

# Use of Special Aids

**United States - 1969**

Statistics on the distribution and use of artificial limbs, braces, crutches, canes, special shoes, wheelchairs, walkers, and other special aids for getting around. Based on data collected in the Health Interview Survey in 1969.

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

In accordance with specifications established by the Health Interview Survey, the Bureau of the Census, under a contractual arrangement, participates in most aspects of survey planning, selects the sample, and collects the data.

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### SYMBOLS

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

# USE OF SPECIAL AIDS

Charles S. Wilder, *Division of Health Interview Statistics*

## INTRODUCTION

During 1969 an estimated 6,226,000 persons in the civilian, noninstitutional population of the United States reported using one or more items from a selected list of special aids used by persons in getting around. A total of 7,202,000 such aids were reported in the health interview. Figure 1 shows the list of special aids and the types of information obtained about these aids.

Information about certain special aids has been obtained in the Health Interview Survey during July 1958-June 1959, July 1962-June 1963, July 1965-June 1966, and 1971. Information collected during 1958-59 about the use of hearing aids, wheelchairs, braces, and artificial limbs was reported in *Health Statistics*, Series B, No. 27.<sup>1</sup> Additional information about the use of hearing aids was reported in *Vital and Health Statistics*, Series 10, No. 35, from data collected during 1962-63. Information on the use of corrective lenses is presented in Series 10, No. 53, from the data collected in 1965-66.

Information about the use of special aids of the types mentioned above among certain members of the *institutionalized* population is reported in "Use of Special Aids in Homes for the Aged and Chronically Ill, United States, May-June 1964," *Vital and Health Statistics*, Series 12, No. 11.

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<sup>1</sup>U.S. National Health Survey: Distribution and use of hearing aids, wheel chairs, braces, and artificial limbs, United States, July 1958-June 1959. *Health Statistics*. Series B, No. 27. PHS Pub. No. 584-B27. Public Health Service. Washington. U.S. Government Printing Office, June 1961.

## SOURCE OF DATA

The information presented in this report is based on data collected in the Health Interview Survey, a continuing nationwide 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 households in the civilian, noninstitutional population of the United States. During the 52 weeks of interviewing in 1969, the sample was composed of about 42,000 households containing about 134,000 persons living at the time of the interview.

A description of the design of the survey, methods used in estimation, and general qualifications of the information obtained from surveys is presented in appendix I. Since the estimates shown in this report are based on a sample rather than on the entire population, they are subject to sampling error. Therefore particular attention should be paid to the section entitled "Reliability of Estimates." Since many of the estimates shown in this report are quite small, the sampling error of a number or percentage may be substantial. Charts of relative sampling errors and instructions for their use are shown in appendix I.

Appendix II presents definitions of certain terms used in this report. Some of the terms have specialized meanings for the purpose of the survey. The questionnaire used in 1969 is illustrated in appendix III of the "Current Estimates" report for 1969 (Series 10, No. 63). Figure 1 of the present report shows the specific

portion of that questionnaire used for obtaining information on special aids. The population used in computing the rates presented here is shown in table F.

### DISTRIBUTION OF PERSONS WITH SPECIAL AIDS

As mentioned above, an estimated 6,226,000 persons in the civilian, noninstitutional population in 1969 used one or more of the types of special aids reported in the interview (tables A and B). They used a total of 7,202,000 such aids (table C). Special shoes were the most frequently reported special aids, while artificial arms or hands were the least frequently reported.

An estimated 3.2 percent of the population used one or more of the types of special aids

listed in figure 1. About 2.8 percent of the population used one aid, 0.3 percent used two aids, and 0.1 percent used three or more aids. Table A shows the distribution of persons with one or more aids by sex and age, and table B presents information on the use of these aids by various segments of the population.

Persons 15-44 years of age reported the lowest percentage use of aids (1.2 percent) and persons 65 years and over reported the highest proportion with aids (13.3 percent). The percentage use of aids for the latter group was about four times greater than that of the next lower age group, 45-64 years. Males had higher proportionate use of one or more aids than did females at all ages under 65 years. The reversal in percentages by sex for age 65 years and over may be due to sampling variability of these data.

37a. Does anyone in the family now use any of the following special aids -		Table SA			
Yes	No	Person No. (a)	Type of aid (b)	If 1-6 in (b), ASK: Does he use one or two (at a time)? (c)	If 3-9 in (b) ASK: For what condition does he need this? (item C) (d)
				1 <input type="checkbox"/> 2 <input type="checkbox"/> Other _____	
				1 <input type="checkbox"/> 2 <input type="checkbox"/> Other _____	
				1 <input type="checkbox"/> 2 <input type="checkbox"/> Other _____	
1. An artificial arm? ..... 2. An artificial leg? ..... 3. A brace of any kind? ..... 4. Crutches? ..... 5. A cane or walking stick? ..... 6. Special shoes? ..... 7. A wheel chair? ..... 8. A walker? ..... 9. Any other kind of aid for getting around? ..... If "Yes," specify: <input checked="" type="checkbox"/>					
b. Who is this? Enter in Table SA _____					
c. Anyone else?					

Table SA - Continued		
Is the ____ used all the time, most of the time or only occasionally? (e)	How long has he used ____? (f)	How was the ____ obtained? Was it purchased, rented, borrowed or a gift? (g)
1 <input type="checkbox"/> All    2 <input type="checkbox"/> Most    3 <input type="checkbox"/> Occasionally	<input type="checkbox"/> Less than 1 month ____ Months    ____ Years	1 <input type="checkbox"/> Purchased    2 <input type="checkbox"/> Rented    3 <input type="checkbox"/> Borrowed    4 <input type="checkbox"/> Gift
1 <input type="checkbox"/> All    2 <input type="checkbox"/> Most    3 <input type="checkbox"/> Occasionally	<input type="checkbox"/> Less than 1 month ____ Months    ____ Years	1 <input type="checkbox"/> Purchased    2 <input type="checkbox"/> Rented    3 <input type="checkbox"/> Borrowed    4 <input type="checkbox"/> Gift
1 <input type="checkbox"/> All    2 <input type="checkbox"/> Most    3 <input type="checkbox"/> Occasionally	<input type="checkbox"/> Less than 1 month ____ Months    ____ Years	1 <input type="checkbox"/> Purchased    2 <input type="checkbox"/> Rented    3 <input type="checkbox"/> Borrowed    4 <input type="checkbox"/> Gift

Figure 1. Probe questions and recording form used to obtain information on the use of special aids for getting around.

Table A. Population and number of persons using selected types of special aids and percent distribution of persons by number of aids used, according to sex and age: United States, 1969

[Data are based on household interviews of the civilian, noninstitutional 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]

Sex and age	Total population	Persons not using aids	Persons using special aids		
			1 type of aid	2 types of aid	3 or more types of aid
<u>Both sexes</u>					
Number of persons in thousands					
All ages-----	197,422	191,196	5,466	587	173
Under 15 years-----	59,205	57,803	1,319	70	*
15-44 years-----	78,818	77,858	850	80	*
45-64 years-----	40,742	39,363	1,165	151	62
65 years and over-----	18,658	16,172	2,132	285	69
<u>Male</u>					
All ages-----	95,002	91,814	2,819	286	82
Under 15 years-----	30,140	29,308	784	*	*
15-44 years-----	37,469	36,853	540	55	*
45-64 years-----	19,402	18,674	621	81	*
65 years and over-----	7,990	6,980	875	112	*
<u>Female</u>					
All ages-----	102,420	99,382	2,647	301	91
Under 15 years-----	29,064	28,495	535	*	*
15-44 years-----	41,349	41,005	310	*	*
45-64 years-----	21,339	20,689	545	71	*
65 years and over-----	10,667	9,192	1,257	174	*
<u>Both sexes</u>					
Percent distribution					
All ages-----	100.0	96.8	2.8	0.3	0.1
Under 15 years-----	100.0	97.6	2.2	0.1	*
15-44 years-----	100.0	98.8	1.1	0.1	*
45-64 years-----	100.0	96.6	2.9	0.4	0.2
65 years and over-----	100.0	86.7	11.4	1.5	0.4
<u>Male</u>					
All ages-----	100.0	96.6	3.0	0.3	0.1
Under 15 years-----	100.0	97.2	2.6	*	*
15-44 years-----	100.0	98.4	1.4	0.1	*
45-64 years-----	100.0	96.2	3.2	0.4	*
65 years and over-----	100.0	87.4	11.0	1.4	*
<u>Female</u>					
All ages-----	100.0	97.0	2.6	0.3	0.1
Under 15 years-----	100.0	98.0	1.8	*	*
15-44 years-----	100.0	99.2	0.7	*	*
45-64 years-----	100.0	97.0	2.6	0.3	*
65 years and over-----	100.0	86.2	11.8	1.6	*



Table B. Number and percent of population using one or more special aids, by age and selected characteristics: United States, 1969

[Data are based on household interviews of the civilian, noninstitutional 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	Percent of population			
					All ages	Under 45 years	45-64 years	65 years and over
	Number of persons using special aids in thousands				Percent of population			
All persons <sup>1</sup> -----	6,226	2,361	1,379	2,486	3.2	1.7	3.4	13.3
<u>Sex</u>								
Male-----	3,188	1,449	729	1,010	3.4	2.1	3.8	12.6
Female-----	3,038	913	650	1,475	3.0	1.3	3.0	13.8
<u>Color</u>								
White-----	5,546	2,150	1,199	2,197	3.2	1.8	3.3	12.8
All other-----	680	212	180	289	2.8	1.1	4.6	19.2
<u>Family income</u>								
Less than \$3,000-----	1,617	149	330	1,138	7.3	1.4	7.8	15.9
\$3,000-\$4,999-----	829	213	204	413	3.7	1.5	4.7	11.1
\$5,000-\$6,999-----	863	356	223	284	2.6	1.5	3.4	11.8
\$7,000-\$9,999-----	942	556	199	187	2.3	1.7	2.6	12.1
\$10,000-\$14,999-----	1,012	663	189	159	2.3	2.0	2.2	13.2
\$15,000 or more-----	603	330	151	122	2.4	1.9	2.3	12.8
<u>Living arrangement</u>								
Living alone-----	1,046	78	225	743	8.9	2.3	6.2	15.7
Living with nonrelatives-----	168	*	*	101	5.6	*	*	20.7
Living with relatives—married--	2,438	552	938	948	2.7	1.2	2.9	9.8
Living with relatives—other----	2,574	1,702	178	695	2.8	2.0	4.3	18.4
<u>Usual activity</u>								
Usually working (17 years and over)-----	1,202	487	576	140	1.7	1.2	2.1	4.9
Usually keeping house (female, 17 years and over)-----	1,491	157	402	933	3.9	0.9	3.5	10.9
Retired (45 years and over)-----	1,228	...	189	1,040	16.5	...	15.8	16.7
Other activity <sup>2</sup> -----	2,304	1,717	212	374	2.9	2.2	17.8	37.3
<u>Chronic activity limitation</u>								
Unable to carry on major activity <sup>3</sup> -----	1,648	149	417	1,083	29.4	19.5	23.1	35.8
Limited in amount or kind of major activity <sup>3</sup> -----	1,626	333	504	789	12.9	8.5	10.7	19.8
Limited, but not in major activity <sup>3</sup> -----	466	231	99	135	10.0	9.5	7.5	14.8
Not limited in activity-----	2,486	1,649	359	479	1.4	1.3	1.1	4.5

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

<sup>2</sup>Included with other activity are all persons under 17 years of age.

<sup>3</sup>Major activity refers to ability to work, keep house, or engage in school or preschool activities.

Table C. Number of persons using special aids and number using aids per 1,000 population, by type of aid, sex, and age: United States, 1969

[Data are based on household interviews of the civilian, noninstitutional 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]

Sex and age	Special shoes	Cane or walking stick	Brace		Crutches	Wheel-chair	Walker	Artificial limb		Other aid for getting around
			Leg or foot	Other				Leg or foot	Arm or hand	
Number of persons using this aid in thousands										
Both sexes										
All ages-----	2,377	2,156	233	869	443	409	404	126	46	140
Under 45 years-----	1,620	94	152	365	147	100	*	*	*	51
Under 15 years----	1,263	*	88	61	*	*	*	*	*	*
15-44 years-----	357	87	65	304	120	76	*	*	*	*
45-64 years-----	444	444	*	324	158	94	57	57	*	*
65 years and over--	313	1,618	*	180	137	215	329	*	*	*
Male										
All ages-----	1,282	1,025	156	462	240	179	93	104	*	80
Under 45 years-----	994	67	107	199	94	71	*	*	*	*
Under 15 years----	754	*	60	*	*	*	*	*	*	*
15-44 years-----	240	60	*	175	77	51	*	*	*	*
45-64 years-----	194	233	*	192	79	*	*	49	*	*
65 years and over--	94	725	*	71	67	65	73	*	*	*
Female										
All ages-----	1,095	1,131	76	407	202	230	311	*	*	60
Under 45 years-----	625	*	*	167	54	*	*	*	*	*
Under 15 years----	509	*	*	*	*	*	*	*	*	*
15-44 years-----	116	*	*	129	*	*	*	*	*	*
45-64 years-----	250	211	*	132	79	51	*	*	*	*
65 years and over--	220	893	*	108	70	150	257	*	*	*
Number using aids per 1,000 population										
Both sexes										
All ages-----	12.0	10.9	1.2	4.4	2.2	2.1	2.0	0.6	0.2	0.7
Under 45 years-----	11.7	0.7	1.1	2.6	1.1	0.7	*	*	*	0.4
Under 15 years----	21.3	*	1.5	1.0	*	*	*	*	*	*
15-44 years-----	4.5	1.1	0.8	3.9	1.5	1.0	*	*	*	*
45-64 years-----	10.9	10.9	*	8.0	3.9	2.3	1.4	1.4	*	*
65 years and over--	16.8	86.7	*	9.6	7.3	11.5	17.6	*	*	*
Male										
All ages-----	13.5	10.8	1.6	4.9	2.5	1.9	1.0	1.1	*	0.8
Under 45 years-----	14.7	1.0	1.6	2.9	1.4	1.1	*	*	*	*
Under 15 years----	25.0	*	2.0	*	*	*	*	*	*	*
15-44 years-----	6.4	1.6	*	4.7	2.1	1.4	*	*	*	*
45-64 years-----	10.0	12.0	*	9.9	4.1	*	*	2.5	*	*
65 years and over--	11.8	90.7	*	8.9	8.4	8.1	9.1	*	*	*
Female										
All ages-----	10.7	11.0	0.7	4.0	2.0	2.2	3.0	*	*	0.6
Under 45 years-----	8.9	*	*	2.4	0.8	*	*	*	*	*
Under 15 years----	17.5	*	*	*	*	*	*	*	*	*
15-44 years-----	2.8	*	*	3.1	*	*	*	*	*	*
45-64 years-----	11.7	9.9	*	6.2	3.7	2.4	*	*	*	*
65 years and over--	20.6	83.7	*	10.1	6.6	14.1	24.1	*	*	*

A slightly higher percentage of white persons had one or more of these special aids than did persons of other races. Persons with family income under \$5,000 had higher percentages with aids than did those with larger incomes. Persons living outside family groups (alone or with nonrelatives) had greater proportionate use of special aids than did family members. Usually working persons had the lowest percentage with special aids, as shown in table B—about two of each 100 workers used an aid. Increasing severity of activity limitation was associated with use of special aids for getting about. About three of each 10 persons who were unable to carry on the major activity of their age-sex group used one or more of the special aids for ambulation. Only about one in each 100 persons who were not limited in activity used special aids.

## USE OF SPECIAL AIDS

### Special Shoes

Shoes were classified as a special aid if they were of special construction or design. Oversized shoes of ordinary or usual construction were not counted as special aids.

An estimated 2,377,000 persons used special shoes as a special aid to assist them in getting around more readily. About 12 persons in each 1,000 of the civilian, noninstitutional population had special shoes. Table C shows that persons under 15 years of age and those 65 years and over had greater than average use of special shoes. A higher proportion of males than females had special shoes. Persons living alone had a higher rate of use of special shoes than did persons with other living arrangements (table D). About 60 percent of the persons who were living alone and using special shoes were 65 years and over. The high proportion of persons using special shoes in the "other activity" group is accounted for by the inclusion of a large number of persons under 15 years of age in this group.

An estimated 81.5 percent of the 2,377,000 persons wore a pair of special shoes, and about 15.6 percent wore only one special shoe (table E). About 65.0 percent of the persons wore them all the time. About 39 of

each 100 persons had worn them for 5 years or more. Answers to the question as to how the aid was obtained indicated that about 92.5 percent of the persons with special shoes purchased them. About 79.3 percent of the persons reported wearing them as a result of some chronic disease or impairment; about 20.0 percent did not report the condition for which the shoes were worn.

### Canes or Walking Sticks

About 2,156,000 persons, 10.9 per 1,000 persons in the civilian, noninstitutional population, reported using a cane or walking stick to assist them in getting about. The highest rate of use was reported by persons 65 years and over (table C). There was no difference in rate of usage by sex. Table D shows higher proportionate use of canes by persons other than white, persons with low income, persons living alone or with nonrelatives, the retired, and those with limitation in activity.

About 94.3 percent of the persons using canes used only one (table E). About 30.6 percent reported using a cane all the time; 24.2 percent, most of the time; and 42.0 percent, occasionally. About half of the persons (45.5 percent) had used a cane from 1 to 4 years. The same proportion had purchased the cane or walking stick. Most of the persons used the cane because of chronic conditions.

### Braces

During 1969 an estimated 1,102,000 persons, or about 5.6 per 1,000 population, used a brace of some kind other than braces for teeth or as support for hernias. As reported in health interviews during July 1958-June 1959 and published in Series B, No. 27, an estimated 695,000 persons, or 4.1 per 1,000 population, had a brace.

When the data collected in 1959 were coded, separate categories of leg and foot braces and other braces were compiled. There were 201,000 persons with leg or foot braces and 494,000 persons with other braces—1.2 per 1,000 population for leg or foot braces and 2.9 per 1,000 population for other braces. However, during coding of the data collected in 1969 such

Table D. Number of persons using special aids per 1,000 population, by type of aid and selected characteristics: United States, 1969

[Data are based on household interviews of the civilian, noninstitutional 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	Special shoes	Cane or walking stick	Brace	Crutches	Wheel-chair	Walker	Artificial limb		Other aid for getting around
							Leg or foot	Arm or hand	
	Number using aids per 1,000 population								
All persons-----	12.0	10.9	5.6	2.2	2.1	2.0	0.6	0.2	0.7
<u>Color</u>									
White-----	12.7	10.5	5.8	2.2	2.1	2.2	0.6	*	0.7
All other-----	7.6	13.6	4.0	2.5	*	*	*	*	*
<u>Family income</u>									
Less than \$5,000-----	11.4	30.5	8.1	4.9	3.5	4.4	1.4	*	*
\$5,000-\$9,999-----	11.4	5.5	5.0	1.5	1.7	1.3	*	*	0.7
\$10,000 or more-----	13.5	3.7	4.7	1.3	1.4	1.2	*	*	*
<u>Living arrangement</u>									
Living alone-----	20.5	51.3	11.7	6.5	4.5	6.3	*	*	*
Living with nonrelatives-----	*	30.7	*	*	*	*	*	*	*
Living with relatives--married---	7.1	10.0	7.1	2.5	1.9	1.6	0.8	*	0.9
Living with relatives--other---	15.9	6.0	3.1	1.4	1.9	1.8	*	*	*
<u>Usual activity</u>									
Usually working (17 years and over)-----	6.8	2.5	5.3	1.7	*	*	0.8	*	0.7
Usually keeping house (female, 17 years and over)-----	9.4	20.5	7.0	3.2	1.9	3.3	*	*	*
Retired (45 years and over)----	13.5	117.0	18.7	12.0	11.8	13.7	*	*	*
Other activity <sup>1</sup> -----	17.7	4.1	4.0	1.4	2.7	1.9	*	*	*
<u>Chronic activity limitation</u>									
Unable to carry on major activity <sup>2</sup> -----	27.5	166.2	42.3	29.7	49.7	44.1	*	*	*
Limited in amount or kind of major activity <sup>2</sup> -----	30.8	60.6	30.0	11.1	6.6	7.9	*	*	*
Limited, but not in major activity <sup>2</sup> -----	38.1	30.2	24.2	*	*	*	*	*	*
Not limited in activity-----	9.5	1.9	2.1	0.5	*	*	*	*	0.3

<sup>1</sup>Included with other activity are all persons under 17 years of age.

<sup>2</sup>Major activity refers to ability to work, keep house, or engage in school or preschool activities.

Table E. Number and percent distributions of persons using special aids by details about use and acquisition of aids, according to type of aid: United States, 1969

[Data are based on household interviews of the civilian, noninstitutional 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 of aid	Special shoes	Cane or walking stick	Brace		Crutches	Wheel-chair	Walker	Artificial limb		Other aid for getting around
			Leg or foot	Other				Leg or foot	Arm or hand	
Number of persons using this aid in thousands										
Total-----	2,377	2,156	233	869	443	409	404	126	46	140
Number used at a time										
One-----	370	2,033	160	779	88	...	...	112	*	62
Two-----	1,938	82	67	45	347	...	...	*	*	*
Not reported-----	68	*	*	45	*	...	...	*	*	53
Frequency of use										
All the time-----	1,545	659	89	294	208	204	199	89	*	92
Most of the time-----	597	522	58	208	74	77	72	*	*	*
Occasionally-----	137	905	73	328	149	118	109	*	*	*
Not reported-----	98	70	*	*	*	*	*	*	*	*
Duration of use										
Less than 1 year-----	386	392	82	256	154	87	125	*	*	*
1-4 years-----	946	981	74	258	114	145	184	*	*	46
5 years or more-----	938	709	69	317	162	167	72	87	*	57
Not reported-----	107	74	*	*	*	*	*	*	*	*
How obtained										
Purchased-----	2,198	980	153	698	238	206	236	78	*	104
Rented-----	*	*	*	*	*	*	*	*	*	*
Borrowed-----	*	98	*	*	69	64	71	*	*	*
Gift-----	74	825	48	117	99	72	50	*	*	*
Not reported-----	98	252	*	*	*	*	*	*	*	*
Condition for which used										
Chronic-----	1,886	1,889	225	733	362	364	356	126	46	121
Acute-----	*	*	*	51	56	*	*	...	...	*
Not reported-----	475	240	-	84	*	*	*	...	...	*
Percent distribution										
Total-----	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number used at a time										
One-----	15.6	94.3	68.7	89.6	19.9	...	...	88.9	*	44.3
Two-----	81.5	3.8	28.8	5.2	78.3	...	...	*	*	*
Not reported-----	2.9	*	*	5.2	*	...	...	*	*	37.9
Frequency of use										
All the time-----	65.0	30.6	38.2	33.8	47.0	49.9	49.3	70.6	*	65.7
Most of the time-----	25.1	24.2	24.9	23.9	16.7	18.8	17.8	*	*	*
Occasionally-----	5.8	42.0	31.3	37.7	33.6	28.9	27.0	*	*	*
Not reported-----	4.1	3.2	*	*	*	*	*	*	*	*
Duration of use										
Less than 1 year-----	16.2	18.2	35.2	29.5	34.8	21.3	30.9	*	*	*
1-4 years-----	39.8	45.5	31.8	29.7	25.7	35.5	45.5	*	*	32.9
5 years or more-----	39.5	32.9	29.6	36.5	36.6	40.8	17.8	69.0	*	40.7
Not reported-----	4.5	3.4	*	*	*	*	*	*	*	*
How obtained										
Purchased-----	92.5	45.5	65.7	80.3	53.7	50.4	58.4	61.9	*	74.3
Rented-----	*	*	*	*	*	*	*	*	*	*
Borrowed-----	*	4.5	*	*	15.6	15.6	17.6	*	*	*
Gift-----	3.1	38.3	20.6	13.5	22.3	17.6	12.4	*	*	*
Not reported-----	4.1	11.7	*	*	*	*	*	*	*	*
Condition for which used										
Chronic-----	79.3	87.6	96.6	84.3	81.7	89.0	88.1	100.0	100.0	86.4
Acute-----	*	*	*	5.9	12.6	*	*	...	...	*
Not reported-----	20.0	11.1	-	9.7	*	*	*	...	...	*

a separation was not made. An attempt has been made to approximate these categories by making use of the condition for which the brace was used. Table C shows an estimate of 233,000 persons with leg or foot braces and 869,000 persons with other braces—rates per 1,000 persons of 1.2 and 4.4, respectively. It should be emphasized that the estimated number of persons with leg or foot braces is a minimal estimate. Persons classified as having other braces could have had leg or foot braces since the only conditions coded to leg or foot braces were those specific to leg or foot or those where there was no doubt that the brace would have to be fitted to the leg or foot. If, however, braces could have been used for some other site as well as for leg or foot, they were not counted as leg or foot braces. For instance, if a brace was reported as used for arthritis, it was not classified as leg or foot because the brace could have been used elsewhere. Therefore the data presented in table C for leg and foot and other braces should be used with caution. Separation into two classes was not attempted for the characteristics shown in table D.

About 68.7 percent of persons with the minimal estimate of leg or foot braces reported using only one brace, and 28.8 percent reported using two braces. About 38.2 percent wore the brace all the time; 24.9 percent, most of the time; and 31.3 percent, occasionally. About 35.2 percent had used the brace for less than a year. About 65.7 percent bought the brace. An estimated 96.6 percent of these persons wore the brace as a result of chronic conditions.

Among the 869,000 persons using braces other than those classified as leg or foot, about 89.6 percent used only one brace. About 33.8 percent wore the brace all the time; 23.9 percent, most of the time; and 37.7 percent, occasionally. About three of each 10 persons had used the brace for less than 1 year. Most of the persons had purchased the brace, and most reported that a chronic condition caused its use.

### **Crutches**

An estimated 443,000 persons reported using crutches as an aid in getting around. This

figure represents a rate of 2.2 per 1,000 population. The highest number per 1,000 persons was reported for persons 65 years and over, for the retired, and for those with limitation of activity. It is very likely that each of these groups is comprised of the same persons.

As would be expected, 78.3 percent of these persons used two crutches, but about one in every five reported using only one crutch. About 47.0 percent used crutches all the time in getting around. About one-third (34.8 percent) had used crutches for less than a year. The majority had purchased the crutches. An estimated 81.7 percent used them because of a chronic condition and 12.6 percent for an acute condition.

### **Wheelchairs**

In 1959 an estimated 253,000 persons, 1.5 per 1,000 population, had wheelchairs, according to data collected in the Health Interview Survey during July 1958-June 1959. In 1969 about 409,000 persons, 2.1 per 1,000 population, reported using a wheelchair as a special aid. The highest rate of use in 1969 was reported by persons 65 years and over. About 49.9 percent used a wheelchair all the time; 18.8 percent, most of the time; and 28.9 percent, occasionally. About 40.8 percent had used a wheelchair for 5 years or more.

### **Walkers**

An estimated 404,000 persons, or 2.0 persons per 1,000 population, reported using a walker as an aid in getting about. Most of the persons using a walker were 65 years and over. An estimated 49.3 percent used a walker all the time; 17.8 percent, most of the time; and 27.0 percent, occasionally. About 30.9 percent of these persons had used a walker for less than a year. About 58.4 percent had bought this aid.

### **Artificial Limbs**

During 1969 an estimated 126,000 persons, six per 10,000 population, reported using an

Table F. Population used in obtaining rates shown in this publication, by age and selected characteristics: United States, 1969

[Data are based on household interviews of the civilian, noninstitutional 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	Under 15 years	15-44 years	45-64 years	65 years and over
	Population in thousands					
All persons <sup>1</sup> -----	197,422	138,022	59,205	78,818	40,742	18,658
<u>Sex</u>						
Male-----	95,002	67,609	30,140	37,469	19,402	7,990
Female-----	102,420	70,413	29,064	41,349	21,339	10,667
<u>Color</u>						
White-----	173,207	119,196	49,950	69,245	36,855	17,156
All other-----	24,215	18,827	9,254	9,572	3,887	1,502
<u>Family income</u>						
Less than \$5,000-----	44,309	24,856	10,961	13,895	8,552	10,901
Less than \$3,000-----	22,070	10,668	4,429	6,239	4,238	7,164
\$3,000-\$4,999-----	22,239	14,188	6,532	7,657	4,314	3,737
\$5,000-\$9,999-----	74,077	55,968	24,815	31,152	14,161	3,948
\$5,000-\$6,999-----	32,856	23,945	10,497	13,449	6,510	2,400
\$7,000-\$9,999-----	41,221	32,023	14,319	17,704	7,651	1,547
\$10,000 or more-----	68,040	50,852	20,949	29,903	15,028	2,160
\$10,000-\$14,999-----	43,206	33,487	14,153	19,334	8,513	1,206
\$15,000 or more-----	24,834	17,364	6,796	10,569	6,516	954
<u>Living arrangement</u>						
Living alone-----	11,782	3,435	*	3,426	3,616	4,730
Living with nonrelatives-----	2,997	2,046	*	2,014	464	487
Living with relatives—married-----	90,005	47,841	...	47,841	32,493	9,672
Living with relatives—other-----	92,639	84,701	59,164	25,537	4,170	3,769
<u>Usual activity</u>						
Usual working (17 years and over)---	71,220	41,462	...	41,462	26,888	2,870
Usually keeping house (female, 17 years and over)-----	37,979	17,958	...	17,958	11,469	8,552
Retired (45 years and over)-----	7,429	...	...	...	1,197	6,232
Other activity <sup>2</sup> -----	80,795	78,603	59,205	19,398	1,188	1,004
<u>Chronic activity limitation</u>						
Unable to carry on major activity <sup>3</sup> --	5,597	766	100	666	1,808	3,022
Limited in amount or kind of major activity <sup>3</sup> -----	12,579	3,914	780	3,134	4,689	3,976
Limited, but not in major activity <sup>3</sup> -	4,669	2,442	565	1,877	1,313	915
Not limited in activity-----	174,577	130,900	57,760	73,140	32,932	10,745

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

<sup>2</sup>Included with other activity are all persons under 17 years of age.

<sup>3</sup>Major activity refers to ability to work, keep house, or engage in school or preschool activities.

artificial leg or foot; 46,000 persons, two per 10,000 population, reported an artificial arm or hand. The Health Interview Survey reported for July 1958-June 1959 an estimated 106,000 persons with an artificial leg or foot—a rate of six per 10,000 population, the same as that in 1969. An estimated 33,000 persons, or two per 10,000 population, were reported in 1958-59 as having an artificial arm or hand. About 82.5 percent of the persons with an artificial leg or foot were males, and 45.2 percent of the total were 45-64 years of age.

### **Other Aids for Getting Around**

An estimated 140,000 persons, seven per 10,000 population, reported using some other aid for getting around. In most instances, this was some form of aid other than the eight specified in figure 1. For instance, some respondents reported mechanical aids for getting upstairs or downstairs. Also, some variations of the eight types of listed aids were classified as "other." It is also possible that a respondent knew that a family member used some form of aid but could not identify the type.



# APPENDIX I

## TECHNICAL NOTES ON METHODS

### Background of This Report

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

The Health Interview Survey utilizes a questionnaire which obtains information on personal and demographic characteristics, illnesses, injuries, impairments, chronic conditions, and other health topics. As data relating to each of these various broad topics are tabulated and analyzed, separate reports are issued which cover one or more of the specific topics. The present report is based on data collected in household interviews during 1969.

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

### Statistical Design of the Health Interview Survey

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

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

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

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

Area segments which are defined geographically.

List segments, using 1960 census registers as the frame.

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

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

The total HIS sample of approximately 8,000 segments yields a probability sample of about 134,000 persons in 42,000 interviewed households in a year.

Descriptive material on data collection, field procedures, and questionnaire development in the HIS has been published<sup>2</sup> as well as a detailed description of the sample design<sup>3</sup> and a report on the estimation procedure and the method used to calculate sampling errors of estimates derived from the survey.<sup>4</sup>

*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.

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<sup>2</sup>National Center for Health Statistics: Health survey procedure: concepts, questionnaire development, and definitions in the Health Interview Survey. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 1-No. 2. Public Health Service. Washington. U.S. Government Printing Office, May 1964.

<sup>3</sup>U.S. National Health Survey: The statistical design of the health household interview survey. *Health Statistics*. PHS Pub. No. 584-A2. Public Health Service. Washington, D.C., July 1958.

<sup>4</sup>National Center for Health Statistics: Estimation and sampling variance in the Health Interview Survey. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No. 38. Public Health Service. Washington. U.S. Government Printing Office, June 1970.

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

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

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

As noted, each week's sample represents the population living during that week and characteristics of the population. Consolidation of samples over a time period, e.g., a calendar

quarter, produces estimates of average characteristics of the U.S. population for the calendar quarter. Similarly, population data for a year are averages of the four quarterly figures.

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

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

### General Qualifications

*Nonresponse.*—Data were adjusted for nonresponse by a procedure which imputes to persons in a household which was not interviewed the characteristics of persons in households in the same segment which were interviewed. The total noninterview rate was about 5 percent—1 percent was refusal, and the remainder was primarily due to the failure to find an eligible respondent at home after repeated calls.

*The interview process.*—The statistics presented in this report are based on replies obtained in interviews with persons in the

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

## Reliability of Estimates

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

As in any survey, the results are also subject to reporting and processing errors and errors due to nonresponse. To the extent possible, these types of errors were kept to a minimum by methods built into survey procedures. Although it is very difficult to measure the extent of bias in the Health Interview Survey, a number of studies have been conducted to study this problem. The results have been published in several reports.<sup>5-9</sup>

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 lie in the

data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than 2½ times as large.

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

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

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

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

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

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

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<sup>5</sup>National Center for Health Statistics: Reporting of hospitalization in the Health Interview Survey. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No.6. Public Health Service. Washington. U.S. Government Printing Office, July 1965.

<sup>6</sup>National Center for Health Statistics: Health interview responses compared with medical records. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No. 7. Public Health Service. Washington. U.S. Government Printing Office, July 1965.

<sup>7</sup>National Center for Health Statistics: Comparison of hospitalization reporting in three survey procedures. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No. 8. Public Health Service. Washington. U.S. Government Printing Office, July 1965.

<sup>8</sup>National Center for Health Statistics: Interview data on chronic conditions compared with information derived from medical records. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No. 23. Public Health Service. Washington. U.S. Government Printing Office, May 1967.

<sup>9</sup>National Center for Health Statistics: The influence of interviewer and respondent psychological and behavioral variables on the reporting in household interviews. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No. 26. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1968.

- Type A.* Statistics on prevalence and incidence data for which the period of reference in the questionnaire is 12 months.
- Type B.* Incidence-type statistics for which the period of reference in the questionnaire is 2 weeks.
- Type C.* Statistics for which the reference period is 6 months.

Only the charts on sampling error applicable to data contained in this report are presented.

*General rules for determining relative sampling errors.*—The “guide” on page 17, together with the following rules, will enable the reader to determine approximate relative standard errors from the charts for estimates presented in this report.

- Rule 1. *Estimates of aggregates:* Approximate relative standard errors for estimates of aggregates such as the number of persons with a given characteristic are obtained from appropriate curves on page 18. The number of persons in the total U.S. population or in an age-sex-color class of the total population is adjusted to official Bureau of the Census figures and is not subject to sampling error.
- Rule 2. *Estimates of percentages in a percent distribution:* Relative standard errors for percentages in a percent distribution of a total are obtained from appropriate curves on page 19. For values which do not fall on one of the curves presented in the chart, visual interpolation will provide a satisfactory approximation.
- Rule 3. *Estimates of rates where the numerator is a subclass of the denominator:* This rule applies for prevalence rates or where a unit of the numerator occurs, with few exceptions, only once in the year for any one unit in the denominator. For example, in computing the rate of visual impairments per 1,000 population, the numerator consisting of persons with the impairment is a subclass of the

denominator which includes all persons in the population. Such rates if converted to rates per 100 may be treated as though they were percentages and the relative standard errors obtained from the chart P4AN-M. Rates per 1,000, or on any other base, must first be converted to rates per 100; then the percentage chart will provide the relative standard error per 100.

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

$$\sigma_d = \sqrt{(X_1 V_{x_1})^2 + (X_2 V_{x_2})^2}$$

where  $X_1$  is the estimate for class 1,  $X_2$  is the estimate for class 2, and  $V_{x_1}$  and  $V_{x_2}$  are the relative errors of  $X_1$  and  $X_2$  respectively. This formula will

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

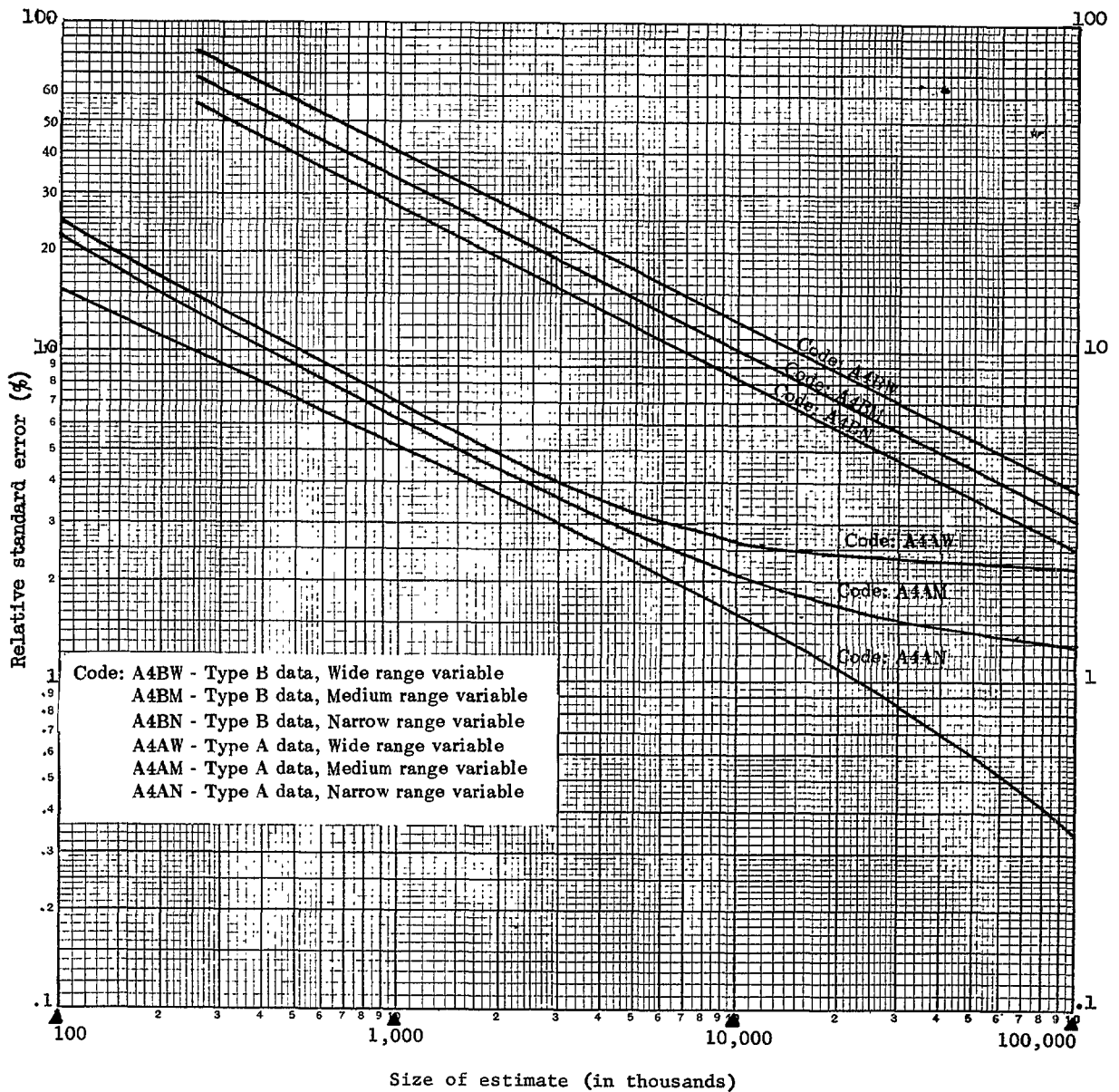
### Guide to Use of Relative Standard Error Charts

The code shown below identifies the appropriate curve to be used in estimating the relative standard error of the statistic described. The four components of each code describe the statistics as follows:

(1) A = aggregate, P = percentage; (2) the number of calendar quarters of data collection; (3) the type of statistic as described on page 16, and (4) the range of the statistic as described on page 15.

Statistic	Use:		
	Rule	Code	on page
Number of:			
Persons in the U.S. population, or any age-sex category thereof . . .	Not subject to sampling error		
Persons in any other population group . . . . .	1	A4AN	18
Persons using special aids . . . . .	1	A4AN	18
Percentage distribution of persons using special aids . . . . .	2	P4AN-M	19

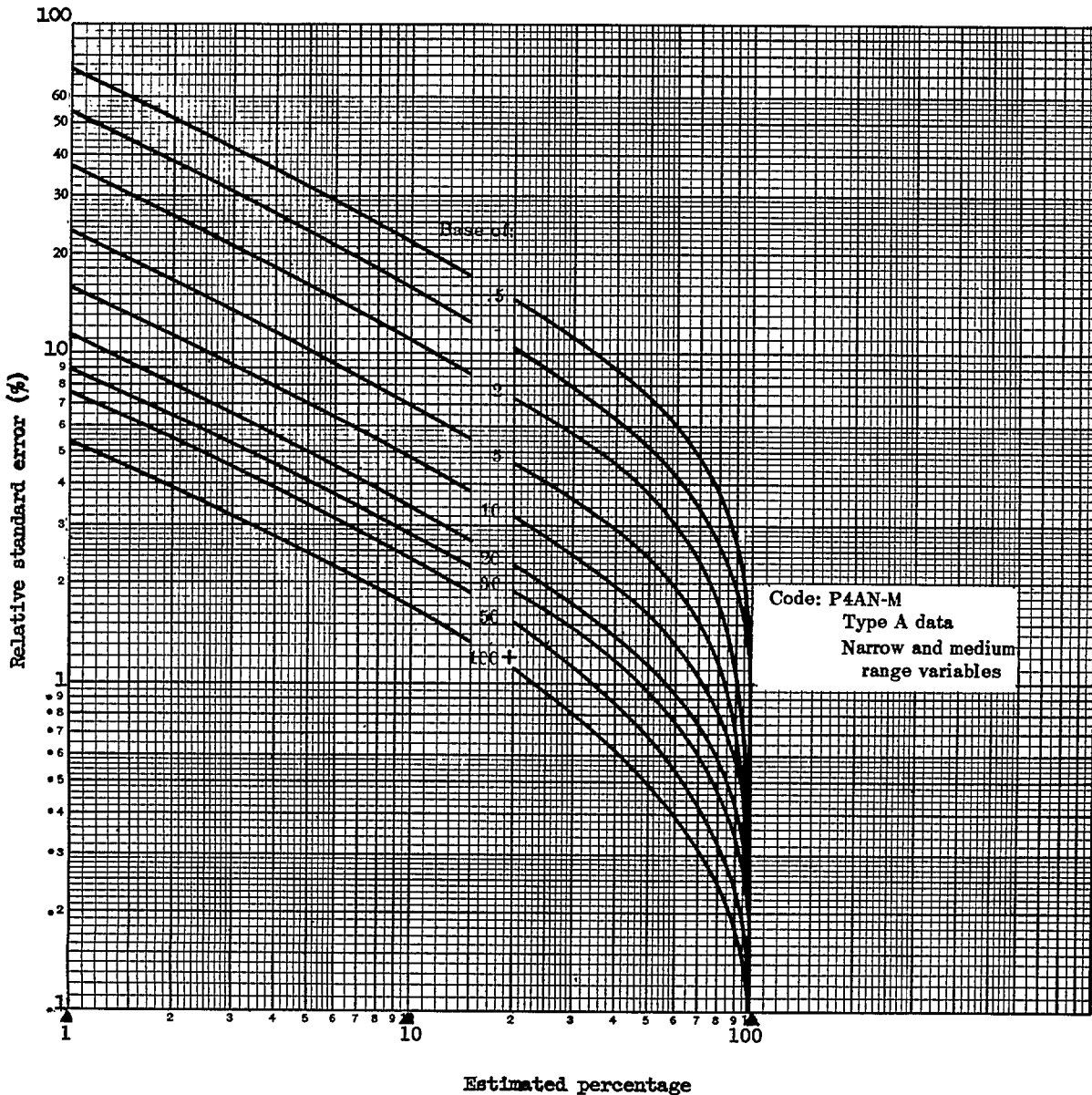
Relative standard errors for aggregates based on four quarters of data collection  
for data of all types and ranges



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

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

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



Example of use of chart: An estimate of 20 percent (on scale at bottom of chart) based on an estimate of 10,000,000 has a relative standard error of 3.2 percent (read from the scale at the left side of the chart), the point at which the curve for a base of 10,000,000 intersects the vertical line for 20 percent. The standard error in percentage points is equal to 20 percent X 3.2 percent or 0.64 percentage points.



## APPENDIX II

# DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

### Terms Relating to Special Aids

*Special aid.*—A special aid is a device used to compensate for defects resulting from disease, injury, impairment, or congenital malformation. Aids included in this survey are artificial limbs, braces, crutches, canes or walking sticks, special shoes, wheelchairs, walkers, and any other kind of aid for getting around.

1. *Artificial limb* is a device to replace a missing leg, arm, hand, or foot. It does not have to have moving parts, but a device employed only for lengthening a leg where the whole leg or foot is present is not counted.
2. *Brace* is defined as any kind of supportive device for the arms, hands, legs, feet, back, neck, or head, exclusive of temporary casts, slings, bandages, trusses, belts, or crutches. Dental braces are excluded.
3. *Crutch* is a staff with a crosspiece at the top to support the person in walking. The point of support may be the axilla, upper arm, or forearm. For each crutch a second support is at hand level.
4. *Cane or walking stick* is a short staff, either straight or curved at upper end, used to provide some support at hand level in walking.
5. *Special shoes* are shoes of special construction or design which are used to help the person in getting around. Oversized shoes of normal or usual construction are excluded.
6. *Wheelchair* is a chair mounted on wheels and usually propelled by the occupant by means

of handrims attached to the two large side wheels.

7. *Walker* is a four-legged stand which provides support for the person. It is moved by lifting or by wheeling on casters.

### 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 upon 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 so forth. Mexican persons are included with white unless definitely known to be Indian or of another race.

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

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

*Living arrangement.*—The categories of living arrangements shown in this report are as follows:

*Living alone.*—Living alone is defined as living in a one-member household.

*Living with nonrelatives.*—Living with nonrelatives is defined as living in a household with another person or persons, none of whom are related to the person by blood, marriage, or adoption.

*Living with relatives—married.*—This category includes married persons who are living in a household with another person or persons, one or more of whom are related to them by blood, marriage, or adoption. Persons with common-law marriages are considered to be married. For purposes of this category “married” excludes widowed, divorced, or separated. Persons whose only marriage was annulled are counted as “never married.”

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

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

The categories of usual activity used in this report for persons aged 17 years and over are: *usually working, usually going to school, usually keeping house, retired, and other activity.* For several reasons these categories are not comparable with somewhat similarly named categories in official Federal labor force statistics. First, the responses concerning usual activity are accepted without detailed questioning since the objective of the question is not to estimate the numbers of persons in labor

force categories but to identify crudely certain population groups which may have differing health problems. Second, the figures represent the usual activity status over the period of an entire year, whereas official labor force statistics relate to a much shorter period, usually 1 week. Third, the minimum age for usually working persons is 17 in the Health Interview Survey, and the official labor force categories include all persons aged 14 and over. Finally, in the definitions of specific categories which follow, certain marginal groups are classified differently to simplify procedures.

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

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

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

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

*Other activity* includes males 17 years of age or older not classified as “working” or “retired” and females 17 years of age or older not classified as “working,” “keeping house,” or “retired.”

## Disability

*Chronic activity limitation.*—Persons are classified into four categories according to the extent to which their activities are limited at present as a result of chronic conditions. Since

the usual activities of preschool children, school-age children, housewives, and workers and other persons differ, a different set of criteria is used for each group. There is a general similarity between them, however, as will be seen in the following descriptions of the four categories:

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

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 go to school)

Preschool children:

limited in amount or kind of play with other children, e.g., need special rest periods, cannot play strenuous games, or cannot play for long periods at a time.

School-age children:

limited to certain types of schools or in school attendance, e.g., need special schools or special teaching or cannot go to school full time or for long periods at a time.

Housewives:

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

Workers and all other persons:

limited in amount or kind of work, e.g., need special working aids or special rest periods at work, cannot work full time or for long periods at a time, or cannot do strenuous work.

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

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 clubs.

4. *Persons not limited in activities* includes persons with chronic conditions whose activities are not limited in any of the ways described above.

#### Terms Relating to Conditions

*Acute condition.*—An acute condition is defined as a condition which has lasted less than 3 months and which 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 which had their onset during the 2 weeks prior to the interview week and which involved either medical attention or restricted activity during the 2-week period. However, excluded are the following conditions which are always classified as chronic even though the onset occurred within 3 months prior to week of interview:

Asthma

Hay fever

Tuberculosis

Repeated attacks of sinus trouble

Rheumatic fever

Hardening of the arteries

High blood pressure

Heart trouble  
Stroke  
Trouble with varicose veins  
Hemorrhoids or piles  
Deafness or serious trouble with hearing  
Serious trouble with seeing, even when wearing glasses  
Cleft palate  
Any speech defect  
Missing fingers, hand, or arm—toes, foot, or leg  
Palsy  
Tumor, cyst, or growth  
Stomach ulcer  
Kidney stones  
Arthritis or rheumatism  
Mental illness  
Diabetes  
Thyroid trouble or goiter  
Any allergy  
Epilepsy  
Cancer  
Hernia or rupture  
Prostate trouble  
Paralysis of any kind  
Repeated trouble with back or spine  
Club foot

Permanent stiffness or deformity of the foot, leg, fingers, arm, or back

Condition present since birth

*Chronic condition.*—A condition is considered to be 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 in *Vital and Health Statistics*, Series 10, No. 48.

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