HEALTH STATISTICS

FROM THE U. S. NATIONAL HEALTH SURVEY

Peptic Ulcers reported in interviews

United States

July 1957 - June 1959

Statistics on prevalence of peptic ulcers and associated disability by age, sex, and medical care status. Based on data collected in household interviews during the period July 1957-June 1959.

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The U. S. National Health Survey is a continuing program under which the Public Health Service makes studies to determine the extent of illness and disability in the population of the United States and to gather related information. It is authorized by Public Law 652, 84th Congress.

CO-OPERATION OF THE BUREAU OF THE CENSUS

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. For the Health Interview Survey the Bureau of the Census designed and selected the sample, conducted the household interviews, and processed the data in accordance with specifications established by the Public Health Service.

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Data not available (three dashes)	
Category not applicable (three dots)	• • •
Quantity is zero (1 dash)	-
Magnitude greater than zero but less than one-half of the unit used	0 or 0.0
Magnitude of the sampling error precludes showing separate estimates	(*)

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PEPTIC ULCERS

QUALIFICATIONS OF THE DATA

Estimates of the prevalence of chronic conditions may be derived from a number of sources. In general, this source material can be classified into (1) surveys conducted by household interview, and (2) studies based on medical records and examinations.

There are advantages and disadvantages to both of these methods of estimating prevalence, and the method of choice is often determined by the nature of the disease. For a disease such as sinusitis, which is often self-diagnosed on the basis of recognizable symptoms and never seen by a physician, the household interview undoubtedly yields a more complete prevalence estimate than one obtained from medical records. On the other hand, for a condition such as cancer, which can be accurately diagnosed only by clinical tests, and which may not be reported in an interview because of reluctance to discuss it, the prevalence can be estimated more accurately from clinical records or clinical examination.

Peptic ulcers and many other chronic conditions fall somewhere between these extremes. It is possible to estimate their prevalence from data collected either by household interview or by clinical studies. However, the estimates will probably differ because of the concept of illness inherent in each method. On the basis of clinical

studies, the prevalence estimate will include only cases of peptic ulcer that have been recorded by a physician and he can record only those cases which are clinically detectable at the time of examination. Because of practical considerations. the scope of such a study will necessarily be limited and the records may not be a representative sample of the population. An estimate of prevalence from household interviews can be expected to include only those conditions of which the individual is aware, and the individual is usually aware only of those conditions which have caused him discomfort or interfered with his usual routine. The diagnostic accuracy of such cases depends, of course, on their having been seen by a physician.

One other point in estimating the prevalence of peptic ulcers from interviews should be considered if the estimates are to have any meaning. This is the possibility that some respondents may not be aware of the chronicity of a recurrent condition if no symptoms are present at the time of interview. Flood and Feldman have found that the majority of individuals who have once been hospitalized for an ulcer do experience a recurrence at some time. In Flood's cases the average recurrence rate was once every 2.1 years for duodenal ulcers and once every 2.4 years for gastric ulcers. For persons who had never been hospitalized for the ulcer, the recurrence rate was approximately once every four years, Since the illness-recall period for ulcers used in the National Health Survey is 12 months-considerably

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less than the average period between recurrences—it is possible that persons who had suffered no serious manifestation of the ulcer during that period might have thought that the condition no longer existed, and thus failed to report it. Some idea of whether these people actually did report the presence of the condition even though it had not bothered them in the past 12 months can be obtained from the data.

It seems reasonable to assume that if there had been a serious recurrence during the 12-month-recall period, it would have involved medical attention. Only 34 percent of the persons for whom a peptic ulcer was reported had consulted a physician about the ulcer within 12 months. The other 66 percent, who had not had a clinical recurrence, were apparently aware of the chronicity of the condition and so reported its presence.

PEPTIC ULCERS

Conditions codable to numbers 540-542 of the International Classification of Diseases, 1955 Revision, are included in this report. These three code numbers include all forms of gastric, duodenal, and gastrojejunal ulcers. However, because the household respondent is so often unable to furnish a differential description, all ulcers reported have been placed in one diagnostic category for the purposes of this report and will be referred to collectively as peptic ulcers.

It is possible, of course, for an individual to have more than one type of ulcer, and the respondent might report, for example, both a gastric and a duodenal ulcer. If this happened, it would result in an over-estimate of the number of persons with a peptic ulcer when all types of ulcers are grouped into one category. However, a review of the literature revealed that the coexistence of two types is uncommon, and a review of a sample of National Health Survey questionnaires did not reveal any reporting of two types. It is unlikely, therefore, that there is great

inflation of the prevalence estimates due to the grouping procedures.

The morbidity surveys conducted before 1930 did not place ulcers in a separate diagnostic category. Neither interest nor diagnostic accuracy had developed sufficiently to support such a category, and consequently ulcers were included with other digestive disorders. By the time of the nationwide health survey of 1935-1936, radiologic methods of ulcer detection had come into being, and interest in the condition was increasing. Ulcers were coded as a separate category and the prevalence was estimated to be 2.6 persons with an ulcer per 1,000 population. In the Eastern Health District Survey of 1938-1943 the estimate was 2.9 per 1,000.

By the 1950's, radiologic equipment was in common use throughout the United States and it was relatively easy to obtain laboratory confirmation of a suspected ulcer diagnosis. Partly as a result of this, and of improved modern survey methods, prevalence rates based on three recent surveys are higher than those from earlier survevs and are in very close agreement with one another. The California Survey of 1954-1955 reported 13.2 per 1.000 persons. The Kansas City Survey⁶ conducted in 1954-1957 also reported a prevalence of 13.2 persons with peptic ulcer per 1,000 persons, and the data collected by the National Health Survey from July 1957-June 1959 yielded an estimate of 14.4 cases per 1.000 persons of all ages.

It is interesting to compare the results from these household interview surveys with recent prevalence estimates derived from sources other than interviews. For example, the Health Insurance Plan of Greater New York analyzed the records of visits to its member physicians for the years 1948-1951. An average annual prevalence estimate of 9.7 persons with an ulcer per 1,000 members of the plan, based on persons visiting a member physician because of an ulcer, was de-

<u></u>	Time		Sex		
Type of study	covered	Both	Male	Female	Method
Earlier surveys National Health Survey Eastern Health District of Baltimore	1935-1936 1938-1943	2.6			Household interview
of Baltimore	1930-1943	2.9			Household interview
Recent surveys California Kansas City Metropolitan	1954-1955	13.2	19.1	7.6	Household interview
Area U.S. National Health Survey	1954-1957 1957-1959	13.2 14.5		5.7 7.7	Household Interview Household interview
Medical examination Health Insurance Plan of Greater New York	1948-1951	9.7	14.1	4.8	Utilization of medical services
Autopsy National and Regional Survey (England)	1956	25	37	15	Chronic <u>active</u> ulcers unrelated to death
		62	83	39	(adults) Chronic ulcers unrelated to death (adults)

rived from this analysis. Another method of obtaining prevalence estimates is the use of autopsy material as a basis for estimating the prevalence of a chronic condition in a living population, An example of the use of this method to estimate the prevalence of ulcers was the analysis of more than 7.000 records of autopsies performed in English hospitals in 1956.8 The estimate of the prevalence of chronic ulcers in the living population, based on the proportion of autopsies of persons 15 years of age or over which revealed chronic ulcers unrelated to the cause of death, was 62 per 1,000 persons. The estimate based on autopsies which revealed the presence of active chronic ulcers unrelated to the cause of death comes closer perhaps to a measure comparable to that obtained from living persons. This estimate was 25 per 1,000 persons, an estimate which is in close agreement with the U.S. National Health Survey estimate of 20.8 cases per 1,000 persons 15 years of age or over.

SOURCE OF THE DATA

Material presented in this report is derived from approximately 235,000 persons who were included in the 73,000 household interviews conducted by the U.S. National Health Survey during the period July 1, 1957-June 28, 1959. The data obtained from two years of interviewing of a continuous sample of the civilian noninstitutional population of the United States have been combined and averaged to obtain estimates of the prevalence of recognized peptic ulcers in this population.

A description of the statistical design of the survey, the methods used in estimation, and the general qualifications of data obtained from surveys is presented in Appendix I. Since all estimates presented in this report are based on a sample of approximately 1/750th of the population rather than on the entire population, they are subject to sampling error and particular attention

should be paid to the section entitled "Reliability of Estimates" which includes tables of sampling errors and instructions for their use.

Definitions of certain terms used in this report are given in Appendix II. Since many of the terms have specialized meanings for the purposes of the survey, familiarity with these definitions will assist the reader in interpreting the material.

The questionnaire which was used during the year July 1958-June 1959 is reproduced as Appendix III. Those sections which apply to this report include questions 10-16 and table I. The interviewer was instructed to ask these items of each adult who was home at the time of her call. For adults not at home and for children under the age of 18, the wife, parent, or other responsible member of the family, living in the same household, was an eligible respondent. Lodgers and similar unrelated members of the household were asked all questions for themselves even if it involved additional calls for the interviewer.

U. S. NATIONAL HEALTH SURVEY ESTIMATES

Prevalence According to Medical Attention Status

Data from the National Health Survey agree with data from other sources in reporting a much higher prevalence of ulcers among males than among females. The estimated prevalence for males for the period July 1957-June 1959 was 21.4 ulcer cases per 1,000 persons. For females during the same period the estimated prevalence was 7.7 cases per 1,000 persons. In the civilian noninstitutional population of the United States then, 73 percent of the persons for whom peptic ulcers were reported were males.

Almost all of the people for whom a peptic ulcer was reported had consulted a physician about the condition. Some 97.7 percent of the

males and 99.6 percent of the females were reported to have talked with a physician at some time about their ulcers. However, the estimated prevalence of medically attended cases of peptic ulcer was 20.9 per 1,000 for males and 7.6 per 1,000 for females, and the proportion of cases which had been medically attended was so high that one can speak of the prevalence of total cases or the prevalence of medically attended cases with very little difference in the rates. Therefore, when prevalence is referred to in this report with no modifying phrase, it will be the prevalence of total cases.

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The third kind of prevalence which can be obtained from the data is the prevalence of cases currently under care. In answer to the questions "Do you still take any medicine or treatment that the doctor prescribed for your ulcer? Or, follow any advice he gave?," 76.4 percent of the respondents said "yes." The use of this positive response as an index provided estimates of the number of cases under care. For these cases, prevalence was 11.0 per 1,000 persons (fig. 1). It was estimated that there were 16.0 cases of peptic ulcers under care per 1,000 males and 6.2 cases per 1,000 females. The proportion of total cases which was under care was higher for females than for males; 81.2 percent of the females and 74.6

Table A. Prevalence of peptic ulcers per 1,000 population and ratio of males to females: United States, July 1957-June 1959

Age	Prevale	Ratio of males to		
	Male	females		
All ages	21.4	7.7	2.8	
0-24 25-34 35-44 45-54 55-64	(*) 29.3 42.5 40.5 39.0 33.0	(*) 7.0 13.9 17.5 14.2	(*) 4.2 3.1 2.3 2.7 2.5	

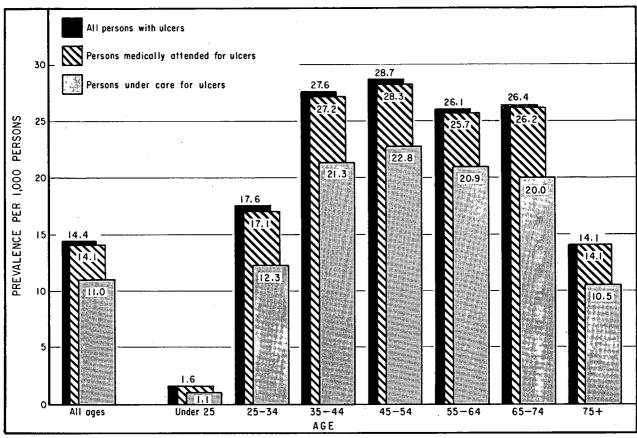


Figure 1. Prevalence of peptic ulcer according to medical attention status by age.

percent of the males were reported as being under care.

No matter which estimate of prevalence is used—total cases, medically attended cases, or cases under care—the highest prevalence for males was in the age group 35-44 while the highest prevalence for females was in the age group 45-54. In general, the ratio of males with a peptic ulcer to females with a peptic ulcer is highest in the younger age groups and then decreases after age 45, but in no case is the prevalence rate among females as much as half as high as that among males (table A).

Long-Term Disability

In a household interview survey it is difficult to measure the severity of peptic ulcer cases in terms of continuing disability since ulcers do not usually necessitate well-defined periods of limitation of specific physical activities. An ulcer seldom renders a man incapable of working or of moving about freely. The limitations attributed to ulcers are often self-imposed measures designed to prevent a recurrence rather than limitations due to an actual inability to perform certain functions as might be the case with conditions such as arthritis or blindness. Nevertheless, because it is easier for a household respondent to understand and answer, and because for many conditions it is a useful measure of persons in need of rehabilitation, the concept of physical limitation is the one which was used for this survey.

Chronic Limitation of Activity

In answer to the questions about chronic limitation of activity (See Appendix 3, Cards C-F), the respondents reported that 85.0 percent of the

persons with ulcers were not limited in their activities in any of the specified ways because of the condition. The 15.0 percent who were limited because of the condition were divided into 11.7 percent who were limited in outside activities or in amount or kind of major activity and 3.3 percent who were completely unable to carry on their major activity (fig. 2).

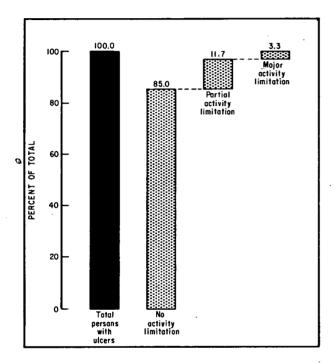


Figure 2. Peptic ulcer cases according to chronic activity limitation.

The percent of those whose peptic ulcer did not cause them to limit their activities decreased as they grew older. Although 92.6 percent of those under 25 years of age and 90.4 percent of those 25-44 years of age reported no activity limitation because of the ulcers, only 70.3 percent of those 65 years of age or over reported that no chronic limitation resulted from the ulcer.

In any case, the contribution of peptic ulcers to the problem of chronic limitation is very slight. Of the 16,919,000 persons estimated by the National Health Survey to have chronic activity limitation, only 366,000 or 2.2 percent named peptic ulcer as a cause of this limitation.

Conditions Causing Bed Disability

Another measure of the severity of a condition is the number of persons who spent at least one day in bed during the 12 months prior to the interview because of the condition. Some 589,000 persons, 24.1 percent of those with an ulcer, spent one day or more in bed because of the ulcer. The percent of cases with one or more beddays within the year was somewhat higher for females (26.3 percent) than for males (23.3 percent). No relationship between age and the percent of cases with one or more days in bed during the year was apparent.

Approximately two thirds of these persons with one or more days in bed during the year actually spent seven or more days in bed. As can be seen in figure 3, the prevalence of persons who

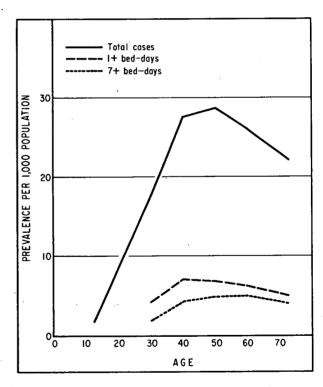


Figure 3. Prevalence per 1,000 persons of total cases of peptic ulcers, of cases with one or more bed-days, and of cases with seven or more bed-days in the year prior to interview by age.

spent seven or more days in bed during the year because of an ulcer remained almost constant from the age group 35-44 through the group 65 years and over. However, since the prevalence of total cases declined somewhat in the older ages and the prevalence of cases with seven or more bed-days remained constant, the percent of cases with seven or more bed-days actually increased slightly. Thus, there is some indication that in the older age groups the severity of peptic ulcers is increased. This might be expected since there is an increased likelihood of the coexistence of other, complicating conditions in the older ages.

Temporary Disability

As a measure of the impact of peptic ulcers on the economy, data are presented on the number of disability days caused by ulcers. Three measures of the extent of disability are used in this report-days of restricted activity, days of bed disability, and days lost from work. By definition, a day of restricted activity is the most inclusive measure, it is any day on which a person had to cut down on his usual activities all day long because of his condition. A day of restricted activity is also a day of bed disability if the condition kept the person in bed for all or most of the day. For persons 17 years of age or over, a day of restricted activity can also be a day lost from work if the person would have been working on this day if he had not been ill. Since a person may have stayed home from work but not stayed in bed, a day lost from work may or may not be a day of bed disability. Similarly, the person who spent the day in bed may have done so on a day when he would normally have been at work or on a nonworking day; he may also be a person who does not work at a job or business. Therefore. days of bed disability and days lost from work are not mutually exclusive.

Days of Restricted Activity

A

The average annual number of days of restricted activity due to peptic ulcers in the twoyear period July 1957-June 1959 was 47 million. Persons with peptic ulcers averaged 19.3 days of restricted activity a year because of the ulcers. The number of days per person per year increased sharply with age from 13.9 days per person in the age group 25-44, to 21.4 days per person in the age group 45-64, and to 31.5 days per person in the age group 65 years and over. Because both the prevalence of peptic ulcers and the number of days per person were high in the age group 45-64, these ages contributed the greatest number of days, 21 million, to the total.

The number of days of restricted activity per person with a peptic ulcer was almost the same for both sexes, 19.5 days per person for males and 18.6 days per person for females (fig. 4). Although this over-all rate was almost the same for both sexes, the age specific rates were quite different, being higher for females under 45 years of age and higher for males 45 years and over. The sharp increase with age referred to above was due largely to the increase for males as can be seen in figure 4.

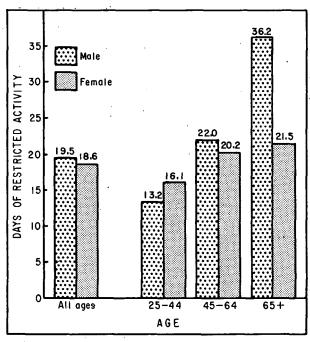


Figure 4. Number of days of restricted activity per person with peptic ulcer per year by sex and age.

Days of Bed Disability'

Peptic ulcers caused 13 million days of bed disability per year during the period July 1957-June 1959. Of this total, 9 million days were for males and 4 million, for females. Persons with peptic ulcers spent an average of 5.3 days in bed each year because of the ulcers. The number of days per person was slightly higher for females than for males, 5.8 days per female and 5.1 days per male. The number of days of bed disability increased greatly with age for both sexes.

For those persons who reported one or more bed-days during the preceding year because of a peptic ulcer, the number of bed-days per persor was 21.8 (table B). Persons between the ages of

Table B. Number of days of bed disability per year due to peptic ulcers per person with a peptic ulcer and per person with 1+ bed-days due to peptic ulcers

	Number of days of bed disability					
Age	Per person with ulcers	Per person with bed-days due to ulcers				
All ages-	5.3	21.8				
0-24 25-44 45-64 65+	(*) 3.6 5.8 9.8	(*) 14.4 24.2 43.4				

25 and 45 who spent at least one day in bed because of an ulcer averaged 14.4 days in bed; from age 45 to 65 the average number was 24.2; for the age group 65 and over, the number of beddays per person with bed-days was 43.4.

Thus, although the number of bed-days per year per person with a peptic ulcer was only 5.3, the number of days for those persons who were sick enough to spend at least one day in bed during the year was 21.8. The difference is large

because all of the days were associated with only 24.1 percent of the cases.

Days Lost From Work

It is estimated that peptic ulcers caused 14 million days to be lost from work each of the two years covered by this report. People whose major activity during the year prior to the interview was working lost 12 million days or 7.4 days per person with a peptic ulcer per year. As was the case with days of restricted activity and days in bed, the largest number of work-loss days was for males in the age group 45-64 where the average number of days lost each year was 12.4 for each man whose usual activity was working.

If it is assumed that the usual work year is 245 days, it is possible to estimate the number of persons absent from work each day because of peptic ulcers. The results of such a computation are shown in table C. On the average work day there were 49,000 of the usually working people absent, 18,000 in the age group 17-44 and 30,000 in the age group 45-64.

Table C. Average number of persons absent each working day due to peptic ulcers

Age	Total	Usually working ousands)
All ages-17+	58	49
17-44 45-64 65+	21 35 (*)	18 30 (*)

One final measure of the contribution of peptic ulcers to the problem of disability can be obtained by relating the number of disability days for which a peptic ulcer was the only cause, or one of several contributing causes, to the total days of disability from all causes. The total in-

Table D. Number of disability days from all causes and percent caused by pepticulcers

Type of disability days	Total caused by peptic ulcers (in thousands)		Percent of total
Restricted activity Bed disability- Work loss	3,035,283	47,010	1.5
	1,148,753	12,865	1.1
	505,918	14,185	2.8

cludes days of disability caused by injuries, impairments, acute conditions, and chronic conditions. Peptic ulcers were a cause of 1.5 percent of all days of restricted activity, of 1.1 percent of all days of bed disability, and of 2.8 percent of all days lost from work (table D). Both days of restricted activity and days of bed disability were recorded for all ages including the younger ages where acute conditions were the major cause of disability days. Days of work loss were recorded only for persons 17 years of age or over. And it is in the adult male population, the segment of the population in which the workers are concentrated, that peptic ulcers had their greatest impact. Ulcers are most prevalent in adult males and thus

they have an effect on the economy of the Nation out of proportion to their prevalence in the total population.

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Table 1. Average prevalence of peptic ulcers according to medical care status as reported in interviews, and average prevalence per 1,000 population by sex and age: United States, July 1957-June 1959

[Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. 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]

	Marka 1	Medically at	tended cases	Total	Medically attended cases		
Sex and age	Total cases	Total	Under care	cases	Total	Under care	
	N	lumber in thou	sands	Rate	per 1,000 po	pulation	
Both sexes	1						
All ages	2,440	2,397	1,865	14.4	14.1	11.0	
0-24	121	116	86	1.6	1.6	1.1	
25-34	397	386	277	17.6	17.1	12.3	
35-44	636	627	491	27.6	27.2	21.3	
45-54	569	561	452	28.7	28.3	22.8	
55-64	390	383	312	26.1	25.7	20.9	
65-74	256	254	194	26.4	26.2	20.0	
75+	70	70	52	14.1	14.1	10.5	
Male		}			·		
All ages	1,771	1,731	1,322	21.4	20.9	16.0	
0-24	93	89	69	2.5	2.4	1.9	
25-34	316	304	218	29.3	28.2	20.2	
35-44	471	463	356	42.5	41.8	32.2	
45-54	392	384	304	40.5	39.7	31.4	
55-64	280	273	220	39.0	38.0	30.6	
65-74	176	174	124	38.9	38.4	27.4	
75+	(*)	(*)	(*)	(*)	(*)	(*)	
<u>Female</u>							
All ages	669	666	543	7.7	7.6	6.2	
0-24	(*)	(*)	(*)	(*)	(*)	(*)	
25-34	82	82	59	7.0	7.0	5.0	
35-44	166	164	135	13.9	13.7	11.3	
45-54	178	177	148	17.5	17.4	14.6	
55-64	110	110	92	14.2	14.2	11.9	
65-74	81	81	70	15.7	15.7	13.5	
75 +	(*)	(*)	(*)	(*)	(*)	(*)	

Table 2. Average number of persons with peptic ulcers and number and percent of persons whose ulcers caused no chronic limitation of activity as reported in interviews by age: United States, July 1958-June 1959

[Data are based on household interviews during July 1958-June 1959. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 1!]

Age	Number of persons with peptic	whose to cause limits	ed no	Number of males with peptic	Males whose ulcers caused no limitation of activity		Number of females with peptic	Females whose ulcers caused no limitation of activity	
nge	ulcers (in thous	Num- ber ands)	Per- cent	ulcers (in thous	Num- ber ands)	Per- cent	ulcers (in thous	Num- ber ands)	Per- cent
All ages-	2,440	2,075	85.0	1,771	1,502	84.8	669	573	85.7
0-24 25-44 45-64 65+	121 1,034 959 327	112 935 799 230	92.6 90.4 83.3 70.3	93 786 672 221	88 710 552 152	94.6 90.3 82.1 68.8	(*) 248 287 106	(*) 224 247 78	(*) 90.3 86.1 73.6

Estimates in this table are based on the second year of data collection only. Therefore, the standard errors are 1.25 times the standard errors shown in Appendix I.

Table 3. Average prevalence of peptic ulcers according to bed disability as reported in interviews by age: United .

States, July 1957-June 1959

(See headnote on table 2)

		unote on tab					
	Cases	of peptic	ulcers	Cases of peptic ulcers			
Age	Total		disability year	Total	With bed disability in year		
	lotai	1+ days	7+ days	Total	1+ days	7+ days	
	Numb	er in thou	sands	Rate per 1,000 population			
All ages	2,440	589	385	14.4	3.5	2.3	
0-24 25-34 35-44 45-54 55-64	121 397 636 569 390 327	(*) 95 160 135 93 74	(*) 43 99 97 74 59	1.6 17.6 27.6 28.7 26.1 22.3	(*) 4.2 7.0 6.8 6.2 5.0	(*) 1.9 4.3 4.9 5.0 4.0	

Table 4. Average number of persons with peptic ulcers according to bed disability as reported in interviews by sex and age: United States, July 1957-June 1959

Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. 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	Persons with ulcers	With no bed- disability days in year	With 1+ bed- disability days in year	Persons with ulcers	With no bed- disability days in year	With 1+ bed- disability days in year
Both sexes	Numbe	r of persons i	n thousands	F	ercent distrib	ution
All ages	2,440	1,851	589	100.0	75.9	24.1
Under 25 25-44 45-64 65+	121 1,034 959 327	89 779 731 253	(*) 255 228 74	100.0 100.0 100.0 100.0	73.6 75.3 76.2 77.4	(*) 24.7 23.8 22.6
<u>Male</u>				!		
All ages	1,771	1,358	413	100.0	76.7	23.3
Under 25	93 786 672 221	70 606 508 174	(*) 180 164 47	100.0 100.0 100.0 100.0	75.3 77.1 75.6 78.7	(*) 22.9 24.4 21.3
<u>Female</u>						
All ages	669	493	176	100.0	73.7	26.3
Under 25 25-44 45-64 65+	(*) 248 287 106	(*) 172 223 79	(*) 75 64 (*)	100.0 100.0 100.0 100.0	(*) 69.4 77.7 74.5	(*) 30.2 22.3 (*)

Table 5. Average annual number of disability days associated with peptic ulcers as reported in interviews and number of days per person with peptic ulcers by sex and age: United States, July 1957—June 1959

Data are based on household interviews during July 1957-June 1959. Data refer to the civilian noninstitutional population of the United States. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 1!

	Disab	ility days associa	ted with peptic ul	cers
Sex and age	Restricte	d activity	Bed dis	ability
	Number (in thousands)	Per person with ulcers per year	Number (in thousands)	Per person with ulcers per year
Both sexes				
All ages	47,010	19.3	12,865	5.3
1-24 25-44 55-64 5 1	(*) 14,399 20,538 10,291	(*) 13.9 21.4 31.5	(*) 3,682 5,523 3,210	(*) 3.6 5.8 9.8
<u>Male</u>		·		•
All ages	34,593	19.5	9,007	5.1
)-24 25-44 55-64 55+	(*) 10,404 14,754 8,008	(*) 13.2 22.0 36.2	(*) 2,359 4,117 2,191	(*) 3.0 6.1 9.9
<u>Female</u>				•
All ages	12,417	18.6	3,858	5.8
)-24 25-44 5-64 5+	(*) 3,995 5,784 2,283	(*) 16.1 20.2 21.5	(*) (*) (*) (*)	(*) (*) (*) (*)

Table 6. Average annual number of work-loss days associated with peptic ulcers lost by all persons and by "usually working" persons as reported in interviews and number of days per person with ulcers by sex and age: United States, July 1957-June 1959

Data are based on household interviews during July 1957—June 1959. Data refer to the civilian noninstitutional population of the United States. 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

		Days lost	from work	
Sex and age	All p	ersons	"Usually wor	king" persons
	Number (in thousands)	Per person with ulcers per year	Number (in thousands)	Per person with ulcers per year
Both sexes				
All ages-17+	14,185	5.8	11,928	7.4
17-44 45-64 65+	5,108 8,634 (*)	4.5 9.0 (*)	4,312 7,444 (*)	4.9 11.0 (*)
Male				
All ages-17+	13,070	7.4	11,482	8.0
17-44 45-64	4,503 8,124 (*)	5.2 12.1 (*)	4,140 7,170 (*)	5.2 12.4 (*)
Female	·			
All ages-17+	(*)	(*)	(*)	(*)

Table 7. Average population used in obtaining rates shown in this report by sex and age: United States, July 1957—June 1959

(See headnote on table 6)

	Bot	h sexes		Male	F	'emale
Age	Total	With peptic ulcer	Total	With peptic ulcer	Total	With peptic ulcer
		,	Populati	on in thousand	ds	
All ages	169,835	2,440	82,633	1,771	87,202	669
0-24	74,826 22,558 23,021 19,833 14,930 9,698 4,969	121 397 636 569 390 256 70	37,233 10,783 11,072 9,675 7,183 4,530 2,157	93 316 471 392 280 176 (*)	37,593 11,776 11,949 10,157 7,747 5,167 2,812	(*) 82 166 178 110 81 (*)

Table 8. Average population used in obtaining work-loss rates shown in this report by sex and age: United States,
July 1957-June 1959

Data are based on household interviews during July 1957—June 1959. Data refer to the civilian noninstitutional population of the United States. 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 cases with peptic ulcers	"Usually working persons" with peptic ulcers	"Usually working persons"
	P	opulation in thousan	ds
Both sexes			
All ages-17+	2,427	1,622	59,393
17-44 45-64	1,141 959 327	886 674 63	35,230 21,452 2,711
<u>Male</u>			
All ages-17+	1,761	1,430	41,672
17-44	869 672 221	796 578 55	24,494 15,083 2,095
<u>Female</u>	·		
All ages-17+	665	193	17,721
17-44 45-64	272 287 106	89 95 (*)	10,736 6,368 617

APPENDIX I

TECHNICAL NOTES ON METHODS

Background of This Report

This report on Peptic Ulcers is one of a series of statistical reports covering separate health-related topics which are prepared by the U.S. National Health Survey. The report is based on information collected in the continuing nationwide sample of households in the Health Interview Survey, which is a main aspect of the program.

The Health Interview Survey uses a questionnaire which, in addition to personal and demographic characteristics, elicits information on illnesses, injuries, chronic conditions, medical care, dental care, and hospitalization. As interview data relating to each of these various broad subject areas are tabulated and analyzed, separate reports are issued covering one or more specific topics. The present report contains data for 104 weeks of interviewing ending June 28, 1959.

The population covered by the sample for the Health Interview Survey is the civilian population living in the United States at the time of the household interview. Although the sample collection covers persons who are inmates of institutions, data for these persons are not included in the figures given in these reports. Also the sample does not include members of the Armed Forces, United States nationals living in foreign countries, and crews of vessels.

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 population of the United States. This plan utilizes the 1,900 Primary Sampling Units consisting of counties, groups of contiguous counties, and Standard Metropolitan Areas into which the country has been divided. The first stage of the design consists of drawing a sample from these Primary Sampling Units (PSU's). During the first 18 months of the Health Interview Survey the sample size was 372 PSU's. This was increased to 500 PSU's in January 1959. However, the basic sampling design and methods of estimating remained unchanged during the two-year period covered by this report. The number of ratio estimating classes shown subsequently in this Appendix are those which applied to the first 18 months of the survey.

With no loss in general understanding, the remaining stages of the sampling can be telescoped and treated in this discussion as an ultimate stage. Within PSU's, then, ultimate stage units called segments are defined, also geographically, in such a manner that each segment contains an expected six households. Each week a random sample of about 120 segments is drawn. In the approximately 700 households in those segments, persons are interviewed concerning illnesses, injuries,

chronic conditions, disability, and other factors related to health,

The household members interviewed each week are a representative sample of the population so that samples for successive weeks can be combined into larger samples for, say, a calendar quarter, a year, or more. Thus the design permits both continuous measurement of characteristics of high incidence or prevalence in the population and, through the larger consolidated samples, more detailed analysis of less common characteristics and smaller categories. 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.

Sample size and geographic detail.—The national sample plan during the 24-month period ending June 1959 included approximately 235,000 persons from 73,000 households in 12,200 segments. The over-all sample was designed in such a fashion that tabulations can be provided for various geographic sections of the United States and for urban and rural sectors of the Nation.

Collection of data.—The field operations for the household survey are performed by the Bureau of the Census under specifications established by the Public Health Service, In accordance with these specifications the Bureau of the Census designs and selects the sample, conducts the field interviewing, and edits and codes the questionnaires. Tabulations are prepared by the Public Health Service using the Bureau of the Census electronic computers.

Estimating methods.—Each statistic produced by the survey is the result of two stages of ratio estimation, in the first of these, the factor is the ratio of the 1950 decennial U.S. total population count to the estimated population in 1950 of the U.S. National Health Survey's first-stage sample of PSU's. This factor is applied separately for more than 50 color-residence classes.

Later, ratios of sample-produced estimates of the population to official Bureau of the Census figures for current population in about 60 age-sex-color classes are computed, and serve as second-stage factors for ratio estimating.

The effect of the ratio estimating process is to make the sample more closely representative of the population by age, sex, color, and residence, thus reducing sampling variance.

As noted, each week's sample represents the population living during that week and characteristics of that population. Consolidation of samples over a time period such as a calendar quarter produces estimates of average characteristics of the United States population for that calendar quarter.

For prevalence statistics based on two years of data collection, figures are first calculated for each calendar quarter by averaging estimates for all weeks of interviewing in that quarter. Prevalence data based

on eight quarters of interviewing are then obtained by averaging the eight quarterly figures.

For statistics measuring the number of occurrences during a specified time period, a similar computational procedure is used, but the statistics have a different interpretation. For the disability-day items, the interviewer asks for the respondent's experience over the two calendar weeks prior to the week of interview. Then, the estimated quarterly total for a statistic is simply 6.5 times the average two-week estimate produced by the 13 successive samples taken during the period. Thus, the experience of persons interviewed during a year-experience which actually occurred for each person in a two-calendar-week interval prior to week of interview-is treated in analysis as though it measured the total of such experience occurring in the year. For most statistics such interpretation leads to no significant bias. As noted earlier, the interviewing and estimation procedures are designed to reproduce the experience during the reference period of the questionnaire only for the population still living at the time of interview.

General Qualifications

Nonresponse.—Data are adjusted for nonresponse by a procedure which imputes to persons in a household not interviewed the characteristics of persons in households which were interviewed in the same segment. The total noninterview rate is 5 percent; 1 percent is refusal, and the remainder is accounted for by other reasons, such as failure to find any household respondent after repeated trials.

The interview process.—The statistics presented in this report are based on replies secured by interviewing members of the sampled households. Each person, 18 years and over, available at the time of interview, is interviewed individually. Proxy respondents within the household are employed for children and for adults who are not available at the time of the interview, provided the respondent is closely related to the person about whom information is being obtained.

There are limitations to the accuracy of diagnostic and other information collected in household interviews. For diagnostic information the household respondent, can, at best, 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 types of 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.

Rounding of numbers.—The original tabulations on which data in this report are based show all estimates to the nearest whole unit, All consolidations are made from these original tabulations before the numbers are rounded to the nearest thousand for the published tables. Derived statistics such as rates and percent distributions are computed after the estimates have been rounded. Rounding to thousands has been done throughout this report even though, because of sampling error, the estimates may not be accurate to that detail.

Population figures.—Some of the published tables include population figures for specified categories. Except for certain over-all totals by age and sex (which are independently estimated), these figures are based on the sample of households in the U.S. National Health Survey. They are given primarily for the purpose of providing denominators for rate computation, and for

this purpose are more appropriate for use with the accompanying measures of health characteristics than other population data which may be available. In some instances they will permit users to recombine published data into classes more suitable to their specific needs. With the exception of the over-all totals by age and sex mentioned above, the population figures may in some cases differ from corresponding figures (which are derived from different sample surveys) published in reports of the Bureau of the Census. For population data for general use, see the official estimates presented in Bureau of the Census reports in the P-20, P-25, P-50, P-57, and P-60 series.

Reliability of Estimates

Since the estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and interviewing personnel and procedures. As in any survey, the results are also subject to measurement error.

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 differs from the value obtained from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½ times as large.

In order to derive standard errors which are applicable to a wide variety of health statistics and which can be prepared at a moderate cost, a number of approximations are required. As a result, tables I through III, included in this Appendix should be interpreted as providing an estimate of the standard error rather than as the precise standard error for any specific statistic.

The following guides will enable the reader to determine sampling errors for the statistics presented in this report:

- Approximate standard errors for estimates of the number of cases of a chronic condition, the number of disability days associated with a chronic condition, and the number of persons in a population group¹ are obtained from the appropriate columns of table 1.
- 2. Approximate standard errors for percentage distributions of a chronic condition according to the number of bed-disability days or the extent of activity or mobility limitation associated with it are given in table II.
- 3. Approximate standard errors for prevalence estimates of a chronic condition per 1,000 persons in an age, sex, or color group or per 1,000 total population are obtained from table II. Since table II is set up for the estimation of the standard error of a rate per 100, the prevalence per 1,000 must first be converted to a percentage; table II is then entered with this percentage and the number of persons in the category (base of

 $^{^{1}\}mathrm{The}$ number of persons in an age, sex,or color group, or the total number of persons in the population is not subject to sampling error.

the percentage). The entry in the body of the table must then be multiplied by 10 to apply to the rate per 1,000 persons.

- Approximate standard errors of percentage distributions of disability days associated with a chronic condition (not computed in this report) are given in table III.
- 5. A rough approximation of the standard errors for rates showing the average number of disability days per "persons with the condition per year" is obtained by taking the square root of the sum of the square of the standard error of the numerator used in obtaining the rate divided by the numerator itself and the square of the standard error of the denominator used divided by the denominator itself, and then multiplying by the rate. This computation will normally give an overestimate of the true sampling error.

Example: It is estimated that each "usually working" person with an ulcer loses an average of 7.4 days from work during the year because of the ulcer. The numerator of 11,928,000 days lost has a standard error of 1,308,000. The denominator of 1,622,000 persons has a standard error of 72,000. Using these numbers as shown below yields an answer of 0.87, the standard error of the estimated rate.

$$7.4 \times \sqrt{\frac{1,308,000}{11,928,000}^2 + \left(\frac{72,000}{1,622,000}\right)^2} = 0.87$$

Table II. Standard errors of percentages bas 1 on persons with ulcers

When the base of the	For estimated percentages of											
percentage is: (in thousands)	2 or 98	5 or 95	10 or 90	25 or 75	50							
•			mate stand									
	(expr	essed in	percentage	points) i	8:							
100	2.9	4.5	5.4	7.8	10.3							
500	1.3	2.0	2.4	3.5	4.6							
1,000	0.9	1.4	1.7	2.5	3.3							
2,000	0.6	. ,1.0	1.2	1.8	2.3							
3,000	0.6	0.8	1.0	1.4	1.9							
5,000	0.4	0.6	0.8	1.1	1.4							
10,000.	0.3	0.5	0.6	.0.8	1.0							
20,000	0.2	0.3	0.4	0.6	0.7							

Illustration of use of table II.—Of the 2,440,000 persons reported as having ulcers, 15.8 percent had seven or more days of bed disability in the year. Since neither of these values can be read directly from the table, interpolation may be carried out as follows: for a base of 2,000,000 a statistic of 10 percent has a standard error of 1.2 percentage points and a statistic of 25 percent has a standard error of 1.8 percentage points. Interpolating, with a base of 2,000,000 an estimate of 15.8 percent would have a standard error of 1.4 percentage points. Corresponding calculations with a base of 3,000,000 produce a standard error of 1.2 percentage points. A final interpolation between these two results yields an estimate of 1.5 percentage points for statistic of 15.8 percent with a base of 2,440,000. (Although interpolation has been carried out in two dimensions here to illustrate the use of the table, a simple scanning of the table will provide an approximate answer which will usually be

Table I. Standard errors of estimates of aggregates

(All numbers shown in thousands)

Size of estimate	Persons with ulcers	Disability days
100	18	-
500	40	-
1,000	60	400
2.000	80	560
3,000	100	720
5,000	130	960
10,000	180	1,200
20,000	240	1,760
30,000	260	2,160
50,000	280	2,800
100,000	320	4,400
200,000	-	6,400
500,000	-	12,000
750,000	-	16,800
1,250,000	- 1	25,600

Illustration of use of table I.—The estimated number of persons under care for ulcers is 1,865,000. Since this is not given in the table, it is necessary to interpolate for the standard error. The standard error for an estimate of 2,000,000 is 80,000 and the standard error for an estimate of 1,000,000 is 60,000. Interpolation gives 77,000 as the standard error for 1,865,000.

Table III. Standard errors of percentages based on disability days

When the base of the	F	or estima	ted percen	tages of	
percentage is: (in thousands)	2 or 98	5 or 95	10 or 90	25 or 75	50
			mate stand percentage	ard error points) i	8:
2,500	3.4	5.2	7.2	10.4	12.0
12,500	1.5	2.3	3.2	4.6	5.4
25,000	1.0	1.7	2.2	3.3	3.8
50,000	0.7	1.2	1.6	2.3	2.7
75,000	0.6	1.0	1.3	1.9	2.2
125,000	0.5	0.7	1.0	1.4	1.7
250,000	0.3	0.6	0.7	1.0	1.2
500,000	0.2	0.4	0.5	0.7	0.9

Illustration of use of table ill.—Of the 47,010,000 restricted-activity days due to ulcers, 43.7 percent were for persons 45-64 years of age. Since neither of these values can be read directly from the table, interpolation may be carried out as follows: with a base of 25,000,000 a statistic of 25 percent has a standard error of 3.3 percentage points and a statistic of 95 percent has a standard error of 3.8 percentage points. Interpolating, a statistic of 43.7 percent with a base of 25,000,000 audid have a standard error of 3.7 percentage points. Corresponding calculations with a base of 50,000,000 podo produce a standard error of 2.6 percentage points. A final interpolation between these two results yields a standard error of 2.7 percentage points for a statistic of 43.7 percent with a base of 47,010,000. (Although interpolation has been carried out in two dimensions here to illustrate the use of the table, a simple scanning of the table will provide an approximate answer which will be sufficient for most purposes.)

²Note that where the rate refers to persons in a disease category, rule 5 applies, even if the group is further subdivided by age, sex, or color.

APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Terms Relating to Chronic Conditions

Condition.—A condition is defined by an entry on the questionnaire which describes a departure from a state of physical or mental well-being. In the coding and tabulating process, conditions are first classified according to the type of disease, injury or impairment, or symptom and then according to a number of other criteria such as whether they were medically attended, whether they resulted in disability, and whether they were acute or chronic. For the purposes of each published report or set of tables, only those conditions recorded on the questionnaire which satisfy certain stated criteria are included.

Conditions, except impairments, are coded by type according to the International Classification of Diseases, 1955 Revision, with certain modifications adopted to make the coding procedure more suitable for a household-interview survey, Impairments, defined as chronic or permanent defects resulting from disease, injury, or congenital malformation, are coded according to a special supplementary classification which permits the classification of impairments by type of functional

disability and etiology.

Chronic condition.—A condition is considered to be chronic if it is described by the respondent (1) in terms of one of the conditions on the "Check List of Chronic Conditions" or in terms of one of the impairments on the "Check List of Impairments" (Cards A and B, Appendix III), or (2) as having been first noticed more than three months before the interview. For this purpose, first noticed is defined as the time at which the person first felt sick or when he or his family was first told by a physician that he had a disease of which he was previously unaware. For a condition which is episodic in nature, the onset is always considered to be the original onset rather than the onset of the most recent episode.

Prevalence of a condition.—In general, the prevalence of a condition is the estimated number of cases existing in a population at a specific point in time or the average number existing during a specified period of

time.

In the National Health Survey, the prevalence of a chronic condition is the number of cases reported to be present at the time of the interview or at any time during the 12 months prior to the interview. Estimates of the prevalence of chronic conditions may be restricted to cases which satisfy certain additional criteria. For example, only cases involving a day or more in bed during the past year or cases under care may be included.

Medically attended condition.—A condition is considered to be medically attended if a physician has been consulted about it either at its onset or at any time thereafter. Medical attention includes consultation either in person or by telephone for treatment or advice. Advice from the physician transmitted to the patient through the nurse is counted as well as visits to physicians in

clinics or hospitals. If during the course of a single visit the physician is consulted about more than one condition for each of several patients, each condition of each patient is counted as medically attended.

Discussions of a child's condition by the physician and a responsible member of the household are considered as medical attention even if the child was not

seen at that time.

For the purpose of this definition, the term "physician" includes doctors of medicine and osteopathic physicians.

Condition under care.—By under care is meant one or more of the following: (1) currently taking medicine or treatment prescribed by a physician, (2) observing a systematic course of diet or activity prescribed by a physician, (3) visiting the physician regularly for checking on the condition, or (4) under instruction from the physician to return if some particular thing happens.

Physician is again defined as a doctor of medicine

or an osteopathic physician.

Terms Relating to Disability.

<u>Disability.</u>—Disability is the general term used to describe a temporary or a long-term reduction of a person's activity as a result of a chronic condition.

Long-Term Disability

Chronic activity limitation,—Chronic activity limitation is ascertained for all persons with one or more chronic conditions. These persons are divided into 4 categories according to the extent to which their activities are limited as a result of the conditions (Cards C, D, E, and F, Appendix III). For the purpose of this report categories 2 and 3 have been combined.

Since the major activities of preschool children, school-age children, housewives, and workers and other persons differ, a different set of criteria is used to determine the amount of reduction of major activities for each group. However, there is a general similarity between the criteria as will be seen in the descriptions of the categories below.

Major limitation of activity.—Inability to carry on major activity of the group:

Preschool children:

inability to take part in ordinary play with other

children

School-age children:

Housewives:

inability to go to school inability to do any house-

work

Workers and all other persons:

inability to work at a job

or business

Partial limitation of activity.—Limitation of amount or kind of participation in major activity of the group:

Preschool children:

limited in the amount or kind of play with other

children

School-age children:

limited to certain types of schools or in school attendance; limited in participation in athletics or other extracurricular activities limited in amount or

Housewives:

kind of housework or limited in recreational or community activities

Workers and all other persons:

limited in amount of work or kind of employment or limited in recreational or community activities

No limitation of activity.—No limitation as described above.

Temporary Disability

Disability days.—Disability days are classified according to whether they are days of restricted activity, days in bed, days in the hospital, days lost from work, or days lost from school. 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 also days of restricted activity for the working and school-age populations. Hence, restricted activity is the most inclusive term used in describing disability days.

Restricted-activity day.—A day on which because of a specific illness or injury a person substantially reduces the amount of activity normal for that day. The type of reduction will vary with the age and occupation of the individual as well as with the day of the week or the season. Restricted activity thus covers a range from substantial reduction of normal activity to complete inactivity.

Bed-disability day.—A day on which more than half the daylight hours were spent in bed because of a specific illness or injury. 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 normal working day on which a person did not work at his job or business because of a specific illness or injury. The number of days lost from work is determined only for persons 17 years of age or older.

Demographic Terms

Age.—The age of the person on his last birthday recorded on the questionnaire in single years. Ages are then grouped in intervals suitable for the topic under discussion.

Usually working.—A term applied to an individual 17 years of age or older who was gainfully employed as a paid employee, a self-employed person, or as a worker in a family business for more than half of the 12 months prior to the interview. A person who does only volunteer or unpaid work—such as work in his own home or work for the church or community—is not considered to be gainfully employed.

APPENDIX III

QUESTIONNAIRE

The items below show the exact content and wording of the questionnaire used in the household survey. The actual questionnaire is designed for a household as a unit and includes additional spaces for reports on more than one person.

CONFI	DENTI	AL: would	permit i	dealth Survey is autidentification of the survey, and will n	indi:	ridual will be	beld	strictly	r confidenti	ļ, w	ili be	used only by	y pers	ons en			
Form NHS (4-18-58)	1 -2			BURI	EAU OF	TOF COMMERCE THE CENSUS IT OF CHECK THE CENSUS IT OF THE EALTH SERVICE	CE.						1. Q	uestions	naire		
				HATIONAL	. HE	ALTH SUR	YEY	1					-	estion	naires_		
2. (o) Add	lress or	description of	location	· · · · · · · · · · · · · · · · · · ·				3. iden		5. S	ample	6. PSU Number	_	egment		8. Serial	No.
		· · · · · ·					_		weight			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
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							_		ot in the tele							time to co	
		Dwelling un	it (c) Na	une of Special Dwellin	ag Plac	e Code		""	CT 13 THE TOLEY	pnone		r nere r No phone	'''	What is	The best	time to co	117
12. Are th	ere ony	other living q		occupied or	Ye	• □ No			es anyone els] Yes [] No
Ask at al	l units	except a partme	at house	•								INSTRUCT		- .			
				roperty for people	□ Y•:	□ No		whet	es" to question per one or mo ugis to be con	ate at	dition	14 apply def	inition ires s	of a debould b	welling to be filled	and whether	rmine r the
						IS. RECORD OF	CAL				_						T :
		Item	Date	<u> </u>	Com.	2		Com.	3		Com.			Com.		5	Com.
Callbaci		ehold	Time Date		2000 C			-			-	<u> </u>		\vdash	-		}—
indiv respon	idual idents	Col. No	Time		¥3.	16. REASON									<u> </u>		1_
TYPE:				ſ	В	10. REASUR	T	NUR-D	C			<u> </u>					
	☐ Re			Vecant - non-s	ensone	l		Demoli			Inter	view not obte	ined f				
	rej	one at bome- ceated calls		Vacant - seaso			ı —		le by mistake	•	Cols						
Reason:	_	mporarily abso her (Specify)	rina.	Usual residence Armed Forces Other (Specific		v bere	1	sample	specity)		beca	use:					
Commenta	on nen	-interview			-=		<u> </u>			_	L						
17. Signat	ure of I	ntervie wer											18. 0	Code			
Special in	structio	ns or notes															
(b) Who and per:	t are th all per sons in	e names of all sons staying h the prescribed	other pa ere who order.)	is household? (Enter raons who live here? have no usual place o	(List a fresid	all persons who u ence elsewhere.	List	y live h chese	ere,				ı	.Ast nar	me.		(1)
(d) ls t awa a ho	here on y on bu spital?	er) lodgers or yone else who siness? On o yons else stay	ilves her visit? T	re who is now Temparazily in	ło	Yes (List) Yes (List) Yes (List)	_		-	·			→ '	irst na	me and i	nitial	-
	No (le	nese people ha eve on questio	onaire)	Yes (If not a household? (Enter t				1						Relation	ship		
head,	rife, da	ughter, grands	on, mothe	er-in-law, parener, lod	ger, loc	lger's wife, etc.)	CERM	ubie:					_			lead	
3. How old	d were ;	you on your las	n birthdo	y7									ľ	\ge		Und 1 y	
4. Race (C	heck o	ne box for eac	person)	,								-	Ī	Whit		□ Neg	ito
	.,	box for each								•] Male		Fer	
			d state (or foreign country)									\perp	(State		n country)	
7. Are you	now m	or over, ask: orried, widowe k for each pers		ed, separated or neve	o marri	ed? -								_] Man] Wido	ied wed	loder 14 ye Div Sep Jever marri	orced
If 14 ye	ėre old	or over, ask:											- 1		. 🗆	Inder 14 ye	ar e
		hest grade you		•									- 1	len: ligh:	123	3 4 5 6 7 3 4	8
Circle	gnesi	grade comple	eu or ch	eck None")								-	- 1		12		

-	<u> </u>			<u> </u>												_
				ers old or ove	r, ask: rmed Forces :	af aka Ilai	lead Season 2						F		nd. 14 yrs.	
"	If "Ye	٠,	ısk:		Forces, not co									_=	No	
		f "Ye	•,* de	ete this pera	on from questi	onnaire).						Yes				,
	(c) ¥			ur service du	ring a war or	was it pec	oce-time only	,				□ War	- -		Peace- time only	>
				war did you s	erve?							Spenis Americ	eo		 11-WW	
ì				aly, ask: en service be	lween June 27	7. 1950 ca	d January 31	1955?				₩₩-I Yes		-남	Koresn _	
一	<u> </u>			ver, ask:										ader 6		^
10					of the past 12							Workin	5		,	
	(For f	emales	over 16): wo		for work,	keeping hev	hing else? se, or doing so	mething e	ilse?		Lookin				
					to school or o off person is :			ık:				Going (to scho	ol		4
ĺ	(b) A	tre y	ou retli	ed?								Yes			~ _	
	R	T _i	tervie	each adult p	erson for him	self for q	uestions 11-2	6 and Tables i	, II, and /	A, if		Respon	ded for	self		
L	Τ.				oluma numbe							Col. No	wa	s respo	ondent	,
Γ					of Illness, w				-	· · · · · · · · · · · · · · · · · · ·		Yes			□ No	,
"				any time LA: matter?	ST WEEK OR	THE WEI	EK BEFORE)								
١,,		_	ing els		did you have	env occio	dents or Injur	ies, either at		(a) What were they?		Yes			□ No	
L	hom	• or •	way fr	om home?						(b) Anything else?						₹
"	inju	y tha	t happ	med before th	st week or the or time?	e weak be	nore from on	occident of				☐ Yes			□ No	
			vere th ing els	oso offects? o?									•			
14	. Los	wee	k or th	week before	did you take	any media	cine or treatm	ent for any		(a) For what condition (b) Anything else?	•?	Yes			□ No	
15	. AT	THE	PRESE	NT TIME do		allments		that have last	ed .	(b) Anything else?		☐ Yes			□ No	
ــا					en though the					(b) Anything else?						İ
		_				Tabl	-I - ILLNI	SSES, IMP	AIRMEN	TS AND ACCIDENTS						-
Γ	Γ	Γ	Did		the doctor so		If so impairs		If eye	What kind of trouble	What part of th	e body Is		AEEK		
l	ł	1	POU	medical	lid be use ony terms?		nympton er s from q. 13 or		of any	is it? Ask only for:	affected? Show in follow	inn dereil	AEEK	BE-	mony days,	
]		tolk to a	1	not talked to	- No	nok:		kind and	allergy asthma	for members lie	ted below:	FORE	0450	includ- ing	
1	ŀ		docto) - record res scription)	Poss-	What was the	couse of7	6 yrs. old or	anemia rheumatism arthritis stroke	Heed - (Skull, e	calpor	you to	on	the 2	
			1	(If ill-eff	ects of earlie			z injury, sleo	over,	tumor (or cyets)	Spine - (Upper, or lower)	middle or	your t		ends?	
يَّةٍ	Col.] .		record ill eff fill Table A)	ects	fill Table A)			OR Any entry in col. (d-1)	pack pack		for as			'
e number		tion]	1	cident or inju				Con	or (d-2) of:	Arm - (Shoulder elbow, lo	, upper, wer, wrist,	Chec	k one	1 1	•
Ļ	son	No.	l		during past				read ordin-	trouble condition discuse	hand)		No	Yes	1	
1			1			Į			ury news-	coupled with	Leg - (Hip, upp lower, an	er, knee, kle, foot)				
1			1		of the body to at kind of inj				paper print	seeing or hearing;	ALSO If arm, leg, eye	or ear.	(G o] ,	
1				was 117	Anything else				with glasses?	a part of the body; "mental" or any	state whether C		Col. (k))			
	ĺ			(Also, fi	ii Table A)	- 1				internal organ			}			-
┝	(a)	(ь)	(c)		(d-1)		(0	F2)	(d-3)	(d-4)	(d-5))	(e)	(f)	(g)	
1	1		N C)	•	- 1		•	☐ Yes			^		ļ		
늗	<u> </u>	_	=										<u> </u>	<u> </u>	Days	
-	Т	_	Τ.	then did	How many	Table II		LIZATION I		PAST 12 MONTHS they say at the beaptfel the co	adlata v					
	[ou enter	doys were	How	Ho₩	Vas	did they u	rse any medical terms?		Mera any an you du	ring thi			
	C∘I.		ues-	he her sitel?	hespital, not count-	many of these		this person		' did't say, ask): the lost doctor you tolked to s	gy it was?	the hespi	rdif			,
ğ	No.	No		Month, Year)	ing the	- days	were in	still in the				(a) What v		name (of the	
Line number	per-				day you left?	the pass	2 weeks?	bospitsi on		ne detail as jo cols. (d-1)-(d-5 ion-from accident or injury, fil		(b) Any at		ration	s7	
Ė	} .		- {		1	months?	'	Sunday night?	comuit	non account of injury, fil	- 1=v-ca;			2.34		
	 		<u>"</u>	(5)	(4)	L		(,,		, As			/15			<u></u>
۲	(a)	+	(ь)	(e)	(d)	(e)	(1)	(g)		. (ь)		□ Yç•	(i)		□No	
			- 1	lo:	1	or"	. [☐ Yes				1				
1				'r:	Days	Days	Days	□ No								•
Ξ	=	_	_				Ť	BLE A (A	cidents	and Injuries)						
\vdash	Line		1.	What part of t	he body was i	ourt? Who		try was it? Ar				Accid			during	
	Table		1		- '				٠			past 2	weeks			ار
├-			Щ					_				· Accid	ent ha-	pened	durine	
2.	When	did i	happe	n? Ýear_	(Ent	er month e	also if the ye	ur is 1957 or 1	958)	Month			weeks		- or ring	
,	Where	did	the acr	ident happen	,											
٦		J-10			-		At home	(inside or out (own home or	side the b someone	else's) [While in A	rmed Services	Some	otber pl	ace		
L	Voc -		truel	bus or ather -	notor vehicle											
[celdent in any			☐ Yes	□ No								ļ.
s.	Were	you a	n work	at your lob or	business wh	en										
1				ened?			Yes	□ No		Under 14 years at til	me of accident					

į	16. Hos ony	rone In th AST 12 M	e family - yo	u, your	, etc	had any of these c	ondition s	DURI	NG					. ☐ Yes			No
	1112 17	(Res				dition; record any o	conditions	1			,						ļ
	17. Does an		the family ha											Yes			No
			ed Card B, co			dition; record any o person)	conditions	1									
ŧ						d anyone in the far		, your	, etctalk					☐ Yes] No
	If "Yes"	•	r ga ta a aaci ies during thi			linic? Anyone els	• •									 _No. of ti	me s
ļ	(c) Whee	re did you	talk to the	loctor?										Place		Times	
			number of ti											At home At office . Hospital cl	 inic	::=	= $ $
	(*He	ospital cl	inic" exclude	: a over	night sta	ays)								Company o	indust	у	
ł	19. (a) Last	week or	the week bet	fore did	спуоле	In the family go to	o dentis	t? Any	rone else?			·	\dashv	Other (Spe	tty)		_
	[f "Yes" (b) How		nes during the	past 2	2 wooks												No I
	20. How ma	ny times	alteasther in	the pa	st 12 ma	enths did you go to	n dentist	,						One	_	_No. of tis	\Box
	· ·		,			rone in the family t			- hi-al						None	Fouror	
	lf "Yes"	night or l	onger?				seen o por	rieny in	o nospiras				l	Yes (T	·-		
1	22. (a) Durl	ng the po	et 12 months			the family been a :	patient in	0 NUTI	ing home or					Yes (T	ble II)	No. of tio	No
	If "Yes	tarium? r many tir	mes were you	in o n	ursina h	ome or sanitarium?										 _No. of tir	
						d the total Income		mily fo	all that is				-	Group No.	• •	No. ar tir	=
	your s.	hont s'	etc.? (Show (Card H)	Includ	e income from all s from relatives, et	lources, s	wch as	wages,				_				
						Table I - II	LLNESS	ES, I	MPAIRMEI	ATS AND A	CCIDENTS		·				三
	How many of these		years old over,sek;	DUR	ING THE	notice E PAST 3 MONTHS	To later-	notic	rau firat •	How long	Do you still take	About how		ik after comp adition for e			
	days were you In bed	Last	If "Yes" in col. (i):	_	fore that	Did , start	viewer:	PAST	ING THE 17 THS or	last talked to	any medi- cine or treatment	many days during	Pleas look a		lí "Yes"	If "1."	
	all or most of	or the	How many days did	├—	Ouring	during the past 2 weeks or	(k) is checked,	befor	e that	a doctor about ?	that the	the post	this card a	ond col. (r		or "3" in col.	
	the day?	before would	keep you from	3 menths	3 months	before that time?	or the condi-	[ring past	(If less than one	prescribed for?	hes kept you	read a	pecan	1.	(t) ask: Please	
		have been	(golog te	œ.		(If during past 2 weeks, ask):	tion is on	12 m	onthe, ask):	month,	Or, fallow	in bed for all	Then no wh	of the	Which	look at this	اتدا
		working at a job	school)?	100 (n)		Which week,	either one of Cards	Whic	h month?	"Und. 1" for "Mo.")	any advice he gave?	or most of the	firs ye	ou tions	(Ea-	card and	an e
		or busi- ness	1		ĺĺ	last week ar the week before?	A or B, continue;			ĺ	ļ	day?	(Show			statement Then tall	įį
		except for?				,	other- wise				Ì		F, as		each condi	me which statement fits you	
		(If 6-16 yrs., ask,]				STOP	ļ			İ	ŀ	printe	•)	name	best.	
		("going to school")														(Show Card G)	11
. [(h) Days	(i)	(i) —— Days	(k)	(1)	(m)	(22)	Mo	(n)	(o) Mos.	(p)	(q)	(r)		(t)	(u)	\mathbb{H}
	or None	☐ Yes	Or None			Before 2 wks.		Y	fore Birth	Yrs.	□ No Dr.	Oz None		☐ Ye			1
		<u> </u>				Table II - H	IOSPITA	LIZA	TION DU	RING PAST	12 MONTH	s					
	What is the		nd address of	the		For completed	hospitaliz		only:	What pa							一
				F\		the hospital	col. (k)		hoth cols. (k) sud (l)	of the	Who	corries the c		this Insuran	cethat	is, who	İ
	(Enter nar	ac, city t	or county and	grate,		by any kind of insurance?	Or, by		Do you exp	be) toke		s the premium	17				ł
						1	kind of plan the pays fo	ot	hospital bi ta be paid	for insuran	ce?						ŀ
							hospito costs?		by insurance or any plant of this kind	١]	1						
		_	(j)			(k)	(1)		(m)	(a)		mily member((o)			
		_ <u>_</u>				Yes (Skip to col.n)		(Skip oi.n)	☐ Yes	□ ½ ч		nployer	-,			, 	_
				_		C) No	□ №		□ No (Sto	^{op)}	mote [U	ion, clubs, e	ic.				
							F	DOTH	TES AND C	OMMENTS							
					•												
	1																

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ard A		Card C	Card E	Card G
NATIONAL HEALTH.	SURVEY	MATIONAL HEALTH SURVEY	NATIONAL HEALTH SURVEY	NATIONAL HEALTH SURVEY
Check List of Chronic C L. Asthma 2. Any allergy 3. Tuberculosis 3. Chronic bronchitis 5. Repeated attacks of sinus trouble 6. Rheumatic fever 7. Hardening of the arteries 8. High blood pressure 9. Heart trouble 9. Stroke 1. Trouble with varicose veins 8. Hemorrhoids or piles 9. Gallbladder or liver trouble 9. Stomach ulcer 9. Any other chronic 9. Stomach trouble	16. Kidney stones or other kidney trouble 17. Arthritis or rheumatism 18. Prostate trouble 19. Diabetes 20. Thyroid trouble or goiter 21. Epilepsy or convulsions of any kind 22. Mental or nervous trouble 23. Repeated trouble with back or spine 24. Tumor or cancer 25. Chronic skin trouble 26. Hernia or rupture	For: Workers and other persons except Housewives and Children 1. Cannot work at all at present. 2. Can work but limited in amount or kind of work. 3. Can work but limited in kind or amount of outside activities. 4. Not limited in any of these ways.	For: Children from 6 to 16 years old and others going to school 1. Cannot go to school at all at present time. 2. Can go to school but limited to certain types of schools or in school attendance. 3. Can go to school but limited in other activities. 4. Not limited in any of these ways.	1. Confined to the house all the time, except in emergencies. 2. Can go outside but need the help of another person in getting around outside. 3. Can go outside alone but have trouble in getting around freely. 4. Not limited in any of these ways.
ard B		Card D	Card F	Card H
Check List of Impair 1. Deafness or serious trouble with he 2. Serious trouble with seeing, even w 3. Condition present since birth, such club foot. 4. Stammering or other trouble with sp 5. Missing fingers, hand, or arm. 6. Missing toes, foot, or leg. 7. Cerebral palsy. 8. Paralysis of any kind. 9. Any permanent stiffness or deformit fingers, arm, or back.	ments vith glasses n as cleft palate or peech.	For: Housewife 1. Cannot keep house at all at present. 2. Can keep house but limited in amount or kind of housework. 3. Can keep house but limited in outside activities. 4. Not limited in any of these ways.	NATIONAL HEALTH SURVEY For: Children under 6 years old 1. Cannot take part at all in ordinary play with other children. 2. Can play with other children but limited in amount or kind of play. 4. Not limited in any of these ways.	MATIONAL HEALTH SURVEY Family Income during past 12 months 1. Under \$500 (Including loss) 2. \$500 - \$999 3. \$1,000 - \$1,999 4. \$2,000 - \$2,999 5. \$3,000 - \$3,999 6. \$4,000 - \$4,999 7. \$5,000 - \$6,999 8. \$7,000 - \$9,999 9. \$10,000 and over.

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1. Peptic ulcer.

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