Incidence is defined as the estimated number of conditions having their onset in a specified time period, in this case, within 12 months of the week of the interview. Onset of a condition is defined as the time when the condition is first noticed.

[2]A complete listing of impairment X-Codes is presented in appendix II.

NOTE: NEC = not elsewhere classified.

shoulder and multiple and other nonparalytic orthopedic impairments of the limbs, back, or trunk).

VARIATIONS IN THE PREVALENCE, ETIOLOGY, AND IMPACT OF SELECTED IMPAIRMENTS

Detailed tables 1-12 show the number and rate per 1,000 persons of 10 selected impairments by age, sex, color, family income, education of head of family, place of residence, and geographic region. Tables A-T present information on the prevalence, impact, and (when available) etiology of these 10 impairments. Major aspects of these tables are highlighted below for each of the 10 selected impairments.

Visual Impairments[b]

During 1977, an estimated 11.4 million persons had visual impairments, representing a rate of about 54 per 1,000 persons.[c] About 1.4 million of these persons included those with either an inability to see newsprint with corrective lenses or with no useful vision in one or both eyes (table C).[d] Overall, the rate of visual impairments rose with age (tables 2 and 3). Table D presents data on the prevalence of cataracts, glaucoma, color blindness, and detachment of the retina according to their ICDA classification.[d]

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[b]See appendix II for the X-Code classification of visual impairments.

[c]Estimates of the number of visual impairments were based on responses to 6 items on the impairment checklist (question 32). Persons were asked whether they or anyone in the household had blindness in one or both eyes, had any other trouble seeing with one or both eyes when wearing glasses and/or contact lenses, or had cataracts, glaucoma, color blindness, and/or detachment of the retina or any other condition of the retina. Absence of one or both eyes is classified as "blindness in one or both eyes."

[d]Additional information about visual impairments was obtained from question 3, section A1, and question 10a, section A3, on the condition page. Question 10a asks whether --- can see (with glasses, contact lenses) well enough to read ordinary newspaper print with his (left, right) eye. This question was used to classify persons according to the severity of the visual impairment. The severe visual impairment category was used if the response to the question was "no" for both eyes, or if there was a report that the person had no useful vision in either eye or was stated to be blind in both eyes. The

Etiology.—Impairments are coded by type, site, and etiology (cause). A list of the 12 etiology codes used for visual impairments is presented in appendix II.[e] Cataracts, cataracts with glaucoma, and glaucoma[f] combined caused about one-half of the severe visual impairments and more than one-third of the other less severe ones (table E). Cataracts alone accounted for about one-third of severe visual impairments and approximately one-fourth of the other less severe visual impairments. The other eye disease or any infection of the eye category caused almost one-third of the less severe visual impairments.

Impact.—Severe visual impairments have a substantial impact on people's lives; 37 percent caused limitation of activity. Severe visual impairments also averaged about 23 restricted-activity days per condition per year (table F).[g]

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classification of severe visual impairment was assigned to persons under 6 years of age on the basis of a proxy response of "blind in both eyes" or words to that effect indicating no useful vision in both eyes. Visual impairments were classified as "other less severe" on the basis of information reported on the condition page in questions 3 and 10a. To ensure comparability the questions on functional vision loss (10b-10g in section A3 of the condition page) were not used in coding visual impairments because prior to 1971 the functional questions did not appear on the questionnaire every year that impairment data were collected.

Cataracts, glaucoma, retinal conditions, and color blindness were double-coded by using X-Codes and ICDA codes.

Persons with refractive errors (nearsighted, farsighted, etc.), allergy or migraine causing some vision problem, strabismus, corneal opacity, or ulcer were not coded as visually impaired unless they also reported visual impairment(s) from some other cause(s).

[e]Because only one etiology code was assigned to each condition and it is possible for a person to have multiple causes of an impairment, priority rules were established and applied to select the primary etiology (appendix II).

[f]When cataracts and glaucoma due to diabetes are included (vision etiology code .5), the estimate is slightly increased (table E).

[g]Although color blindness was assigned a visual impairment code (X05) and is included in prevalence estimates, persons with only color blindness were not asked the function vision loss questions or any of the questions regarding impact of conditions. Therefore, for visual impairments (tables F-L), color blindness was included in unknowns. Thus, the percent of unknowns for visual impairments is higher than is usual in NHIS data.

Table C. Number, percent distribution, and rate per 1,000 persons of visual impairments reported in health interviews, by type of impairment: United States, 1977 and 1971

Type of impairment and impairment code[1]	1977			1971		
	Number in thousands	Percent distri- bution	Rate per 1,000 persons[2]	Number in thousands	Percent distri- bution	Rate per 1,000 persons[2]
Total visual impairments............................ X00-X05	11,415	100.0	53.8	9,596	100.0	47.4
Severe visual impairment.. X00	1,391	12.2	6.6	1,306	13.6	6.5
Blind in one eye, other eye defective but not blind... X01	168	1.5	0.8	409	4.3	2.0
Blind in one eye, other eye good or not mentioned X02	3,202	28.1	15.1	2,604	27.1	12.9
Visual impairment, NEC, in both eyes X03	1,154	10.1	5.4	2,082	21.7	10.3
Impairment of vision except as in X00-X03 (color blindness included).............................. X05	5,500	48.2	25.9	3,195	33.3	15.8

[1]A complete listing of impairment X-Codes is presented in appendix II.
[2]Population (in thousands) used in computation of rates for 1977 and 1971 was 212,153 and 202,360, respectively.

NOTES: NEC = not elsewhere classified.

Differences between 1971 and 1977 may be due to change in questionnaire design and differences in interpretation of coding instructions.

Table D. Number and rate per 1,000 persons of selected eye diseases reported in health interviews, by ICDA code: United States, 1977

Eye disease and ICDA code[1]	Number in thousands	Rate per 1,000 persons
Cataract............................ 374, 744.3	3,809	18.0
Glaucoma.......................... 375, 744.2	1,216	5.7
Detached retina........................... 376	163	0.8
Color blindness......................... 377.3	2,073	9.8

[1]Based on *Eighth Revision International Classification of Diseases, Adapted for Use in the United States* (ICDA).

Because of the high percent of unknowns for other less severe visual impairments (probably due to the inclusion of color blindness as noted in footnote g), statements on impact are not made here. The data are, however, presented in tables F-L.

Hearing Impairments[h]

The estimated number of hearing impairments (includes tinnitus) was 16.2 million, a rate of 76.4 hearing impairments per 1,000 persons.

[h]Hearing impairments were reported during the health interview in response to the question of whether any member of the family had deafness in one or both ears, any other trouble hearing with one or both ears, or

Approximately one-half of the hearing impairments involved only one ear (table M).

Overall, the 1977 rate of hearing impairments increased with age and ranged from 14.3 per 1,000 for persons under 17 years of age to 385.5 per 1,000 for persons 75 years of age and over (table 4). In each age category males had a higher prevalence of hearing impairments than females did. Among age categories in the population 17 years of age and over, hearing impairments were relatively more prevalent among white persons than they were among all other persons. Generally, the rate of hearing impairments decreased with increased family income, but this pattern was not completely consistent within each age category.

Etiology.—Although data on the etiology of hearing impairments were collected in 1977,

tinnitus or ringing in the ears (question 32, items A, B, C).

Functional hearing loss questions (1-3) are in the 1977 HIS Hearing Supplement. Questions on functional hearing loss (based on Gallaudet Hearing Scale) were asked of persons 3 years of age and over who reported any kind of hearing problem except tinnitus only. These are the subject of a separate report now in preparation. There is a net difference of almost 2 million between the estimate of 16,219,000 hearing impairments presented in this report (which includes tinnitus) and of 14,240,000 hearing impairments for persons 3 years of age and over based on the functional hearing loss scale questions.

Table E. Number, rate per 1,000 persons, and percent distribution of visual impairments reported in health interviews, by etiology: United States, 1977

Etiology and code[1]	All visual impairments			Severe visual impairments			Other visual impairments		
	Number in thousands	Rate per 1,000 persons	Percent distri- bution	Number in thousands	Rate per 1,000 persons	Percent distri- bution	Number in thousands	Rate per 1,000 persons	Percent distri- bution
All causes of visual impair- ments.....................(.1-.9, .X, .Y, .0)	11,415	53.8	100.0	1,391	6.6	100.0	10,024	47.2	100.0
Cataract ....(.1)	3,274	15.4	28.7	495	2.3	35.6	2,779	13.1	27.7
Cataract with glaucoma ....(.2)	284	1.3	2.5	74	0.3	5.3	210	1.0	2.1
Glaucoma, any origin......................................(.3)	889	4.2	7.8	98	0.5	7.0	792	3.7	7.9
Other eye disease (any infection of eye)...(.4)	3,281	15.5	28.7	128	0.6	9.2	3,153	14.9	31.5
Diabetes (with cataract or glaucoma)............(.5)	204	1.0	1.8	64	0.3	4.6	140	0.7	1.4
Diseases of arteries NEC ....(.6)	65	0.3	0.6	*29	*0.1	*2.1	35	0.2	0.3
Cerebrovascular disease (stroke) (with arteriosclerosis) (with hypertension) ....(.7)	97	0.5	0.8	*26	*0.1	*1.9	71	0.3	0.7
Neoplasm...(.8)	47	0.2	0.4	*5	*0.0	*0.4	42	0.2	0.4
Accident or injury except at birth ....(.9)	938	4.4	8.2	62	0.3	4.5	876	4.1	8.7
Congenital origin (NEC) or birth injury..(.X)	383	1.8	3.4	*30	*0.1	*2.2	352	1.7	3.5
Conditions not in .0-.9 or .X[2]....................(.Y)	586	2.8	5.1	131	0.6	9.4	455	2.1	4.5
Unknown or unspecified origin......................(.0)	1,368	6.4	12.0	248	1.2	17.8	1,119	5.3	11.2

[1]A complete listing of etiology codes is presented in appendix II.
[2]Includes noncongenital, nontraumatic, hereditary, old age, not otherwise specified.

NOTE: NEC = not elsewhere classified.

Table F. Number of selected impairments reported in health interviews, number per 1,000 persons, percent of conditions by measures of impact, and disability days in past year: United States, 1977

Impairment	Prevalence		Percent of conditions				Disability days			
	Number in thou- sands	Number per 1,000 persons	Causing limita- tion of activity	With 1 bed day or more in past year	With doctor ever seen	With 1 physician visit or more in past year	Restricted activity days per condition per year	Bed days per condi- tion per year	Bed days per dis- abling condi- tion[1]	Work- loss days per condi- tion per year[2]
Visual impairments	11,415	53.8	13.1	[3]3.3	[3]90.9	[3]43.4	6.8	1.3	41.3	*0.3
Severe visual impairments	1,391	6.6	37.0	[3]5.3	[3]93.9	[3]47.5	23.1	5.5	103.1	-
Other visual impairments	10,024	47.2	9.8	[3]3.0	[3]90.5	[3]42.8	4.5	0.8	25.9	*0.3
Hearing impairments (includes tinnitus)	16,219	76.4	4.7	1.6	72.3	25.9	0.7	*0.2	10.4	*0.1
Speech impairments.......................................	1,995	9.4	9.3	*1.7	61.2	21.9	3.8	*1.3	*73.9	*1.3
Paralysis, complete or partial	1,532	7.2	58.4	[3]15.7	[3]97.8	[3]38.3	45.6	20.9	133.4	*9.2
Absence of major extremities........................	358	1.7	65.9	[4]...	[4]...	[4]...	32.8	...	[4]...	[4]...
Upper only..	91	0.4	48.4	[4]...	[4]...	[4]...	*7.9	...	[4]...	[4]...
Lower only	264	1.2	71.2	[4]...	[4]...	[4]...	41.8	...	[4]...	[4]...
Absence of entire finger(s) or toe(s) only	1,867	8.8	4.8	[4]...	[4]...	[4]...	5.2	...	[4]...	[4]...
Orthopedic impairments (except paralysis or absence) of:										
Back or spine	9,365	44.1	25.5	[3]17.3	[3]89.4	[3]37.9	17.7	4.5	26.2	3.1
Upper extremity or shoulder.....................	2,500	11.8	21.4	[3]5.9	[3]89.9	[3]25.1	12.6	2.2	37.6	3.1
Lower extremity or hip..............................	7,147	33.7	26.6	[3]6.4	[3]86.5	[3]24.8	18.8	4.3	67.3	3.0
Other and multiple, NEC, and ill- defined, of limbs, back, or trunk...........	1,213	5.7	54.8	[3]21.4	[3]96.1	[3]44.9	46.7	15.5	72.3	*5.7

[1]Figure was obtained by dividing the annual volume of bed days (used in computing the previous column) by the number of persons with the conditon who reported 1 bed day or more in the year.
[2]Work-loss days per condition per year were computed for the currently employed population only.
[3]For these impact variables for visual impairments, paralysis, and the 4 types of nonparalytic orthopedic impairment, the number of unknowns was higher than is usual for National Health Interview Survey data.
[4]Impact questions were not asked in the case of missing extremities.

NOTE: NEC = not elsewhere classified.

Table G. Number of selected impairments reported in health interviews and percent distribution of impairments by frequency of bed-disability days in past year for the condition, according to type of impairment: United States, 1977

Impairment	Number in thousands	Bed-disability days in past year for the condition					
		Total	None	1-7	8-30	31 or more	Unknown if any
		Percent distribution					
Visual impairments	11,415	100.0	77.1	2.2	0.6	0.4	[1]19.6
Severe visual impairments	1,391	100.0	89.9	2.8	1.3	1.2	[1]4.8
Other visual impairments	10,024	100.0	75.3	2.2	0.5	0.3	[1]21.7
Hearing impairments (includes tinnitus)	16,219	100.0	96.9	1.2	0.3	*0.1	1.5
Speech impairments	1,995	100.0	91.6	*0.7	0.6	0.4	6.7
Paralysis, complete or partial	1,532	100.0	58.0	4.0	3.7	7.9	[1]26.4
Absence of major extremities	358	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Upper only	91	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Lower only	264	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Absence of entire finger(s) or toe(s) only	1,867	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Orthopedic impairments (except paralysis or absence) of:							
Back or spine	9,365	100.0	75.4	10.2	5.1	2.0	[1]7.3
Upper extremity or shoulder	2,500	100.0	78.7	3.4	1.8	*0.6	[1]15.4
Lower extremity or hip	7,147	100.0	69.0	2.7	2.3	1.4	[1]24.6
Other and multiple, NEC, and ill-defined, of limbs, back, or trunk	1,213	100.0	58.0	9.4	7.9	4.2	[1]20.4

[1]For visual impairments, paralysis, and the 4 types of nonparalytic orthopedic impairments, the number of unknowns was higher than is usual for National Health Interview Survey data.
[2]This question was not asked in the case of missing extremities.

NOTE: NEC = not elsewhere classified.

Table H. Number of selected impairments reported in health interviews and percent distribution of impairments by frequency of physician visits in past year for the condition, according to type of impairment: United States, 1977

Impairment	Number in thousands	Physician visits in past year for the condition					
		Total	None	1	2-4	5 or more	Unknown if any
		Percent distribution					
Visual impairments	11,415	100.0	41.5	21.6	16.6	5.2	[1]15.1
Severe visual impairments	1,391	100.0	45.5	19.6	18.8	9.1	[1]7.0
Other visual impairments	10,024	100.0	41.0	21.9	16.3	4.6	[1]16.2
Hearing impairments (includes tinnitus)	16,219	100.0	71.7	15.6	7.3	3.0	2.4
Speech impairments	1,995	100.0	71.5	10.2	7.3	4.5	6.6
Paralysis, complete or partial	1,532	100.0	33.3	8.4	12.6	17.3	[1]28.4
Absence of major extremities	358	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Upper only	91	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Lower only	264	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Absence of entire finger(s) or toe(s) only	1,867	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Orthopedic impairments (except paralysis or absence) of:							
Back or spine	9,365	100.0	53.3	14.1	13.2	10.5	[1]8.8
Upper extremity or shoulder	2,500	100.0	59.7	7.4	8.3	9.4	[1]15.2
Lower extremity or hip	7,147	100.0	50.8	9.4	8.6	6.7	[1]24.4
Other and multiple, NEC, and ill-defined, of limbs, back, or trunk	1,213	100.0	32.9	10.7	15.9	18.3	[1]22.2

[1]For visual impairments, paralysis, and the 4 types of nonparalytic orthopedic impairments, the number of unknowns is higher than is usual for National Health Survey data.
[2]This question was not asked in the case of missing extremities.

NOTE: NEC = not elsewhere classified.

Table J. Number of selected impairments reported in health interviews and percent distribution of impairments by frequency of bother caused by condition, according to type of impairment: United States, 1977

Impairment	Number in thousands	Frequency of bother caused by condition					Not bothered	Unknown if bothered
		Total	All the time	Often	Once in a while	Frequency not specified		
		Percent distribution						
Visual impairments..	11,415	100.0	27.7	6.1	18.1	1.4	26.4	[1]20.3
Severe visual impairments.............................	1,391	100.0	67.9	8.1	9.1	*1.5	7.4	[1]6.1
Other visual impairments.............................	10,024	100.0	22.1	5.8	19.4	1.4	29.0	[1]22.3
Hearing impairments (includes tinnitus)	16,219	100.0	38.2	8.2	27.8	1.7	22.7	1.5
Speech impairments	1,995	100.0	27.8	9.1	26.9	*1.6	27.7	6.8
Paralysis, complete or partial.............................	1,532	100.0	45.6	4.3	9.1	*1.0	13.6	[1]26.3
Absence of major extremities............................	358	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...
Upper only..	91	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...
Lower only...	264	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...
Absence of entire finger(s) or toe(s) only	1,867	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...	[2]...
Orthopedic impairments (except paralysis or absence) of:								
Back or spine...	9,365	100.0	17.7	19.2	45.5	1.9	8.5	[1]7.3
Upper extremity or shoulder.........................	2,500	100.0	19.0	8.5	28.0	2.0	27.1	[1]15.4
Lower extremity or hip.................................	7,147	100.0	17.5	11.5	32.6	2.9	10.9	[1]24.5
Other and multiple, NEC, and ill-defined, of limbs, back, or trunk..............	1,213	100.0	28.6	20.6	26.5	2.4	*1.7	[1]20.2

[1]For visual impairments, paralysis, and the 4 types of nonparalytic orthopedic impairments, the number of unknowns is higher than is usual for National Health Interview Survey data.
[2]This question was not asked in the case of missing extremities.

NOTE: NEC = not elsewhere classified.

they are of limited use for two reasons. One, the cause was reported as "unknown" for almost half of the hearing impairments (46 percent) and two, the largest category of known responses was coded as due to "other" diseases or combined with the "other" category. Therefore, these data are not presented here.

Impact.—About 5 percent of the hearing impairments caused limitation of activity. A doctor was seen at some time for approximately 72 percent of the hearing impairments, and one-fourth received medical attention during 1977 (table F). Hearing impairments have little impact on short-term disability, at least as indicated by the percent with one or more bed days in the past year (table G) and by the low number of restricted-activity days per condition per year (table F).

Although a minority (23 percent) of the hearing impairments were reported as "no bother," about two-fifths (38 percent) bothered the affected person all of the time. Fifteen percent of the hearing impairments were reported to cause a great deal of bother; 34 percent, some bother; and 24 percent, very little bother (table K).

Speech Impairments[i]

In 1977 there were about 2 million speech impairments, or a rate of 9.4 per 1,000 persons.

Approximately half of the speech impairments involved stammering and stuttering, and the remainder involved some other speech problem (table N). The 127,000 cases of cleft palate or harelip represent a rate of less than 1 per 1,000 persons (table N). Deaf persons who cannot speak are included in the hearing impairment of total deafness in both ears.

The prevalence rate of speech impairments was higher for males than for females and lower for white persons than for all other persons. Persons in families with an income of less than

iThe primary source of information on speech impairments was from items J, K, and L on the checklist of impairments (question 32). Persons were asked whether they or anyone in the household had cleft palate or harelip, stammering or stuttering, and/or any other speech defect(s).

Table K. Number of selected impairments reported in health interviews and percent distribution of impairments by degree person was bothered by condition, according to type of impairment: United States, 1977

Impairment	Number in thousands	Total	Bothered					Not bothered	Unknown if bothered
			Total	Great deal	Some	Very little	Other		
			Percent distribution						
Visual impairments	11,415	100.0	53.3	15.6	24.0	12.3	1.4	26.4	[1]20.3
Severe visual impairments	1,391	100.0	86.5	50.4	27.2	6.3	2.6	7.4	[1]6.1
Other visual impairments	10,024	100.0	48.7	10.8	23.6	13.1	1.3	29.0	[1]22.3
Hearing impairments (includes tinnitus)	16,219	100.0	75.8	15.0	34.0	24.0	2.8	22.7	1.5
Speech impairments	1,995	100.0	65.5	15.8	24.5	22.4	2.9	27.7	6.8
Paralysis, complete of partial	1,532	100.0	60.1	30.0	20.4	6.9	2.8	13.6	26.3
Absence of major extremities	358	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Upper only	91	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Lower only	264	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Absence of entire finger(s) or toe(s) only	1,867	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---	[2]---
Orthopedic impairments (except paralysis or absence) of:									
Back or spine	9,365	100.0	84.2	35.2	38.0	8.2	2.9	8.5	[1]7.3
Upper extremity or shoulder	2,500	100.0	57.6	17.3	26.3	12.3	1.6	27.1	[1]15.4
Lower extremity or hip	7,147	100.0	64.6	20.7	30.9	11.1	1.8	10.9	[1]24.5
Other and multiple, NEC, and ill-defined, of limbs, back, or trunk	1,213	100.0	78.1	43.0	28.6	5.0	*1.5	*1.7	[1]20.2

[1]For visual impairments, paralysis, and the 4 types of nonparalytic orthopedic impairments, the number of unknowns is higher than is usual for National Health Interview Survey data.

[2]This question was not asked in the case of missing extremities.

NOTE: NEC = not elsewhere classified.

$3,000 per year had a higher rate of speech impairments than persons from families with incomes of $15,000 or more had. Persons in families whose head had completed less than 9 years of education had a higher rate of speech impairments than those in families where the head had completed 13 years or more had. (See table 5.)

Etiology.—Etiology data were collected, but for the majority (75 percent) of reported speech impairments the cause was unknown to the respondent or was classified as due to "other" causes (or combined with the "other" category). Almost 9 percent of the speech impairments were estimated to have been due to cerebrovascular disease. This latter figure is probably an undercount because of the high percent of "unknown" and "other" responses and can be considered a conservative estimate of the proportion of speech impairments due to cerebrovascular disease.

Impact.—About 9 percent of the speech impairments were reported to have caused activity limitation (table F). Three-fifths of these impairments had been medically attended at some time, but only one-fifth were reported to have involved one physician visit or more in 1977 (table F). Among those seen by a physician in 1977, most involved one to four visits (table H). A majority (92 percent) of speech impairments did not entail any bed days during the year (table G). Overall, there were about 4 restricted-activity days per speech impairment per year (table F).

In the majority (66 percent) of cases, people with a speech impairment were bothered by it

Table L. Number of selected impairments reported in health interviews as causing bother and percent distribution of degree person was bothered by condition, according to type of impairment: United States, 1977

Impairment	Number of conditions with bother in thousands	Degree condition bothers person				
		Total	Great deal	Some	Very little	Other
		Percent distribution				
Visual impairments[1]	6,086	100.0	29.3	45.0	23.0	2.7
Severe visual impairments[1]	1,203	100.0	58.3	31.4	7.2	3.0
Other visual impairments[1]	4,884	100.0	22.1	48.3	26.9	2.6
Hearing impairments (includes tinnitus)	12,293	100.0	19.8	44.8	31.7	3.7
Speech impairments	1,306	100.0	24.1	37.4	34.2	4.4
Paralysis, complete or partial[1]	921	100.0	49.9	33.9	11.5	4.7
Absence of major extremities	72	[2]---	[2]---	[2]---	[2]---	[2]---
Upper only	*11	[2]---	[2]---	[2]---	[2]---	[2]---
Lower only	60	[2]---	[2]---	[2]---	[2]---	[2]---
Absence of entire finger(s) or toe(s) only	164	[2]---	[2]---	[2]---	[2]---	[2]---
Orthopedic impairments (except paralysis or absence) of:						
Back or spine[1]	7,888	100.0	41.7	45.1	9.7	3.4
Upper extremity or shoulder[1]	1,439	100.0	30.1	45.7	21.4	2.7
Lower extremity or hip[1]	4,614	100.0	32.1	47.9	17.2	2.8
Other and multiple, NEC, and ill-defined, of limbs, back, or trunk[1]	947	100.0	55.0	36.6	6.4	*1.9

[1]For visual impairments, paralysis, and the 4 types of nonparalytic orthopedic impairments, the number of unknowns is higher than is usual for National Health Interview Survey data.

[2]This question was not asked in the case of missing extremities.

NOTE: NEC = not elsewhere classified.

Table M. Number, percent distribution, and rate per 1,000 persons of hearing impairments reported in health interviews, by type of impairment: United States, 1977 and 1971

Type of impairment and impairment code[1]	1977			1971		
	Number in thousands	Percent distribution	Rate per 1,000 persons[2]	Number in thousands	Percent distribution	Rate per 1,000 persons[2]
All types of hearing impairments (includes tinnitus) ... X06-X09	16,219	100.0	76.4	14,491	100.0	71.6
Hearing impairment involving both ears (includes total deafness) ... X06 and X07	7,293	45.0	34.4	6,718	46.4	33.2
Hearing impairment involving only one ear ... X08	8,002	49.3	37.7	7,014	48.4	34.7
Hearing impairment, unknown whether one or both ears are involved ... X09	924	5.7	4.4	758	5.2	3.7

[1]A complete listing of impairment X-Codes is presented in appendix II.
[2]Population (in thousands) used in computation of rates for 1977 and 1971 was 212,153 and 202,360, respectively.

(table K). Regarding the frequency of bother, about 37 percent were reported to cause bother all of the time or often and 27 percent, once in a while (table J). Of those speech impairments that caused bother, a fourth (25 percent) were reported to cause a great deal of bother; and more than a third each some or very little bother (table L).

Paralysis

Based on information from the NHIS it is estimated that there were about 1.5 million

Table N. Number, percent distribution, and rate per 1,000 persons of speech impairments reported in health interviews, by type of impairment, and of cleft palate or harelip: United States, 1977 and 1971

Type of impairment, and of cleft palate or harelip, and impairment code[1]	1977			1971		
	Number in thousands	Percent distri- bution	Rate per 1,000 persons[2]	Number in thousands	Percent distri- bution	Rate per 1,000 persons[2]
All speech impairments................................ X10,X11	1,995	100.0	9.4	1,934	100.0	9.6
Stammering, and stuttering.....................................X10	909	45.6	4.3	940	48.6	4.6
Other speech defect X11	1,085	54.4	5.1	994	51.4	4.9
Cleft palate or harelip X91.X	127	- - -	0.6	114	- - -	0.6

[1]A complete listing of impairment X-Codes is presented in appendix II.
[2]Population (in thousands) used in computation of rates for 1977 and 1971 was 212,153 and 202,360, respectively.

cases of complete or partial paralysis, representing a prevalence rate of 7.2 per 1,000 persons. The rate of paralysis increased with age. Males 45-64 years of age had a higher rate of paralysis than females of the same age category had. Among persons who were 65 years of age and over, white persons had a lower rate of paralysis than all other persons had (table 6). Persons 45-64 years of age from families with incomes less than $3,000 experienced a higher rate of paralysis than those of the same age category in families with incomes of $15,000 or more did (table 6).

Complete paralysis of the extremities and trunk accounted for two-fifths (43 percent) of the persons with paralysis, a prevalence rate of 3.1 per 1,000 persons (table O). About one-sixth of those with paralysis (constituting about one-third of the persons with complete paralysis only) were cases of hemiplegia. Forty percent of those with hemiplegia (about 94,000) were 45-64 years of age, and 42 percent (about 100,000) were 65 years of age and over.

Of those persons paralyzed, about half (52 percent) had cerebral palsy or partial paralysis of the extremities or trunk, a rate of 3.7 per 1,000 persons. Cerebral palsy, partial paralysis of one side of the body, and partial paralysis of any part of the leg(s) each accounted for slightly more than one-tenth of the persons paralyzed. Cerebral palsy rates decreased with age; 83 percent of those with cerebral palsy (146,000) were under 45 years of age, and about 18 percent (31,000) were 45 years of age and over.

Etiology.—The leading cause of complete or partial paralysis was cerebrovascular disease,

causing about 40 percent of all paralysis. In 1977 about 17 percent of the paralysis was due to polio, compared with 23 percent in 1971. Injury accounted for approximately 13 percent of the paralysis cases (table P).

Impact.—Complete or partial paralysis caused activity limitation in three-fifths (58 percent) of the people with this condition (table F). Paralysis caused an average of around 46 restricted-activity days per condition per year and 21 bed days per condition per year (table F). Practically all (98 percent) of the cases of paralysis had been medically attended at some time.

Although additional information on the impact of paralysis is shown in tables F-L, no analyses of these data are presented because of the high percentage of "unknown" responses associated with their measurement.

Missing Extremities[j]

In 1977, approximately 358,000 persons had major extremities missing, yielding a rate of 1.7 per 1,000 persons. Two-thirds (67 percent) of these involved legs and 15 percent involved arms (table Q).

Absence of minor extremities affected approximately 1.9 million persons, or 8.8 per

[j]Absence of major extremity (leg, foot, arm, hand) was coded to X20-X24, X26-X30, X32, or X33, respectively. Absence of minor extremity (finger or toe) was coded to X25, X31, or X34. Partial loss of a finger or toe was coded to X39 and is not included in this report.

Table O. Number, percent distribution, and rate per 1,000 persons of cases of paralysis, complete or partial, reported in health interviews, by type of impairment: United States, 1977 and 1971

Type of impairment and impairment code[1]	1977 Number in thousands	1977 Percent distri-bution	1977 Rate per 1,000 persons[2]	1971 Number in thousands	1971 Percent distri-bution	1971 Rate per 1,000 persons[2]
Paralysis, complete or partial X40-X69	1,532	100.0	7.2	1,392	100.0	6.9
Paralysis (NOS) (complete) of extremities and trunk X40-X49	660	43.1	3.1	721	51.8	3.6
Upper extremity (ies), except fingers only X40,X41	76	5.0	0.4	110	7.9	0.5
Finger(s) only X42	*6	*0.4	*0.0	*	*	*
Lower extremity (ies), except toes only X43	164	10.7	0.8	177	12.7	0.9
Paraplegia... X44,X46	79	5.2	0.4	102	7.3	0.5
Toe(s) only X45	*4	*0.3	*0.0	*	*	*
Hemiplegia X47	237	15.5	1.1	199	14.3	1.0
Quadriplegia.. X48	44	2.9	0.2	51	3.7	0.3
Other sites... X49	51	3.3	0.2	74	5.3	0.4
Cerebral palsy; paralysis (partial) of extremities and trunk X50-X59	791	51.6	3.7	599	43.0	3.0
Cerebral palsy (and synonyms) X50	176	11.5	0.8	181	13.0	0.9
Partial paralysis, arm (s) or finger (s)................................ X51	124	8.1	0.6	66	4.7	0.3
Partial paralysis, leg (s) any part.................................. X52	180	11.7	0.8	101	7.3	0.5
Partial paralysis, one side of body X53	201	13.1	0.9	134	9.6	0.7
Partial paralysis, other sites.............................. X54	70	4.6	0.3	83	6.0	0.4
Partial paralysis, palsy, paresis, NOS X59	39	2.5	0.2	*	*	*
Paralysis (complete or partial), sites except extremities and trunk X60-X69	82	5.4	0.4	73	5.2	0.4
Paralysis, face.. X60	76	5.0	0.4	55	4.0	0.3
Paralysis, bladder or anal sphincter X61	-	-	-	*	*	*
Paralysis, other sites.. X69	-*5	*0.3	*0.0	*	*	*

[1]A complete listing of impairment X-Codes is presented in appendix II.
[2]Population (in thousands) used in computation of rates for 1977 and 1971 was 212,153 and 202,360, respectively.

NOTE: NOS = not otherwise specified.

Table P. Number, percent distribution, and rate per 1,000 persons of cases of complete or partial paralysis reported in health interviews, by etiology: United States, 1977

Etiology and code[1]	Number in thousands	Percent distribution	Rate per 1,000 persons
All causes of paralysis, complete or partial.......................................(.1-.7, .9, .X, .Y, .0)	1,532	100.0	7.2
Poliomyelitis .... (.2)	254	16.6	1.2
Cerebrovascular disease .... (.7)	610	39.8	2.9
Injury .... (.9)	191	12.5	0.9
Congenital origin or birth factors .... (.X)	134	8.7	0.6
Other and ill-defined conditions[2]................................... (.1, .3-.6)	58	3.8	0.3
Diseases and conditions except as in .0-.9, .X .... (.Y)	125	8.2	0.6
Unknown to respondent.. (.0)	161	10.5	0.8

[1]A complete listing of etiology codes is presented in appendix II.
[2]Includes tuberculosis, other infection or inflammation, neoplasm, diabetes, or diseases of arteries.

Table Q. Number, percent distribution, and rate per 1,000 persons of cases of absence of extremities reported in health interviews, by type of impairment: United States, 1977 and 1971

Type of impairment and impairment code[1]	1977			1971		
	Number in thousands	Percent distribution	Rate per 1,000 persons[2]	Number in thousands	Percent distribution	Rate per 1,000 persons[2]
Absence of major extremities..............X20-X24,X26-X30,X32,X33	358	100.0	1.7	274	100.0	1.4
Upper extremity X20-X24	91	25.4	0.4	74	27.0	0.4
Arm(s) X20-X22	53	14.8	0.3	47	17.2	0.2
Arm, at or above elbow, and arm NOS X20	*28	*7.8	*0.1	*	*	*
Arm, below elbow and above wrist.......................... X21	*24	*6.7	*0.1	*	*	*
Arms, both X22	–	–	–	*	*	*
Hand(s), except digits only X23,X24	38	10.6	0.2	*	*	*
Lower extremity...................................... X26-X30	264	73.7	1.2	197	71.9	1.0
Leg(s) X26-X28	241	67.3	1.1	179	65.3	0.9
Leg, at or above knee, and leg NOS X26	92	25.7	0.4	96	35.0	0.5
Leg, below knee and above ankle............................. X27	113	31.6	0.5	68	24.8	0.3
Legs, both... X28	36	10.1	0.2	*	*	*
Foot (feet), except toe(s) only X29,X30	*22	*6.1	*0.1	*	*	*
Upper and lower extremities...................................... X32,X33	*4	*1.1	*0.0	*	*	*
Absence of minor extremities.............X25,X31,X34	1,867	100.0	8.8	[3]858	100.0	[3]4.2
Finger(s) or toe(s) only.. X25,X31	1,854	99.3	8.7	850	99.1	4.2
Finger(s) and/or thumb(s) only X25	1,545	82.8	7.3	653	76.1	3.2
Toe(s) only X31	309	16.6	1.5	197	23.0	1.0
Finger(s) and toe(s) X34	*12	*0.6	*0.1	*	*	*

[1]A complete listing of impairment X-Codes is presented in appendix II.
[2]Population (in thousands) used in computation of rates for 1977 and 1971 was 212,153 and 202,360, respectively.
[3]Because of an error in coding the absence of finger(s) or toe(s), underestimation of perhaps 900,000 occurred in this category (National Center for Health Statistics: Prevalence of selected impairments: United States, 1971, by C. Wilder. *Vital and Health Statistics.* Series 10-No. 99. DHEW Pub. No. (HRA) 75-1526. Health Resources Administration. Washington. U.S. Government Printing Office, May 1975. p. 4).

NOTE: NOS = not otherwise specified.

1,000 persons. Most (83 percent) of these involved fingers and/or thumbs only (table Q).

Tables 7 and 8 present information about missing major and minor extremities by various sociodemographic characteristics. For major as well as minor missing extremities, the overall rate rises with age, and males have a higher prevalence than females have. For white persons 65 years of age and over, the relative frequency of missing major extremities was lower in 1977 than it was for all other similarly aged persons. Regarding the absence of minor extremities, white persons under 45 years of age had a higher prevalence rate than other persons in that same age category had. The relative frequency of missing minor extremities was higher among persons living outside standard metropolitan statistical areas (SMSA's) than it was for those living within SMSA's. The rate of missing major extremities was highest for persons 65 years of age and over living in the South. Among persons 45-64 years of age, the rate of missing minor extremities was lower for persons in the Northeast Region than for residents of the North Central or South Regions.

Etiology.—Most of the absence of major (58 percent) and minor (91 percent) extremities was caused by injury (table R). Diabetes accounted

Table R. Number, percent distribution, and rate per 1,000 persons of cases of absence of extremities reported in health interviews, by etiology: United States, 1977

Etiology and code[1]	Absence of major extremities			Absence of minor extremities		
	Number in thousands	Percent distribution	Rate per 1,000 persons	Number in thousands	Percent distribution	Rate per 1,000 persons
All causes of absence of extremities...................(.3-.7, .9, .X, .Y, .0)	358	100.0	1.7	1,867	100.0	8.8
Injury ....(.9)	207	57.8	1.0	1,706	91.4	8.0
Diabetes.......................................(.5)	47	13.1	0.2	*16	*0.9	*0.1
Other causes ....(.3, .4, .6, .7, .X, .Y)	102	28.5	0.5	126	6.7	0.6
Unknown or unspecified origin.........................(.0)	2	0.6	0.0	19	1.0	0.1

[1]A complete listing of etiology codes is presented in appendix II.

for 13 percent of the cases of missing major extremities.

Impact.—Proportionately, more cases of missing lower extremities were reported as a cause of limitation of activity than missing upper extremities were (71 percent compared with 48 percent). Absence of lower extremities averaged 42 restricted-activity days per condition per year; however, absent upper extremities resulted in about 8 restricted-activity days per condition per year (table F). Questions regarding other types of impact were not asked of persons with missing extremities.

Nonparalytic Orthopedic Impairments[k]

Data on nonparalytic orthopedic impairments are presented for the back or spine; the shoulder or upper extremity; the hip or lower extremity, and multiple or other impairments of the limbs, back, or trunk.

Table S shows the number and rate per 1,000 persons of each type of nonparalytic

[k]Orthopedic impairments are defects (excluding paralysis or absence) of limbs, back, or trunk and are designated by categories X70-X89 (see appendix II). Ill-defined chronic difficulties described in terms such as "stiffness," "weakness," "pain," "trouble," "spasms," and "swelling" and involving muscles, joints, limbs, back, or trunk were classified in X70-X89 according to the site. These categories also include reports of old (i.e., onset of 3 months or more prior to the week of the interview) sprains, strains, and dislocations of these sites that still cause distress. Also classified in X80-X89 are curvature of the spine, clubfoot, and specified structural deformities of the limbs, back, or trunk. When multiple sites involve only X70-X79, category X78 was coded.

orthopedic impairment. Of the four sites, the back or spine had the highest number of impairments (approximately 9 million, or 44.1 per 1,000 persons). Almost two-thirds of the orthopedic impairments of the back or spine were of the back or vertebra; almost one-third involved structural deformities of the spine.

Approximately 7 million impairments were estimated for the lower extremity or hip, representing a rate per 1,000 persons of 33.7. Almost three-fifths of these cases involved flatfoot and knee or leg impairments; almost one-fifth involved deformity of the lower extremity.

There were also 2.5 million cases of nonparalytic orthopedic impairments in the upper extremity or shoulder region and about 1 million multiple or other nonparalytic impairments of limbs, back, or trunk (table S).

Tables 9-12 present the number and rate per 1,000 persons for nonparalytic orthopedic impairments in four body regions by various sociodemographic characteristics.

As noted previously, the relative frequency of the impairments increased with age. Regarding the back or spine, females under 17 years of age and those 75 years of age and over had a higher rate of such impairments than males in those same age categories had.

In 1977, males 17-64 years of age had a higher rate of impairments of the upper extremity or shoulder than females in that age group had, and white persons 17-44 years of age had a higher rate of these impairments than all other persons of that age category had. Impairments of the lower extremity or hip were

Table S. Number, percent distribution, and rate per 1,000 persons of nonparalytic orthopedic impairments (except absence) reported in health interviews, by type of impairment: United States, 1977 and 1971

Type of impairment and impairment code[1]	1977			1971		
	Number in thousands	Percent distribution	Rate per 1,000 persons[2]	Number in thousands	Percent distribution	Rate per 1,000 persons[2]
Back or spine X70-X72,X80,X81.X	9,365	100.0	44.1	8,018	100.0	39.6
Back (NOS), spine (NOS), vertebra (NOS) X70	[3]5,964	63.7	28.1	[3]5,494	68.5	27.1
Cervical or thoracic region X71	[3]556	5.9	2.6	[3]536	6.7	2.6
Coccygeal region X72	[3]38	0.4	0.2	[3]*	*	*
Structural deformities of spine X80	2,764	29.5	13.0	1,925	24.0	9.5
Spina bifida X81.X	44	0.5	0.2	36	0.4	0.2
Upper extremity or shoulder X73,X74,X86-X88	2,500	100.0	11.8	2,440	100.0	12.1
Shoulder and arm, above wrist X73	[3]655	26.2	3.1	[3]573	23.5	2.8
Wrist, hand, finger, thumb X74	[3]725	29.0	3.4	[3]729	29.9	3.6
Deformity, neck or shoulder region X86	46	1.8	0.2	53	2.2	0.3
Deformity, finger(s), thumb(s) only X87	703	28.1	3.3	708	29.0	3.5
Deformity, upper extremity X88	371	14.8	1.7	378	15.5	1.9
Lower extremity or hip X75-X77,X82-X85	7,147	100.0	33.7	7,387	100.0	36.5
Hip and/or pelvis, alone or with any other site in X70-X79 .... X75	[3]574	8.0	2.7	[3]624	8.4	3.1
Knee, leg NOS X76	[3]2,032	28.4	9.6	[3]1,795	24.3	8.9
Ankle, foot, toe X77	[3]784	11.0	3.7	[3]712	9.6	3.5
Flatfoot X82	2,174	30.4	10.2	3,150	42.6	15.6
Clubfoot X83	148	2.1	0.7	103	1.4	0.5
Deformity, other and multiple, lower extremity, NEC X84	1,346	18.8	6.3	869	11.8	4.3
Deformity, hip and/or pelvis X85	90	1.3	0.4	134	1.8	0.7
Other and multiple, NEC, and ill-defined, of limbs, back, or trunk X78,X79,X89	1,213	100.0	5.7	1,034	100.0	5.1
Multiple sites NEC X78	[3]1,043	86.0	4.9	[3]878	84.9	4.3
Other and ill-defined sites X79	[3]147	12.1	0.7	[3]126	12.2	0.6
Deformity, trunk bones, NEC X89	*22	*1.8	*0.1	*	*	*

[1]A complete listing of impairment X-Codes is presented in appendix II.
[2]Population (in thousands) used in computation of rates for 1977 and 1971 was 212,153 and 202,360, respectively.
[3]As noted earlier in the text, within each of the impairment groups, *with the exception of X80-X89*, the prevalence estimate may be considered as a count of persons in that group.

NOTES: NOS = not otherwise specified; NEC = not elsewhere classified.

relatively more common among males under 45 years of age than among similarly aged females, but for those 75 years of age and over the rate was higher for females than for males.

Among persons 17-64 years of age, the rate of impairments both of the back or spine and upper extremity or shoulder was higher for persons in families with incomes less than $3,000 than it was for those in families with incomes of $15,000 or more. For each age category the same income pattern was consistent with regard to impairments of the lower extremity or hip.

Etiology.—For each of the sites, injury was the primary cause of nonparalytic orthopedic impairments (table T).

Impact.—Approximately one-fifth of the impairments in the upper extremity or shoulder, one-fourth of each of the back or spine and lower extremity or hip areas, and more than one-half of the multiple nonparalytic orthopedic impairments caused limitation of activity (table F). Because of the high percent of unknowns for the nonparalytic orthopedic impairments, statements on other impact measures are not made. However, the data are shown in tables F-L.

Table T. Number, percent distribution, and rate per 1,000 persons of nonparalytic orthopedic impairments (except absence) reported in health interviews, by type of impairment and etiology: United States, 1977

Etiology and code[1]	Number in thousands				Percent distribution				Rate per 1,000 persons			
	Back or spine	Upper extremity or shoulder	Lower extremity or hip	Other multiple, NEC	Back or spine	Upper extremity or shoulder	Lower extremity or hip	Other multiple, NEC	Back or spine	Upper extremity or shoulder	Lower extremity or hip	Other multiple, NEC
All causes ....(.1-.9, .X, .Y, .0)	9,365	2,500	7,147	1,213	100.0	100.0	100.0	100.0	44.1	11.8	33.7	5.7
Other infection...............................(.3)	173	261	157	*4	1.8	10.4	2.2	*0.3	0.8	1.2	0.7	*0.0
Injury ....(.9)	3,467	1,770	2,889	923	37.0	70.8	40.4	76.1	16.3	8.3	13.6	4.4
Congenital origin or birth factor .... (.X)	753	119	1,113	*18	8.0	4.8	15.6	*1.5	3.5	0.6	5.2	*0.1
Other and ill-defined conditions[2] .... (.1, .2, .4-.8, .Y)	1,750	172	1,142	105	18.7	6.9	16.0	8.7	8.2	0.8	5.4	0.5
Unknown to respondent................(.0)	3,223	178	1,845	163	34.4	7.1	25.8	13.4	15.2	0.8	8.7	0.8

[1]A complete list of etiology codes is presented in appendix II.
[2]About 90 percent in this category are code (.Y).

CHANGES IN THE PREVALENCE RATE OF SELECTED IMPAIRMENTS: 1971 AND 1977

Between 1971 and 1977, the prevalence rate of less severe visual impairments, hearing impairments, and nonparalytic orthopedic impairments of the back or spine has increased. By contrast, the rate per 1,000 persons for nonparalytic orthopedic impairments of the lower extremity or hip has decreased (table A). Analysis of these changes among selected age-sex categories reveals, however, that changes did not occur uniformly across all age-sex categories examined.

Rather, these changes appear to have been confined to specific age categories of males or females. For example, an increase was found in the rate of other less severe visual impairments for males 65 years of age and over (table 3), in the rate of hearing impairments among males 45-64 years of age (table 4), and in the rate of nonparalytic orthopedic impairments of the back or spine for females under 45 years of age (table 9). With regard to the decrease in the rate of nonparalytic orthopedic impairments of the lower extremity or hip, it appears that the decline has occurred mainly among males 17-44 years of age (table 11).

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LIST OF DETAILED TABLES

Table 1. Number of visual impairments reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65 years and over	All ages	Under 17 years	17-44 years	45-64 years	65 years and over
	Number in thousands					Rate per 1,000 persons				
Total[1]	11,415	678	2,877	2,959	4,902	53.8	11.3	33.2	68.2	220.2
Sex										
Male	5,910	436	1,891	1,702	1,881	57.7	14.3	45.1	82.2	204.5
Female	5,505	241	986	1,257	3,021	50.2	8.2	22.1	55.5	231.1
Color										
White	10,066	599	2,540	2,584	4,353	54.7	11.8	33.8	66.6	215.9
All other	1,349	89	337	374	549	47.8	8.8	29.3	81.9	261.1
Family income										
Less than $3,000	1,309	*30	176	301	802	120.9	*12.8	44.2	161.1	303.7
$3,000-$4,999	1,671	60	181	294	1,136	108.6	15.7	38.4	115.7	263.0
$5,000-$6,999	1,225	49	222	261	693	75.1	11.4	38.9	90.9	201.7
$7,000-$9,999	1,328	68	368	289	603	59.1	10.5	40.9	71.7	203.3
$10,000-$14,999	1,686	125	591	500	471	41.3	10.1	32.6	65.1	181.2
$15,000 or more	3,069	308	1,173	1,030	558	35.3	12.0	30.3	52.9	183.3
Education of head of family										
Less than 9 years	3,651	119	329	925	2,277	95.2	13.7	33.5	90.4	236.2
9-11 years	1,723	144	412	471	696	51.6	14.0	33.4	64.9	199.3
12 years	3,040	213	983	888	956	42.9	10.0	31.7	63.4	210.3
13 years or more	2,817	193	1,133	647	844	42.1	10.1	34.8	57.7	208.4
Usual activity status										
Usually working (17 years and over)	3,846	...	2,007	1,492	346	45.6	...	36.8	55.0	128.6
Usually keeping house (female, 17 years and over)	3,680	...	426	796	2,458	94.5	...	25.9	67.6	229.7
Retired (45 years and over)	2,195	...	...	470	1,725	203.0	...	...	157.3	220.5
Limitation of activity										
Limited in activity	1,496	85	278	376	757	7.1	1.4	3.2	8.7	34.0
Cannot perform usual activity	475	*5	*19	143	307	2.2	*0.1	*0.2	3.3	13.8
Can perform usual activity but limited in amount or kind	624	*26	143	143	312	2.9	*0.4	1.7	3.3	14.0
Can perform usual activity but limited in outside activity	397	54	116	90	138	1.9	0.9	1.3	2.1	6.2
Not limited[2]	9,919	593	2,599	2,583	4,145	46.8	9.9	30.0	59.6	186.2
Place of residence										
All SMSA	7,331	433	2,025	1,858	3,015	50.6	10.7	33.4	62.2	216.3
Central city	3,411	163	870	898	1,480	56.5	10.2	34.6	71.4	220.9
Not central city	3,920	270	1,155	960	1,535	46.4	11.1	32.5	55.5	212.0
Outside SMSA	4,084	245	852	1,100	1,887	60.7	12.5	32.9	81.6	226.6
Nonfarm	3,745	218	802	985	1,740	61.5	12.3	33.7	83.1	230.1
Farm	339	*27	50	115	147	53.2	*14.9	23.1	70.9	192.4
Geographic region										
Northeast	2,412	181	608	590	1,034	49.8	13.8	31.6	55.2	192.2
North Central	2,850	180	713	716	1,241	50.4	11.2	30.7	63.1	207.2
South	4,103	192	983	1,108	1,820	59.5	9.6	35.5	79.9	248.8
West	2,049	124	573	544	807	53.6	11.5	34.9	72.9	225.4

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 2. Number of severe visual impairments reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 45 years	45-64 years	65 years and over	All ages	Under 45 years	45-64 years	65 years and over
	Number in thousands				Rate per 1,000 persons			
Total[1]	1,391	141	259	990	6.6	1.0	6.0	44.5
Sex								
Male	554	84	127	342	5.4	1.2	6.1	37.2
Female	838	57	132	648	7.6	0.8	5.8	49.6
Color								
White	1,143	107	196	840	6.2	0.9	5.1	41.7
All other	248	*34	64	150	8.8	*1.6	14.0	71.3
Family income								
Less than $3,000	283	*15	49	220	26.1	*2.4	26.2	83.3
$3,000-$4,999	327	*25	51	251	21.3	*2.9	20.1	58.1
$5,000-$9,999	326	47	65	214	8.4	1.8	9.4	33.4
$10,000 or more	268	43	66	159	2.1	0.5	2.4	28.2
Education of head of family								
Less than 9 years	770	43	154	573	20.1	2.3	15.0	59.4
9-11 years	169	*33	*31	106	5.1	*1.5	*4.3	30.3
12 years	251	37	47	167	3.5	0.7	3.4	36.7
13 years or more	163	*29	*27	107	2.4	*0.6	*2.4	26.4
Usual activity status								
Usually working (17 years and over)	105	37	57	*11	1.2	0.7	2.1	*4.1
Usually keeping house (female, 17 years and over)	568	*29	94	445	14.6	*1.8	8.0	41.6
Retired (45 years and over)	423	...	69	354	39.1	...	23.1	45.2
Limitation of activity								
Limited in activity	515	69	94	351	2.4	0.5	2.2	15.8
Cannot perform usual activity	237	*15	45	177	1.1	*0.1	1.0	7.9
Can perform usual activity but limited in amount or kind	212	42	39	131	1.0	0.3	0.9	5.9
Can perform usual activity but limited in outside activity	67	*13	*11	43	0.3	*0.1	*0.3	1.9
Not limited[2]	876	72	165	639	4.1	0.5	3.8	28.7
Place of residence								
All SMSA	845	100	152	593	5.8	1.0	5.1	42.5
Central city	475	65	92	318	7.9	1.6	7.3	47.5
Not central city	370	35	60	275	4.4	0.6	3.5	38.0
Outside SMSA	546	41	107	398	8.1	0.9	7.9	47.8
Nonfarm	506	37	103	367	8.3	0.9	8.7	48.5
Farm	40	*5	*5	*31	6.3	*1.3	*3.1	*40.6
Geographic region								
Northeast	312	*30	46	236	6.4	*0.9	4.3	43.9
North Central	298	*25	56	217	5.3	*0.6	4.9	36.2
South	613	72	119	422	8.9	1.5	8.6	57.7
West	168	*15	38	115	4.4	*0.6	5.1	32.1

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.

[2]Includes unknowns.

Table 3. Number of other visual impairments reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65 years and over	All ages	Under 17 years	17-44 years	45-64 years	65 years and over
	Number in thousands					Rate per 1,000 persons				
Total[1]	10,024	641	2,772	2,699	3,911	47.2	10.7	32.0	62.3	175.6
Sex										
Male	5,356	409	1,834	1,575	1,538	52.3	13.4	43.7	76.1	167.2
Female	4,668	232	938	1,124	2,373	42.5	7.9	21.0	49.6	181.6
Color										
White	8,922	560	2,460	2,388	3,513	48.5	11.2	32.8	61.6	174.2
All other	1,102	81	312	311	398	39.0	8.1	27.1	68.1	189.3
Family income										
Less than $3,000................................	1,025	*28	163	252	582	94.6	*12.0	40.9	134.9	220.4
$3,000-$4,999	1,344	59	158	242	885	87.4	15.5	33.6	95.3	204.9
$5,000-$6,999	1,037	40	203	228	566	63.6	9.3	35.6	79.4	164.8
$7,000-$9,999	1,190	64	352	257	517	52.9	9.8	39.1	63.8	174.3
$10,000-$14,999	1,575	121	580	464	410	38.6	9.7	32.0	60.4	157.8
$15,000 or more	2,911	294	1,159	999	460	33.5	11.5	29.9	51.3	151.1
Education of head of family										
Less than 9 years...............................	2,881	110	296	771	1,704	75.1	12.7	30.1	75.3	176.7
9-11 years	1,554	135	388	440	591	46.6	13.1	31.4	60.6	169.2
12 years	2,789	210	950	841	789	39.4	9.9	30.6	60.0	173.6
13 years or more	2,654	178	1,119	619	737	39.7	9.3	34.4	55.2	182.0
Usual activity status										
Usually working (17 years and over)	3,740	...	1,970	1,435	336	44.3	...	36.1	52.9	124.9
Usually keeping house (female, 17 years and over)	3,112	...	397	702	2,013	79.9	...	24.1	59.6	188.1
Retired (45 years and over)......................	1,772	...	...	401	1,371	163.9	...	...	134.2	175.2
Limitation of activity										
Limited in activity	981	60	233	281	405	4.6	1.0	2.7	6.5	18.2
Cannot perform usual activity..................	238	*2	*8	99	130	1.1	*0.0	*0.1	2.3	5.8
Can perform usual activity but limited in amount or kind...........................	412	*10	118	104	180	1.9	*0.2	1.4	2.4	8.1
Can perform usual activity but limited in outside activity	330	48	108	79	95	1.6	0.8	1.2	1.8	4.3
Not limited[2]	9,043	580	2,539	2,418	3,506	42.6	9.7	29.3	55.8	157.5
Place of residence										
All SMSA	6,486	407	1,951	1,706	2,422	44.8	10.1	32.1	57.1	173.7
Central city	2,936	151	817	806	1,161	48.6	9.5	32.5	64.0	173.3
Not central city................................	3,551	256	1,134	900	1,260	42.0	10.5	31.9	52.0	174.0
Outside SMSA...................................	3,537	234	821	993	1,490	52.6	12.0	31.7	73.7	179.0
Nonfarm	3,239	209	774	882	1,373	53.2	11.8	32.6	74.4	181.6
Farm	299	*25	47	110	116	47.0	*13.8	21.7	67.8	151.8
Geographic region										
Northeast	2,101	177	581	544	798	43.4	13.5	30.2	50.9	148.3
North Central....................................	2,552	173	895	660	1,024	45.1	10.8	29.9	58.2	171.0
South	3,490	172	931	989	1,398	50.6	8.6	33.6	71.4	191.1
West...	1,881	118	565	506	692	49.2	11.0	34.4	67.8	193.2

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 4. Number of hearing impairments (includes tinnitus) reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65-74 years	75 years and over	All ages	Under 17 years	17-44 years	45-64 years	65-74 years	75 years and over
	Number in thousands						Rate per 1,000 persons					
Total[1]	16,219	856	3,480	5,365	3,431	3,087	76.4	14.3	40.2	123.7	240.6	385.5
Sex												
Male	8,925	489	2,093	3,233	1,791	1,318	87.2	16.0	49.9	156.2	289.1	439.3
Female	7,294	366	1,387	2,133	1,639	1,769	66.4	12.5	31.0	94.1	203.3	353.3
Color												
White	14,945	743	3,151	5,012	3,176	2,864	81.3	14.9	42.0	129.2	246.7	393.0
All other	1,273	113	329	354	255	223	45.1	11.2	28.6	77.5	184.1	310.6
Family income												
Less than $3,000	1,584	44	212	365	422	542	146.3	18.8	53.2	195.4	303.6	433.3
$3,000-$4,999	2,111	71	221	437	657	724	137.2	18.6	46.9	172.0	265.5	392.2
$5,000-$6,999	1,738	75	215	430	543	474	106.6	17.5	37.7	149.7	245.0	388.8
$7,000-$9,999	1,900	115	435	550	487	314	84.5	17.7	48.4	136.4	228.6	375.6
$10,000-$14,999	2,644	164	776	987	457	259	64.8	13.2	42.8	128.5	239.0	377.0
$15,000 or more	4,645	346	1,415	2,110	433	340	53.4	13.5	36.5	108.4	203.0	373.6
Education of head of family												
Less than 9 years	5,119	136	411	1,452	1,547	1,572	133.4	15.7	41.9	141.8	268.6	404.9
9-11 years	2,583	165	477	943	599	398	77.4	16.1	38.7	129.9	249.5	364.5
12 years	4,419	302	1,235	1,691	680	511	62.4	14.2	39.8	120.6	219.1	354.4
13 years or more	3,816	243	1,316	1,207	546	503	57.1	12.8	40.4	107.7	199.7	382.2
Usual activity status												
Preschool (under 6 years)	136	136	...	...	...	...	7.4	7.4	...	...	...	...
School age (6-16 years)	719	719	...	...	...	...	17.4	17.4	...	...	...	...
Usually working (17 years and over)	6,018	...	2,382	3,040	442	154	71.4	...	43.7	112.1	195.3	359.8
Usually keeping house (female, 17 years and over)	4,714	...	582	1,312	1,388	1,431	121.1	...	35.4	111.3	209.4	351.7
Retired (45 years and over)	3,503	...	...	760	1,486	1,258	324.0	...	...	254.4	301.5	434.4
Other (17 years and over)[2]	1,128	...	515	253	115	245	62.1	...	32.9	171.3	262.6	399.0
Limitation of activity												
Limited in activity	755	120	173	194	114	153	3.6	2.0	2.0	4.5	8.0	19.1
Cannot perform usual activity	177	*4	*13	51	39	71	0.8	*0.1	*0.2	1.2	2.7	8.9
Can perform usual activity but limited in amount or kind	283	60	64	69	37	53	1.3	1.0	0.7	1.6	2.6	6.6
Can perform usual activity but limited in outside activity	295	56	95	74	39	*30	1.4	0.9	1.1	1.7	2.7	*3.7
Not limited[2]	15,464	736	3,307	5,171	3,316	2,934	72.9	12.3	38.2	119.3	232.6	366.4
Place of residence												
All SMSA	10,158	558	2,355	3,450	1,983	1,811	70.1	13.8	38.8	115.5	220.8	365.2
Central city	4,499	248	1,010	1,464	914	863	74.5	15.5	40.2	116.3	211.3	363.4
Not central city	5,659	311	1,346	1,986	1,068	948	67.0	12.7	37.8	114.8	229.4	367.0
Outside SMSA	6,061	297	1,125	1,915	1,448	1,276	90.1	15.2	43.4	142.1	274.3	418.6
Nonfarm	5,484	275	1,052	1,687	1,296	1,173	90.1	15.5	44.3	142.3	272.8	417.3
Farm	577	*22	72	228	152	103	90.6	*12.1	33.2	140.6	288.4	434.6
Geographic region												
Northeast	3,424	170	649	1,209	688	708	70.7	12.9	33.7	113.0	202.7	356.5
North Central	4,282	214	957	1,390	877	845	75.7	13.4	41.2	122.6	233.4	378.4
South	5,417	284	1,132	1,703	1,258	1,040	78.6	14.2	40.8	122.9	262.2	413.2
West	3,095	188	742	1,064	608	494	81.0	17.5	45.2	142.6	263.2	388.7

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.

[2]Includes unknowns.

Table 5. Number of speech impairments reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65 years and over	All ages	Under 17 years	17-44 years	45-64 years	65 years and over
	Number in thousands					Rate per 1,000 persons				
Total[1]	1,995	913	555	315	212	9.4	15.2	6.4	7.3	9.5
Sex										
Male	1,306	606	366	208	127	12.8	19.8	8.7	10.0	13.8
Female	688	307	189	107	86	6.3	10.5	4.2	4.7	6.6
Color										
White	1,578	712	419	254	193	8.6	14.3	5.6	6.5	9.6
All other	417	200	136	61	*20	14.8	19.9	11.8	13.4	*9.5
Family income										
Less than $3,000	210	77	58	43	*32	19.4	32.9	14.6	23.0	*12.1
$3,000-$4,999	259	90	70	51	49	16.8	23.6	14.9	20.1	11.3
$5,000-$6,999	217	93	51	38	*34	13.3	21.6	8.9	13.2	*9.9
$7,000-$9,999	218	97	61	44	*17	9.7	14.9	6.8	10.9	*5.7
$10,000-$14,999	349	160	117	50	*22	8.6	12.9	6.5	6.5	*8.5
$15,000 or more	572	335	150	62	*25	6.6	13.1	3.9	3.2	*8.2
Education of head of family										
Less than 9 years	555	162	147	141	105	14.5	18.7	15.0	13.8	10.9
9-11 years	359	184	88	58	*29	10.8	17.9	7.1	8.0	*8.3
12 years	618	333	180	64	42	8.7	15.7	5.8	4.6	9.2
13 years or more	445	229	135	50	*32	6.7	12.0	4.1	4.5	*7.9
Usual activity status										
Preschool (under 6 years)	245	245	...	...	...	13.3	13.3	...	...	...
School age (6-16 years)	668	668	...	...	...	16.1	16.1	...	...	...
Usually working (17 years and over)	444	...	311	120	*13	5.3	...	5.7	4.4	*4.8
Usually keeping house (female, 17 years and over)	195	...	76	65	54	5.0	...	4.6	5.5	5.0
Retired (45 years and over)	193	...	...	74	119	17.9	...	...	24.8	15.2
Other (17 years and over)[2]	250	...	168	56	*26	13.8	...	10.7	37.9	*24.7
Limitation of activity										
Limited in activity	186	68	*21	39	59	0.9	1.1	*0.2	0.9	2.7
Not limited[2]	1,808	845	533	276	154	8.5	14.1	6.2	6.4	6.9
Place of residence										
All SMSA	1,290	600	363	208	120	8.9	14.9	6.0	7.0	8.6
Central city	636	267	187	126	56	10.5	16.7	7.4	10.0	8.4
Not central city	655	333	176	82	64	7.7	13.6	4.9	4.7	8.8
Outside SMSA	704	313	192	107	93	10.5	16.0	7.4	7.9	11.2
Nonfarm	657	300	172	98	86	10.8	16.9	7.2	8.3	11.4
Farm	47	*12	*20	*9	*7	7.4	*6.6	*9.2	*5.5	*9.2
Geographic region										
Northeast	462	225	123	67	47	9.5	17.1	6.4	6.3	8.7
North Central	523	235	137	88	63	9.2	14.7	5.9	7.8	10.5
South	706	328	205	102	72	10.2	16.4	7.4	7.4	9.8
West	304	125	90	58	*31	8.0	11.6	5.5	7.8	*8.7

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 6. Number of cases of paralysis, complete or partial, reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65 years and over	All ages	Under 17 years	17-44 years	45-64 years	65 years and over
	Number in thousands					Rate per 1,000 persons				
Total[1]	1,532	121	353	470	588	7.2	2.0	4.1	10.8	26.4
Sex										
Male	803	67	188	270	279	7.8	2.2	4.5	13.0	30.3
Female	729	55	165	200	309	6.6	1.9	3.7	8.8	23.6
Color										
White	1,298	99	300	403	496	7.1	2.0	4.0	10.4	24.6
All other	234	*22	53	67	92	8.3	*2.2	4.6	14.7	43.7
Family income										
Less than $3,000	175	*8	*26	63	79	16.2	*3.4	*6.5	33.7	29.9
$3,000-$4,999	263	*9	49	72	133	17.1	*2.4	10.4	28.3	30.8
$5,000-$6,999	184	*5	*31	42	105	11.3	*1.2	*5.4	14.6	30.6
$7,000-$9,999	174	*9	51	47	68	7.7	*1.4	5.7	11.7	22.9
$10,000-$14,999	234	*31	68	75	60	5.7	*2.5	3.8	9.8	23.1
$15,000 or more	349	50	102	129	68	4.0	2.0	2.6	6.6	22.3
Education of head of family										
Less than 9 years	508	*16	67	152	274	13.2	*1.8	6.8	14.8	28.4
9-11 years	220	*22	62	63	72	6.6	*2.1	5.0	8.7	20.6
12 years	388	43	98	138	108	5.5	2.0	3.2	9.8	23.8
13 years or more	390	38	119	116	117	5.8	2.0	3.7	10.4	28.9
Usual activity status										
Usually working (17 years and over)	279	...	144	119	*16	3.3	...	2.6	4.4	*5.9
Usually keeping house (female, 17 years and over)	354	...	62	125	167	9.1	...	3.8	10.6	15.6
Retired (45 years and over)	453	...	...	158	295	41.9	...	...	52.9	37.7
Limitation of activity										
Limited in activity	894	84	219	281	310	4.2	1.4	2.5	6.5	13.9
Cannot perform usual activity	421	*11	76	122	211	2.0	*0.2	0.9	2.8	9.5
Can perform usual activity but limited in amount or kind	312	48	80	113	72	1.5	0.8	0.9	2.6	3.2
Can perform usual activity but limited in outside activity	161	*25	64	45	*27	0.8	*0.4	0.7	1.0	*1.2
Not limited[2]	639	38	134	189	278	3.0	0.6	1.5	4.4	12.5
Place of residence										
All SMSA	947	70	224	313	340	6.5	1.7	3.7	10.5	24.4
Central city	501	*33	125	172	171	8.3	*2.1	5.0	13.7	25.5
Not central city	446	37	99	141	169	5.3	1.5	2.8	8.2	23.3
Outside SMSA	586	52	129	157	248	8.7	2.7	5.0	11.6	29.8
Nonfarm	547	48	121	147	230	9.0	2.7	5.1	12.4	30.4
Farm	39	*4	*8	*9	*18	6.1	*2.2	*3.7	*5.5	*23.6
Geographic region										
Northeast	284	*15	60	87	122	5.9	*1.1	3.1	8.1	22.7
North Central	397	*33	95	127	143	7.0	*2.1	4.1	11.2	23.9
South	591	53	145	156	237	8.6	2.6	5.2	11.3	32.4
West	260	*21	53	99	87	6.8	*2.0	3.2	13.3	24.3

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 7. Number of cases of absence of major extremities reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 45 years	45-64 years	65 years and over	All ages	Under 45 years	45-64 years	65 years and over
	Number in thousands				Rate per 1,000 persons			
Total[1]	358	84	136	138	1.7	0.6	3.1	6.2
Sex								
Male	252	60	109	82	2.5	0.8	5.3	8.9
Female	106	*23	*27	56	1.0	*0.3	*1.2	4.3
Color								
White	287	66	118	104	1.6	0.5	3.0	5.2
All other	70	*17	*18	35	2.5	*0.8	*3.9	16.6
Family income								
Less than $5,000	89	*11	*24	54	3.4	*0.7	*5.4	7.8
$5,000-$9,999	93	*20	41	*32	2.4	*0.8	5.9	*5.0
$10,000 or more	126	49	54	*24	1.0	0.5	2.0	*4.3
Education of head of family								
Less than 12 years	212	*34	81	97	3.0	*0.8	4.6	7.4
12 years or more	136	49	49	37	1.0	0.5	1.9	4.3
Usual activity status								
Usually working (17 years and over)	116	51	59	*5	1.4	0.9	2.2	*1.9
Retired (45 years and over)	114	...	41	73	10.5	...	13.7	9.3
Limitation of activity								
Limited in activity	236	51	84	101	1.1	0.3	1.9	4.5
Not limited[2]	122	*33	52	37	0.6	*0.2	1.2	1.7
Place of residence								
All SMSA	206	48	85	74	1.4	0.5	2.8	5.3
Outside SMSA	152	36	51	65	2.3	0.8	3.8	7.8
Geographic region								
Northeast	71	*15	*34	*23	1.5	*0.5	*3.2	*4.3
North Central	54	*9	*22	*23	1.0	*0.2	*1.9	*3.8
South	170	42	56	72	2.5	0.9	4.0	9.8
West	63	*18	*24	*21	1.6	*0.7	*3.2	*5.9

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 8. Number of cases of absence of entire finger(s) or toe(s) only reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 45 years	45-64 years	65 years and over	All ages	Under 45 years	45-64 years	65 years and over
	Number in thousands				Rate per 1,000 persons			
Total[1]	1,867	666	700	500	8.8	4.5	16.1	22.5
Sex								
Male	1,522	543	588	391	14.9	7.5	28.4	42.5
Female	345	123	112	110	3.1	1.7	4.9	8.4
Color								
White	1,675	602	624	449	9.1	4.8	16.1	22.3
All other	191	64	76	52	6.8	3.0	16.6	24.7
Family income								
Less than $3,000	95	*18	*33	44	8.8	*2.8	*17.7	16.7
$3,000-$4,999	191	*33	44	114	12.4	*3.9	17.3	26.4
$5,000-$6,999	204	43	56	104	12.5	4.3	19.5	30.3
$7,000-$9,999	233	65	86	81	10.4	4.2	21.3	27.3
$10,000-$14,999	375	192	138	45	9.2	6.3	18.0	17.3
$15,000 or more	582	253	278	51	6.7	3.9	14.3	16.8
Education of head of family								
Less than 9 years	638	106	248	284	16.6	5.7	24.2	29.5
9-11 years	338	111	143	84	10.1	4.9	19.7	24.0
12 years	549	265	202	83	7.7	5.1	14.4	18.3
13 years or more	303	171	94	39	4.5	3.3	8.4	9.6
Usual activity status								
Usually working (17 years and over)	1,044	484	481	79	12.4	8.9	17.7	29.4
Usually keeping house (female, 17 years and over)	175	*27	60	88	4.5	*1.6	5.1	8.2
Retired (45 years and over)	427	...	106	321	39.5	...	35.5	41.0
Limitation of activity								
Limited in activity	89	46	*28	*15	0.4	0.3	*0.6	*0.7
Not limited[2]	1,777	620	672	486	8.4	4.2	15.5	21.8
Place of residence								
All SMSA	1,017	376	406	235	7.0	3.7	13.6	16.9
Central city	439	153	166	120	7.3	3.7	13.2	17.9
Not central city	579	224	240	115	6.9	3.7	13.9	15.9
Outside SMSA	850	290	294	265	12.6	6.4	21.8	31.8
Nonfarm	756	259	253	243	12.4	6.2	21.3	32.1
Farm	94	*31	41	*22	14.8	*7.8	25.3	*28.8
Geographic region								
Northeast	345	116	121	107	7.1	3.6	11.3	19.9
North Central	552	201	206	145	9.8	5.1	18.2	24.2
South	656	219	264	173	9.5	4.6	19.0	23.6
West	314	130	109	75	8.2	4.8	14.6	20.9

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 9. Number of orthopedic impairments (except paralysis) of back or spine reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65-74 years	75 years and over	All ages	Under 17 years	17-44 years	45-64 years	65-74 years	75 years and over
	Number in thousands						Rate per 1,000 persons					
Total[1]	9,365	309	4,565	3,007	940	545	44.1	5.2	52.7	69.4	65.9	68.1
Sex												
Male..	4,106	93	2,108	1,400	357	148	40.1	3.0	50.3	67.6	57.6	49.3
Female..	5,259	216	2,457	1,606	582	397	47.9	7.4	55.0	70.9	72.2	79.3
Color												
White	8,479	282	4,152	2,690	850	505	46.1	5.7	55.3	69.3	66.0	69.3
All other	886	*28	413	316	90	39	31.4	*2.8	35.9	69.2	65.0	54.3
Family income												
Less than $3,000	765	*22	288	214	127	114	70.6	*9.4	72.3	114.6	91.4	91.1
$3,000-$4,999	958	*16	339	277	174	153	62.3	*4.2	72.0	109.1	70.3	82.9
$5,000-$6,999	862	*17	365	256	145	78	52.9	*4.0	64.0	89.1	65.4	64.0
$7,000-$9,999	1,029	36	510	321	116	47	45.8	5.5	56.7	79.6	54.5	56.2
$10,000-$14,999	1,649	55	936	519	104	35	40.4	4.4	51.7	67.6	54.4	50.9
$15,000 or more....................................	3,268	137	1,853	1,122	110	45	37.6	5.3	47.8	57.6	51.6	49.5
Education of head of family												
Less than 9 years	1,941	38	450	791	396	267	50.6	4.4	45.8	77.3	68.8	68.8
9-11 years	1,536	37	675	560	183	81	46.0	3.6	54.7	77.2	76.2	74.2
12 years	2,863	120	1,603	846	191	102	40.4	5.6	51.6	60.4	61.5	70.7
13 years or more....................................	2,902	94	1,804	763	153	88	43.4	4.9	55.4	68.1	56.0	66.9
Usual activity status												
Usually working (17 years and over)..........	4,646	...	2,894	1,597	128	*27	55.1	...	53.1	58.9	56.6	*63.1
Usually keeping house (female, 17 years and over)	2,759	...	1,038	911	482	329	70.9	...	63.1	77.3	72.7	80.9
Retired (45 years and over)	781	...	...	328	306	148	72.2	...	...	109.8	62.1	51.1
Limitation of activity												
Limited in activity	2,391	81	1,058	883	257	112	11.3	1.4	12.2	20.4	18.0	14.0
Cannot perform usual activity	400	*2	119	187	64	*29	1.9	*0.0	1.4	4.3	4.5	*3.6
Can perform usual activity but limited in amount or kind..................	1,435	*28	631	547	155	74	6.8	*0.5	7.3	12.6	10.9	9.2
Can perform usual activity but limited in outside activity	556	51	309	149	38	*9	2.6	0.9	3.6	3.4	2.7	*1.1
Not limited[2]	6,974	228	3,507	2,123	683	433	32.9	3.8	40.5	49.0	47.9	54.1
Place of residence												
All SMSA..	6,347	206	3,297	1,936	591	316	43.8	5.1	54.3	64.8	65.8	63.7
Central city...	2,767	89	1,390	833	291	165	45.8	5.6	55.3	66.2	67.3	69.5
Not central city	3,580	118	1,906	1,103	301	152	42.4	4.8	53.6	63.8	64.6	58.8
Outside SMSA	3,018	103	1,269	1,071	348	228	44.9	5.3	48.9	79.5	65.9	74.8
Nonfarm..	2,770	97	1,186	945	323	218	45.5	5.5	49.9	79.7	68.0	77.6
Farm...	248	*5	82	125	*25	*10	39.0	*2.8	37.9	77.1	*47.4	*42.2
Geographic region												
Northeast..	2,031	73	1,023	615	205	116	41.9	5.6	53.2	57.5	60.4	58.4
North Central	2,592	96	1,292	799	227	178	45.8	6.0	55.6	70.5	60.4	79.7
South...	2,578	65	1,100	932	319	162	37.4	3.2	39.7	67.2	66.5	64.4
West..	2,165	75	1,150	660	190	89	56.6	7.0	70.0	88.5	82.3	70.0

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 10. Number of orthopedic impairments (except paralysis or absence) of upper extremity or shoulder reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65 years and over	All ages	Under 17 years	17-44 years	45-64 years	65 years and over
	Number in thousands					Rate per 1,000 persons				
Total[1]	2,500	105	934	827	634	11.8	1.8	10.8	19.1	28.5
Sex										
Male	1,486	69	671	479	268	14.5	2.3	16.0	23.1	29.1
Female	1,014	36	264	348	366	9.2	1.2	5.9	15.4	28.0
Color										
White	2,281	95	844	755	588	12.4	1.9	11.2	19.5	29.2
All other	219	*10	91	72	46	7.8	*1.0	7.9	15.8	21.9
Family income										
Less than $3,000	218	*6	65	61	86	20.1	*2.6	16.3	32.7	32.6
$3,000-$4,999	310	*2	81	81	147	20.2	*0.5	17.2	31.9	34.0
$5,000-$6,999	270	*10	86	73	102	16.6	*2.3	15.1	25.4	29.7
$7,000-$9,999	308	*9	114	87	99	13.7	*1.4	12.7	21.6	33.4
$10,000-$14,999	432	*16	218	143	55	10.6	*1.3	12.0	18.6	21.2
$15,000 or more	755	51	317	319	68	8.7	2.0	8.2	16.4	22.3
Education of head of family										
Less than 9 years	589	*19	86	223	261	15.4	*2.2	8.8	21.8	27.1
9-11 years	405	*13	133	140	119	12.1	*1.3	10.8	19.3	34.1
12 years	794	*34	358	266	137	11.2	*1.6	11.5	19.0	30.1
13 years or more	678	39	354	185	100	10.1	2.0	10.9	16.5	24.7
Usual activity status										
Usually working (17 years and over)	1,166	. . .	638	453	74	13.8	. . .	11.7	16.7	27.5
Usually keeping house (female, 17 years and over)	601	. . .	104	199	298	15.4	. . .	6.3	16.9	27.9
Retired (45 years and over)	332	. . .	. . .	106	226	30.7	. . .	. . .	35.5	28.9
Limitation of activity										
Limited in activity	536	*17	233	169	118	2.5	*0.3	2.7	3.9	5.3
Cannot perform usual activity	97	*8	*24	*33	*32	0.5	*0.1	*0.3	*0.8	*1.4
Can perform usual activity but limited in amount or kind	244	*2	110	71	61	1.2	*0.0	1.3	1.6	2.7
Can perform activity but limited in outside activity	195	*7	98	65	*24	0.9	*0.1	1.1	1.5	*1.1
Not limited[2]	1,964	88	702	658	516	9.3	1.5	8.1	15.2	23.2
Place of residence										
All SMSA	1,637	68	673	549	347	11.3	1.7	11.1	18.4	24.9
Central city	760	*32	301	250	176	12.6	*2.0	12.0	19.9	26.3
Not central city	877	36	371	298	172	10.4	1.5	10.4	17.2	23.8
Outside SMSA	863	37	262	278	286	12.8	1.9	10.1	20.6	34.4
Nonfarm	787	*33	245	253	256	12.9	*1.9	10.3	21.3	33.9
Farm	77	*4	*17	*25	*31	12.1	*2.2	*7.8	*15.4	*40.6
Geographic region										
Northeast	602	*26	238	182	156	12.4	*2.0	12.4	17.0	29.0
North Central	689	*26	220	244	199	12.2	*1.6	9.5	21.5	33.2
South	725	*28	286	240	171	10.5	*1.4	10.3	17.3	23.4
West	485	*25	191	161	108	12.7	*2.3	11.6	21.6	30.2

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 11. Number of orthopedic impairments (except paralysis or absence) of lower extremity or hip reported in health interviews and rate of conditions per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65-74 years	75 years and over	All ages	Under 17 years	17-44 years	45-64 years	65-74 years	75 years and over
	Number in thousands						Rate per 1,000 persons					
Total[1]	7,147	1,124	2,491	1,914	899	718	33.7	18.8	28.8	44.1	63.0	89.7
Sex												
Male	3,643	634	1,466	951	370	222	35.6	20.8	35.0	45.9	59.7	74.0
Female	3,504	490	1,025	963	529	496	31.9	16.7	22.9	42.5	65.6	99.1
Color												
White	6,250	972	2,185	1,659	782	653	34.0	19.5	29.1	42.8	60.7	89.6
All other	896	153	306	255	117	65	31.7	15.2	26.6	55.8	84.5	90.5
Family income												
Less than $3,000	772	68	198	204	133	171	71.3	29.1	49.7	109.2	95.7	136.7
$3,000-$4,999	810	75	194	156	197	188	52.7	19.7	41.2	61.4	79.6	101.8
$5,000-$6,999	640	64	207	138	139	92	39.2	14.9	36.3	48.1	62.7	75.5
$7,000-$9,999	803	103	285	238	108	68	35.7	15.8	31.7	59.0	50.7	81.3
$10,000-$14,999	1,256	261	493	356	107	41	30.8	21.0	27.2	46.3	56.0	59.7
$15,000 or more	2,273	482	994	643	102	52	26.2	18.8	25.6	33.0	47.8	57.1
Education of head of family												
Less than 9 years	1,674	121	248	586	358	362	43.6	14.0	25.3	57.2	62.2	93.3
9-11 years	1,226	168	418	337	184	118	36.7	16.3	33.9	46.4	76.6	108.1
12 years	2,081	419	840	561	169	91	29.4	19.7	27.1	40.0	54.4	63.1
13 years or more	2,080	400	966	418	176	121	31.1	21.0	29.7	37.3	64.4	91.9
Usual activity status												
Preschool (under 6 years)	480	480	...	...	...	...	26.0	26.0	...	...	...	...
School age (6-16 years)	645	645	...	...	...	...	15.6	15.6	...	...	...	...
Usually working (17 years and over)	2,651	...	1,588	953	99	*11	31.4	...	29.1	35.2	43.7	*25.7
Usually keeping house (female, 17 years and over)	1,781	...	351	582	444	404	45.7	...	21.3	49.4	67.0	99.3
Retired (45 years and over)	775	...	...	222	319	234	71.7	...	...	74.3	64.7	80.8
Other (17 years and over)[2]	815	...	551	157	38	69	44.9	...	35.2	106.3	86.8	112.4
Limitation of activity												
Cannot perform usual activity	481	*5	65	163	125	123	2.3	*0.1	0.8	3.8	8.8	15.4
Can perform usual activity but limited in amount and kind	762	*28	225	251	129	129	3.6	*0.5	2.6	5.8	9.0	16.1
Can perform usual activity but limited in outside activity	655	83	332	165	37	39	3.1	1.4	3.8	3.8	2.6	4.9
Not limited[2]	5,248	1,009	1,868	1,335	609	427	24.7	16.8	21.6	30.8	42.7	53.3
Place of residence												
All SMSA	4,900	776	1,814	1,302	580	427	33.8	19.2	29.9	43.6	64.6	86.1
Central city	2,266	301	805	639	296	226	37.5	18.9	32.1	50.8	68.4	95.2
Not central city	2,634	475	1,009	663	285	201	31.2	19.5	28.4	38.3	61.2	77.8
Outside SMSA	2,247	348	677	612	319	291	33.4	17.8	26.1	45.4	60.4	95.5
Nonfarm	2,059	317	635	555	282	270	33.8	17.9	26.7	46.8	59.4	96.1
Farm	188	*32	41	57	37	*21	29.5	*17.6	18.9	35.1	70.2	*88.6
Geographic region												
Northeast	1,739	299	587	437	238	178	35.9	22.8	30.5	40.9	70.1	89.6
North Central	2,022	342	730	541	207	202	35.7	21.4	31.4	47.7	55.1	90.5
South	2,136	341	669	604	309	214	31.0	17.0	24.1	43.6	64.4	85.0
West	1,250	142	505	332	146	125	32.7	13.2	30.8	44.5	63.2	98.3

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

Table 12. Number of orthopedic impairments (except paralysis or absence), other and multiple, NEC, and ill-defined, of limbs, back, or trunk reported in health interviews and rate of conditons per 1,000 persons, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 45 years	45-64 years	65 years and over	All ages	Under 45 years	45-64 years	65 years and over
	Number in thousands				Rate per 1,000 persons			
Total [1]	1,213	512	441	259	5.7	3.5	10.2	11.6
Sex								
Male	651	305	240	106	6.4	4.2	11.6	11.5
Female	561	207	201	153	5.1	2.8	8.9	11.7
Color								
White	1,005	423	367	215	5.5	3.4	9.5	10.7
All other	207	89	74	44	7.3	4.1	16.2	20.9
Family income								
Less than $3,000	152	44	44	64	14.0	7.0	23.6	24.2
$3,000-$4,999	176	64	57	55	11.4	7.5	22.4	12.7
$5,000-$6,999	106	47	38	*21	6.5	4.7	13.2	*6.1
$7,000-$9,999	134	54	51	*29	6.0	3.5	12.7	*9.8
$10,000-$14,999	201	106	67	*28	4.9	3.5	8.7	*10.8
$15,000 or more	312	166	131	*15	3.6	2.6	6.7	*4.9
Education of nead of family								
Less than 9 years	354	54	161	139	9.2	2.9	15.7	14.4
9-11 years	192	75	78	39	5.8	3.3	10.7	11.2
12 years	344	180	119	45	4.9	3.4	8.5	9.9
13 years or more	306	194	81	*30	4.6	3.8	7.2	*7.4
Usual activity status								
Usually working (17 years and over)	509	314	188	*8	6.0	5.8	6.9	*3.0
Usually keeping house (female, 17 years and over)	335	85	118	131	8.6	5.2	10.0	12.2
Retired (45 years and over)	200	...	94	106	18.5	...	31.5	13.5
Limitation of activity								
Cannot perform usual activity	214	52	96	66	1.0	0.4	2.2	3.0
Can perform usual activity but limited in amount or kind	326	124	137	66	1.5	0.8	3.2	3.0
Can perform usual activity but limited in outside activity	125	76	36	*13	0.6	0.5	0.8	*0.6
Not limited [2]	548	261	172	114	2.6	1.8	4.0	5.1
Place of residence								
All SMSA	823	379	291	153	5.7	3.7	9.7	11.0
Central city	413	170	160	83	6.8	4.1	12.7	12.4
Not central city	409	208	131	71	4.8	3.5	7.6	9.8
Outside SMSA	390	134	150	106	5.8	2.9	11.1	12.7
Geographic region								
Northeast	301	137	101	63	6.2	4.2	9.4	11.7
North Central	272	115	101	56	4.8	2.9	8.9	9.3
South	375	150	141	84	5.4	3.1	10.2	11.5
West	264	110	99	55	6.9	4.0	13.3	15.4

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

NOTE: NEC = not elsewhere classified.

Table 13. Population used in obtaining rates shown in this publication, by age and selected characteristics: United States, 1977

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

Characteristic	All ages	Under 17 years	17-44 years	45-64 years	65 years and over	Under 45 years	65-74 years	75 years and over
	Number of persons in thousands							
Total[1]	212,153	59,909	86,620	43,357	22,266	146,529	14,259	8,007
Sex								
Male	102,384	30,547	41,940	20,700	9,197	72,487	6,196	3,000
Female	109,769	29,362	44,680	22,657	13,070	74,042	8,063	5,007
Color								
White	183,910	49,849	75,106	38,792	20,163	124,955	12,875	7,288
All other	28,243	10,060	11,514	4,566	2,103	21,574	1,385	718
Family income								
Less than $5,000	26,211	6,151	8,691	4,408	6,961	14,842	3,865	3,096
Less than $3,000	10,830	2,339	3,982	1,868	2,641	6,321	1,390	1,251
$3,000-$4,999	15,381	3,811	4,709	2,540	4,320	8,521	2,475	1,846
$5,000 or more	166,529	48,847	71,587	34,050	12,044	120,434	8,392	3,652
$5,000-$9,999	38,795	10,797	14,694	6,903	6,401	25,491	4,346	2,055
$5,000-$6,999	16,306	4,297	5,702	2,872	3,435	9,998	2,216	1,219
$7,000-$9,999	22,489	6,500	8,992	4,031	2,966	15,492	2,130	836
$10,000 or more	127,734	38,050	56,894	27,147	5,643	94,943	4,046	1,597
$10,000-$14,999	40,819	12,419	18,118	7,683	2,599	30,537	1,912	687
$15,000 or more	86,914	25,630	38,776	19,464	3,044	64,406	2,133	910
Education of head of family								
Less than 12 years	71,732	18,945	22,158	17,494	13,135	41,103	8,161	4,974
Less than 9 years	38,363	8,666	9,818	10,237	9,642	18,484	5,760	3,882
9-11 years	33,369	10,280	12,339	7,257	3,493	22,619	2,401	1,092
12 years and more	137,735	40,303	63,615	25,222	8,595	103,918	5,838	2,757
12 years	70,872	21,258	31,053	14,016	4,546	52,311	3,104	1,442
13 years or more	66,862	19,044	32,562	11,206	4,050	51,607	2,734	1,316
Usual activity status								
Preschool (under 6 years)	18,483	18,483	. . .	. . .	. . .	18,483	. . .	. . .
School age (6-16 years)	41,425	41,425	. . .	. . .	. . .	41,425	. . .	. . .
Usually working (17 years and over)	84,337	. . .	54,536	27,110	2,691	54,536	2,263	428
Usually keeping house (female, 17 years and over)	38,934	. . .	16,452	11,783	10,699	16,452	6,630	4,069
Retired (45 years and over)	10,811	. . .	. . .	2,987	7,824	. . .	4,928	2,896
Other (17 years and over)[2]	18,162	. . .	15,632	1,477	1,053	15,632	438	614
Place of residence								
All SMSA	144,888	40,380	60,689	29,879	13,941	101,069	8,982	4,959
Central city	60,365	15,967	25,113	12,584	6,701	41,080	4,326	2,375
Not central city	84,523	24,413	35,576	17,295	7,240	59,989	4,656	2,583
Outside SMSA	67,265	19,529	25,932	13,479	8,326	45,460	5,278	3,048
Nonfarm	60,898	17,714	23,765	11,857	7,562	41,479	4,751	2,811
Farm	6,367	1,815	2,166	1,622	764	3,981	527	237
Geographic region								
Northeast	48,442	13,130	19,237	10,696	5,380	32,366	3,394	1,986
North Central	56,574	16,001	23,242	11,340	5,990	39,243	3,757	2,233
South	68,906	20,012	27,719	13,860	7,316	47,731	4,798	2,517
West	38,230	10,766	16,422	7,461	3,581	27,188	2,310	1,271

[1]Subtotals may not add to total due to rounding. Total includes unknowns for family income, education of head of family, usual activity status, and limitation of activity.
[2]Includes unknowns.

APPENDIXES

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LIST OF APPENDIX FIGURES

TECHNICAL NOTES ON METHODS

Background of This Report

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

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

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

Statistical Design of the National Health Interview Survey

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

The overall sample was designed so that tabulations can be provided for each of the four major geographic regions and for selected places of residence in the United States.

The first stage of the sample design consists of drawing a sample of 376 primary sampling units (PSU's) from approximately 1,900 geographically defined PSU's. A PSU consists of a county, a small group of contiguous counties, or a standard metropolitan statistical area. The PSU's collectively cover the 50 States and the District of Columbia.

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

contains an expected six households. Three general types of segments are used.

> Area segments which are defined geographically.

> List segments, using 1970 census registers as the frame.

> Permit segments, using updated lists of building permits issued in sample PSU's since 1970.

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

The usual NHIS sample consists of approximately 12,000 segments containing about 50,000 assigned households, of which 9,000 were vacant, demolished, or occupied by persons not in the scope of the survey. The 41,000 eligible occupied households yield a probability sample of about 120,000 persons.

Descriptive material on data collection, field procedures, and questionnaire development in the NHIS has been published[1,10] as well as a detailed description of the sample design[11] and a report on the estimation procedure and the method used to calculate sampling errors of estimates derived from the survey.[12]

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

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

1. *Inflation by the reciprocal of the probability of selection.*—The probability of selection is the product of the probabilities of selection

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NOTE: A list of references follows the text.

from each step of selection in the design (PSU, segment, and household).

2. *Nonresponse adjustment.*—The estimates are inflated by a multiplication factor which has as its numerator the number of sample households in a given segment and as its denominator the number of households interviewed in that segment.

3. *First-stage ratio adjustment.*—Sampling theory indicates that the use of auxiliary information which is highly correlated with the variables being estimated improves the reliability of the estimates. To reduce the variability between PSU's within a region, the estimates are ratio adjusted to the 1970 populations within 12 color-residence classes.

4. *Poststratification by age-sex-color.*—The estimates are ratio adjusted within each of 60 age-sex-color cells to an independent estimate of the population of each cell for the survey period. These independent estimates are prepared by the Bureau of the Census. Both the first-stage and poststratified ratio adjustments take the form of multiplication factors applied to the weight of each elementary unit (person, household, condition, and hospitalization).

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

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

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

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

Explanation of hospital recall.—The survey questionnaire uses a 12-month-recall period for hospitalizations. That is, the respondent is asked to report hospitalizations which occurred during the 12 months prior to the week of interview. Information is also obtained as to the date of entry into the hospital and duration of stay. Analysis of this information, and also the results of special studies, has shown that there is an increase in underreporting of hospitalizations with increase in time interval between the discharge and the interview. Exclusive of the hospital experience of decedents, the net underreporting with a 12-month recall is in the neighborhood of 10 percent, but underreporting of discharges within 6 months of the week of interview is estimated to be less than 5 percent. For this reason hospital discharge data in this report are based on hospital discharges reported to have occurred within 6 months of the week of interview. Since the interviews were evenly distributed according to weekly probability samples throughout any interviewing year, no seasonal bias was introduced by doubling the 6-month-recall data to produce an annual estimate for that year of interviewing. Doubling the 6-month data in effect imputes to the entire year preceding the interview the rate of hospital discharges actually observed during the 6 months prior to

interview. However, estimates of the number of persons with hospital episodes (as opposed to estimates of the number of hospital discharges) are based on 12-month recall data since a person's 12-month experiences cannot be obtained by doubling his most recent 6-month experience.

General Qualifications

Nonresponse.—Data were adjusted for nonresponse by a procedure which imputes to persons in a household who were not interviewed the characteristics of persons in households in the same segment who were interviewed.

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

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

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

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

Reliability of Estimates

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

As in any survey, the results are also subject to reporting and processing errors and errors due to nonresponse. To the extent possible, these types of errors were kept to a minimum by methods built into survey procedures.[5] Although it is very difficult to measure the extent of bias in the National Health Interview Survey, a number of studies have been conducted to study this problem. The results have been published in several reports.[2,3,13,14]

The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation which arises in the measurement process. It does not include estimates of any biases which might be in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the

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NOTE: A list of references follows the text.

difference would be less than twice the standard error and about 99 out of 100 that it would be less than 2½ times as large.

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

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

1. *Narrow range.*—This class consists of (1) statistics which estimate a population attribute, e.g., the number of persons in a particular income group, and (2) statistics for which the measure for a single individual during the reference period used in data collection is usually either 0 to 1 on occasion may take on the value 2 or very rarely 3.

2. *Medium range.*—This class consists of other statistics for which the measure for a single individual during the reference period used in data collection will rarely lie outside the range 0 to 5.

3. *Wide range.*—This class consists of statistics for which the measure for a single individual during the reference period used in data collection can range from 0 to a number in excess of 5, e.g., the number of days of bed disability.

In addition to classifying variables according to whether they are narrow-, medium-, or wide-range, statistics in the survey are further classified as to whether they are based on a reference period of 2 weeks, 6 months, or 12 months.

General rules for determining relative standard errors.—The following rules will enable the reader to determine approximate relative standard errors from the charts for estimates presented in this report. These charts represent standard errors of NHIS data. They should be used in preference to the charts which have appeared in all previous Series 10 publications.

Rule 1. *Estimates of aggregates:* Approximate relative standard errors for estimates of aggregates such as the number of persons with a given characteristic are obtained from appropriate curves, figures I and III. The number of persons in the total U.S. population is adjusted to official Bureau of the Census figures and is not subject to sampling error.

Rule 2. *Estimates of percentages in a percent distribution:* Relative standard errors for percentages in a percent distribution of a total are obtained from appropriate curves, figure II. For values which do not fall on one of the curves presented in the chart, visual interpolation will provide a satisfactory approximation.

Rule 3. *Estimates of rates where the numerator is a subclass of the denominator:* This rule applies for prevalence rates or where a unit of the numerator occurs, with few exceptions, only once in the year for any one unit in the denominator. For example, in computing the rate of visual impairments per 1,000 population, the numerator consisting of persons with the impairment is a subclass of the denominator, which includes all persons in the population. Such rates if converted to rates per 100 may be treated as though they were percentages and the relative standard errors obtained from the percentage charts for population estimates. Rates per 1,000, or on any other base, must first be converted to rates per 100; then the percentage chart will provide the relative standard error per 100.

Rule 4. *Estimates of rates where the numerator is not a subclass of the denominator:* This rule applies where a unit of the numerator often occurs more than once for any one unit in the denominator. For example, in the computation of the number of persons injured per 100 currently employed persons per year, it is possible that a person in the denominator could have sustained more than one of the injuries included in the numerator. Approximate relative standard errors for rates of this kind may be computed as follows:

(a) Where the denominator is the total U.S. population or includes all persons in one or more of the age-sex-color groups of the total population, the relative error of the rate is equivalent to the relative error of the numerator, which can be obtained directly from the appropriate chart.

(b) In other cases the relative standard error of the numerator and of the denominator can be obtained from the appropriate curve. Square each of these relative errors, add the resulting values, and extract the square root of the sum. This procedure will result in an upper bound on the standard error and often will overstate the error.

Rule 5. *Estimates of difference between two statistics (mean, rate, total, etc.):* The standard error of a difference is approximately the square root of the sum of the squares of each standard error considered separately. A formula for the standard error of a difference,
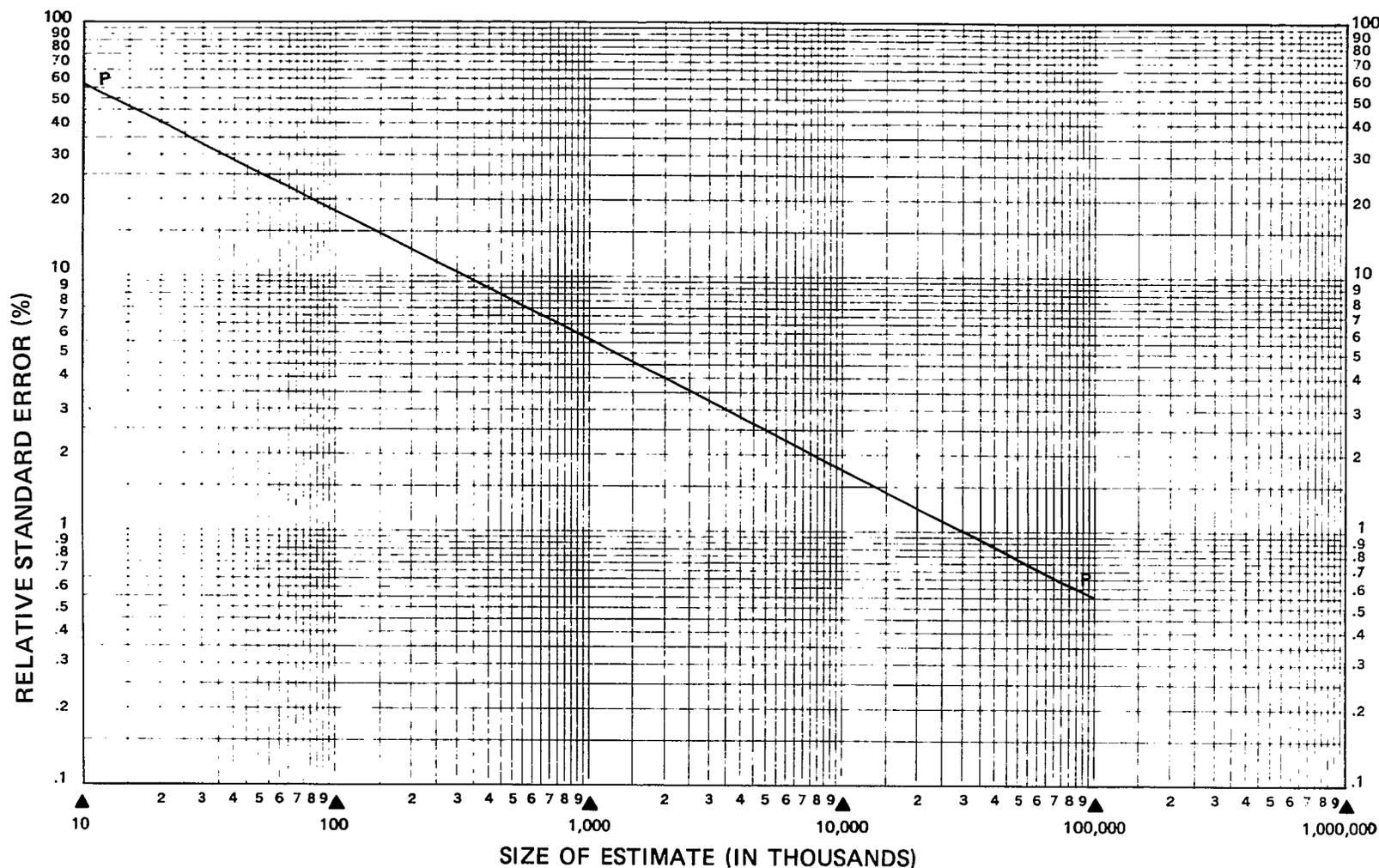
$$d = X_1 - X_2$$

is

$$\sigma_d = \sqrt{(X_1 V_{x1})^2 + (X_2 V_{x2})^2}$$

where X_1 is the estimate for class 1, X_2 is the estimate for class 2, and V_{x1} and V_{x2} are the relative errors of X_1 and

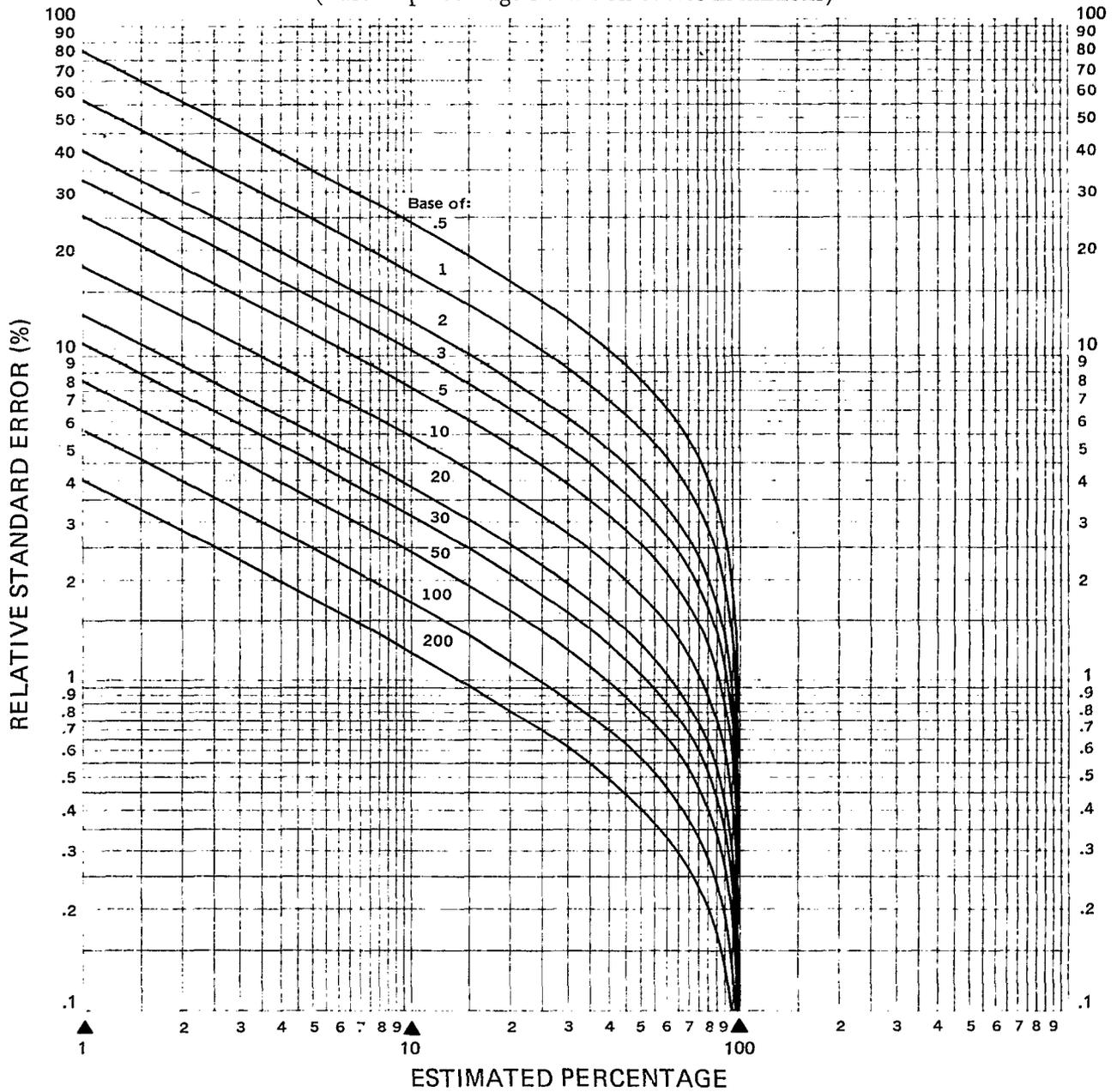# Figure I. RELATIVE STANDARD ERRORS FOR POPULATION CHARACTERISTICS[1]

[1]This curve represents estimates of relative standard errors based on 4 quarters of data collection for narrow range estimates of population characteristics or narrow range estimates of aggregates using a 12-month reference period

Example of use of chart: An estimate of 10,000,000 persons with annual family income of $15,000 or more, or 10,000,000 persons who were hospitalized one or more times in the past year (on scale at bottom of chart) has a relative standard error of 1.7 percent (read from scale at left side of chart), or a standard error of 170,000 (1.7 percent of 10,000,000).

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Figure II. RELATIVE STANDARD ERRORS OF PERCENTAGES OF POPULATION CHARACTERISTICS[1]

(Base of percentage shown on curves in millions)

[1]These curves represent estimates of relative standard errors of percentages of population characteristics based on 4 quarters of data collection for narrow range estimates.

Example of use of chart: An estimate of 20 percent (on scale at bottom of chart) based on an estimate of 10,000,000 has a relative standard error of 3.6 percent (read from the scale at the left side of chart), the point at which the curve for a base of 10,000,000 intersects the vertical line for 20 percent. The standard error in percentage points is equal to 20 percent X 3.6 percent, or 0.72 percentage points.

Figure III. RELATIVE STANDARD ERRORS FOR DAYS OF RESTRICTED ACTIVITY OR BED DISABILITY (A) AND FOR DAYS LOST FROM WORK OR SCHOOL (B)[1]
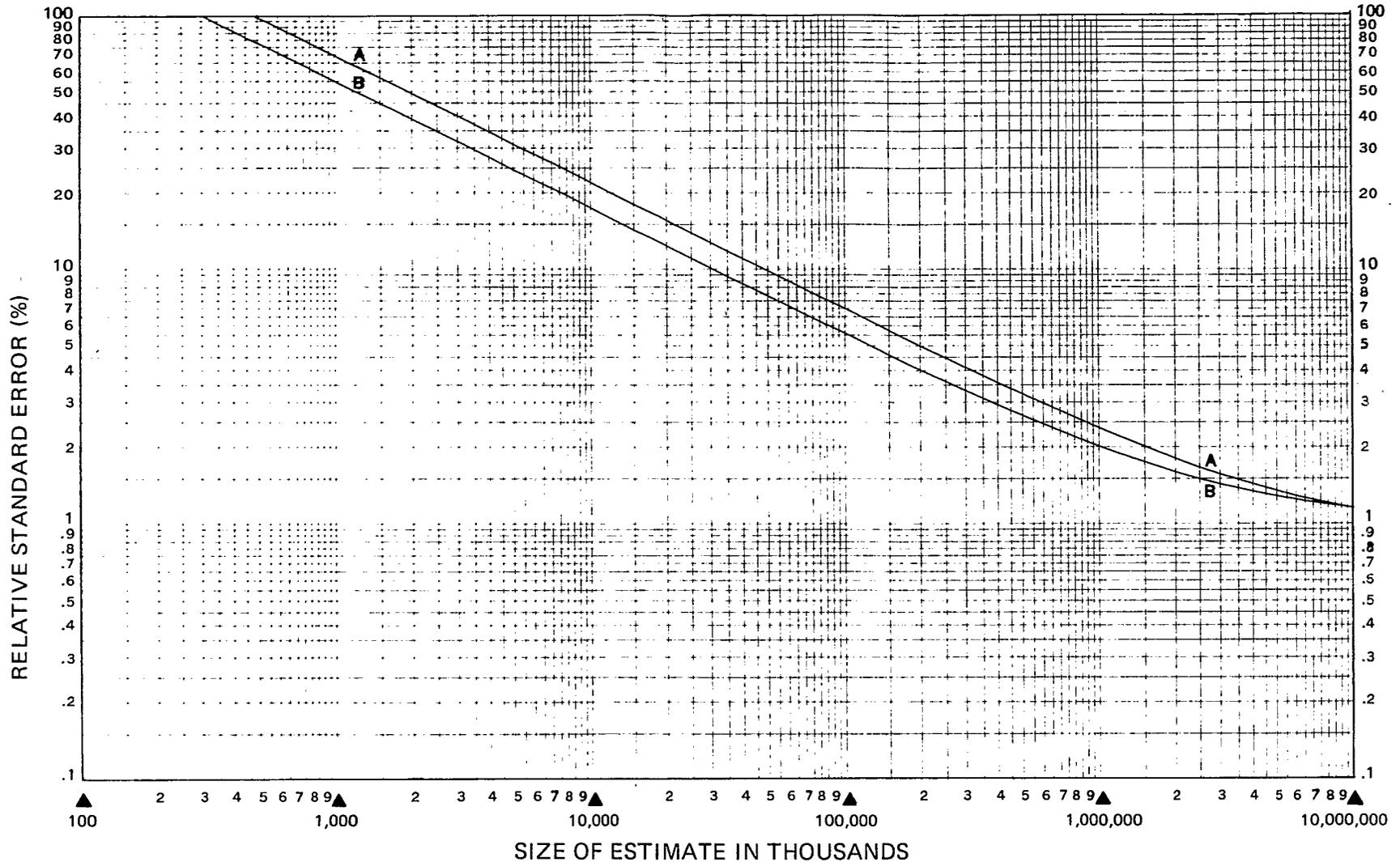
[1] These curves represent estimates of relative standard errors based on 1 to 4 quarters of data collection for wide range estimates of aggregates using a 2-week reference period.

Example of use of chart: An estimate of 10,000,000 days of restricted activity (on scale at bottom of chart) has a relative standard error of 22 percent (read from curve A on scale at left side of chart), or a standard error of 2,200,000 (22 percent of 10,000,000).

X_2 respectively. This formula will represent the actual standard error quite accurately for the difference between separate and uncorrelated characteristics although it is only a rough approximation in most other cases. The relative standard error of each estimate involved in such a difference can be determined by one of the four rules above, whichever is appropriate.

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APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Terms Relating to Conditions

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

Conditions except impairments are classified by type according to the *Eighth Revision International Classification of Diseases, Adapted for Use in the United States,*[15] with certain modifications adopted to make the code more suitable for a household interview survey.

Acute condition.—An acute condition is defined as a condition that has lasted less than 3 months and has involved either medical attention or restricted activity. Because of the procedures used to estimate incidence, the acute conditions included in this report are the conditions that had their onset during the 2 weeks prior to the interview week and involved either medical attention or restricted activity during the 2-week period. However, excluded are the following conditions that are always classified as

chronic even though the onset occurred within 3 months prior to week of interview:

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

NOTE: A list of references follows the text.

Chronic condition.—A condition is considered chronic if (1) the condition is described by the respondent as having been first noticed more than 3 months before the week of the interview or (2) it is one of the conditions always classified as chronic regardless of the onset (see list under the definition of acute condition).

Impairment.—Impairments are chronic or permanent defects, usually static in nature, resulting from disease, injury, or congenital malformation. They represent decrease or loss of ability to perform various functions, particularly those of the musculoskeletal system and the sense organs. All impairments are classified by means of a special Supplementary Code for impairments. Hence code numbers for impairments in the International Classification of Diseases are not used. In the Supplementary Code, impairments are grouped according to type of functional impairment and etiology. The impairment classification is shown on pages 51-57.

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

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

Activity-restricting condition.—An activity-restricting condition is one that had its onset in the past 2 weeks and caused at least 1 day of restricted activity during the 2 calendar weeks before the interview week. (See "Restricted-activity day" under "Terms Relating to Disability.")

Bed-disabling condition.—A condition with onset in the past 2 weeks involving at least 1 day of bed disability is called a bed-disabling condi-

tion. (See "Bed-disability day" under "Terms Relating to Disability.")

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

Terms Relating to Disability

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

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

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

any restricted-activity days during a 2-week period. Therefore absence of restricted-activity days does *not* imply normal health.

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

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

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

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

School-loss day.—A day lost from school is a normal school day on which a child did not attend school because of a specific illness or injury. The number of days lost from school is determined only for children 6-16 years of age.

Person day.—Person days of restricted activity, bed disability, and so forth are days of the various forms of disability experienced by any one person. The sum of days for all persons in a group represents an unduplicated count of all days of disability for the group.

Condition day.—Condition days of restricted activity, bed disability, and so forth are days of the various forms of disability associated with any one condition. Because any particular day of disability may be associated with more than one condition, the sum of days for conditions may add to more than the total number of person days.

Chronic activity limitation.—Persons are classified into four categories according to the extent to which their activities are limited at present as a result of chronic conditions. Although the usual activities of preschool children, school-age children, housewives, and workers and other persons differ, a different set of criteria is used for each group. There is a general similarity between them, however, as will be seen in the following descriptions of the 4 categories:

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

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

   School-age children:
   Inability to go to school.

   Housewives:
   Inability to do any housework.

   Workers and all other persons:
   Inability to work at a job or business.

2. *Persons limited in amount or kind of major activity performed* (major activity refers to ability to work, keep house, or engage in school or preschool activities)

   Preschool children:
   Limited in amount or kind of play with other children, for example, need special rest periods, cannot play strenuous games, or cannot play for long periods.

   School-age children:
   Limited to certain types of schools or in school attendance, for example, need special schools or special teaching or cannot go to school full time or for long periods.

Housewives:
Limited in amount or kind of housework, for example, cannot lift children, wash or iron, or do housework for long periods.

Workers and all other persons:
Limited in amount or kind of work, for example, need special working aids or special rest periods at work, cannot work full time or for long periods, or cannot do strenuous work.

3. *Persons not limited in major activity but otherwise limited* (major activity refers to ability to work, keep house, or engage in school or preschool activities)

Preschool children:
Not classified in this category.

School-age children:
Not limited in going to school but limited in participation in athletics or other extracurricular activities.

Housewives:
Not limited in housework but limited in other activities such as church, clubs, hobbies, civic projects, or shopping.

Workers and all other persons:
Not limited in regular work activities but limited in other activities such as church, clubs, hobbies, civic projects, sports, or games.

4. *Persons not limited in activities* (includes persons whose activities are not limited in any of the ways described above)

Terms Relating to Physician Visits

Physician visit.—A physician visit is defined as consultation with a physician, in person or by telephone, for examination, diagnosis, treatment, or advice. The visit is considered to be a physician visit if the service is provided directly by the physician or by a nurse or other person acting under a physician's supervision. In 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 visits 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 (e.g., test for diabetes) or a single procedure (e.g., smallpox vaccination) when this single service was administered identically to all persons who were at the designated place for this purpose. Hence obtaining a chest X-ray in a tuberculosis chest X-ray trailer is not included as a physician visit. However, a special chest X-ray given in a physician's office or in an outpatient clinic is considered a physician visit.

Physician visits to hospital inpatients are not included.

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

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

Interval since last physician visit.—The interval since the last physician visit is the length of time prior to the week of interview that a physician was last consulted in person or by telephone for treatment or advice of any type. A physician visit to a hospital inpatient may be counted as the last time a physician was seen.

Demographic Terms

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

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

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

individuals are classified according to their own income.

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

Education.—The categories of education status show the years of school completed. Only years completed in regular schools, where persons are given a formal education, are included. A "regular" school is one 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 schools outside the regular school system is not counted in determining the highest grade of school completed.

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

Currently employed.—Persons 17 years of age and over who reported that at any time during the 2-week period covered by the interview they either worked at or had a job or business are considered as 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 as currently employed if they expected to work as soon as the particular event causing the absence no longer existed.

Free-lance workers are considered to be 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 employ-ment schedule but work only when their services are needed. Also excluded from the currently employed population are (1) persons receiving revenue from an enterprise but not participating in its operation, (2) persons doing housework or charity work for which they receive no pay, (3) seasonal workers during the portion of the year they were not working, and (4) persons who were not working, although having a job or business, but were on layoff or looking for work.

The number of currently employed persons estimated from the National Health Interview Survey (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, namely: (1) NHIS estimates are for persons 17 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 12th of the month.

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

The categories of usual activity used in this report for persons aged 17 years and over are *usually working, usually going to school, usually keeping house, retired,* and *other activity.* For several reasons these categories are not comparable with somewhat similarly named categories in official Federal labor force statistics. First, the responses concerning usual activity are accepted without detailed questioning because the objective of the question is not to estimate the numbers of persons in labor force categories but to identify crudely certain population groups that may have differing health problems. Second, the figures represent the usual activity

status over the period of an entire year, whereas official labor force statistics relate to a much shorter period, usually 1 week. Third, the minimum age for usually working persons is 17 in the National Health Interview Survey, and the official labor force categories include all persons aged 14 or older. Finally, in the definitions of specific categories that follow, certain marginal groups are classified differently to simplify procedures.

Usually working includes persons 17 years of age or older who are paid employees; self-employed in their own business, profession, or in farming; or unpaid employees in a family business or farm. Work around the house or volunteer or unpaid work such as for a church is not counted as working.

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

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

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

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

Geographic region.—For the purpose of ·classifying the population by geographic area, the States are grouped into four regions. These regions, which correspond to those used by the U.S. Bureau of the Census, are shown below.

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

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

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

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

Central cities.—Each SMSA must include at least one central city. The complete title of an

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

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

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

CLASSIFICATION OF IMPAIRMENTS (X-Code)

History and Purpose

The X-Code for special impairments by type, site, and etiology was developed in 1955-56 by the, at that time, Division of Public Health Methods of the Public Health Service. This classification provides—in the relatively simple detail required for household health surveys—a method of coding certain residuals of diseases and injuries so that both the present effect and the underlying cause could be reflected within one diagnostic code. The National Health Interview Survey has used this X-Code, making very few changes in it, since the beginning of the survey and will use it instead of the present ICDA for the coding of impairments.

Abbreviations and Special Use of Parentheses

NOS = not otherwise specified
NEC = not elsewhere classified

In addition to the usual purpose, parentheses are used to enclose words or phrases that may or may not be specified but, if used with a given diagnosis, do not change the code assignment of that diagnosis. For example, "paralysis (complete) both legs X44" means that the code number is X44 whether or not the modifier "complete" is specified; "glaucoma (congenital)" means that congenital glaucoma is coded in the same manner as glaucoma not specified as congenital.

CLASSIFICATION OF IMPAIRMENTS, BY TYPE AND SITE (X00-X99)

(The lists of 1-digit etiology codes are shown following X99)

X-Codes

X00-X05 Impairment of Vision

X00   Visual impairment: Inability to read ordinary newspaper print with glasses, and impairment indicating no useful vision in either eye

X01   Blind in one eye, other eye defective, but not blind
X02   Blind in one eye, other eye good or not mentioned
X03   Visual impairment NEC, in both eyes
X05   Impaired vision except as in X00-X03

X06-X09 Impairment of Hearing

X06   Deafness, *total, both ears,* including deaf-mutism
        Includes persons, with or without speech, who are completely deaf.
X07   Hearing loss or impairment involving *both ears* not codable to X06
X08   All hearing loss or impairment involving *only one ear*
X09   Hearing loss, complete or partial, or impairment for which it is impossible to determine whether one or both ears are involved

X10-X19 IMPAIRMENT OF SPEECH, INTELLIGENCE, SPECIAL SENSE

X10, X11 Impairment of Speech

X10   Stammering, stuttering
X11   Other speech defect
        Includes absence of larynx, and chronic speech and voice defects due to removal of larynx (voice box) and other structures involved in speech and talking.
        Excludes deaf-mutism (X06); and cleft palate speech (X91.X)

X12, X13 Impairment of Special Sense, Except Vision or Hearing

X12   Loss or impairment of sense of smell and/or taste
X13   Loss or disturbance of sensation NEC

X14-X19 Special Learning Disability and Mental Retardation

X14   Special learning disability (reading) (mathematics) ("mirror" writing or reading) ("mixed dominance") (affecting school progress)
X15   Mongolism (Down's disease or syndrome) (any I.Q.)
X16   . Severe or profound mental retardation NEC (I.Q. under 36)
X17   Moderate mental retardation (I.Q. 36-51)
X18   Borderline or mild mental retardation (I.Q. 52-85)
        Includes: backwardness; feeblemindedness; moron.
X19   Unspecified mental retardation
        Includes: mental retardation or deficiency, degree or type not specified.

X20-X39 ABSENCE, LOSS, EXTREMITIES, AND CERTAIN OTHER SITES

Note: Absence or loss of one or both eyes is to be coded as for blindness, one or both eyes, in X00-X02. Absence or impairment of other senses, speech, intelligence is coded to X06-X19. *See also* X90, X92.

X20-X25 Absence, Loss, Upper Extremity:

X20   Arm, at or above elbow, and arm NOS
X21   Arm, below elbow and above wrist

X22   Arms, *both*
X23   Hand, except fingers or thumbs only
X24   Hands, *both* except fingers or thumbs only
X25   Fingers and/or thumbs only, *one or both hands*

X26-X31 Absence, Loss, Lower Extremity:

X26   Leg, at or above knee, and leg NOS
X27   Leg, below knee and above ankle
X28   Legs, *both*
X29   Foot, except toe(s) only
X30   Feet, *both,* except toes only
X31   Toe(s), only, *one or both feet*

X32-X34 Absence, Loss, Upper and Lower Extremities:

X32   One upper (arm or hand) *with* one lower (leg or foot), except digits only
X33   Three or more (arm, hand, leg, foot) except digits only
X34   Fingers and/or thumb(s) *and* toe(s)

X36-X39 Absence, Loss, Certain Other Sites

X36   Absence, lung
X37   Absence, kidney
X38   Absence, breast
X39   Absence, rib, or bone, joint, muscle, or trunk or extremity, without loss of extremity

X40-X69 PARALYSIS, COMPLETE OR PARTIAL

X40-X49 Paralysis NOS (Complete) of Extremities and Trunk, as Follows:

X40   Upper extremity, one, except fingers only
X41   Upper extremities, both
X42   Finger(s) only
X43   Lower extremity, one, any part except toes only
X44   Lower extremities, both (paraplegia)
X45   Toes only
X46   Paraplegia with bladder or anal sphincter involvement
X47   One side of body, one upper and one lower, same side (hemiplegia)
X48   Three or more major members, or entire body (quadriplegia)
X49   Paralysis, NOS, or of other sites of extremities or trunk (complete)

X50-X59 Cerebral Palsy; Paralysis, Partial, of Extremities or Trunk

        Includes: paresis; palsy; paralytic "weakness" or "tremor."
X50   Cerebral palsy (and synonyms)
        Includes "spastic" if present since birth (congenital)
X51   Partial paralysis, arm(s) or finger(s)
X52   Partial paralysis, leg(s) any part(s) ("drags foot")
X53   Partial paralysis, one side of body (hemiparesis)
X54   Partial paralysis, other sites of extremities or trunk
X59   Partial paralysis, palsy, paresis—NOS

X60-X69 Paralysis, Complete or Partial, Sites Except Extremities or Trunk

X60   Paralysis, complete or partial, *face* (Bell's palsy or paralysis)
X61   Paralysis, complete or partial, bladder or anal sphincter, without mention of paralysis of extremities
X69   Paralysis, complete or partial, sites *not* of extremities, trunk, nor affecting special senses or speech

X70-X79 NONPARALYTIC ORTHOPEDIC IMPAIRMENT (CHRONIC) NEC

Excludes: paralysis (X40-X69) and specified deformities in X80-X89.
Includes: limitation of motion NEC; stiffness (complete or partial); "flail joint"; instability of joint; frankly ill-defined, symptomatic, but *chronic* difficulty, weakness, "trouble," pain, swelling, "limping," involving muscles, joints, limbs, back or trunk, of *unknown cause, or due to healed injuries 3 mos+ or to past and now inactive diseases;* old (3 mos+) sprains, strains, or dislocations with effect not elsewhere classifiable, or not stated.
Excludes: all "disc" conditions (ICDA 725)
NOTE: Orthopedic impairment NEC, as in X70-X79, is not coded as a separate diagnosis if due to specified active chronic disease; chronic disease only is coded.

Orthopedic Impairment NEC (Chronic) Involving:

X70   Back NOS, spine NOS, vertebra NOS (low) (lumbosacral) (sacroiliac) (entire)
X71   Cervical or thoracic region of back, spine, vertebrae
X72   Coccygeal region of back, spine, vertebrae (last bone of spine)
X73   Shoulder, upper arm, forearm above wrist; arm NOS
X74   Wrist, hand, finger, thumb—sites in X73 not involved   .
X75   Hip and/or pelvis, *alone, or with any other site in X70-X79*
        Excludes congenital dislocation of hip (X85.X).
X76   Knee, leg NOS—hip not involved
X77   Ankle, foot, toe—sites in X76 not involved
        Excludes impairments involving arches of foot, feet (X82).
X78   Multiple sites NEC (back and legs) (fingers and toes) (legs and arms) (arms and back)
X79   Other and ill-defined sites
        Includes: rib; trunk, NOS; "side," NOS; limping, staggering, stumbling, trouble in walking, NOS.
        Excludes: jaw (X92); and ataxic gait, which if chronic, is coded as for paralysis, partial.

X80-X89 SPECIFIED DEFORMITY OF LIMBS, TRUNK, BACK

Includes: specified structural deformities of limbs, trunk, back, described as: contracture; atrophy; accessory ("extra"); short or shortness; crippled; shrivelled; "drawn up;" "twisted;" "withered;" and scarring (with contracture) involving limbs, neck, back, trunk.
Excludes: dwarfism and other deviations from normal size, weight, height (X94-X97); paralysis, all sites (X40-X69); scarring and disfigurement of face, nose, lips, ears (X90).

X80   Curvature and other structural deformities of spine or back, except as in X81.X
        Includes: all structural deformities of spine or back except spina bifida (X81.X).

Excludes: chronic back conditions NEC in X70-X72, and disc conditions as in ICDA 725, amended.

X81.X Spina bifida (with meningocele) (always congenital)

X82 Flatfoot (including weak or fallen arches and other difficulty with arches)

X83 Clubfoot (congenital)

X84 Deformity, other and multiple, *lower extremity, NEC*
Includes: genu valgum (knock knee); genu varum (bow leg); tibial torsion; hammer toe; hallux valgus or varus; any deformity of *toe;* deformity *leg* NOS, *foot NEC, knee.*
Excludes: X82, X83.

X85 Dislocation, congenital, and other deformity *hip* and/or pelvis

X86 Deformity, neck or shoulder region
Includes: torticollis; Sprengel's deformity; deformity of neck and/or shoulder.

X87 Deformity *finger*(s), thumb(s), only

X88 Deformity, upper extremity, except as in X86, X87
Includes deformity of: arm(s), hand(s) and finger(s), but
excludes deformity involving fingers, thumbs, *only.*

X89 Deformity, trunk bones, NEC
Includes: pigeon breast; cervical rib; postural defect NEC.

X90-X99 DEFECT, ABNORMALITY, SPECIAL IMPAIRMENT, NEC

X90 Disfigurement, scarring, face, nose, lips, ears
Includes: absence of nose, lips, ears; accessory auricle; other abnormality NEC of face, nose, ears, mouth, teeth, jaws if *stated* to be disfiguring. If speech defect is also present, code it also.
Excludes: cleft palate and harelip whether or not disfiguring (X91.X).

X91.X Cleft palate and harelip (with speech defect) (disfiguring)
Includes: cleft palate and cleft lip (as in ICDA 749) with or without speech defect and whether or not stated to be disfiguring.

X92 Other dentofacial handicap
Includes: acquired absence of teeth, onset 3 months plus; and abnormalities of teeth, malocclusion, and other jaw and dentofacial anomalies as in ICDA 520.0, 520.1, 520.2, 520.5, 521.6, and 524. If speech defect is also present, code it also.
Excludes: cleft palate and harelip (X91.X); and other dentofacial handicaps if *stated* to be disfiguring (X90).

X93 Deformity of skull (hydrocephaly) (microcephaly)
If mental retardation is also present, code it also under X15-X19. If hydrocephaly is due to a specified *active* chronic disease of brain or meninges, code the disease only—not X93.

X94 Dwarfism: midget; excessively underheight
Includes: "stunted growth" NOS, or late effect (old); if due to some currently active disease, code the disease only.

X95 Gigantism (excessively overheight)

X96 Obesity, chronic, cause unknown (familial) (hereditary)

X97 Underweight, chronic, cause unknown

X98 Artificial orifice (opening) or valve (surgical) any site (colostomy)

X99 Special impairment, ill-defined
Includes: •deformed NOS; cripple NOS; "birth injury" or "brain damage" NOS, at ages 3 months or over without specification as to type of impairment; ill-defined "after-effects" of tuberculosis, encephalitis, poliomyelitis, trachoma, toxoplasmosis, rickets, intracranial abscess.
Excludes: stroke, or ill-defined "after-effects" of stroke; code the stroke—not X99.

LIST OF 1-DIGIT ETIOLOGY CODES

For Impairment of Vision, Only (X00-X03, X05)

.0   Unknown or unspecified origin
.1   Cataract, any origin except as in .5-.9, below (with any condition in .4)
.2   Cataract with glaucoma, any origin except as in .5-.9, below
.3   Glaucoma, any origin except as in .5-.9, *without cataract* (with any in .4)
.4   Other eye diseases (as in ICDA 360-369, 370-373, 376-378) (any infection of eye)
.5   Diabetes (with cataract or glaucoma)
.6   Diseases of the arteries NEC (as in ICDA 440-447)
.7   Cerebrovascular disease (stroke) (with arteriosclerosis) (with hypertension)
.8   Neoplasm
.9   Accident or injury except at birth
.X   Congenital origin NEC or birth injury
.Y   Conditions not in .0-.9, or .X (noncongenital) (nontraumatic) (hereditary) (old age) ("age" NOS)

For All Impairments *Except* of Vision (X06-X99)

.0   Unknown or unspecified origin
.1   Tuberculosis, any site
.2   Poliomyelitis
.3   Other infection or inflammation, ulcer, any site (scarlet fever) (meningitis) (encephalitis) (arthritis) (osteomyelitis) (neuritis) (etc.)
.4   Neoplasm
.5   Diabetes (with gangrene)
.6   Disease of arteries NEC (gangrene) (general arteriosclerosis)
.7   Cerebrovascular disease (stroke) (with arteriosclerosis) (with hypertension)
.8   Rickets and osteomalacia
.9   Accident or injury except at birth
.X   Congenital origin or birth injury
.Y   Diseases and conditions except as in .0-.9, .X (noncongenital) (nontraumatic) (noninflammatory) (hereditary) (old age) (age NOS)

PREFERENCE RULES USED WHEN MULTIPLE ETIOLOGIES ARE GIVEN

For Visual Impairments Only (X00-X05)

Select one cause as follows:

.9 and any other(s): prefer .9 (injury);
.5 and any other(s) except .9: prefer .5 (diabetes);
.7 and any except .9 or .5: prefer .7 (vascular lesions, CNS);
If .9, .5, .7 are not applicable: prefer .8 (neoplasm);
If .9, .5, .7, .8, are not applicable: prefer .6 (arteries NEC);
If .5-.9 are not involved, prefer any in .1-.4 over .X or .Y.
If local diseases of eye, only, are mentioned, code:
     cataract *and* glaucoma to .2
     cataract with any in .4 to .1
     glaucoma with any in .4 to .3
     other multiple local eye diseases to .4

For All Impairments Except of Vision (X06-X99)

Select one cause as follows:

.9 and any other(s): prefer .9 (injury);
.7 and any except .9: prefer .7 (vascular lesions, CNS)
If .9 or .7 are not applicable: prefer the etiology code for the cause that started the chain of events.

——— O O O ———

QUESTIONS USED TO OBTAIN INFORMATION ABOUT IMPAIRMENTS

SP ☐   D ☐

1a. What is the name of the head of this household? – Enter name in first column	1a. First name ① AGE
b. What are the names of all other persons who live here? – List all persons who live here. Yes* No	
c. I have listed (Read names). Is there anyone else staying here now, such as friends, relatives, or roomers? ☐ ☐	
d. Have I missed anyone who USUALLY lives here but is now away from home?...................... ☐ ☐	Last name · RACE · 1 W · 2 B · 3 OT
e. Do any of the people in this household have a home anywhere else? .... ☐ ☐	
*Apply household membership rules.	
f. Are any of the persons in this household now on full-time active duty with the Armed Forces of the United States?.......... 1 Y Col(s)._____(Delete) 2 N	
2. How is —— related to —— (Head of household)?	2. Relationship SEX · 1 M · 2 F · HEAD
3. What is ——'s date of birth? (Enter date and Age, and circle Race and Sex)	3. Month Date Year

▶ Refer to Flashcard_____ to determine Sample Persons; mark SP boxes.

C

	BED DAYS	DV	HOSP.
1. Record the number of Bed Days, Doctor Visits, and Hospitalizations	☐ None (NP)	☐ None (NP)	☐ None (NP)
C	___ (NP)	___ (NP)	___ (NP)

2. Record each condition in the person's column, with the question number(s) where it was reported.	Q. No.	Condition
Reference dates		
2-week period _____ , _____		
12-month Bed Days and Doctor visit probe _____		
Hospital probe _____		

If 17+, ask:

4. Is —— now married, widowed, divorced, separated, or never married?

4.
0 ☐ Under 17
1 ☐ Married – spouse present
6 ☐ Married – spouse absent
2 ☐ Widowed
4 ☐ Divorced
5 ☐ Separated
3 ☐ Never married

H If related persons 17 years old or over are listed in addition to the respondent, say:

We would like to have all adults who are at home take part in the interview. Is your ——, your ——, etc., at home now? If "Yes," ask: Please ask them to join us.

H
0 ☐ Under 17
1 ☐ At home
2 ☐ Not at home

This survey is being conducted to collect information on the Nation's health. I will ask about visits to doctors and dentists, illness in the family, and other health related items. (Hand calendar)
The next few questions refer to the past 2 weeks, the 2 weeks outlined in red on that calendar, beginning Monday, ____(date)____ , and ending this past Sunday, ____(date)____ .

Y (5b)

5a. During those 2 weeks, did —— stay in bed because of any illness or injury? | 5a. 00 N } If age: 17-(8) 6-16 (7) Under 6 (9)

b. During that 2-week period, how many days did —— stay in bed all or most of the day? | b. ____ Days

6. During those 2 weeks, how many days did illness or injury keep —— from work? (For females): not counting work around the house? | 6. ____ WL days (8) 00 ☐ None (9)

7. During those 2 weeks, how many days did illness or injury keep —— from school? | 7. ____ SL days 00 ☐ None (9)

If one or more days in 5b, ask 8; otherwise go to 9
8. On how many of these —— days lost from { work / school } did —— stay in bed all or most of the day? | 8. ____ Days 00 ☐ None

9a. (NOT COUNTING the day(s) { in bed / lost from work / lost from school })
Were there any (other) days during the past 2 weeks that —— cut down on the things he usually does because of illness or injury? | 9a. 1 Y 2 N (10)

b. (Again, not counting the day(s) { in bed / lost from work / lost from school })
During that period, how many (other) days did he cut down for as much as a day? | b. ____ Days 00 ☐ None

If one or more days in 5-9, ask 10 otherwise go to next person.
10a. What condition caused —— to { stay in bed / miss work / miss school / cut down } during the past 2 weeks? | 10a. Enter condition in Item C Ask 10b

b. Did any other condition cause him to { stay in bed / miss work / miss school / cut down } during that period? | b. Y N (NP)

c. What condition? | c. Enter condition in item C (10b)

▶ Fill item C, (BED DAYS), from 5b for all persons.

14. During the past 2 weeks (the 2 weeks outlined in red on that calendar) how many times did — see a medical doctor? Do not count doctors seen while a patient in a hospital.	**14.**	00 ☐ None ⎫ ____ Number of visits ⎭ **NP**

(Besides those visits)			
15a. During that 2-week period did anyone in the family go to a doctor's office or clinic for shots, X-rays, tests, or examinations?	Y N (16)		
b. Who was this? — Mark "Doctor visit" box in person's column.		**15b.**	☐ Doctor visit
c. Anyone else?	Y (Reask 15b and c) N		
If "Doctor visit," ask: **d.** How many times did — visit the doctor during that period?		**d.**	____ Number of visits (NP)
16a. During that period, did anyone in the family get any medical advice from a doctor over the telephone?	Y N (17)		
b. Who was the phone call about? — Mark "Phone call" box in person's column.		**16b.**	☐ Phone call
c. Any calls about anyone else?	Y (Reask 16b and c) N		
If "Phone call," ask: **d.** How many telephone calls were made to get medical advice about — ?		**d.**	____ Number of calls (NP)

▶ Fill item C, (DV), from 14–16 for all persons. Ask 17a for each person with visits in DV box.			☐ Condition (Item C THEN 17d) ☐ Pregnancy (17e) ☐ No condition
17a. For what condition did — see or talk to a doctor during the past 2 weeks?		**17a.**	
b. Did — see or talk to a doctor about any specific condition?		**b.**	Y N (NP)
c. What condition?		**c.**	Enter condition in item C Ask 17d
d. During that period, did — see or talk to a doctor about any other condition?		**d.**	Y (17c) N (NP)
e. During the past 2 weeks was — sick because of her pregnancy?		**e.**	Y N (17d)
f. What was the matter?		**f.**	Enter condition in Item C (17d)

18a. During the past 12 months, (that is since ___(date)___ a year ago), about how many times did — see or talk to a medical doctor? (Do not count doctors seen while a patient in a hospital.) (Include the — visits you already told me about.)		**18a.**	000 ☐ Only when in hospital 000 ☐ None ____ Number of visits
b. ABOUT how long has it been since — LAST saw or talked to a medical doctor? Include doctors seen while a patient in a hospital.		**b.**	1 ☐ 2-week DV
			2 ☐ Past 2 weeks not reported (14 and 17)
			3 ☐ 2 wks.–6 mos.
			4 ☐ Over 6–12 mos.
			5 ☐ 1 year
			6 ☐ 2–4 years
			7 ☐ 5+ years
			8 ☐ Never

Ages 17+	**19a. What was -- doing MOST OF THE PAST 12 MONTHS** - (For males): working or doing something else? (For females): keeping house, working, or doing something else? If "something else," ask: **b. What was -- doing?** If 45+ years and was not "working," "keeping house," or "going to school," ask: **c. Is -- retired?** **d. If "retired," ask: Did he retire because of his health?**	19. & 20.	1 ☐ Working *(24a)* 2 ☐ Keeping house *(24b)* 3 ☐ Retired, health *(23)* 4 ☐ Retired, other *(23)* 5 ☐ Going to school *(26)* 6 ☐ 17+ something else *(23)* 7 ☐ 6-16 something else *(25)*
Ages 6-16	**20a. What was -- doing MOST OF THE PAST 12 MONTHS** - going to school or doing something else? If "something else," ask: **b. What was -- doing?**		
Ages under 6			0 ☐ 1-5 years *(21)* 0 ☐ Under 1 *(22)*

21a. Is -- able to take part at all in ordinary play with other children?	21a.	Y 1 N *(28)*
b. Is he limited in the kind of play he can do because of his health?	b.	2 Y *(28)* N
c. Is he limited in the amount of play because of his health?	c.	2 Y *(28)* N *(27)*
22a. Is -- limited in any way because of his health?	22a.	1 Y 5 N *(NP)*
b. In what way is he limited? Record limitation, not condition.	b.	_____ *(28)*
23a. Does -- health now keep him from working?	23a.	1 Y *(28)* N
b. Is he limited in the kind of work he could do because of his health?	b.	2 Y *(28)* N
c. Is he limited in the amount of work he could do because of his health?	c.	2 Y *(28)* N
d. Is he limited in the kind or amount of other activities because of his health?	d.	3 Y *(28)* N *(27)*
24a. Does -- NOW have a job?	24a.	Y *(24c)* N
b. In terms of health, is -- NOW able to (work - keep house) at all?	b.	Y 1 N *(28)*
c. Is he limited in the kind of (work - housework) he can do because of his health?	c.	2 Y *(28)* N
d. Is he limited in the amount of (work - housework) he can do because of his health?	d.	2 Y *(28)* N
e. Is he limited in the kind or amount of other activities because of his health?	e.	3 Y *(28)* N *(27)*
25. In terms of health would -- be able to go to school?	25.	Y 1 N *(28)*
26a. Does (would) -- have to go to a certain type of school because of his health?	26a.	2 Y *(28)* N
b. Is he (would he be) limited in school attendance because of his health?	b.	2 Y *(28)* N
c. Is he limited in the kind or amount of other activities because of his health?	c.	3 Y *(28)* N
27a. Is -- limited in ANY WAY because of a disability or health?	27a.	4 Y 5 N *(NP)*
b. In what way is he limited? Record limitation, not condition.	b.	_____
28a. About how long has he { been limited in -- been unable to -- had to go to a certain type of school? **}**	28a.	000 ☐ Less than 1 month 1 ____ Mos. 2 ____ Yrs.
b. What (other) condition causes this limitation? If "old age" only, ask: Is this limitation caused by any specific condition?	b.	*Enter condition in Item C* Mark D box, THEN *28c* ☐ Old age only, Mark D box, THEN *(NP)*
c. Is this limitation caused by any other condition?	c.	Y *(Reask* N *28b and c)*
Mark box or ask: **d. Which of these conditions would you say is the MAIN cause of his limitation?**	d.	☐ Only 1 condition _____ Enter main condition

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29a. Was -- a patient in a hospital at any time since ___(date)___ a year ago?		**29a.**	Y N *(Item C)*
b. How many times was -- in a hospital since ___(date)___ a year ago?		**b.**	_____ Times *(Item C)*

30a. Was anyone in the family in a nursing home, convalescent home, or
similar place since ___(date)___ a year ago?   Y   N *(31)*

b. Who was this? – Circle "Y" in person's column.   **30b.**   Y

If "Y," ask:
c. During that period, how many times was -- in a nursing home or similar place?   **c.** _____ Times *(Item C)*

Ask for each child 1 year old or under if date of birth is on or after reference date.

31a. Was -- born in a hospital?   **31a.**
If "Yes," and no hospitalizations entered in his and/or mother's column, enter "1" in 29b and item C.   Y   N *(NP)*
If "Yes," and a hospitalization is entered for the mother and/or baby, ask 31b for each.

b. Is this hospitalization included in the number you gave me for --?   **b.**
If "No," correct entries in 29 and item C for mother and/or baby.   Y   N

32a. Does anyone in the family (you, your --, etc.) **NOW** have – If "Yes," ask 32b and c **b.** Who is this? – Enter name of condition and letter of line where reported in appropriate person's column in item C. **c.** Does anyone else have . . . ?	**A.** Deafness in one or both ears?	**H.** A detached retina or any other condition of the retina?
	B. Any other trouble hearing with one or both ears?	**I.** Any other trouble seeing with one or both eyes even when wearing glasses?
	C. Tinnitus or ringing in the ears?	**J.** A cleft palate or harelip?
	D. Blindness in one or both eyes?	**K.** Stammering or stuttering?
	E. Cataracts?	**L.** Any other speech defect?
	F. Glaucoma?	**M.** A missing finger, hand, or arm, toe, foot, or leg?
	G. Color blindness?	**N.** A missing (breast), kidney or lung?

33a. Does anyone in the family use – If "Yes," ask 33b and c **b.** Who is this? Mark box in person's column **c.** Anyone else?	**1.** Eyeglasses? **2.** Contact lenses? **3.** A hearing aid?	**33b.** 1 ☐ Eyeglasses 2 ☐ Contact lenses 3 ☐ Hearing aid *(Item C)*

For "hearing aid," with no hearing problem reported,
enter "33, Ⓑ , hearing trouble," in item C2

                                                              ①

34. Compared to other persons --'s age, would you say that his health is excellent, good, fair, or poor?	**34.**	1 E 2 G 3 F 4 P
R Q's 4–34	For persons 17 years or over, show who responded for (or was present during the asking of) Questions 4–34. If persons responded for self, show whether entirely or partly. For persons under 17 show who responded for them.	**R** 1 ☐ Responded for self-entirely 2 ☐ Responded for self-partly Person____was repondent.

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Y N (Item C)	29a.	Y N (Item C)	Y N (Item C)	29a.	Y N (Item C)	Y N (Item C)
_____ Times (Item C)	b.	_____ Times (Item C)	_____ Times (Item C)	b.	_____ Times (Item C)	_____ Times (Item C)
Y	30b.	Y	Y	30b.	Y	Y
_____ Times (Item C)	c.	_____ Times (Item C)	_____ Times (Item C)	c.	_____ Times (Item C)	_____ Times (Item C)
Y N (NP)	31a.	Y N (NP)	Y N (NP)	31a.	Y N (NP)	Y N (NP)
Y N	b.	Y N	Y N	b.	Y N	Y N

32a. Does anyone in the family NOW have —		
If "Yes," ask 32 b and c	O. Palsy or cerebral palsy?	U. Permanent stiffness or any deformity of the back, foot, or leg?
b. Who is this? Enter name of condition and letter of line where reported in appropriate person's column in item C.	P. Paralysis of any kind?	V. Permanent stiffness or any deformity of the fingers, hand, or arm?
c. Does anyone else have . . . ?	Q. Curvature of the spine?	W. Mental retardation?
	R. REPEATED trouble with back or spine?	X. Any condition caused by an old accident, or injury? If "Yes," ask: What is the condition?
	S. Any TROUBLE with fallen arches or flatfeet?	Y. Epilepsy?
	T. A clubfoot?	Z. REPEATED convulsions, seizures, or blackouts?

1 ☐ Eyeglasses	33b.	1 ☐ Eyeglasses	1 ☐ Eyeglasses	33b.	1 ☐ Eyeglasses	1 ☐ Eyeglasses
2 ☐ Contact lenses		2 ☐ Contact lenses	2 ☐ Contact lenses		2 ☐ Contact lenses	2 ☐ Contact lenses
3 ☐ Hearing aid (Item C)		3 ☐ Hearing aid (Item C)	3 ☐ Hearing aid (Item C)		3 ☐ Hearing aid (Item C)	3 ☐ Hearing aid (Item C)

②		③	④		⑤	⑥
1 E 2 G 3 F 4 P	34.	1 E 2 G 3 F 4 P	1 E 2 G 3 F 4 P	34.	1 E 2 G 3 F 4 P	1 E 2 G 3 F 4 P
1 ☐ Responded for self-entirely	R	1 ☐ Responded for self-entirely	1 ☐ Responded for self-entirely	R	1 ☐ Responded for self-entirely	1 ☐ Responded for self-entirely
2 ☐ Responded for self-partly		2 ☐ Responded for self-partly	2 ☐ Responded for self-partly		2 ☐ Responded for self-entirely	2 ☐ Responded for self-partly
Person_____ was respondent		Person___ was respondent	Person___ was respondent		Person___ was respondent	Person___ was respondent

CONDITION 1

1. Person number	Name of condition

2. When did -- last see or talk to a doctor about his . . .?

- 1 ☐ In interview week (Reask 2)
- 1 ☐ Past 2 wks. (Item C)
- 2 ☐ 2 wks.–6 mos.
- 3 ☐ Over 6–12 mos.
- 4 ☐ 1 yr.
- 5 ☐ 2–4 yrs.
- 6 ☐ 5+ yrs.
- 7 ☐ Never
- 8 ☐ DK if Dr. seen
- 9 ☐ DK when Dr. seen

A1 Examine "Name of condition" entry and mark
- ☐ Color blindness (NC)
- ☐ On Card C (A2)
- ☐ Accident or injury (A2)
- ☐ Neither (3a)

If "Doctor not talked to," transcribe entry from item 1.
If "Doctor talked to," ask:

3a. What did the doctor say it was? – Did he give it a medical name?

- -

Do not ask for Cancer   ☐ On Card C (A2)

b. What was the cause of . . .?
- ☐ Accident or injury (A2)

- -

If the entry in 3a or 3b includes the words:

Ailment	Condition	Disorder	Trouble
Anemia	Cyst	Growth	Tumor
Asthma	Defect	Measles	Ulcer
Attack	Disease	Rupture	

} Ask c:

c. What kind of . . . is it?

- -

For allergy or stroke, ask:

d. How does the allergy (stroke) affect him?

- -

If in 3a–d there is an impairment or any of the following entries:

Abscess	Damage	Paralysis
Ache (except head or ear)	Growth	Rupture
Bleeding	Hemorrhage	Sore
Blood clot	Infection	Soreness
Boil	Inflammation	Tumor
Cancer	Neuralgia	Ulcer
Cramps (except menstrual)	Neuritis	Varicose veins
Cyst	Pain	Weak
	Palsy	Weakness

} Ask e:

e. What part of the body is affected?

Show the following detail:
- Head . . . . skull, scalp, face
- Back/spine/vertebra . . . . upper, middle, lower
- Ear or eye . . . . one or both
- Arm . . . . one or both; shoulder, upper, elbow, lower, wrist, hand
- Leg . . . . one or both; hip, upper, knee, lower, ankle, foot

---

A2 Ask remaining questions as appropriate for the condition entered in:
- 1 ☐ Item I
- 2 ☐ Q. 3a
- 3 ☐ Q. 3b
- 4 ☐ Q. 3c
- 5 ☐ Q. 3d
- 6 ☐ Q. 3e

4. During the past 2 weeks, did his . . . cause him to cut down on the things he usually does?   1 Y   2 N (9)

5. During that period, how many days did he cut down for as much as a day?   _____ Days   00 None (9)

6. During that 2-week period, how many days did his . . . keep him in bed all or most of the day?   _____ Days   00 None

Ask if 17+ years:
7. How many days did his . . . keep him from work during that 2-week period? (For females): not counting work around the house?   _____ Days (9)   00 None (9)

Ask if 6–16 years:
8. How many days did his . . . keep him from school during that 2-week period?   _____ Days   00 None

9. When did -- first notice his . . .?
- 1 ☐ Last week
- 2 ☐ Week before
- 3 ☐ Past 2 weeks–DK which
- 4 ☐ 2 weeks–3 months
- 5 ☐ Over 3–12 months
- 6 ☐ More than 12 months ago

(Was it during the past 12 months or before that time?)
(Was it during the past 3 months or before that time?)
(Was it during the past 2 weeks or before that time?)

A3
- 1 ☐ Not an eye cond. (AA)
- 2 ☐ First eye cond. (under 6) (10g)
- 3 ☐ First eye cond. (6+ yrs.) (10)
- 4 ☐ Not first eye cond. (AA)

These next questions are about how well -- can see (with glasses/contacts).

10a. Can -- see well enough to read ordinary newspaper print with his
- left eye? . . . . 1 Y   2 N
- right eye? . . . . 1 Y   2 N

- -

b. Can -- see well enough to recognize the features of people he knows if they are close enough?   1 Y   2 N

- -

c. Can -- see moving objects, such as cars moving or people walking?   1 Y   2 N

- -

d. Can -- see well enough to step down?   1 Y   2 N

- -

e. Can -- see well enough to recognize a friend walking on the other side of the street?   1 Y   2 N

- -

If ALL "No," ask 10f: otherwise go to 10g.
f. Can -- see well enough to tell if a light is on?   1 Y (AA)   2 N (AA)

g. How much trouble would you say that -- has in seeing, a great deal, some, or hardly any at all?
- 1 ☐ Great deal
- 2 ☐ Some
- 3 ☐ Hardly any or none
- 8 ☐ Other – Specify _____

AA
- 1 ☐ Missing extremity *(A4)*
- 2 ☐ Condition in C2 does not have a letter as source *(A4)*
- 3 ☐ Condition in C2 has a letter as source, Doctor seen *(11)*
- 4 ☐ Condition in C2 has a letter as source, Doctor not seen *(15)*

11a. Does -- NOW take any medicine or treatment for his . . .?
- 1 Y
- 2 N *(12)*

- -

b. Was any of this medicine or treatment recommended by a doctor?
- 1 Y
- 2 N

12. Has he ever had surgery for this condition?
- 1 Y
- 2 N

13. Was he ever hospitalized for this condition?
- 1 Y
- 2 N

14. During the past 12 months, about how many times has -- seen or talked to a doctor about his . . .?   _____ Times

(Do not count visits while a patient in a hospital.)   000 ☐ None

15a. About how many days during the past 12 months has this condition kept him in bed all or most of the day?   _____ Days

000 ☐ None

- -

Ask if 17+ years:

b. About how many days during the past 12 months has this condition kept him from work?   _____ Days

For females: Not counting work around the house?   000 ☐ None

16a. How often does his . . . bother him -- all of the time, often, once in a while, or never?
- 1 ☐ All the time
- 2 ☐ Often
- 3 ☐ Once in a while
- 0 ☐ Never *(A4)*
- 8 ☐ Other -- *Specify* _____

b. When it does bother him, is he bothered a great deal, some, or very little?
- 1 ☐ Great deal
- 2 ☐ Some
- 3 ☐ Very little
- 4 ☐ Other -- *Specify* _____

FOOTNOTES

A4
- ☐ Accident or injury
- ☐ Other *(NC)*

17a. Did the accident happen during the past 2 years or before that time?
- ☐ During the past 2 years
- ☐ Before 2 years *(18a)*

- -

b. When did the accident happen?
- ☐ Last week
- ☐ Over 3--12 months
- ☐ Week before
- ☐ 1--2 years
- ☐ 2 weeks--3 months

18a. At the time of the accident what part of the body was hurt? What kind of injury was it? Anything else?

Part(s) of body	Kind of injury

If accident happened more than 3 months ago, ask:

b. What part of the body is affected now? How is his -- affected? Is he affected in any other way?

Part(s) of body	Present effects

19. Where did the accident happen?
- 1 ☐ At home (inside house)
- 2 ☐ At home (adjacent premises)
- 3 ☐ Street and highway (includes roadway and public sidewalk)
- 4 ☐ Farm
- 5 ☐ Industrial place (includes premises)
- 6 ☐ School (includes premises)
- 7 ☐ Place of recreation and sports, except at school
- 8 ☐ Other -- *Specify*

20. Was -- at work at his job or business when the accident happened?
- 1 Y
- 2 N
- 3 ☐ While in Armed Services
- 4 ☐ Under 17 at time of accident

21a. Was a car, truck, bus, or other motor vehicle involved in the accident in any way?   1 Y   2 N *(NC)*

- -

b. Was more than one vehicle involved?   Y   N

- -

c. Was it (either one) moving at the time?   1 Y   2 N

CONDITION 2

1. Person number | Name of condition

2. When did -- last see or talk to a doctor about his . . .?

- 1 ☐ In interview week (Reask 2)
- 1 ☐ Past 2 wks. (Item C)
- 2 ☐ 2 wks.–6 mos.
- 3 ☐ Over 6–12 mos.
- 4 ☐ 1 yr.
- 5 ☐ 2–4 yrs.
- 6 ☐ 5+ yrs.
- 7 ☐ Never
- 8 ☐ DK if Dr. seen
- 9 ☐ DK when Dr. seen

A1 Examine "Name of condition" entry and mark
- ☐ Color blindness (NC)
- ☐ On Card C (A2)
- ☐ Accident or injury (A2)
- ☐ Neither (3a)

If "Doctor not talked to," transcribe entry from item 1.
If "Doctor talked to," ask:

3a. What did the doctor say it was? — Did he give it a medical name?

- -

Do not ask for Cancer ☐ On Card C (A2)

b. What was the cause of . . .?
- ☐ Accident or injury (A2)

If the entry in 3a or 3b includes the words:

Ailment	Condition	Disorder	Trouble
Anemia	Cyst	Growth	Tumor
Asthma	Defect	Measles	Ulcer
Attack	Disease	Rupture	

Ask c:

c. What kind of . . . is it?

- -

For allergy or stroke, ask:

d. How does the allergy (stroke) affect him?

- -

If in 3a–d there is an impairment or any of the following entries:

Abscess	Damage	Paralysis
Ache (except head or ear)	Growth	Rupture
Bleeding	Hemorrhage	Sore
Blood clot	Infection	Soreness
Boil	Inflammation	Tumor
Cancer	Neuralgia	Ulcer
Cramps (except menstrual)	Neuritis	Varicose veins
Cyst	Pain	Weak
	Palsy	Weakness

Ask e:

e. What part of the body is affected?

Show the following detail:
- Head . . . . skull, scalp, face
- Back/spine/vertebra . . . . upper, middle, lower
- Ear or eye . . . . one or both
- Arm . . . . one or both; shoulder, upper, elbow, lower, wrist, hand
- Leg . . . . one or both; hip, upper, knee, lower, ankle, foot

---

A2 Ask remaining questions as appropriate for the condition entered in:
- 1 ☐ Item 1
- 2 ☐ Q. 3a
- 3 ☐ Q. 3b
- 4 ☐ Q. 3c
- 5 ☐ Q. 3d
- 6 ☐ Q. 3e

4. During the past 2 weeks, did his . . . cause him to cut down on the things he usually does? — 1 Y   2 N (9)

5. During that period, how many days did he cut down for as much as a day? — _____ Days   00 ☐ None (9)

6. During that 2-week period, how many days did his . . . keep him in bed all or most of the day? — _____ Days   00 ☐ None

Ask if 17+ years:
7. How many days did his . . . keep him from work during that 2-week period? (For females): not counting work around the house? — _____ Days (9)   00 ☐ None (9)

Ask if 6–16 years:
8. How many days did his . . . keep him from school during that 2-week period? — _____ Days   00 ☐ None

9. When did -- first notice his . . .?
- 1 ☐ Last week
- 2 ☐ Week before
- 3 ☐ Past 2 weeks–DK which
- 4 ☐ 2 weeks–3 months
- 5 ☐ Over 3–12 months
- 6 ☐ More than 12 months ago

(Was it during the past 12 months or before that time?)
(Was it during the past 3 months or before that time?)
(Was it during the past 2 weeks or before that time?)

A3
- 1 ☐ Not an eye cond. (AA)
- 2 ☐ First eye cond. (under 6) (10g)
- 3 ☐ First eye cond. (6+ yrs.) (10)
- 4 ☐ Not first eye cond. (AA)

These next questions are about how well -- can see (with glasses/contacts).

10a. Can -- see well enough to read ordinary newspaper print with his { left } eye? . . . . 1 Y   2 N
{ right } eye? . . . . 1 Y   2 N

b. Can -- see well enough to recognize the features of people he knows if they are close enough? — 1 Y   2 N

- -

c. Can -- see moving objects, such as cars moving or people walking? — 1 Y   2 N

- -

d. Can -- see well enough to step down? — 1 Y   2 N

- -

e. Can -- see well enough to recognize a friend walking on the other side of the street? — 1 Y   2 N

- -

If ALL "No," ask 10f: otherwise go to 10g.
f. Can -- see well enough to tell if a light is on? — 1 Y (AA)   2 N (AA)

- -

g. How much trouble would you say that -- has in seeing, a great deal, some, or hardly any at all?
- 1 ☐ Great deal
- 2 ☐ Some
- 3 ☐ Hardly any or none
- 8 ☐ Other – Specify _____

AA
1 ☐ Missing extremity (A4)
2 ☐ Condition in C2 does not have a letter as source (A4)
3 ☐ Condition in C2 has a letter as source, Doctor seen (11)
4 ☐ Condition in C2 has a letter as source, Doctor not seen (15)

11a. Does -- NOW take any medicine or treatment for his . . .?
1 Y
2 N (12)

b. Was any of this medicine or treatment recommended by a doctor?
1 Y
2 N

12. Has he ever had surgery for this condition?
1 Y
2 N

13. Was he ever hospitalized for this condition?
1 Y
2 N

14. During the past 12 months, about how many times has -- seen or talked to a doctor about his . . .?
(Do not count visits while a patient in a hospital.)
_____ Times
000 ☐ None

15a. About how many days during the past 12 months has this condition kept him in bed all or most of the day?
_____ Days
000 ☐ None

Ask if 17+ years:

b. About how many days during the past 12 months has this condition kept him from work?
For females: Not counting work around the house?
_____ Days
000 ☐ None

16a. How often does his . . . bother him — all of the time, often, once in a while, or never?
1 ☐ All the time   2 ☐ Often   3 ☐ Once in a while
0 ☐ Never (A4)   8 ☐ Other — Specify_____•_____

b. When it does bother him, is he bothered a great deal, some, or very little?
1 ☐ Great deal   2 ☐ Some   3 ☐ Very little
4 ☐ Other — Specify_____

FOOTNOTES

A4
☐ Accident or injury   ☐ Other (NC)

17a. Did the accident happen during the past 2 years or before that time?
☐ During the past 2 years   ☐ Before 2 years (18a)

b. When did the accident happen?
☐ Last week   ☐ Over 3–12 months
☐ Week before   ☐ 1–2 years
☐ 2 weeks–3 months

18a. At the time of the accident what part of the body was hurt?
What kind of injury was it? Anything else?

Part(s) of body	Kind of injury

If accident happened more than 3 months ago, ask:

b. What part of the body is affected now?
How is his -- affected? Is he affected in any other way?

Part(s) of body	Present effects

19. Where did the accident happen?
1 ☐ At home (inside house)
2 ☐ At home (adjacent premises)
3 ☐ Street and highway (includes roadway and public sidewalk)
4 ☐ Farm
5 ☐ Industrial place (includes premises)
6 ☐ School (includes premises)
7 ☐ Place of recreation and sports, except at school
8 ☐ Other — Specify

20. Was -- at work at his job or business when the accident happened?
1 Y   3 ☐ While in Armed Services
2 N   4 ☐ Under 17 at time of accident

21a. Was a car, truck, bus, or other motor vehicle involved in the accident in any way?
1 Y   2 N (NC)

b. Was more than one vehicle involved?
Y   N

c. Was it (either one) moving at the time?
1 Y   2 N

2-WEEKS DOCTOR VISITS PAGE

		1.	Person number _____
Earlier, you told me that — had seen or talked to a doctor during the past 2 weeks.		2a.	OR $\left\{\begin{array}{l} \square \text{ 7777} \text{ Last week} \\ \square \text{ 8888} \text{ Week before} \end{array}\right.$
2a. On what (other) dates during that 2-week period did — visit or talk to a doctor?		.	_____ _____ Month Date
b. Were there any other doctor visits for him during that period?		b.	Y (Reask 2a and b) N (Ask 3–6 for each visit)
3. Where did he see the doctor on the _(date)_ at a clinic, hospital, doctor's office, or some other place? If Hospital: Was it the outpatient clinic or the emergency room? If Clinic: Was it a hospital outpatient clinic, a company clinic, or some other kind of clinic?		3.	0 ☐ While inpatient in hospital (Next DV) 1 ☐ Doctor's office (group practice or doctor's clinic) 2 ☐ Telephone 3 ☐ Hospital Outpatient Clinic 4 ☐ Home 5 ☐ Hospital Emergency Room 6 ☐ Company or Industry Clinic 7 ☐ Other (Specify) ⇗ _____
4. Is the doctor a general practitioner or a specialist?		4.	01 ☐ General practitioner ☐ Specialist — What kind of specialist is he? ⇗ _____
5. During this visit (call) did — actually see (talk to) the doctor?		5.	1 Y 2 N
6a. Why did he visit (call) the doctor on _(date)_ ? Write in reason Mark appropriate box(es)		6a.	_____ 1 ☐ Diag. or treatment (6c) 3 ☐ General checkup (6b) 2 ☐ Pre or Postnatal care 4 ☐ Eye exam. (glasses) ⎫ (Next 5 ☐ Immunization ⎬ DV) 6 ☐ Other _____ ⎭
b. Was this for any specific condition?		b.	Y (Enter condition in 6a N (Next DV) and change to "Diag. or treatment")
Mark box or ask: c. For what condition did — visit (call) the doctor on _(date)_ ?		c.	☐ Condition reported in 6a _____

PI	A Condition page is required for the condition in question 6. If there is no Condition page, enter condition in item C and fill a page for it after completing columns for all required doctor visits.

FOOTNOTES

If 17+, ask: **1a. What is the highest grade or year —— attended in school?**	**1a.** ☐ Under 17 *(NP)* 00 ☐ None *(2)* Elem: 1 2 3 4 5 6 7 8 High: 9 10 11 12 College: 1 2 3 4 5 6+
b. Did —— finish the —— grade (year)?	**b.** 1 Y 2 N
2a. Did —— ever serve in the Armed Forces of the United States?	**2a.** 1 Y 2 N *(3)*
b. When did he serve? Circle code in descending order of priority. Thus if person served in Vietnam and in Korea, circle VN. Vietnam Era (Aug. '64 to April '75). . . . . . VN Korean War (June '50–Jan. '55) . . . . KW World War II (Sept. '40–July '47) . . . . . . WWII World War I (April '17–Nov. '18) . . . . . . WWI Post Vietnam (May '75 to present). . . . . . PVN Other Service (all other periods) . . . . . . OS	**b.** 1 VN 5 PVN 2 KW 6 OS 3 WWII 9 DK 4 WWI
c. Does —— have a service connected disability?	**c.** 1 Y 2 N
3a. Did —— work at any time last week or the week before — not counting work around the house?	**3a.** 1 Y *(4)* 2 N
b. Even though —— did not work during these 2 weeks, does he have a job or business?	**b.** 1 Y 2 N
c. Was he looking for work or on layoff from a job?	**c.** 1 Y 2 N *(4)*
d. Which — looking for work or on layoff from a job?	**d.** 1 ☐ Looking 3 ☐ Both 2 ☐ Layoff

Ask for all persons with a "Yes" in 3a, b, or c. If "Yes" in 3c only, questions 4a through 4e apply to this person's LAST full-time civilian job.	**4a. For whom did —— work?** Name of company, business, organization, or other employer	**4a.** Employer
	b. What kind of business or industry is this? For example, TV and radio manufacturing, retail shoe store, State Labor Dept., farm	**b.** Industry
	c. What kind of work was —— doing? For example, electrical engineer, stock clerk, typist, farmer	**c.** Occupation
	d. What were ——'s most important activities or duties? For example, types, keeps account books, files, sells cars, operates printing press, finishes concrete	**d.** Duties

	Complete from entries in 4a–d; if not clear, ask:
	e. Was —— an employee of PRIVATE company, business, or individual
	     for wages, salary, or commission? . . . . P
	    —— a **FEDERAL** government employee?. . . . . F
	    —— a **STATE** government employee?. . . . . S
	    —— a **LOCAL** government employee?. L
	    —— **self-employed in OWN** business, professional practice, or farm?
	      If not a farm, ask: Is the business incorporated?
	        Yes I
	        No (or farm) . . . . SE
	    —— working **WITHOUT PAY** in family business or farm? . . . . WP
	    —— **NEVER WORKED** . . . . NEV
		Class of worker
		
		e. 1 ☐ P 5 ☐ I
		2 ☐ F 6 ☐ SE
		3 ☐ S 7 ☐ WP
		4 ☐ L 8 ☐ NEV

If 17+, ask: **5a.** During the past 12 months, about how many months did you have a job?	**5a.**	☐ Under 17 *(NP)* 00 ☐ None *(NP)* _____ Months 12 ☐ Entire year
b. During that period, ABOUT how many days did illness or injury keep – – from work – not counting work around the house?	**b.**	☐ None _____ Days _____ Months

Hand Card O If 17+, ask: **6a.** Which of those groups BEST describes – – 's national origin or ancestry?	**6a.**	☐ Under 17 *(NP)* _____ *(Enter precode)*
If multiple entries, ask: **b.** Which of those groups, that is, (entries in 6a) would you say BEST describes – – 's national origin or ancestry?	**b.**	_____ *(Specify)*

7a. During the past 12 months, has anyone in the family received medical care which has been or will be paid for by MEDICARE?	Y N *(8)*		
b. Who was this? Mark "Medicare" in person's column.		**7b.**	1 ☐ Medicare
c. Anyone else?	Y *(Reask 7b and c)* N		
8a. There is a public program called –– (Medicaid) which provides medical assistance to persons in need. During the past 12 months, has anyone in the family received medical care which has been or will be paid for by –– (MEDICAID)?	Y N *(9)*		
b. Who was this? Mark "Medicaid" in person's column.		**8b.**	1 ☐ Medicaid
c. Anyone else?	Y *(Reask 8b and c)* N		
9a. During the past 12 months, has anyone in the family received medical care provided or paid for by the Veterans Administration?	Y N *(10)*		
b. Who was this? Mark "VA" in person's column.		**9b.**	1 ☐ VA
c. Anyone else?	Y *(Reask 9b and c)* N		

FOOTNOTES

10. Which of those income groups represents your total combined family income for the past 12 months — that is, yours, your ——'s, etc.? Include income from all sources such as wages, salaries, social security or retirement benefits, help from relatives, rent from property, and so forth.	10. 00 ☐ A 04 ☐ E 08 ☐ I 01 ☐ B 05 ☐ F 09 ☐ J 02 ☐ C 06 ☐ G 10 ☐ K 03 ☐ D 07 ☐ H
11a. Which (other) family members received some income during the past 12 months? Mark "Income" box in person's column.	11a. 1 ☐ Income
b. Did any other family members receive any income during the past 12 months? Y (Reask 11a and b) N	
If only one person with "Income" box marked, go to 13 If 2 or more persons with "Income" box marked, ask 12 for each: 12. Which of those income groups represents ——'s income for the past 12 months?	12. 00 ☐ A 04 ☐ E 08 ☐ I 01 ☐ B 05 ☐ F 09 ☐ J 02 ☐ C 06 ☐ G 10 ☐ K 03 ☐ D 07 ☐ H
13a. During the past 12 months, did anyone in the family receive any payments or benefits from Workmen's Compensation? Y N (14)	
b. Who was this? Mark "Workmen's Compensation" box in person's column.	13b. 1 ☐ Workmen's Compensation
c. Anyone else? Y (Reask 13b and c) N	
14a. During the past 12 months, did anyone in the family receive any disability payments or disability benefits from — If "Yes," ask 14b. b. Was this because of a disability? If "Yes," ask 14c and d, otherwise continue with list. c. Who was this? Mark appropriate box in person's column. d. Anyone else? 1. Social Security Administration? 2. Veterans Administration? 3. State public welfare or assistance?	14b. 1 ☐ SSA 2 ☐ VA 3 ☐ Welfare
15a. Does anyone in this family receive assistance through the "Aid to Families with Dependent Children" Program, sometimes called "AFDC" or "ADC"? Y N (Household page)	
b. Which (other) family members are included in the AFDC assistance payment? Mark "AFDC" box in person's column.	15b. ☐ AFDC
c. Are any other family members included in this program? Y (Reask 15b and c) N	

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