NATIONAL CENTER For HEALTH STATISTICS | Series 10 Number 3

VITAL and HEALTH STATISTICS

DATA FROM THE NATIONAL HEALTH SURVEY

Length of Convalescence After Surgery

United States - July 1960 - June 1961

Statistics on the length of convalescence after tonsillectomy, appendectomy, hernia operation, hemorrhoidectomy, hysterectomy, and delivery other than Cesarean, by age, sex, usual activity, and family income. Based on data collected in household interviews during the period July 1960–June 1961.

Washington, D.C. July 1963

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Anthony J. Celebrezze
Secretary

Public Health Service
Luther L. Terry
Surgeon General

See inside of back cover
for catalog card.

Public Health Service Publication No. 1000-Series 10-No. 3

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 35 cents

NATIONAL CENTER FOR HEALTH STATISTICS

Forrest E. Linder, Ph.D., Director
Theodore D. Woolsey, Assistant Director
O. K. Sagen, Ph.D., Assistant Director

U. S. NATIONAL HEALTH SURVEY

Theodore D. Woolsey, Chief
Alice M. Waterhouse, M.D., Medical Advisor
James E. Kelly, D.D.S., Dental Advisor
Walt R. Simmons, Statistical Advisor
Arthur J. McDowell, Chief, Health Examination Survey
Philip S. Lawrence, Sc.D., Chief, Health Interview Survey
Robert T. Little, Chief, Computer Applications

COOPERATION 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.

In accordance with specifications established by the National Health Survey, the Bureau of the Census, under a contractual arrangement, participates in most aspects of survey planning, selects the sample, collects the data, and carries out certain parts of the statistical processing.

Public Health Service Publication No. 1000-Series 10-No. 3

CONTENTS

CONTENTS—Continued

CONTENTS—Continued

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	*

LENGTH OF CONVALESCENCE AFTER SURGERY

DISCUSSION OF THE FINDINGS

During the interview year July 1960-June 1961, information on the length of convalescence following surgery was collected in the health interview phase of the National Health Survey. Length of convalescence after surgery is defined in the Survey as the number of days from the date of operation on a hospitalized patient to the date on which the person returns to his usual full-time activity of working, keeping house, or going to school.

While information on surgical convalescence was collected on all persons 6 years of age or older undergoing any type of surgery in a short-stay hospital in the United States, this report contains data on only six types of operations—tonsillectomy, appendectomy, hemorrhoidectomy, hernia, hysterectomy, and delivery other than Cesarean. These operations were selected because they were performed with sufficient frequency to produce fairly reliable findings and because each was an easily identifiable type of surgical procedure in the interviewing. Convalescent time for these six selected types of surgery is summarized as follows:

Type of operation	Number of patients	Average number of postoperative hospital days	Average number of posthospital convalescent days	Average number of convalescent days from surgery to resumption of usual full-time activity
Tonsillectomy----------	611,000	1.3	9.0	10.2
Appendectomy----------	303,000	6.3	21.8	28.1
Hemorrhoidectomy---------	236,000	6.0	22.2	28.2
Hernia----------	312,000	6.8	35.1	41.9
Hysterectomy----------	231,000	8.8	43.2	52.0
Delivery other than Cesarean----------	3,247,000	3.9	11.5	15.4

This report was prepared by Louise Sagen of the U.S. National Health Survey staff.

For three of the operations—hemorrhoidectomy, hernia, and hysterectomy—preoperative length of hospital stay averaged about 1½ days. Average length of hospital stay before surgery for the other operations was: tonsillectomy, 0.6 days; appendectomy, 0.4 days; delivery other than Cesarean, 0.3 days.

In general, increasing age of the patient was associated with increasing duration of convalescence. As expected, the average convalescent time increased with age for tonsillectomy and appendectomy, where the majority of the operations were performed on children 6-16 years of age. For the other four selected operations, age had some effect on duration, but other factors such as sex or the usual activity of the person had more important influence. For example, the duration of hospital stay after surgery for hernia was longer among working males of ages 45 years and over (6.9 days) than among those of ages 17-44 (5.7 days), but the posthospital convalescence was 39.0 days for the older group as compared with 42.2 days for the younger men. This finding may reflect a difference in the type of occupation of the two age groups. Similarly for hysterectomy, women 45 years or over who reported their usual activity as keeping house had the same length of postoperative hospital stay as women of ages 25-44 years, but their posthospital convalescence of 34.3 days was 6.6 days shorter. One reason for this may be that the home situation for older women is not as demanding as for younger women who have young children to be cared for in the home.

For two types of operations—appendectomy and hemorrhoidectomy—average convalescence was shorter for females than for males. For females 17 years and over, convalescence following appendectomy averaged 28.9 days, or 6.3 days shorter than for males of these ages, and convalescence following hemorrhoidectomy averaged 22.9 days for females 25-years and over, 10.8 days shorter than for males of these ages. However for hernia operations, females 17 years and over had an average of 48 days convalescence after surgery, 5.4 days longer than for males 17 years and over. These sex differences in convalescent time after a hernia operation may result from differences in the types of hernias for which operations are performed on males and females. For tonsillectomies, both length of hospital stay and posthospital convalescence were about the same for males and females aged 6-16 years. Females, 17 years and over, had a longer posthospital convalescence following tonsillectomy than males of the same ages.

In several sections of this report data on convalescent time are presented for persons whose usual activity was reported as working. These estimates are shown because of interest in the impact of prolonged convalescence following surgery on the economy of the country. The six types of operations considered in this report accounted for about 900,000 hospital discharges, 6 million hospital days, and 23 million posthospital convalescent days among persons classified as usually working during the 12-month period July 1960-June 1961. Even for these six operations, which comprise less than one-fourth of all operations performed on persons in the usually working population, the figures underestimate the loss of work due to surgical convalescence because they include estimates only for persons who have returned to work following surgery.

Figure 1 shows the average postoperative hospital stay and the average duration of convalescence for the several operations among usually working persons in comparison with persons in other categories of usual activity. The longer duration in the working population may result in part from differences in age and sex between workers and other groups. However, regardless of age and sex, workers probably await more complete recovery than do other activity groups because of the demands of remaining on the job once work has been resumed.

For three of the operations—appendectomy, hemorrhoidectomy, and hernia—both length of postoperative hospital stay and average length of convalescence after leaving the hospital were longer for persons in the family income group of less than $4,000 than for persons with a family income of $4,000 or more. For tonsillectomies and deliveries other than Cesarean, there was no appreciable difference in total duration of convalescence between the two income groups. However, for deliveries other than Cesarean, women of higher income families remained in the hospital for 4.1 days after the delivery, which is on the average about one-half day longer than for women

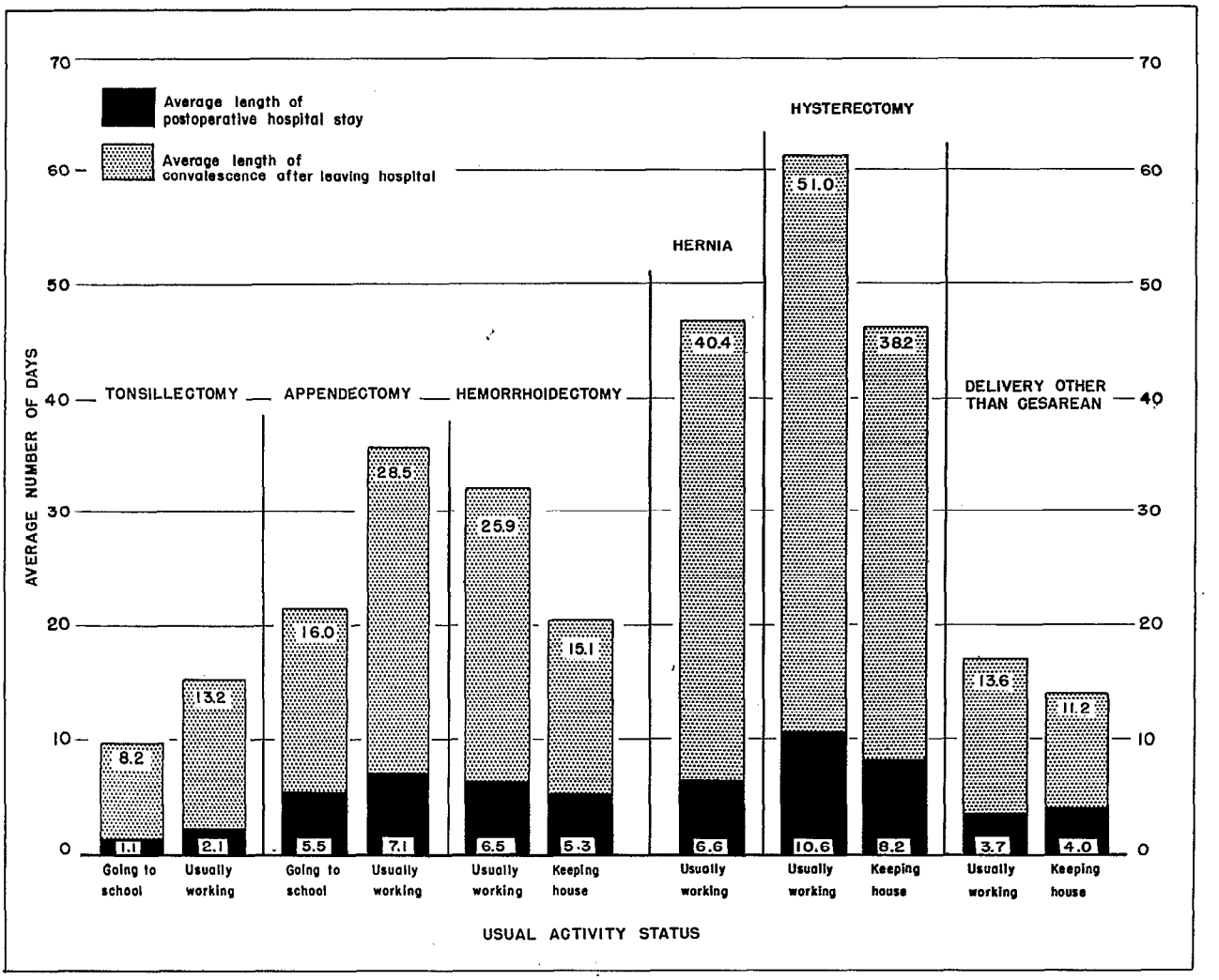


Figure 1. Average length of convalescence per person (in days) from surgery to resumption of usual full-time activity, by usual activity status for six operations

of lesser income. For hysterectomies, women of the higher income family group, $4,000 or more, had a day longer hospital stay and about 3 days longer posthospital convalescence than women of lower family income.

Family income, as defined in the Survey, classifies families into various income groups, but does not take into consideration the size of the family, the amount of incurred expenses, and other factors which may affect the economic status of the family.

Estimates of average duration of surgical convalescence were obtained from the survey in the four geographic regions of the United States for two of the selected operations—tonsillectomies and deliveries other than Cesarean. For tonsillectomies, there was little difference in average length of hospital stay among the regions, but posthospital convalescence ranged from 6.7 days in the North Central Region to 11.8 days in the Northeast. For deliveries other than Cesarean, average length of hospital stay ranged from 3.5 days in the West to 5.0 days in the Northeast. Average posthospital convalescence for deliveries other than Cesarean was 14.0 days in the South, about 3.5 days longer than in the other three

regions. An explanation of these regional variations would require a detailed study of social and economic differences, hospital accessibility, and other related factors.

Certain tables in this report present data on convalescence for those surgical cases that may be considered uncomplicated. This has been done by limiting estimates of posthospital convalescent time to persons who had a "normal" length of hospital stay. "Normal" should be interpreted here as meaning "not excessive" for surgical operations of these types. This does not imply that the days of hospital stay arbitrarily selected as "normal" represent standards; they are intended only to define a class of uncomplicated cases which will provide estimates of convalescent time typical for the operation.

The table below shows the proportion of hospital discharges within the arbitrary "normal" length of stay among all discharges and the comparative number of days of posthospital convalescence:

Type of operation	Total discharges		Discharges with "normal" length of hospital stay			
	Number in thousands	Average days of posthospital convalescence	Length of stay (less than)	Number in thousands	Percent of total discharges	Average days of posthospital convalescence
Tonsillectomy------	611	9.0	<3 days	577	94.4	8.7
Appendectomy-------	303	21.8	<7 days	201	66.3	18.4
Hemorrhoidectomy---	236	22.2	<9 days	192	81.4	21.8
Hernia-------------	312	35.1	<11 days	271	86.9	34.7
Hysterectomy-------	231	43.2	<11 days	170	73.6	41.3
Delivery other than Cesarean-----	3,247	11.5	<6 days	2,819	86.8	11.1

As would be expected, the discharges which were within the limit of "normal" hospital stay shown above for each of the six types of operation had fewer days of posthospital convalescence than did the total discharges. The reduction in convalescent time resulting from elimination of the more complicated cases does not appear to be marked. It varies from 3½ days for appendectomies and 2 days for hysterectomies to about one-half day for the other types of surgery. The amount of reduction is partly related to the proportion of cases eliminated which, in turn, is dependent upon the length of hospital stay designated as "normal." Furthermore, it must be kept in mind that the data include only persons who had returned to their usual activity by the date of the interview. In other words, the criterion for recovery or convalescence used in this report is the return to usual activity rather than medical judgment as to the person's physical condition, although the two are undoubtedly related.

In order to study the extent to which days hospitalized might influence the total days of convalescence, persons in the Survey were tabulated by intervals of hospital stay and broad intervals of convalescence after surgery. Approximately 70 percent of the children, ages 6-16, returned to school within 10 days after a tonsillectomy regardless of the duration of hospitalization. For deliveries, where a portion of the complicated cases have been omitted through the exclusion of Cesarean sections, persons with lengthy hospital stay after delivery had longer periods of convalescence. Of the women with less than 3 days of postdelivery hospital stay, 58.1 percent had less than 10 days of convalescence; of those with 3 to 6 hospital days after delivery, 31 percent had less than 10 days of convalescence,

and of those with 7 or more hospital days after delivery, only 14.5 percent had less than 10 days of convalescence. It should be noted that more than three-fourths (2,477,000) of all women with deliveries other than Cesarean reported a postdelivery hospital stay of 3 to 6 days, and within this group about 59 percent had less than 15 days of convalescence after delivery. In regard to the other four operations, a longer hospital stay after surgery appears to be reflected in a later return to usual activity. The relationship between short and long postoperative hospital stay of those reporting 30 days or more convalescence can be seen in the following table. Since it was found that the major activity of the person had an important influence on length of convalescence, data in the table are restricted to usually working persons for three of the operations, and to women keeping house for hysterectomies. There is a consistent tendency in all four operations for persons with lengthy hospital stay to have prolonged periods of convalescence. The numbers involved, however, are quite small. See Appendix I for discussion of sampling errors.

Type of operation and length of postoperative hospital stay	Total discharges	Discharges with convalescence of 30 days or more	
		Number	Percent of total discharges
Appendectomy (for usually working persons)			
Under 7 days	76,000	34,000	44.7
7+ days	48,000	32,000	66.6
Hemorrhoidectomy (for usually working persons)			
Under 7 days	94,000	40,000	42.6
7+ days	48,000	23,000	47.9
Hernia (for usually working males)			
Under 7 days	89,000	56,000	62.9
7+ days	68,000	52,000	76.5
Hysterectomy (for women, ages 25+, keeping house)			
Under 11 days	117,000	80,000	68.4
11+ days	29,000	21,000	72.4

SOURCE AND LIMITATIONS OF THE DATA

The health interview phase of the National Health Survey derives data from a continuous probability sampling of the civilian, noninstitutional population of the United States. The data for this report were collected in approximately 38,000 households comprising 125,000 persons during the interview period July 1960-June 1961.

During this period, a supplemental set of questions relating to convalescence following surgery was added to the basic questionnaire. For each hospitalization involving surgery, information was obtained on the length of posthospital convalescence before return to usual full-time activity (see cols. I to 1, table II of the question-

naire, Appendix III). Even though this kind of information was collected on all hospital discharges involving surgery, this report is restricted to those persons 6 years and older who had only one surgical procedure during a single hospital stay and who had returned on a full-time basis to their usual activity. Since this report concerns convalescence from specific types of operations, the length of convalescent time would be unduly biased by the inclusion of cases for which multiple surgical procedures had been performed. Only operations performed in short-stay hospitals are included, and the report is restricted to six types of operations, each having an established method of surgical procedure.

Certain factors in the survey method result in an underestimate of the volume of hospital discharges during the interview year as compared with estimates obtained from hospital records. These factors affect the data included in this report in varying degrees. Since the household interview covers the hospital experience of persons living in the household at the time of interview, persons who died prior to the date of interview but who were hospitalized during the previous year are not included in the estimates of the number of operations. Omission of the deceased in the current report has little effect upon the estimate of convalescent time following surgery since the data presented are limited to hospital discharges of persons who had resumed their usual full-time activity.

Another factor that reduces the volume of hospital discharges in comparison with hospital records is that the Survey definition includes only hospitalizations for overnight or longer. The omission of an unknown number of inpatients who were not hospitalized overnight probably has a negligible effect upon the estimate of hospital days since each instance contributes only one day to the sample total. Transfers from one hospital to to another are sometimes considered as a single episode by the respondent and reported as a single hospitalization, whereas, by Survey definition, this would constitute two or more hospitalizations. However, the effect of this particular error on the volume of hospitalizations is believed to be small and probably of little consequence in relation to hospitalizations involving surgery.

A description of the survey design, methods used in estimation, and the general qualifications of the data is presented in Appendix I. Special attention is called to information contained in the section Reliability of Estimates. The data in all tables in this report are subject to errors of sampling, i.e., errors resulting from the use of a sample of households instead of all the households in the United States. In tables where the estimated number or the numerator or denominator of a percentage is small, the relative error due to sampling may be high. Therefore, such estimates of numbers or percentages must be interpreted with caution.

Definitions of certain terms used in this report are presented in Appendix II, and familiarity with these definitions is necessary for the interpretation of the findings presented. A facsimile of the basic questionnaire used for collection of data in the health interview phase of the National Health Survey during the period July 1960-June 1961 is shown in Appendix III.

INTRODUCTION TO DETAILED DATA

The body of this report is divided into six sections, one for each of the operations selected for study. In general, the tabular material shown for each operation has been presented in a manner to facilitate comparisons of the average convalescent period after surgery according to age, sex, the usual activity of the person, and family income. For these demographic characteristics, data on convalescent time are shown by length of hospital stay, length of time in the hospital after surgery, and length of time after discharge from the hospital to resumption of usual full-time activity.

In certain tables of the report, average convalescent time after surgery was compared for those who had a normal length of hospital stay with the convalescent time of those who might be considered the more complicated cases as judged

by an abnormally long period of hospitalization following surgery. In order to study the extent to which days hospitalized might influence the total days of convalescence, tables are shown which classify patients according to intervals of post-operative hospital stay and intervals of convalescence from the operation to resumption of usual activity.

No attempt has been made to present a comprehensive interpretation of the meaning of the data shown in this report. Instead, emphasis has been placed on describing the material presented, pointing out its qualifications, and defining the concepts basic to collection and preparation. The brief discussion of the tabular material in each of the sections is restricted, for the most part, to a discussion of the influence of personal characteristics on average convalescent time after surgery.

TONSILLECTOMIES

During the survey year July 1960-June 1961, an estimated 611,000 patients 6 years of age and over were discharged from short-stay hospitals in the United States after having tonsillectomies. The number of patients, together with the hospital days and convalescent days which they experienced after tonsillectomy, are shown in table 1 by age, sex, usual activity status, family income, and geographic region.

Convalescent time after tonsillectomy increased with age. As shown in table 1, the variation in average duration of convalescence ranged from 9.3 days among children 6-16 years of age to 15.2 days among adults ages 25-44.

About 82 percent (501,000) of all persons with tonsillectomies were 6-16 years of age. For this group of children, the length of convalescence averaged 9.3 days per child, 1.1 days in the hospital after the operation and 8.2 days after leaving the hospital. Length of postoperative hospital stay and average length of convalescence after leaving the hospital were about the same for females as for males in this school-age group. However, for all persons 6 years of age and over reporting tonsillectomies, the average length of posthospital convalescence was longer for females than for males—9.6 days for females and 8.3 days for males.

Table 2 shows the average duration of posthospital convalescence, classified by age and sex, for all persons who experienced tonsillectomies and for those with less than 3 days of postoperative hospital stay. Within the group reporting a hospital stay of less than 3 days after tonsillectomy, posthospital convalescent time averaged 6.2 days longer per person for females 17 years and over than for males in the same age group. Again, in the school-age group, average length of posthospital convalescence for females was about the same as that for males.

Data in table 3 show broad intervals of convalescence, from tonsillectomy to return to school full time, for all children, ages 6-16, with tonsillectomies and also for those children having less than 3 postoperative hospital days by sex. Approximately 70 percent of the children returned to school less than 10 days after surgery regardless of the duration of hospitalization. The largest proportion was concentrated in the 5-9 day inteval of convalescence. About 97 percent (487,000) of the 501,000 children with tonsillectomies had a hospital stay of less than 3 days after the operation. Among those with the "normal" number of days postoperative hospital stay, about 65 percent of the males and about 72 percent of the females had less than 10 days of convalescence after surgery.

Of all persons reporting tonsillectomies, about 11.5 percent (70,000) were working (table 1). For this group of "usually working" persons, duration of convalescence from tonsillectomy to return to work full-time averaged 15.3 days. Convalescence after surgery for those working was 6 days longer than for those going to school.

There is little difference between convalescent time for those reporting a family income of under $4,000 and for those reporting a family income of $4,000 or more as indicated in table 1. Also, average length of hospital stay for tonsillectomy was the same for both income groups.

Average duration of convalescence after tonsillectomy shows some degree of variation among the four regions of the United States. While there was little regional difference in average duration of hospital confinement for this operation, the average length of posthospital convalescence ranged from 6.7 days in the North Central Region to 11.8 days in the Northeast (table 1).

Table 1. Number of hospital discharges for tonsillectomies, number of hospital and convalescent days, and average number of days per discharge, by demographic characteristics: United States, July 1960-June 1961

[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	Number of discharges in thousands	Total hospital days		Total convalescent days		Postoperative hospital days		Posthospital convalescent days	
		Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge
Age									
All ages-6+ years	611	1,154	1.9	6,243	10.2	765	1.3	5,477	9.0
6-16 years	501	858	1.7	4,661	9.3	553	1.1	4,108	8.2
17-24 years	46	133	2.9	564	12.3	99	2.2	465	10.1
25-44 years	58	139	2.4	883	15.2	95	1.6	788	13.6
45+ years	*	*	*	*	*	*	*	*	*
Sex									
Male-6+ years	300	549	1.8	2,835	9.5	357	1.2	2,478	8.3
Female-6+ years	311	604	1.9	3,408	11.0	408	1.3	3,000	9.6
Male-6-16 years	258	434	1.7	2,432	9.4	282	1.1	2,150	8.3
Female-6-16 years	243	424	1.7	2,229	9.2	271	1.1	1,957	8.1
Usual activity status									
Going to school-6-16 years	501	858	1.7	4,661	9.3	553	1.1	4,108	8.2
Usually working-17+ years	70	208	3.0	1,070	15.3	148	2.1	922	13.2
Keeping house-17+ years	*	*	*	*	*	*	*	*	*
Other-17+ years	*	*	*	*	*	*	*	*	*
Family income									
Under $4,000-6+ years[1]	118	231	2.0	1,222	10.4	156	1.3	1,066	9.0
$4,000+-6+ years[1]	477	894	1.9	4,835	10.1	591	1.2	4,244	8.9
Under $4,000-6-16 years[2]	89	153	1.7	841	9.4	95	1.1	745	8.4
$4,000+-6-16 years[2]	399	681	1.7	3,692	9.2	442	1.1	3,250	8.1
Region									
All ages-6+ years									
Northeast	174	310	1.8	2,257	13.0	197	1.1	2,059	11.8
North Central	174	323	1.9	1,372	7.9	208	1.2	1,164	6.7
South	150	319	2.1	1,457	9.7	215	1.4	1,242	8.3
West	113	201	1.8	1,156	10.2	145	1.3	1,012	9.0
6-16 years									
Northeast	152	250	1.6	1,800	11.8	155	1.0	1,645	10.8
North Central	142	249	1.8	1,032	7.3	158	1.1	874	6.2
South	122	235	1.9	1,129	9.3	151	1.2	977	8.0
West	87	124	1.4	700	8.0	88	1.0	611	7.0

[1]Does not include 16,000 persons for whom income was not reported.

[2]Does not include 14,000 persons for whom income was not reported.

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 2. Number of hospital discharges, number of posthospital convalescent days, and average number of posthospital convalescent days per discharge for all persons hospitalized for tonsillectomies and for those with less than 3 postoperative hospital days, by sex and age: United States, July 1960-June 1961

[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 discharges			Discharges with less than 3 postoperative hospital days		
	Number in thousands	Posthospital convalescent days	Average per discharge	Number in thousands	Posthospital convalescent days	Average per discharge
Both sexes						
All ages-6+ years	611	5,477	9.0	577	5,039	8.7
6-16 years	501	4,108	8.2	487	3,980	8.2
17+ years	109	1,369	12.6	91	1,059	11.6
Male						
All ages-6+ years	300	2,478	8.3	282	2,329	8.3
6-16 years	258	2,150	8.3	246	2,045	8.3
17+ years	42	327	7.8	36	284	7.9
Female						
All ages-6+ years	311	3,000	9.6	296	2,710	9.2
6-16 years	243	1,957	8.1	241	1,934	8.0
17+ years	67	1,042	15.6	55	776	14.1

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 3. Number and percent distribution of total hospital discharges for all children 6-16 years of age hospitalized for tonsillectomies and for those having less than 3 postoperative hospital days, by sex and interval of convalescence: United States, July 1960-June 1961

[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 interval of convalescence	Total discharges	Discharges with less than 3 postoperative hospital days	Total discharges	Discharges with less than 3 postoperative hospital days
	Number of discharges in thousands		Percent distribution	
Both sexes, 6-16 years				
Total	501	487	100.0	100.0
Under 5 days	72	71	14.4	14.6
5-9 days	267	265	53.3	54.4
10+ days	162	151	32.3	31.0
Male, 6-16 years				
Total	258	246	100.0	100.0
Under 5 days	37	35	14.3	14.2
5-9 days	128	126	49.6	51.2
10+ days	93	85	36.0	34.6
Female, 6-16 years				
Total	243	241	100.0	100.0
Under 5 days	35	35	14.4	14.5
5-9 days	139	139	57.2	57.7
10+ days	69	66	28.4	27.4

[1] The period from tonsillectomy to resumption of usual full-time activity.

NOTE: Table includes only persons who had returned to their usual full-time activity.

APPENDECTOMIES

During the survey year July 1960-June 1961, an estimated 303,000 persons 6 years of age and over were discharged from short-stay hospitals in the United States after having appendectomies and had returned to their usual full-time activity. Table 4 presents their length of hospital stay and average duration of convalescence after surgery by age, sex, usual activity status, and family income. For the 303,000 hospital discharges, length of convalescence from the appendectomy to resumption of usual full-time activity averaged about 4 weeks per person.

Convalescent time after appendectomy increased with age. The variation in average duration of convalescence ranged from 21.5 days among children ages 6-16 to 36.5 days among adults 25-44 years of age.

Almost 40 percent (120,000) of all persons with appendectomies were children 6-16 years of age whose usual activity was considered as going to school. Among these children, ages 6-16, average length of hospital stay after the operation was 5.0 days for females and 5.9 days for males. Convalescent time during the period after discharge from the hospital to return to school full-time averaged 13.8 days for females and 18.1 days for males. Similarly, for persons 17 years of age and over, females had a shorter period of convalescence from appendectomies.

Among all persons reporting appendectomies, about 124,000 or 41 percent were working. For this "usually working" group, length of convalescence before returning to work full-time averaged about 5 weeks (35.6 days) per person—about one week (7.1 days) in the hospital after the operation and about 4 weeks (28.5 days) after leaving the hospital. The period of convalescence after the appendectomy was about 2 weeks longer for those working than for those going to school.

Of the total persons with appendectomies, about two-thirds (201,000) reported a postoperative hospital stay of less than 7 days (table 5). Such cases averaged about 3½ fewer days of post-hospital convalescence than did all the cases combined. The reduction in convalescent time resulting from elimination of the more complicated cases, those with 7 days or more postoperative hospital stay, was 1.7 days for the school-age group and 3.1 days for those working.

Table 6 indicates that convalescence after appendectomy was less than 30 days for about 65 percent of the total discharges and about 74 percent of those with less than 7 days postoperative hospital stay. Among persons with a short postoperative hospital stay of less than 7 days, 87.2 percent of those going to school in contrast with 55.2 percent of those working required less than 30 days of convalescence after appendectomy.

In comparing persons from families with an income of less than $4,000 with those whose family income was above that figure, the low income group had a longer convalescence in the hospital after surgery and also a longer convalescence after discharge from the hospital (table 4). Among persons usually working, those in the lower income group of less than $4,000 had 1.6 days longer postoperative hospital stay and about a week (6.7 days) longer posthospital convalescence than those in the higher income group. Frequencies by income for the usually working groups are small and subject to large sampling errors. See Appendix I for a discussion of sampling errors.

Table 4. Number of hospital discharges for appendectomies, number of hospital and convalescent days, and average number of days per discharge, by demographic characteristics: United States, July 1960-June 1961

[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	Number of discharges in thousands	Total hospital days		Total convalescent days		Postoperative hospital days		Posthospital convalescent days	
		Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge
Age									
All ages-6+ years	303	2,031	6.7	8,516	28.1	1,901	6.3	6,615	21.8
6-16 years	120	693	5.8	2,579	21.5	657	5.5	1,921	16.0
17-24 years	56	332	5.9	1,303	23.3	309	5.5	994	17.7
25-44 years	90	660	7.3	3,286	36.5	609	6.8	2,677	29.7
45+ years	*	*	*	*	*	*	*	*	*
Sex									
Male-6-16 years	62	380	6.1	1,488	24.0	367	5.9	1,121	18.1
Female-6-16 years	58	313	5.4	1,090	18.8	290	5.0	800	13.8
Male-17+ years	99	721	7.3	3,480	35.2	680	6.9	2,800	28.3
Female-17+ years	85	618	7.3	2,457	28.9	564	6.6	1,893	22.3
Usual activity status									
Going to school-6-16 years	120	693	5.8	2,579	21.5	657	5.5	1,921	16.0
Usually working-17+ years	124	941	7.6	4,411	35.6	878	7.1	3,533	28.5
17-24 years	*	*	*	*	*	*	*	*	*
25-44 years	66	503	7.6	2,499	37.9	471	7.1	2,028	30.7
45+ years	*	*	*	*	*	*	*	*	*
Keeping house-17+ years	38	259	6.8	1,063	28.0	236	6.2	827	21.8
Other-17+ years	*	*	*	*	*	*	*	*	*
Family income									
Under $4,000-6+ years[1]	76	603	7.9	2,679	35.3	579	7.6	2,100	27.6
$4,000+-6+ years[1]	209	1,320	6.3	5,299	25.4	1,219	5.8	4,080	19.5
Under $4,000-usually working[2]	33	285	8.6	1,373	41.6	275	8.3	1,098	33.3
$4,000+-usually working[2]	82	598	7.3	2,728	33.3	547	6.7	2,181	26.6

[1]Does not include 18,000 discharges for whom income was not reported.

[2]Does not include 9,000 discharges for whom income was not reported.

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 5. Number of hospital discharges, number of posthospital convalescent days, and average number of posthospital convalescent days per discharge for all persons hospitalized for appendectomies and for those with less than 7 postoperative hospital days, by usual activity status and sex: United States, July 1960-June 1961

[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]

Usual activity status and sex	Total discharges			Discharges with less than 7 postoperative hospital days		
	Number in thousands	Posthospital convalescent days	Average per discharge	Number in thousands	Posthospital convalescent days	Average per discharge
All ages-6+ years[1]	303	6,615	21.8	201	3,690	18.4
Male	160	3,921	24.5	110	2,369	21.5
Female	143	2,693	18.8	91	1,322	14.5
Going to school-6-16 years	120	1,921	16.0	86	1,234	14.3
Male	62	1,121	18.1	40	633	15.8
Female	58	800	13.8	46	601	13.1
Usually working-17+ years	124	3,533	28.5	76	1,930	25.4
Male	86	2,541	29.5	60	1,687	28.1
Female	*	*	*	*	*	*

[1]Includes about 60,000 hospital discharges who reported their usual activity as "keeping house" or "other."

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 6. Number and percent distribution of total hospital discharges for all persons hospitalized for appendectomies and for those having less than 7 postoperative hospital days, by usual activity status and interval of convalescence:[1] United States, July 1960-June 1961

[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]

Usual activity status and interval of convalescence	Total discharges	Discharges with less than 7 postoperative hospital days	Total discharges	Discharges with less than 7 postoperative hospital days
	Number of discharges in thousands		Percent distribution	
Total[2]	303	201	100.0	100.0
Under 15 days	90	85	29.7	42.3
15-29 days	106	64	35.0	31.8
30+ days	108	53	35.6	26.4
Going to school-6-16 years	120	86	100.0	100.0
Under 15 days	43	39	35.8	45.3
15-29 days	53	36	44.2	41.9
30+ days	24	12	20.0	14.0
Usually working-17+ years	124	76	100.0	100.0
Under 15 days	22	22	17.7	28.9
15-29 days	36	20	29.0	26.3
30+ days	66	34	53.2	44.7

[1]The period from appendectomy to resumption of usual full-time activity.

[2]Includes about 60,000 hospital discharges who reported their usual activity status as "keeping house" or "other."

NOTE: Table includes only persons who had returned to their usual full-time activity.

HEMORRHOIDECTOMIES

The number of persons reported in the survey as having returned to their usual full-time activity after having hemorrhoidectomies was 236,000 (table 7). Convalescent time for the 236,000 patients averaged about 4 weeks (28.2 days) per person—6.0 days in the hospital after the hemorrhoidectomy and 22.2 days after leaving the hospital to the resumption of their usual full-time activity. The average length of hospital stay before surgery was 1.5 days.

Of the total persons with hemorrhoidectomies, about 95 percent (225,000) were over 25 years of age, about 44 percent (103,000) were 25-44 years of age, and more than half (122,000) were 45 years of age and over. Average length of convalescence after surgery was longer for the older age group 45 years and over than that for the younger age group 25-44 years, principally because of the longer posthospital convalescence for males 45 years of age and over. A longer period of convalescence after surgery was experienced by males than by females, 5.7 days longer for males 25-44 years of age and 14.7 days longer for males 45 years and over.

Among persons with hemorrhoidectomies, 60.2 percent (142,000) were reported as "usually working," 29.2 percent (69,000) as "keeping house," and about 10 percent in the category "other." The length of postoperative convalescence averaged 32.4 days per person for those working and 20.3 days per person for those keeping house. Those working stayed 1.2 days longer in the hospital after the operation and also took 10.8 days longer after leaving the hospital to return to their usual activity status than those keeping house. For usually working men, although length of hospital stay after surgery was shorter among men 45 years of age and over (5.8 days) than among those 25-44 years (6.8 days), the posthospital convalescence was 30.7 days for the older group as compared with 23.6 days for the younger group. It should be noted that sampling errors for small frequencies of hospital discharges are large.

Table 8 shows the average duration of posthospital convalescence for all hospital discharges and for those with the arbitrary "normal" length of hospital stay of less than 9 days. Of the total persons with hemorrhoidectomies, about four-fifths (192,000) had less than 9 days postoperative hospital stay. Average length of posthospital convalescence was about one-half day longer for all hospital discharges than for those with the "normal" postoperative hospital stay. Usually working men at the older ages 45 years and over had a longer posthospital convalescence when the postoperative hospital stay was less than 9 days than when cases involving longer hospital stay were included. This was not true of the younger group of usually working men, ages 25-44, nor for women of 25 years of age and over whose usual activity was keeping house.

For usually working men of 25 years of age and older, intervals of postoperative hospital stay after hemorrhoidectomy (less than 7 days and 7 days or more) and convalescent time expressed in two broad intervals (less than 30 days and 30 days and over) are shown in table 9. More than half, about 56 percent, of the usually working men had less than 30 days of convalescence after surgery. Of the total 142,000 working men, about two-thirds (94,000) had a postoperative hospital stay of less than 7 days, and about one-third (48,000) had a longer postoperative hospital stay. Data in the table indicate that a shorter postoperative hospital stay is reflected in an earlier return to work.

Of the total persons 25 years old and older reporting hemorrhoidectomies, about 23 percent had a family income of less than $4,000, and about 75 percent were in a higher family income group of $4,000 or more (table 7). Length of convalescence after surgery averaged about 5 days less for the higher income group of $4,000 or more than for those with lower family income. Persons of the higher income group were in the hospital 1.2 days before surgery, which is on the average about a day less than the time spent in the hospital before surgery by persons of the lower income group.

Table 7. Number of hospital discharges for hemorrhoidectomies, number of hospital and convalescent days, and average number of days per discharge, by demographic characteristics: United States, July 1960-June 1961

[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	Number of discharges in thousands	Total hospital days		Total convalescent days		Postoperative hospital days		Posthospital convalescent days	
		Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge
Age									
All ages-6+ years	236	1,761	7.5	6,662	28.2	1,416	6.0	5,246	22.2
6-16 years	-	-	-	-	-	-	-	-	-
17-24 years	*	*	*	*	*	*	*	*	*
25-44 years	103	779	7.6	2,732	26.5	645	6.3	2,088	20.3
45+ years	122	924	7.6	3,729	30.6	730	6.0	2,999	24.6
Sex									
Male-25+ years	121	975	8.1	4,082	33.7	768	6.3	3,315	27.4
Female-25+ years	104	727	7.0	2,379	22.9	606	5.8	1,772	17.0
Male-25-44 years	56	445	7.9	1,620	28.9	370	6.6	1,250	22.3
Female-25-44 years	48	334	7.0	1,113	23.2	274	5.7	838	17.5
Male-45+ years	66	530	8.0	2,462	37.3	398	6.0	2,065	31.3
Female-45+ years	56	393	7.0	1,266	22.6	332	5.9	934	16.7
Usual activity status-25+ years									
Usually working	142	1,128	7.9	4,599	32.4	920	6.5	3,679	25.9
Keeping house	69	440	6.4	1,404	20.3	365	5.3	1,039	15.1
Other	*	*	*	*	*	*	*	*	*
Usually working males	108	841	7.8	3,624	33.6	678	6.3	2,946	27.3
25-44 years	52	427	8.2	1,579	30.4	353	6.8	1,226	23.6
45+ years	56	414	7.4	2,045	36.5	325	5.8	1,720	30.7
Family income 25+ years[1]									
Under $4,000	52	454	8.7	1,692	32.5	332	6.4	1,360	26.2
$4,000+	168	1,207	7.2	4,658	27.7	1,014	6.0	3,644	21.7

[1]Does not include 5,000 discharges for whom income was not reported.

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 8. Number of hospital discharges, number of posthospital convalescent days, and average number of posthospital convalescent days per discharge for all persons hospitalized for hemorrhoidectomies and for those with less than 9 postoperative hospital days, by age and usual activity status: United States, July 1960-June 1961

[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]

Age and usual activity status	Total discharges			Discharges with less than 9 postoperative hospital days		
	Number in thousands	Posthospital convalescent days	Average per discharge	Number in thousands	Posthospital convalescent days	Average per discharge
All ages-6+ years[1]	236	5,246	22.2	192	4,187	21.8
Usually working-25+ years	142	3,679	25.9	113	2,973	26.3
Male-25+ years	108	2,946	27.3	86	2,383	27.7
25-44 years	52	1,226	23.6	38	806	21.2
45+ years	56	1,720	30.7	47	1,577	33.6
Female-25+ years	*	*	*	*	*	*
Keeping house-25+ years	69	1,039	15.1	57	717	12.6

[1]Includes 24,000 discharges whose usual activity status was classified as "other."

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 9. Number and percent distribution of total hospital discharges for hemorrhoidectomies for persons who are usually working, by interval of convalescence[1] according to interval of postoperative hospital days: United States. July 1960-June 1961

[See headnote on table 8]

Interval of convalescence	Total discharges	Interval of postoperative hospital days		Total	Interval of postoperative hospital days	
		Less than 7 days	7+ days		Less than 7 days	7+ days
	Number of discharges in thousands			Percent distribution		
Usually working-25+ years	142	94	48	100.0	100.0	100.0
Under 30 days	79	54	25	55.6	57.4	52.1
30+ days	63	40	23	44.4	42.6	47.9

[1]The period from hemorrhoidectomy to resumption of usual full-time activity.

NOTE: Table includes only persons who had returned to their usual full-time activity.

HERNIA OPERATIONS

During the survey year, an estimated 312,000 persons in the interview sample reported having hernia operations (table 10). Convalescent time, from the operation to resumption of usual full-time activity, averaged about 6 weeks per person—about one week in the hospital after the operation and about 5 weeks after leaving the hospital. Preoperative hospital stay for the 312,000 patients averaged 1.6 days.

Of all persons with hernia operations, 73,000 (23.4 percent) were persons 25-44 years of age and 169,000 (54.2 percent) were persons 45 years of age and over. These data are consistent with other findings, as shown in a report of the National Health Survey, in which prevalence rates for hernia increase for successively older age groups.[1]

An inspection of Table 10 reveals that increasing age may have some effect on length of hospital stay and on average duration of convalescence. However, for males, length of convalescence after surgery for a hernia operation averaged 3.8 days longer per person among the younger age group of 17-44 years than among the older group of 45 years of age and over. Males 45 years of age and over had a longer postoperative hospital stay but a shorter period of convalescence after leaving the hospital than did younger males 17-44 years of age.

Of the total persons 17 years of age and older who had hernia operations, 77.5 percent (210,000) were males and 22.5 percent (61,000) were females. On the average, convalescent time after surgery was 5.4 days longer for females—48.0 days for females and 42.6 days for males. Both postoperative hospital stay and posthospital convalescence were longer for females than for males. These sex differences in duration of convalescence may result from differences in the types of hernias for which operations are performed on males and females.

More than half (175,000) of all persons with hernia operations reported their usual activity as working. About 42,000, or 14 percent, were going to school and the usual activity status of 61,000, or 20 percent, was classified as "other," a category which included those retired, and those who were unable to work, go to school, or keep house and would therefore not be classified in any other activity group provided on the questionnaire.

Of all usually working persons who reported hernia operations, about 90 percent (157,000) were men. Convalescent time for these "usually working" men averaged 46.7 days per person—6.4 hospital days after the operation and 40.2 days after leaving the hospital. Those among the older ages 45 and over stayed 1.2 days longer in the hospital after surgery but took 3.2 days shorter convalescent time after leaving the hospital than did those among the younger ages 17-44 years. More sedentary jobs among the older than the younger group might account for the earlier return to work of the older group if there is a correlation between the stress of a man's occupation and the time which he takes to return to work after surgery.

Of the total 157,000 usually working men, about 90 percent (141,000) reported a postoperative hospital stay of less than 11 days (table 11). Within the group having less than 11 days postoperative hospital stay, again working men of the older ages 45 years and over had a shorter posthospital convalescence than younger working men 17-44 years of age.

Data in table 12, which are for males whose usual activity status is working, relate intervals of hospital days after a hernia operation and intervals of convalescent days from surgery to the resumption of their usual activity. Nearly three-fourths, or 73.9 percent, of the usually working men required less than 60 days of convalescence. About 57 percent (89,000) had less than 7 days of postoperative hospital stay and about 43 percent (68,000) had a longer postoperative hospital stay, 7 days or more. Those with the longer postoperative hospital stay had a longer period of convalescence. For men with the shorter postoperative stay of less than 7 days, 82 percent had less than

[1] U.S. National Health Survey, *"Hernias Reported in Interviews."*. Health Statistics. Series B-25. Public Health Service Publication No. 584-B25. Public Health Service. Washington, D.C., December 1960.

60 days convalescence in contrast with about 63 percent for those with the longer postoperative hospital stay.

Of all men 17 years of age and older who had hernia operations, about 40 percent (83,000) were in the lower income group, with a total family income of less than $4,000, and about 54 percent (115,000) had a family income of $4,000 or more (table 10). Men of the lower income group had a longer convalescent period after surgery than those of the higher income group. Among men who reported their usual activity as usually working, convalescent time averaged about 2 weeks longer for the lower income group, less than $4,000—1.3 days longer postoperative hospital stay and 12.9 days longer convalescence after leaving the hospital—than for the higher income group. Usually working men of the lower income group were in the hospital 2 days before surgery, which is on the average a day longer than the preoperative hospital period experienced by those in the higher income group.

Table 10. Number of hospital discharges for hernia operations, number of hospital and convalescent days, and average number of days per discharge, by demographic characteristics: United States, July 1960-June 1961

[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	Number of discharges in thousands	Total hospital days		Total convalescent days		Postoperative hospital days		Posthospital convalescent days	
		Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge
Age									
All ages-6+ years	312	2,629	8.4	13,059	41.9	2,112	6.8	10,947	35.1
6-16 years	42	186	4.4	1,180	28.1	143	3.4	1,038	24.7
17-24 years	*	*	*	*	*	*	*	*	*
25-44 years	73	568	7.8	3,116	42.7	456	6.2	2,659	36.4
45+ years	169	1,661	9.8	7,413	43.9	1,337	7.9	6,076	36.0
Sex									
17+ years									
Male-17+ years	210	1,761	8.4	8,949	42.6	1,451	6.9	7,497	35.7
17-44 years	73	521	7.1	3,291	45.1	430	5.9	2,861	39.2
45+ years	137	1,240	9.1	5,657	41.3	1,021	7.5	4,636	33.8
Female-17+ years	61	682	11.2	2,930	48.0	518	8.5	2,412	39.5
Usual activity status									
Going to school-6-16 years	42	186	4.4	1,180	28.1	143	3.4	1,038	24.7
Usually working-17+ years	175	1,459	8.3	8,235	47.1	1,161	6.6	7,073	40.4
Keeping house-17+ years	*	*	*	*	*	*	*	*	*
Other-17+ years	61	596	9.8	1,966	32.2	489	8.0	1,477	24.2
Usually working males	157	1,231	7.8	7,325	46.7	1,011	6.4	6,314	40.2
17-44 years	60	412	6.9	2,877	48.0	345	5.7	2,532	42.2
45+ years	97	819	8.4	4,448	45.9	666	6.9	3,782	39.0
Family income									
Under $4,000-males 17+ years[1]	83	780	9.4	3,680	44.3	622	7.5	3,058	36.8
$4,000+-males 17+ years[1]	115	880	7.7	4,603	40.0	748	6.5	3,856	33.5
Under $4,000-usually working males[2]	43	402	9.3	2,423	56.3	316	7.3	2,107	49.0
$4,000+-usually working males[2]	103	736	7.1	4,333	42.1	620	6.0	3,714	36.1

[1]Does not include 13,000 discharges for whom income was not reported.

[2]Does not include 11,000 discharges for whom income was not reported.

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 11. Number of hospital discharges, number of posthospital convalescent days, and average number of posthospital convalescent days per discharge for all persons hospitalized for hernia operations and for those with less than 11 postoperative hospital days, by age and usual activity status: United States, July 1960-June 1961

[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]

Age and usual activity status	Total discharges			Discharges with less than 11 postoperative hospital days		
	Number in thousands	Posthospital convalescent days	Average per discharge	Number in thousands	Posthospital convalescent days	Average per discharge
All ages-6+ years	312	10,947	35.1	271	9,408	34.7
Going to school-6-16 years	42	1,038	24.7	40	1,018	25.5
Usually working-17+ years	175	7,073	40.4	155	6,167	39.8
Keeping house-17+ years	*	*	*	*	*	*
Other-17+ years	61	1,477	24.2	48	1,117	23.3
Usually working males-17+ years	157	6,314	40.2	141	5,725	40.6
17-44 years	60	2,532	42.2	57	2,483	43.6
45+ years	97	3,782	39.0	84	3,241	38.6

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 12. Number and percent distribution of total hospital discharges for hernia operations for males who are usually working, by interval of convalescence[1] according to interval of postoperative hospital days: United States, July 1960-June 1961

[See headnote on table 11]

Interval of convalescence	Total discharges	Interval of postoperative hospital days		Total	Interval of postoperative hospital days	
		Less than 7 days	7+ days		Less than 7 days	7+ days
	Number of discharges in thousands			Percent distribution		
Usually working males	157	89	68	100.0	100.0	100.0
Under 30 days	49	33	16	31.2	37.1	23.5
30-59 days	67	40	27	42.7	44.9	39.7
60+ days	41	16	25	26.1	18.0	36.8

[1]The period from the hernia operation to resumption of usual full-time activity.

NOTE: Table includes only persons who had returned to their usual full-time activity.

HYSTERECTOMIES

During the survey year July 1960-June 1961, a total of 231,000 women in the interview sample who reported having hysterectomies were discharged from short-stay hospitals in the United States (table 13). It should be noted that statistics in this table are limited to women who had returned to their usual full-time activity after having only a hysterectomy operation. For the 231,000 patients, duration of convalescence after hysterectomy averaged 52 days per person.

An estimated 62.8 percent (145,000) of all women who reported hysterectomies were 25-44 years of age and 33.8 percent (78,000) were 45 years of age and over. Both age and the usual activity of the person had some effect on the duration of convalescence after hysterectomy. Data by age in table 13 suggest that the older age group 45 years and over had a longer convalescence per person after the operation than the younger age group 25-44 years. On the other hand, among those women who reported their usual activity as keeping house, average convalescent time after surgery was about one week shorter for the older age group than for the younger age group, because of a shorter convalescent period after leaving the hospital for the older group.

Almost two-thirds (146,000) of all women ages 25 years or older with hysterectomies reported their usual activity as keeping house and 32.2 percent (72,000) reported their usual activity as usually working (table 13). Average duration of convalescence after surgery was more than 2 weeks longer for those working than for those keeping house—2.4 days longer in the hospital after the operation and 12.8 days longer after leaving the hospital.

The number of hospital discharges for women who experienced an arbitrary "normal" length of postoperative hospital stay, less than 11 days after surgery; the total number of hospital discharges; and the comparative number of days of posthospital convalescence for each group is shown in table 14. Women of the older ages of 45 years and over had a shorter posthospital convalescence when the length of hospital stay after surgery was less than 11 days than when cases involving longer hospital stay were included. This appears to be true also of working women, but it is not true for the younger age group nor for those whose usual activity was keeping house. Postoperative hospital stay was less than 11 days for about 56 percent (40,000) of those working in contrast with about 80 percent (117,000) of those keeping house. For working women, the reduction in posthospital convalescence resulting from the elimination of more complicated cases, those with 11 days or more postoperative hospital stay, was 7.7 days. As mentioned earlier, posthospital convalescence for working women was 12.8 days longer than for those keeping house. However, within the group of women who had a postoperative hospital stay of less than 11 days, posthospital convalescence was only 4.2 days longer for those working than for those keeping house.

The distribution of the total number of patients with hysterectomies and of those with less than 11 days postoperative hospital stay by intervals of convalescence after surgery is shown in table 15. Two-thirds of all patients and about two-thirds (65.2 percent) of those with less than 11 postoperative hospital days had less than 60 days of convalescence after surgery. The data show that the majority of women who had hysterectomies reported their usual activity as keeping house. For women keeping house, about 75 percent of the total and about 72 percent of those with less than 11 days of postoperative hospital stay had less than 60 days of convalescence.

After a hysterectomy, longer surgical convalescence appears to be associated with higher income. Average length of convalescence after surgery was 4 days longer for those reporting a family income of $4,000 or more than for those reporting a family income of less than $4,000 (table 13). Also, length of hospital stay for the higher income group averaged one day more than the length of stay for the lower income group.

Table 13. Number of hospital discharges for hysterectomies, number of hospital and convalescent days, and average number of days per discharge, by demographic characteristics: United States, July 1960-June 1961

[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	Number of discharges in thousands	Total hospital days		Total convalescent days		Postoperative hospital days		Posthospital convalescent days	
		Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge
Age									
All ages-17+ years	231	2,367	10.2	12,015	52.0	2,039	8.8	9,976	43.2
17-24 years	*	*	*	*	*	*	*	*	*
25-44 years	145	1,492	10.3	7,162	49.4	1,286	8.9	5,876	40.5
45+ years	78	804	10.3	4,313	55.3	691	8.9	3,622	46.4
Usual activity status 25+ years									
Usually working	72	853	11.8	4,435	61.6	760	10.6	3,674	51.0
Keeping house	146	1,419	9.7	6,776	46.4	1,194	8.2	5,582	38.2
25-44 years	92	903	9.8	4,520	49.1	758	8.2	3,762	40.9
45+ years	53	516	9.7	2,257	42.6	436	8.2	1,820	34.3
Other	*	*	*	*	*	*	*	*	*
Family income-25+ years[1]									
Under $4,000	59	562	9.5	2,804	47.5	488	8.3	2,316	39.3
$4,000+	157	1,648	10.5	8,082	51.5	1,431	9.1	6,652	42.4

[1]Does not include 8,000 discharges for whom income was not reported.

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 14. Number of hospital discharges, number of posthospital convalescent days, and average number of posthospital convalescent days per discharge for all women hospitalized for hysterectomies, and for those with less than 11 postoperative hospital days, by age and usual activity status: United States, July 1960-June 1961

[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]

Age and usual activity status	Total discharges			Discharges with less than 11 postoperative hospital days		
	Number in thousands	Posthospital convalescent days	Average per discharge	Number in thousands	Posthospital convalescent days	Average per discharge
All ages-17+ years[1]	231	9,976	43.2	170	7,024	41.3
17-24 years	*	*	*	*	*	*
25-44 years	145	5,876	40.5	104	4,301	41.4
45+ years	78	3,622	46.4	57	2,245	39.4
Usually working, ages 25+	72	3,674	51.0	40	1,731	43.3
Keeping house, ages 25+	146	5,582	38.2	117	4,573	39.1

[1]Includes 8,000 discharges, ages 17-24, whose usual activity status was "keeping house" and 5,000 discharges, ages 25+, whose usual activity status was classified as "other."

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 15. Number and percent distribution of total hospital discharges for all women hospitalized for hysterectomies and for those having less than 11 postoperative hospital days, by usual activity status and interval of convalescence[1]: United States, July 1960-June 1961

[See headnote on table 14]

Usual activity status and interval of convalescence	Total discharges	Discharges with less than 11 postoperative hospital days	Total discharges	Discharges with less than 11 postoperative hospital days
	Number of discharges in thousands		Percent distribution	
Total all ages-17+ years[2]	231	170	100.0	100.0
Under 30 days	55	47	23.8	27.6
30-59 days	99	64	42.9	37.6
60+ days	77	58	33.3	34.1
Keeping house-25+ years	146	117	100.0	100.0
Under 30 days	45	37	30.8	31.6
30-59 days	65	47	44.5	40.2
60+ days	36	33	24.7	28.2

[1]The period from hysterectomy to resumption of usual full-time activity.

[2]Includes about 8,000 discharges aged 17-24 years who reported their usual activity status as "keeping house"; about 72,000 discharges aged 25 years and over who reported their usual activity status as "usually working"; and about 5,000 discharges aged 25 years and over whose usual activity status was classified as "other."

NOTE: Table includes only persons who had returned to their usual full-time activity.

DELIVERIES OTHER THAN CESAREAN

In the health interview program of the National Health Survey Division, the mothers of newborn infants are considered as surgically treated. The statistics in this section are limited to completed hospitalizations (hospital discharges) for patients who had only a delivery other than Cesarean performed during their hospital stay, and who had returned to their usual activity full-time.

The number of women who had deliveries other than Cesarean in short-stay hospitals during the survey year July 1960-June 1961 was 3,247,000 (table 16). This figure for deliveries is less than the 4,114,000 hospital births reported by the National Vital Statistics Division for the calendar year 1960. In addition to excluding women who were not yet able to return to full-time activity and Cesarean births in this report, several other factors may account for the difference. A major consideration is the fact that only deliveries occurring in establishments defined as short-stay hospitals (see Appendix II for definition) were included in the National Health Survey Division data, while reports of the National Vital Statistics Division considered all births that occurred in any establishment that provided inpatient care as a hospital birth. A second consideration is that the figure produced by the National Vital Statistics Division is a count of all births occurring in hospitals whereas the National Health Survey Division estimate is based on the number of women who are hospitalized for delivery, with the result that multiple births are recorded as a single delivery. Also, the National Health Survey Division data cover only the hospital experience of persons living in the household at the time of interview, thus the number of women who died during or subsequent to delivery regardless of cause of death are not included in the estimate for delivery cases.

For the 3,247,000 deliveries reported in the survey year, the length of hospital stay averaged 4.2 days per person, and convalescent time averaged 15.4 days per person (table 16). The average of 4.2 days of hospital stay is consistent with the findings of the National Health Survey Division data for the period 1958-60 as presented in *Hospital Discharges* from the U.S. National Health Survey, Series B, Number 32.

Of the total number of deliveries other than Cesarean, about 44 percent (1,427,000) were women 17-24 years of age, and about 55 percent (1,779,000) were 25-44 years of age. Women aged 25-44 had a slightly longer hospital stay, but their average posthospital convalescence of 11.3 days was one-half day shorter than for younger women aged 17-24.

The majority of the women with deliveries, about 88 percent (2,862,000), reported their usual activity as keeping house. Only about 10 percent (315,000) reported their usual activity as working; it is possible that some of the women who reported working during most of the previous 12 months actually considered their return to full-time activity in relation to housekeeping duties because they did not return to employment outside the home after the birth of the child.

Length of convalescence after delivery averaged 17.3 days for those who were working and 15.1 days for those who were keeping house for most of the 12 months prior to the interview. Women who were working had a slightly shorter postdelivery stay in the hospital but 2.4 days longer posthospital convalescence than those who were keeping house.

About 87 percent (2,819,000) of all women with deliveries other than Cesarean had less than 6 days of postdelivery stay in the hospital (table 17). Within the group with hospital stay of less than 6 days after delivery, posthospital convalescence was again shorter for those keeping house than for those who reported their usual activity as working. Working women 25-44 years of age had 2.8 days shorter convalescence when the postdelivery hospital stay was less than 6 days than those aged 17-24. For women keeping house, however, there was little difference in the length of posthospital convalescence between the two age groups.

Table 18 presents the relationship between intervals of convalescent time, from delivery to resumption of usual full-time activity, and intervals of hospital days after delivery for all women hospitalized for deliveries other than Cesarean by age. Of these women about 18 percent reported the interval of hospital stay after delivery as 1 to 2 days, about 76 percent reported between

3 and 6 days, and about 6 percent reported 7 days or more. More than half (58.8 percent) of all women with deliveries required less than 15 days of convalescent time after delivery, and this pattern was quite similar for both the 17-24 and the 25-44 year age groups. Women with lengthy hospital stay after delivery had longer periods of convalescence. Convalescent time after delivery was less than 15 days for about 65 percent of those with a postdelivery hospital stay of 1 to 2 days, about 59 percent of those with a postdelivery hospital stay of 3 to 6 days, and about 32 percent of those with a postdelivery hospital stay of 7 days or more. The relationship between length of postoperative hospital stay and length of convalescence is influenced by many factors, discussion of which is beyond the scope of this report. Among the factors are age, parity order, complications of delivery, and medical practices in which physicians who advise longer hospital stay may also advise a longer total recuperation time.

There was no difference in total convalescent time for those reporting a family income under $4,000 and those reporting a family income of $4,000 and over. The figures in table 16 indicate one-half day longer hospital confinement but one-half day shorter posthospital convalescence for women in the higher income group.

Both hospital confinement and convalescent time after delivery show some degree of variation among the four regions of the United States. Average length of hospital stay ranged from 3.5 days in the West to 5.0 days in the Northeast. Posthospital convalescent time averaged about 3.5 days longer in the South than in the other three regions.

Table 16. Number of hospital discharges for deliveries other than Cesarean, number of hospital and convalescent days, and average number of days per discharge, by demographic characteristics: United States, July 1960-June 1961

[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	Number of discharges in thousands	Total hospital days		Total convalescent days		Hospital days after delivery		Posthospital convalescent days	
		Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge	Number in thousands	Average per discharge
Age									
All ages-6+ years	3,247	13,731	4.2	49,958	15.4	12,747	3.9	37,211	11.5
Under 17 years	32	130	4.1	431	13.5	121	3.8	310	9.7
17-24 years	1,427	5,869	4.1	22,165	15.5	5,397	3.8	16,768	11.8
25-44 years	1,779	7,701	4.3	27,260	15.3	7,201	4.0	20,059	11.3
45+ years	*	*	*	*	*	*	*	*	*
Usual activity status 17-44 years									
Usually working	315	1,256	4.0	5,445	17.3	1,161	3.7	4,284	13.6
17-24 years	161	653	4.1	2,878	17.9	598	3.7	2,280	14.2
25-44 years	155	604	3.9	2,567	16.6	563	3.6	2,004	12.9
Keeping house	2,862	12,185	4.3	43,357	15.1	11,316	4.0	32,041	11.2
17-24 years	1,245	5,115	4.1	18,772	15.1	4,702	3.8	14,070	11.3
25-44 years	1,617	7,071	4.4	24,585	15.2	6,613	4.1	17,972	11.1
Other	*	*	*	*	*	*	*	*	*
Family income									
Under $4,000, 17-24 years[1]	601	2,402	4.0	9,344	15.5	2,199	3.7	7,145	11.9
$4,000+, 17-24 years[1]	752	3,178	4.2	11,640	15.5	2,936	3.9	8,704	11.6
Under $4,000, 25-44 years[2]	436	1,653	3.8	6,608	15.2	1,499	3.4	5,110	11.7
$4,000+, 25-44 years[2]	1,271	5,726	4.5	19,304	15.2	5,425	4.3	13,879	10.9
Region-17-44 years									
Northeast	825	4,086	5.0	12,491	15.1	3,804	4.6	8,687	10.5
North Central	971	4,350	4.5	14,270	14.7	4,063	4.2	10,207	10.5
South	858	3,220	3.8	15,014	17.5	2,981	3.5	12,033	14.0
West	553	1,914	3.5	7,650	13.8	1,750	3.2	5,900	10.7

[1]Does not include 75,000 discharges for whom income was not reported.

[2]Does not include 72,000 discharges for whom income was not reported.

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 17. Number of hospital discharges, number of posthospital convalescent days, and average number of posthospital convalescent days per discharge for all women hospitalized for deliveries other than Cesarean and for those with less than 6 hospital days after delivery, by age and usual activity status: United States, July 1960-June 1961

[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]

Age and usual activity status	Total discharges			Discharges with less than 6 hospital days after delivery		
	Number in thousands	Posthospital convalescent days	Average per discharge	Number in thousands	Posthospital convalescent days	Average per discharge
All ages-6+ years[1]	3,247	37,211	11.5	2,819	31,306	11.1
Under 17 years	*	*	*	*	*	*
17-24 years	1,427	16,768	11.8	1,281	14,743	11.5
25-44 years	1,779	20,059	11.3	1,504	16,253	10.8
45+ years	*	*	*	*	*	*
Usually working-17-44 years	315	4,284	13.6	277	3,564	12.9
17-24 years	161	2,280	14.2	145	2,064	14.2
25-44 years	155	2,004	12.9	132	1,500	11.4
Keeping house-17-44 years	2,862	32,041	11.2	2,482	26,939	10.9
17-24 years	1,245	14,070	11.3	1,118	12,270	11.0
25-44 years	1,617	17,972	11.1	1,364	14,670	10.8

[1]Includes 29,000 discharges, ages 17-44, whose usual activity status was classified as "other."

NOTE: Table includes only persons who had returned to their usual full-time activity.

Table 18. Number and percent distribution of total hospital discharges for deliveries other than Cesarean, by age and interval of convalescence[1] according to interval of hospital days after delivery: United States, July 1960-June 1961

[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]

Age and interval of convalescence	Total discharges	Interval of hospital days after delivery			Total discharges	Interval of hospital days after delivery		
		1-2	3-6	7+		1-2	3-6	7+
All ages-6+ years[2]	Number of discharges in thousands				Percent distribution			
Total	3,247	578	2,477	193	100.0	100.0	100.0	100.0
Under 10 days	1,130	336	767	28	34.8	58.1	31.0	14.5
10-14 days	779	42	704	34	24.0	7.3	28.4	17.6
15-19 days	646	110	508	27	19.9	19.0	20.5	14.0
20-29 days	353	38	252	62	10.9	6.6	10.2	32.1
30+ days	339	53	246	41	10.4	9.2	9.9	21.2
Ages-17-24								
Total	1,427	269	1,100	59	100.0	100.0	100.0	100.0
Under 10 days	498	153	338	7	34.9	56.9	30.7	11.9
10-14 days	348	23	312	12	24.4	8.6	28.4	20.3
15-19 days	284	49	229	6	19.9	18.2	20.8	10.2
20-29 days	152	23	111	18	10.7	8.6	10.1	30.5
30+ days	146	20	109	16	10.2	7.4	9.9	27.1
Ages-25-44								
Total	1,779	298	1,352	129	100.0	100.0	100.0	100.0
Under 10 days	606	173	412	21	34.1	58.1	30.5	16.3
10-14 days	429	18	389	22	24.1	6.0	28.8	17.1
15-19 days	360	61	277	22	20.2	20.5	20.5	17.1
20-29 days	195	15	140	40	11.0	5.0	10.4	31.0
30+ days	190	31	134	24	10.7	10.4	9.9	18.6

[1]The period from delivery to resumption of usual full-time activity.

[2]Includes 32,000 discharges aged 6-16 and 8,000 discharges aged 45 years and over.

APPENDIX I

TECHNICAL NOTES ON METHODS

Background of This Report

This report, Length of Convalescence After Surgery, is one of a series of statistical reports prepared by the U. S. National Health Survey. It is based on information collected in a continuing nationwide sample of households in the Health Interview Survey, a major aspect of the program.

The Health Interview Survey utilizes a questionnaire which, in addition to personal and demographic characteristics, obtains information on illnesses, injuries, chronic conditions and impairments, 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 the consolidated sample for 52 weeks of interviewing ending June 1961.

The population covered by the sample for the Health Interview Survey is the civilian, noninstitutional population of the United States living at the time of the interview. The sample does not include members of the Armed Forces, U. S. nationals living in foreign countries, or 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. The first stage of this design consists of drawing a sample of 500 from the 1,900 geographically defined primary sampling units (PSU's) into which the United States has been divided. A PSU is a county, a group of contiguous counties, or a standard metropolitan statistical area.

With no loss in general understanding, the remaining stages 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 in the sample. Each week a random sample of about 120 segments is drawn. In the approximately 700 households in those segments, household members are interviewed concerning factors related to health.

Since the household members interviewed each week are a representative sample of the population, samples for successive weeks can be combined into larger samples. 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 over the 2-year period ending June 1961 included about 125,000 persons from 38,000 households. The over-all sample was designed in such a fashion that tabulations can be provided for each of the major geographic regions and for urban and rural sectors of the United States.

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, acting as the collecting agent for the Public Health Service; 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—for example, the number of posthospital convalescent days—is the result of two stages of ratio estimation. In the first of these, the factor is the ratio of the 1950 decennial population count to the 1950 estimated population in the U. S. National Health Survey's first-stage sample of PSU's. These factors are applied for some 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, say a calendar quarter, produces estimates of average characteristics of the U. S. population for that calendar quarter. Similarly, population data for a year are averages of the four quarterly figures.

For certain other types of statistics—namely those measuring the number of occurrences during a specified time period—such as number of discharges from hospitals or number of hospital days—a similar computational procedure is used, but the statistics have a different interpretation. For several of these items, the questionnaire asks for the respondent's experience over the year prior to the week of the interview. Thus consolidation of, say, samples in 52 successive weeks provides an estimate of one year's experience for all persons in the population; the specific year differs chronologically among persons in samples in the different weeks, the experience for each such person being that in the 52 weeks prior to his week of interview.

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 5 percent; 1 percent was refusal, and the remainder was primarily due to the failure to find any eligible household respondent after repeated trials.

The interview process.—The statistics presented in this report are based on replies secured in interviews of persons in the sampled households. Each person 17 years of age and over, available at the time of interview, was interviewed individually. Proxy respondents within the household were employed for children and for adults not available at the time of the interview, provided the respondent was closely related to the person about whom information was 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 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.

Reliability of Estimates

Since the estimates 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 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 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. 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 for the period of reference is usually either 0 or 1, on occasion may take on the value 2, and very rarely, 3.

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

Wide range.—This class consists of statistics for which the measure for a single individual for the period of reference frequently will range from 0 to a number in excess of 5, e.g., the number of hospital days experienced during the year.

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

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 two weeks.

Only Type A narrow-range (hospital discharges) and wide-range (hospital and convalescent days) statistics are presented in this report.

General rules for determining relative sampling errors.—The "guide" on page 34 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 of estimates of aggregates, such as the number of hospital discharges or the number of hospital days, are obtained from appropriate curves on page 35.

Rule 2. Estimates of percentages in a percent distribution: Relative standard errors of percentages in a percent distribution of a total are obtained from appropriate curves on pages 36 and 37. 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; (Not required for statistics presented in this report.)

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 computing the number of hospital days per discharge per year, several of the days included in the numerator could be assigned to a discharge (one unit) in the denominator. 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 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.

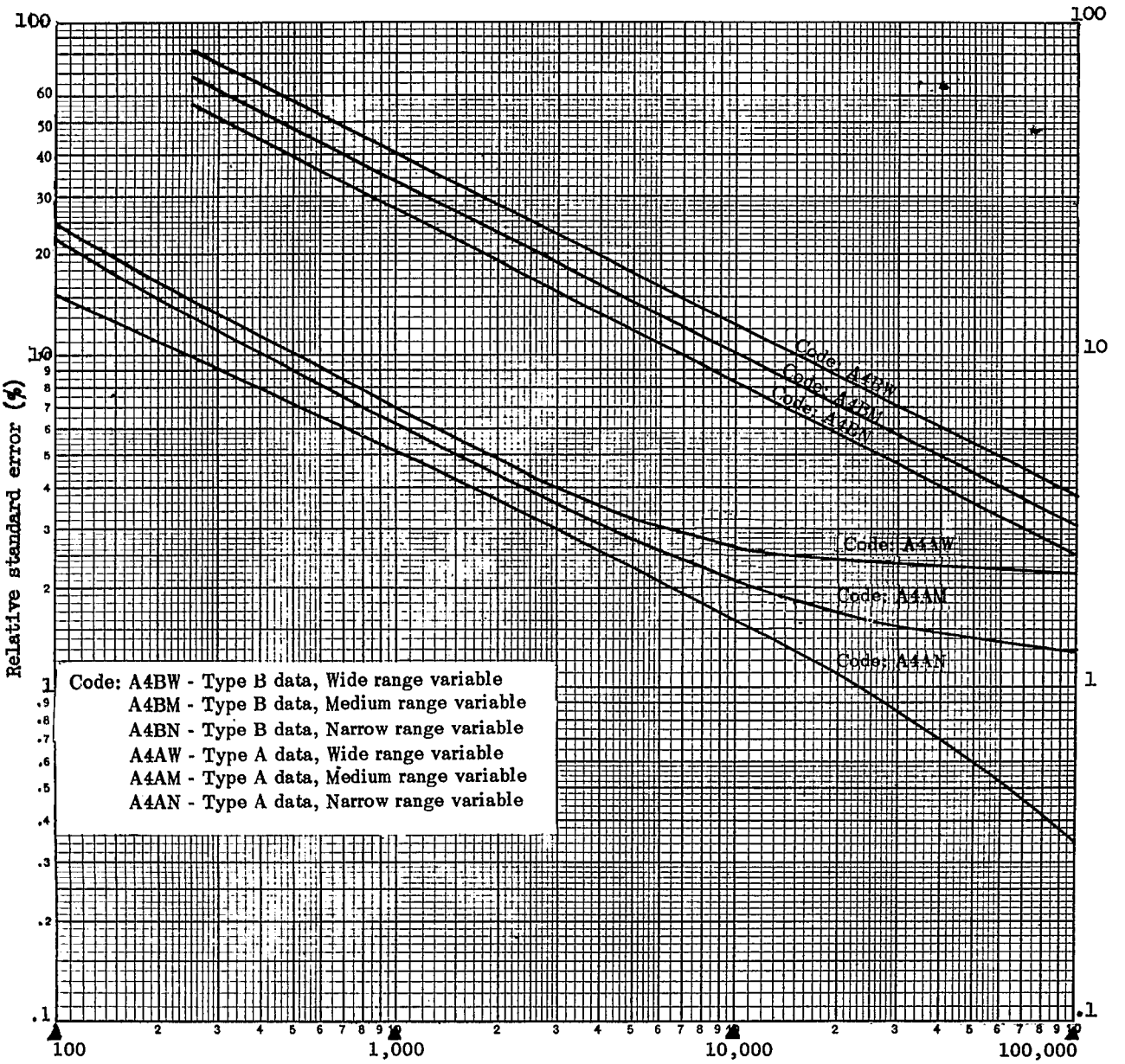
(b) In other cases, obtain the relative standard error of the numerator and of the denominator from the appropriate curve. Square each of these relative errors, add the resulting values, and extract the square root of the sum. This procedure will result in an upper bound, and often will overstate the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

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 statistic as follows: (1) A = aggregate, P = percentage; (2) the number of calendar quarters of data collection; (3) the type of the statistic as described on page 33; and (4) the range of the statistic as described on page 32.

Statistic	Use:		
	Rule	Code	on page
Number of:			
Hospital discharges	1	A4AN	35
Hospital days, posthospital convalescent days, or convalescent days from operation to resumption of usual full-time activity	1	A4AW	35
Percentage distribution of:			
Hospital discharges	2	P4AN-M	36
Hospital days, posthospital convalescent days, or convalescent days from operation to resumption of usual full-time activity	2	P4AW	37
Number of hospital days per hospital discharge	4(b)	Numer.: A4AW Denom.: A4AN	35 35
Number of posthospital convalescent days or number of convalescent days from operation to resumption of usual full-time activity per hospital discharge	4(b)	Numer.: A4AW Denom.: A4AN	35 35

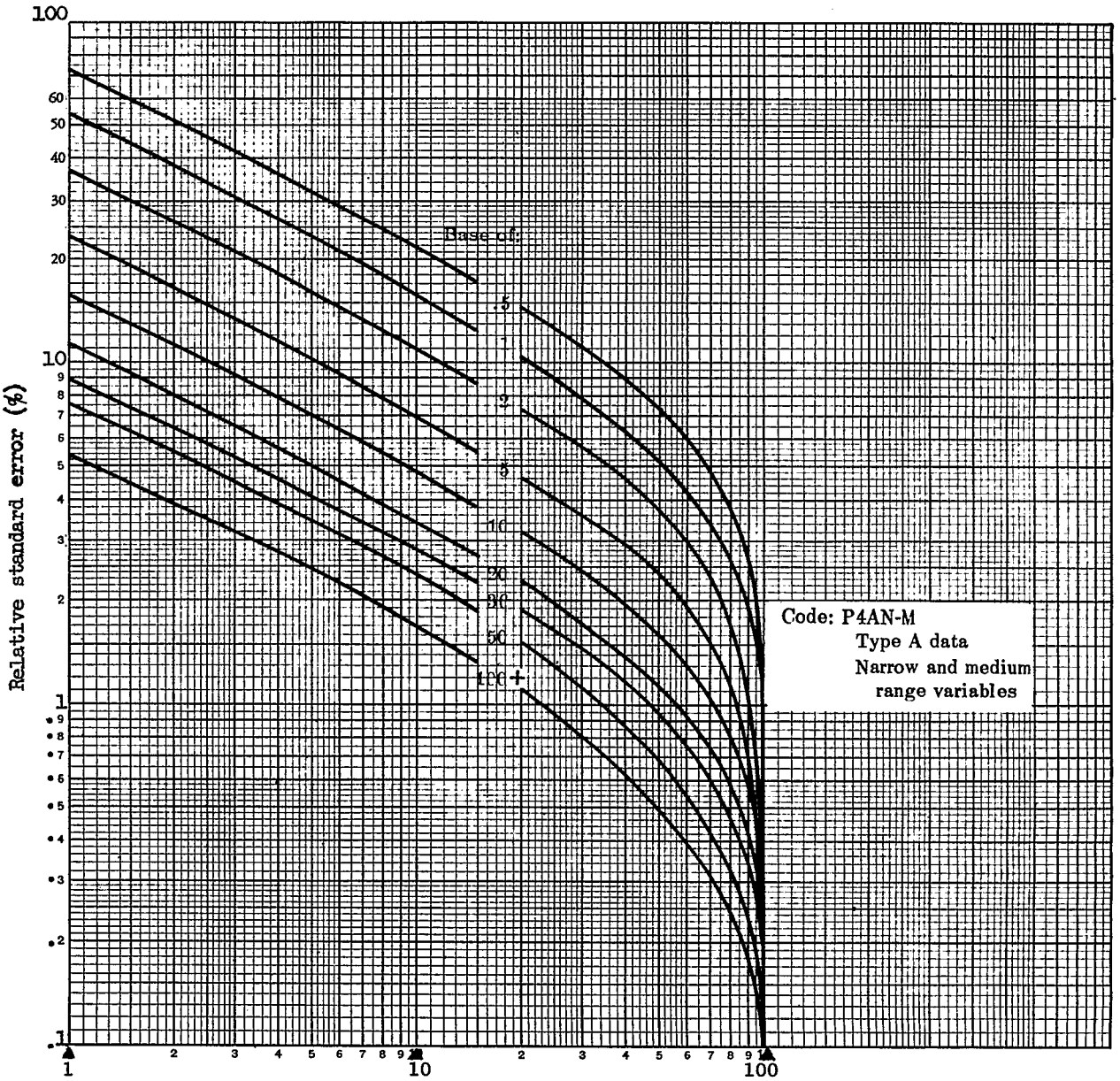
Relative standard errors for aggregates based on four quarters of data collection for data of all types and ranges



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).

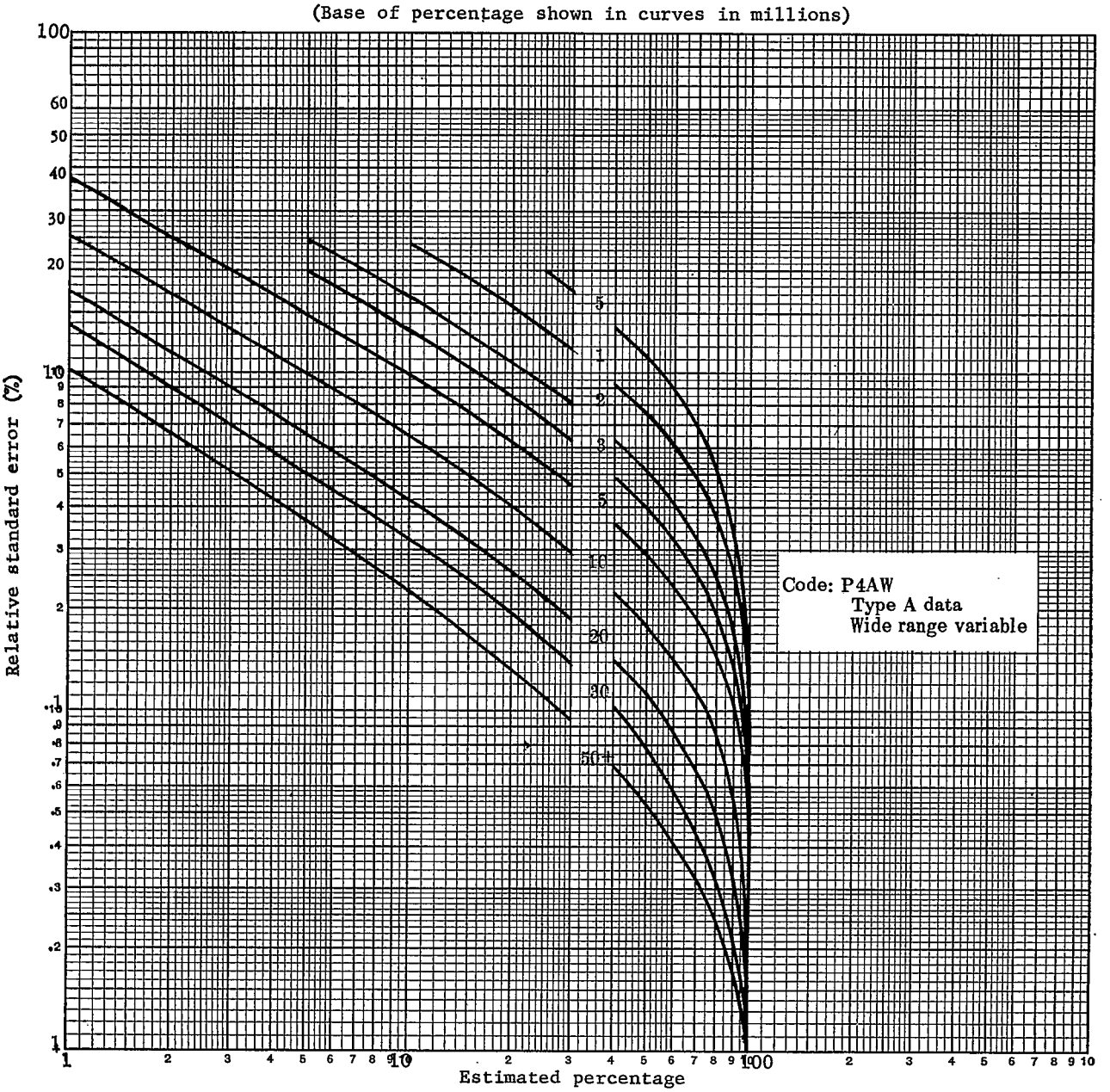
Relative standard errors for percentages based on four quarters of data collection for type A data, Narrow and Medium range

(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.

Relative standard errors for percentages based on four quarters of data collection for type A data, Wide range



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 4.0 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 is percentage points is equal to 20 percent X 4.0 percent or 0.80 percentage points.

APPENDIX II

DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

Terms Relating to Hospitalization and Surgical Convalescence

Hospital discharge.—A hospital discharge is the completion of any continuous period of stay of one or more nights in a hospital, as an inpatient, except the period of stay of a well, newborn infant. A hospital discharge is recorded whenever a present member of the household is reported to have been discharged from a hospital in the 12-month period prior to the interview week.

Hospital.—For this survey a hospital is defined as any institution meeting one of the following criteria: (1) named in the listing of hospitals in the 1957-1959 Guide Issues of Hospitals, the Journal of the American Hospital Association; (2) named in the listing of hospitals in the 1957-1960 Directories of the American Osteopathic Hospital Association; or (3) named in the annual inventory of hospitals and related facilities submitted by the States to the Division of Hospital and Medical Facilities of the U. S. Public Health Service in conjunction with the Hill-Burton program.

Type of hospital service.—Type of hospital service is a classification of hospitals according to the predominant type of cases for which they provide care. The category to which an individual hospital is assigned and the definition of these categories follows the usage of the American Hospital Association.

Short-stay hospital.—A short-stay hospital is one for which the type of service is: general; maternity; eye, ear, nose, and throat; children's; osteopathic hospital; or hospital department of institution.

Surgical operation.—A surgical operation includes any cutting or piercing of the skin or other tissue, stitching of cuts or wounds, and setting of fractures and dislocations. Deliveries are counted as operations. Injections and transfusions, however, are not included, nor are routine circumcisions.

Only operations performed in hospitals upon inpatients are included.

Operations are classified by type according to a condensed version of "Classification Codes for Surgical Operations and Procedures," published by the Bureau of Medical Services, Public Health Service, Department of Health, Education, and Welfare, September 1954.

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

Estimates of the total number of hospital days are derived by summing the days for all hospital discharges. (See definition of "Hospital discharge.")

Length of hospital stay.—The length of hospital stay is the duration in days, exclusive of the day of discharge, of a hospital discharge. (See definition of "Hospital discharge.")

Average length of hospital stay.—The average length of stay per discharged patient is computed by dividing the total number of hospital days for a specified group by the total number of discharges for the same group.

Length of postoperative hospital stay.—The length of postoperative hospital stay is the duration in days from the date of the operation, including the day of the operation, to the date of discharge from the hospital, exclusive of the day of discharge, of a hospital discharge. (See definition of "Hospital discharge.")

Average length of postoperative hospital stay.—The average length of postoperative hospital stay per discharged patient is computed by dividing the total number of postoperative hospital days for a specified group by the total number of hospital discharges for the same group.

Average length of preoperative hospital stay.—The average length of preoperative hospital stay is computed by subtracting the average length of postoperative hospital stay from the average length of hospital stay.

Posthospital convalescence.—Posthospital convalescence is the duration of convalescent days of a hospital discharge from the date the patient was discharged from the hospital, including the day of discharge from the hospital, to the date of return to usual full-time activity. The number of convalescent days is recorded for each completed hospitalization for all household members if an operation was performed, if a fracture or dislocation was set, or if the hospital stay included a delivery. (In this report the statistics are limited to six selected operations for patients, 6 years old and over.

who had only one operation during the hospital stay and who had returned to usual full-time activity.)

Estimates of the total number of posthospital convalescent days are derived by summing the days for all hospital discharges. (See definition of "Hospital discharge.")

Average duration of posthospital convalescence.—The average duration of posthospital convalescence per discharged patient is computed by dividing the total number of posthospital convalescent days for a specified group by the total number of hospital discharges for the same group.

Convalescence after surgery.—Convalescence after surgery is the duration of convalescent days of a hospital discharge from the date of the patient's operation, including the day of the operation, to the date the patient returned to his usual full-time activity. Total convalescent days for a hospital discharge can also be derived by summing his postoperative hospital days and his posthospital convalescent days. The total number of convalescent days is recorded for each completed hospitalization for all household members if an operation was performed, if a fracture or dislocation was set, or if the hospital stay included a delivery. (In this report the statistics are limited to six selected operations for hospital discharges, 6 years old and older, who had only one operation during the hospital stay and who had returned to their usual full-time activity.)

Estimates of the total number of convalescent days are derived by summing the total convalescent days for all hospital discharges. (See definition of "Hospital discharge".)

Average duration of convalescence after surgery.—The average duration of convalescence per discharged patient is computed by dividing the total number of convalescent days from date of operation (including the day of the operation) to date of return to usual full-time activity for a specified group by the total number of hospital discharges for the same group. Average duration of convalescence per discharged patient for a group can also be derived by summing the average length of postoperative hospital stay and the average duration of posthospital convalescence of the group.

Demographic, Social, and Economic Terms

Age.—The age recorded for each person is his age at last birthday. Age is recorded in single years and combined into groups suitable for the purpose of the table. (For this report, persons under 6 years of age are excluded.)

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 ending with the week of interview. Income from all sources is included, e.g., wages, salaries, rents from property, pensions, help from relatives, and so forth.

Usual activity status.—All persons 6 years old or over are classified according to their usual activity status during the 12-month period prior to the week of interview. The "usual" activity status, in case more than one is reported, is the one at which the person spent the most time during the 12-month period.

The categories of usual activity status are: usually working, usually going to school and preschool, usually keeping house, retired, and other. (For this report the category "retired" is combined with the category "other," and preschool children are excluded.) 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 status 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 one week. Finally, in the definitions of the specific categories which follow, certain marginal groups are classified in a different manner to simplify the procedures.

1. 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 gainfully employed.
2. Usually going to school and preschool.—This group is defined by age. All persons under 17 years of age fall into this category. (For this report persons under 6 years of age are excluded and the category "usually going to school" is defined as the age group 6-16 years.)
3. Usually keeping house includes any activity described as "keeping house" which cannot be classified as "working" or "going to school."
4. Retired includes persons 45 years old or over who consider themselves to be retired. In case of doubt, a person 45 years old or over 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 unable to work. (For this report the category "retired" is combined with the category "other".)

5. Other includes persons 17 years of age or over not classed in any of the other categories. Examples of inclusions are: a person who states that he spent most of the past 12 months looking for work or going to school, a person doing volunteer work only, a person under 45 years of age who describes himself as "retired" or "taking it easy," a person under 45 years of age who is described as "unable to work," or a person 45 years of age or over who describes himself as "unable to work" and is not "retired."

Resumed usual full-time activity after surgery.—A term applied to a person who has had a surgical operation, or delivery, and who has resumed doing the things he usually does to approximately the same degree as before the operation. For example, a worker who has returned to his job without physical restriction, a housewife who has taken up her domestic activities in the same way as before the operation, a child going to school on an unrestricted basis, etc.

Location of Residence Terms

Region.—For the purpose of classifying the population by geographic area, the States are grouped into four major regions. These regions, which correspond to those used by the Bureau of the Census, are as follows:

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

APPENDIX III

QUESTIONNAIRE

The items below show the exact content and wording of the basic questionnaire used in the nationwide household survey of the U. S. National Health Survey. The actual questionnaire is designed for a household as a unit and includes additional spaces for reports on more than one person, condition, accident or hospitalization. Such repetitive spaces are omitted in this illustration.

CONFIDENTIAL - The National Health Survey is authorized by Public Law 652 of the 84th Congress (70 Stat 489; 42 U.S.C. 305). All information which would permit identification of the individual will be held strictly confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any other purposes (22 FR 1687).

FORM NHS-4 (4-4-56)

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

NATIONAL HEALTH SURVEY

1. Questionnaire _____ of _____ Questionnaires

2. (a) Address or description of location

(b) Mailing address if not shown in (a)

3. Iden. Code	3a. Reg. office Code	4. Sub-sample weight	5. Sample	6. PSU Number	7. Segment No.	8. Serial No.

(c) Type of living quarters: ☐ Housing unit ☐ Other

(d) Name of Special Dwelling Place | Code

9. Is this house on a farm or ranch? ..... ☐ Yes ☐ No

L. Ask items 10 and 11 only, if "rural" box is checked: ☐ Rural ☐ All other

10. Do you own or rent this place? ☐ Own ☐ Rent ☐ Rent free

11. If "Own" or "rent free" in question 10, ask:
(a) Does this place have 10 or more acres?
If "rent" in question 10, ask:
(b) Does the place you rent have 10 or more acres?

☐ Yes → (c) During the past 12 months did sales of crops, livestock, and other farm products from the place amount to $50 or more? ☐ Yes ☐ No

☐ No → (d) During the past 12 months did sales of crops, livestock, and other farm products from the place amount to $250 or more? ☐ Yes ☐ No

12. Are there any other living quarters, occupied or vacant, in this building (apartment)? ..... ☐ Yes ☐ No

13. Does anyone else living in this building use YOUR ENTRANCE to get to his living quarters? ..... ☐ Yes ☐ No

INSTRUCTIONS FOR Q. 12, 13 AND 14

If "Yes," to questions 12, 13 or 14 apply definition of a housing unit to determine whether one or more additional questionnaires should be filled and whether the listing is to be corrected.

Ask at all units except apartment houses:

14. Is there any other building on this property for people to live in - either occupied or vacant? ..... ☐ Yes ☐ No

15. What is the telephone number here? _____ ☐ No phone

16. In case I've overlooked anything, what is the best time to call?

17. RECORD OF CALLS AT HOUSEHOLDS

Item		1	Com.	2	Com.	3	Com.	4	Com.	5	Com.
Entire household	Date / Time										
Callbacks for individual respondents	Col. No. _____ Date / Time										

18. REASON FOR NON-INTERVIEW

TYPE	A	B	C	Z
Reason:	☐ Refusal *(Fill item 19)* ☐ No one at home-repeated calls ☐ Temporarily absent ☐ Other *(Specify)* *Fill item 20*	☐ Vacant - non-seasonal ☐ Vacant - seasonal ☐ Usual residence elsewhere ☐ Armed Forces ☐ Other *(Specify)*	☐ Demolished ☐ In sample by mistake ☐ Eliminated in sub-sample ☐ Other *(Specify)*	Interview not obtained for: Cols. _____ _____ _____ because:

19. Reason for refusal

20. TYPE A FOLLOW-UP PROCEDURE

If final call results in a Type A non-interview (except Refusals) take the following steps:

1. Contact neighbors (caretakers, etc.) until you find someone who knows the family.
2. Find out the number of people in the household, their names and approximate ages; if names of all members not known, ascertain relationships. Record this information in the regular spaces inside the questionnaire.
3. Find out if anyone in the housing unit is now in a hospital as a patient; if so, which person it is. This is done by asking the following question:
4. Is anyone in the household now in the hospital? ☐ Yes ☐ No ☐ Don't know ☐ No contact made

(a) If "Yes,"--Who? (Enter name) _____ (Col. No.) _____

		Last name (1)	Last name (2)
1. (a) What is the name of the head of this household? (Enter name in first column)			
(b) What are the names of all other persons who live here? (List all persons who usually live here, and all persons staying here who have no usual place of residence elsewere. List these persons in the prescribed order.)			
(c) Do any (other) lodgers or roomers live here?	☐ No ☐ Yes (List) →		
(d) Is there anyone else who lives here who is now temporarily in a hospital?	☐ No ☐ Yes (List) →		
(e) Away on business?	☐ No ☐ Yes (List) →		
(f) On a visit?	☐ No ☐ Yes (List) →	First name and initial	First name and initial
(g) Is there anyone else staying here now?	☐ No ☐ Yes (List) →		
(h) Do any of the people in this household have a home elsewhere? ☐ No (leave on questionnaire) ☐ Yes (apply household membership rules; if not a member, delete)			
2. How are you related to the head of the household? (Enter relationship to head, for example: head, wife, daughter, grandson, mother-in-law, partner, lodger, lodger's wife, etc.)		Relationship Head	Relationship

3. How old were you on your last birthday?	Age _____ ☐ Under 1 year
4. Race (Check one box for each person)	☐ White ☐ Negro ☐ Other
5. Sex (Check one box for each person)	☐ Male ☐ Female
If 17 years old or over, ask: 6. Are you now married, widowed, divorced, separated or never married? (Check one box for each person)	☐ Under 17 years ☐ Married ☐ Divorced ☐ Widowed ☐ Separated ☐ Never married
If 17 years old or over, ask: 7. (a) What is the highest grade you attended in school? (Circle highest grade attended or check "None") (b) Did you finish the--grade (year)?	☐ Under 17 years Elem: 1 2 3 4 5 6 7 8 High: 1 2 3 4 College: 1 2 3 4 5+ ☐ None ☐ Yes ☐ No
If Male and 17 years old or over, ask: 8. (a) Did you ever serve in the Armed Forces of the United States? If "Yes," ask: (b) Are you now in the Armed Forces, not counting the reserves? (If "Yes," delete this person from questionnaire) →	☐ Fem. or und. 17 yrs ☐ Yes ☐ No ☐ Yes ☐ No
(c) Was any of your service during a war or was it peace-time only? If "War," ask: (d) During which war did you serve? If "Peace-time" only, ask: (e) Was any of your service between June 27, 1950 and January 31, 1955?	☐ War ☐ Peace-time only ☐ WW II ☐ Korean ☐ Other ☐ Yes ☐ No
If 17 years old or over, ask: 9. (a) What were you doing most of the past 12 months-- (For males): working, or doing something else? (For females): working, keeping house, or doing something else? If "Something else" checked, and person is 45 years old or over, ask: (b) Are you retired?	☐ Under 17 years ☐ Working ☐ Keeping house ☐ Something else ☐ Yes ☐ No
If "Working," in q. 9(a), ask: 10. (a) Were you working last week or the week before? If "Keeping house" or "Something else" in q. 9(a), ask: (b) Did you work at a job or business at any time last week or the week before? If "No," in q. 10(a) or 10(b), ask: (c) Even though you did not work last week or the week before, do you have a job or business?	☐ Under 17 years ☐ Yes ☐ No ☐ Yes ☐ No
NOTE: Determine which adults are at home and record this information. Beginning with question 11 you are to interview for himself or herself, each adult person who is at home.	☐ Under 17 years ☐ At home ☐ Not at home
11. Were you sick at any time LAST WEEK OR THE WEEK BEFORE? (That is, the 2-week period which ended last Sunday)? (a) What was the matter? (b) Anything else?	☐ Yes ☐ No
12. Last week or the week before did you take any medicine or treatment for any condition (besides...which you told me about)? (a) For what conditions? (b) Anything else?	☐ Yes ☐ No
13. Last week or the week before did you have any accidents or injuries? (a) What were they? (b) Anything else?	☐ Yes ☐ No
14. Did you ever have an (any other) accident or injury that was still bothering you last week or the week before? (a) In what way did it bother you? (b) Anything else?	☐ Yes ☐ No
15. AT THE PRESENT TIME do you have any ailments or conditions that have lasted for a long time? (If "No") Even though they don't bother you all the time? (a) What are they? (b) Anything else?	☐ Yes ☐ No
16. Has anyone in the family - you, your--, etc. - had any of these conditions DURING THE PAST 12 MONTHS? (Read Card A, condition by condition; record any conditions mentioned in the column for the person)	☐ Yes ☐ No
17. Does anyone in the family have any of these conditions? (Read Card B, condition by condition; record any conditions mentioned in the column for the person)	☐ Yes ☐ No
R For persons 17 years old or over, show who responded for(or was present during the asking of) questions 11-17. If person responded for self, show whether entirely or partly. For persons under 17 show who responded for them.	☐ Responded for self-entirely ☐ Responded for self-partly Col. No._____was respondent
18. (a) Has anyone in the family been in a hospital DURING THE PAST 12 MONTHS? If "Yes," (b) How many different times were you in the hospital overnight or longer?	☐ Yes ☐ No _____No. of times
19 (a) During the past 12 months has anyone in the family been a patient in a nursing home or sanitarium? If "Yes," (b) How many times were you in a nursing home or sanitarium?	☐ Yes ☐ No _____No. of times
20. If baby under one year listed as a household member, ask: (a) Was---baby born in a hospital or at home? If "hospital" in q. 20(a) and 1 or more in q. 18(b), ask: (b) Was this hospitalization included in the number you just gave me?	☐ Hospital ☐ Home ☐ Yes ☐ No

Table I - ILLNESSES, IMPAIRMENTS AND INJURIES

Line number	Col. No. of person	Question number	Did you EVER at any time talk to a doctor about ...?	Ask for all illnesses and present effects of old injuries: (a) If doctor talked to: What did the doctor say it was? --- did he give it a medical name? (b) If doctor not talked to: Record original entry and ask (d-2)-(d-5) as required. Ask for all injuries during past 2 weeks: What part of the body was hurt? What kind of injury was it? Anything else? (Also, fill Table A for all injuries)	What was the cause of...? (This column is to be asked if entry in Col. (d-1) is an Impairment or a Symptom or If entry in Col.(d-1) is from q. 14 or q.17) (If "Cause" is an injury, also fill Table A)	If eye trouble of any kind and 6 years old or over, ask: Can you see well enough to read ordinary newspaper print with glasses?	What kind of...is it? Ask only for: Any entry in Col. (d-1) or (d-2) that includes the words: Asthma "condition" Cysts "disease" Growths Tumor "trouble" For an allergy or stroke ask: How does the... effect you?	What part of the body is affected? Ask only for: Impairments; Injuries; and for: Abscesses, boils, infections, inflammation, sores, ulcers Aches, pains, soreness, weakness Bleeding or blood clots Cancer, tumor, cysts or growths Neuralgia or neuritis Virus Show detail for: Ear or eye - (one or both) Head - (Skull, scalp, face) Back - (Upper, middle, lower) Arm - (Shoulder, upper, elbow, lower, wrist, hand; one or both) Leg - (Hip, upper, knee, lower, ankle, foot; one or both)	LAST WEEK OR THE WEEK BEFORE did ...cause you to cut down on your usual activities for as much as a day? Check one: No / Yes	How many days, including the Saturdays and Sundays?	How many of these --days were you in bed all or most of the day?	If 6-16 years old ask: How many days did ...keep you from school last week or the week before?
	(a)	(b)	(c)	(d-1)	(d-2)	(d-3)	(d-4)	(d-5)	(e) (No)	(f) (Yes)	(g)	(h)	(i)
1			☐ Yes ☐ No		x	☐ Yes ☐ No	x	x			Days	____Days or ☐ None	____Days or ☐ None

Table II - HOSPITALIZATION DURING PAST 12 MONTHS

Line number	Col. No. of person	Question No.	When did you enter the hospital? (Month, year)	How many nights were you in the hospital?	To Interviewer: How many of these--nights were in the past 12 months?	To Interviewer: Will you need to ask cols. (f) and (g)?	To Interviewer: How many of these --nights were last week or the week before?	To Interviewer: Was this person still in the hospital on last Sunday night?	What did they say at the hospital the condition was--did they give it a medical name? (If "they" didn't say, ask): What did the last doctor you talked to say it was? (Show same detail as in cols. (d-1)-(d-5) of T.I) (If condition from accident or injury, also fill Table A)	Were any operations performed on you during this stay at the hospital? If "Yes," (a) What was the name of the operation? (b) Any other operations?
	(a)	(b)	(c)	(d)	(e)	(x)	(f)	(g)	(h)	(i)
1			Mo: ____ Yr: ____	____ Nights	☐ All or ____ Nights	☐ Yes ☐ No	____ Nights ☐ None	☐ Yes ☐ No		☐ Yes ☐ No
2			Mo: ____ Yr: ____	____ Nights	☐ All or ____ Nights	☐ Yes ☐ No	____ Nights ☐ None	☐ Yes ☐ No		☐ Yes ☐ No
3			Mo: ____ Yr: ____	____ Nights	☐ All or ____ Nights	☐ Yes ☐ No	____ Nights ☐ None	☐ Yes ☐ No		☐ Yes ☐ No

X-RAY QUESTIONS

21. (a) We are interested in all kinds of X-rays - Did you have your teeth X-rayed during the past 3 months--(that is, from--through last Sunday)? If "Yes," (b) How many times?	☐ Yes ☐ No No. of times ____	☐ Yes ☐ No No. of times ____
22. During the past 3 months did you have a CHEST X-ray?	☐ Yes-Chest ☐ No	☐ Yes-Chest ☐ No
23. (a) Did you have any (other) kind of X-ray at all during the past 3 months? If "Yes," (b) What part of the body was X-rayed?	☐ Yes ☐ No Part(s) of body:	☐ Yes ☐ No Part(s) of body:

Table X - FILL ONE LINE FOR EACH PART OF BODY ENTRY FROM QUESTIONS 22-25

Line number	Col. No. of person	Question No.	Part of body	How many different times did you have your... X-rayed during the past 3 months?	Where did you have the X-ray(s)? How many X-rays were at the (hospital, doctor's office, etc.)?	What was this X-ray(s) for--a check-up or an examination or for treatment?	If "both" in col. (f) ask: How many of these... X-ray(s) were for treatment?	If "both" or "treatment" in col. (f) ask: For what condition were you being treated?
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1					Hospital ____ Dr. office ____ Other ____	☐ Check-up/examination ☐ Treatment ☐ Both		
2					Hospital ____ Dr. office ____ Other ____	☐ Check-up/examination ☐ Treatment ☐ Both		
3					Hospital ____ Dr. office ____ Other ____	☐ Check-up/examination ☐ Treatment ☐ Both		

26. During the past 12 months in which group did the total income of your family fall, that is, your's, your--'s, etc.? (Show Card H) Include income from all sources, such as wages, salaries, rents from property, pensions, help from relatives, etc.	Group No.	Group No.

Table I - ILLNESSES, IMPAIRMENTS AND INJURIES

If 17 years old or over and if "Yes" in q. 10(a), 10(b) or 10(c), ask: How many days did ...keep you from work last week or the week before? (j)	Did you first notice... (did it happen) DURING THE PAST 3 MONTHS or before that time? Check one: Before 3 mos. (Go to Col. (n)) (k)	During 3 mos. → (l)	Did ... start during the past 2 weeks or before that time? (If during past 2 weeks, ask): Which week, last week or the week before? (m)	To Interviewer: CONTINUE if col. (k) is checked, or the condition is on Card A or is an impairment; otherwise, STOP (n-a)	Did you first notice... DURING THE PAST 12 MONTHS or before that time? (n)	How long since you last talked to a doctor about...? (If less than one month, enter "Und. 1" for "Mo.") (o)	Do you still take any medicine or treatment that the doctor prescribed for..? Or, follow any advice he gave? (p)	About how many days during the past 12 months, has... kept you in bed for all or most of the day? (q-1)	If 1 or more days in col. (q-1) and col. (e) is checked, ask: How many of these days were during last week or the week before? (q-2)	Ask after completing last condition, for each person: Please look at this card and read each statement. Then tell me which statement fits you best, in terms of health. (Show Cards C-F, as appropriate) (r)	If "1," "2" or "3" in col. (e): Is this because of any of the conditions you have told me about? (s)	If "Yes" in col. (s): Which? (Enter X on line for each condition named) (t)	If "1" or "2" in col. (r) ask: How long have you been ...? (Insert the words of the statement selected) (u)	If 17 years old or over, ask: Were you working at a job or business up to that time? (v)	If "1," or "2" or "3" in col. (r) ask: Please look at this card and read each statement. Then tell me which statement fits you best. (Show Card G) (w)	Line number
___Days or ☐ None			☐ Last week ☐ Week before ☐ Before 2 wks		☐ During past 12 months ☐ Before ☐ Birth	___Mos. ___Yrs. ☐ No Dr.	☐ Yes ☐ No ☐ No Dr.	___Days or ☐ None	___Days or ☐ None		☐ Yes ☐ No		___Mos. ___Yrs.	☐ Yes ☐ No ☐ Und. 17		1

Table II - HOSPITALIZATION DURING PAST 12 MONTHS

For completed hospitalizations ("No" in Col. (g)) of persons 6 years old and over who show an operation, a setting of a fracture, or a delivery in Cols. (h) or (i):

How many nights were you in the hospital, before you had your operation (delivery, etc.)? (j)	After you left the hospital, how many days was it before you returned to your usual activities full-time? (k)	If "still unable" in (k), ask: How long has it been since you left the hospital? (l)	What is the name and address of the hospital you were in? (Enter name, city and State; if city not known, enter county) (m)
No. of nights_____	No. of days_____ ☐ Still unable	☐ Over 6 months If under 6 months: _____Days_____ Months:	
No. of nights_____	No. of days_____ ☐ Still unable	☐ Over 6 months If under 6 months: _____Days_____Months:	
No. of nights_____	No. of days_____ ☐ Still unable	☐ Over 6 months If under 6 months: _____Days_____Months:	

X-RAY QUESTIONS

24. (a) During the past 3 months, did anyone in the family have any X-rays for the treatment of a condition?	☐ Yes ☐ No	☐ Yes ☐ No
If "Yes," (b) What part of the body was treated?	Part(s) of body:	Part(s) of body:
(c) Was this included in the X-ray(s) you told me about before?	☐ Yes ☐ No	☐ Yes ☐ No
25. (a) Did anyone in the family have a fluoroscope during the past 3 months?	☐ Yes ☐ No	☐ Yes ☐ No
If "Yes," (b) What part of the body was this for?	Part(s) of body:	Part(s) of body:
(c) Was this included in the X-ray(s) you told me about before?	☐ Yes ☐ No	☐ Yes ☐ No

Table X - FILL ONE LINE FOR EACH PART OF BODY ENTRY FROM QUESTIONS 22-25

Ask for each person with 2 or more lines in Table X:
(Ask after all X-rays have been recorded through cols. (a)-(h) of Table X for a person)

FOOTNOTES

Were any of these... X-rays you told me about taken at the same time?
If "Yes," Which X-rays were these? (i)

No (Skip)	Yes →	Enter information below for X-rays taken at same time:			
		Part(s) of body:	No.	Part(s) of body:	No.
		Part(s) of body:	No.	Part(s) of body:	No.
		Part(s) of body:	No.	Part(s) of body:	No.

Group No.	Group No.	Group No.	Group No.	Group No.

Table A - (Accidents and Injuries)

Line No. from Table I

Accident happened last week or week before *(Go to q. 3)*

1. When did the accident happen?

Year: _____

(If 1960 or 1961 also enter the month)

Month: _____

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

Part(s) of body	Kind of injury(s)

3. (a) Was a car, truck, bus or other motor vehicle involved in the accident in any way? ☐ Yes ☐ No *(Go to Section B)*

(b) Was more than one motor vehicle involved? ☐ Yes (more than one) ☐ No

(c) Was it (either one) moving at the time? ☐ Yes ☐ No *(Go to Section B)*

4. Were you outside the vehicle, getting in or out of it, a passenger or were you the driver? 1. ☐ Outside *(Go to Section A q.5)* 2. ☐ Getting in or out 3. ☐ Passenger 4. ☐ Driver *(Go to Section A q. 6)*

Section A - (Motor Vehicle Accidents)

If "Outside" in q. 4, ask:

5. (a) How did the accident happen?

1. ☐ Accident between motor vehicle and person riding on bicycle, in streetcar, on railroad train, on horse-drawn vehicle
2. ☐ Accident between motor vehicle and person who was walking, running, or standing
3. ☐ Other *(Specify how the accident happened)*

_____

_____

(b) What kind(s) of motor vehicle was involved?

1. ☐ Car 2. ☐ Taxi 3. ☐ Bus
4. ☐ Truck 5. ☐ Motorcycle 6. ☐ Other *(Specify)*

_____

If "Getting in or out" "Passenger" or "Driver," in q. 4, ask:

6. (a) How did the accident happen?

1. ☐ Accident between two or more motor vehicles on roadway
2. ☐ Accident between motor vehicle and some other object on roadway

*(Specify object)*_____

3. ☐ Motor vehicle came to sudden stop on roadway
4. ☐ Motor vehicle ran off roadway
5. ☐ Other *(Specify how the accident happened)*

_____

_____ ☐ Acc. on roadway

_____ ☐ Acc. not on roadway

(b) What kind of motor vehicle were you in (getting in) (getting out of) when the accident happened?

1. ☐ Car 2. ☐ Taxi 3. ☐ Bus
4. ☐ Truck 5. ☐ Motorcycle 6. ☐ Other *(Specify)*

_____

Section B - (Non-Motor Vehicle Accidents)

7. How did the accident happen?

A.1. ☐ Any injury involving an uncontrolled fire or explosion
2. ☐ Any injury involving the discharge of a firearm
3. ☐ Any injury from an accident involving a non-motor vehicle in motion (streetcar, railroad train, airplane, boat, bicycle, horse-drawn vehicle)

B.4. ☐ Any injury caused by machinery (belt or motor driven) while in operation

*(Specify kind of machinery)*_____

5. ☐ Any injury caused by edge or point of knife, scissors, nail or other cutting or piercing implement
6. ☐ Any injury caused by foreign body in eye, windpipe, or other orifices
7. ☐ Any injury caused by animal or insect
8. ☐ Any injury caused by poisonous substance swallowed *(Specify substance)*_____

C.9. ☐ Fell on stairs or steps or from a height
10. ☐ All other falls
11. ☐ Bumped into object or person (covers all collisions between persons including striking, punching, kicking, etc.)
12. ☐ Struck by moving object (include objects held in own hand or hand of other person, also falling, flying, or thrown objects)
13. ☐ Handling or stepping on sharp or rough objects such as stones, splinters, broken glass, rope,etc.
14. ☐ Caught in, pinched or crushed between two moving objects or between a moving and a stationary object
15. ☐ Came in contact with hot object or substance or open flame
16. ☐ One-time lifting or other one-time exertion
17. ☐ Twisting, stumbling, etc.

D.18. ☐ Other *(Specify how accident happened)*_____

_____

_____

_____

_____

ASK FOR ALL ACCIDENTS

8. (a) Where did the accident happen--at home or some other place?

1. ☐ At home (inside house) 2. ☐ At home (adjacent premises) ☐ Some other place

If "Some other place," ask:

(b) What kind of place was it?

3. ☐ Street and highway (includes roadway) 6. ☐ School (includes school premises)
4. ☐ Farm 7. ☐ Place of recreation and sports, except at school
5. ☐ Industrial place (includes premises) 8. ☐ Other *(Specify the place where accident happened)*_____

9. Were you at work at your job or business when the accident happened?

1. ☐ Yes 2. ☐ No 3. ☐ While in Armed Services 4. ☐ Under 17 at time of accident

FOOTNOTES AND COMMENTS

Card A

NATIONAL HEALTH SURVEY

Check List of Chronic Conditions

1. Asthma
2. Tuberculosis
3. Chronic bronchitis
4. Repeated attacks of sinus trouble
5. Rheumatic fever
6. Hardening of the arteries
7. High blood pressure
8. Heart trouble
9. Stroke
10. Trouble with varicose veins
11. Hemorrhoids or piles
12. Hay fever
13. Tumor, cyst or growth
14. Chronic gallbladder or liver trouble
15. Stomach ulcer
16. Any other chronic stomach trouble
17. Kidney stones or chronic kidney trouble
18. Arthritis or rheumatism
19. Mental illness
20. Diabetes
21. Thyroid trouble or goiter
22. Any allergy
23. Epilepsy
24. Chronic nervous trouble
25. Cancer
26. Chronic skin trouble
27. Hernia or rupture
28. Prostate trouble

Card B

NATIONAL HEALTH SURVEY

Check List of Selected Impairments

1. Deafness or serious trouble with hearing
2. Serious trouble with seeing, even when wearing glasses
3. Cleft palate
4. Any speech defect
5. Missing fingers, hand, or arm --- toes, foot, or leg
6. Palsy
7. Paralysis of any kind
8. Repeated trouble with back or spine
9. Club foot
10. Permanent stiffness or any deformity of the foot, leg, fingers, arm or back
11. Any condition present since birth

Card C

NATIONAL HEALTH SURVEY

For:
Workers and other persons except Housewives and Children

1. Not able to work at all.
2. Able to work but limited in amount of work or kind of work.
3. Able to work but limited in kind or amount of other activities.
4. Not limited in any of these ways.

Card D

NATIONAL HEALTH SURVEY

For: Housewife

1. Not able to keep house at all.
2. Able to keep house but limited in amount or kind of housework.
3. Able to keep house but limited in kind or amount of other activities.
4. Not limited in any of these ways.

Card E

NATIONAL HEALTH SURVEY

For:
Children from 6 through 16 years old

1. Not able to go to school at all.
2. Able to go to school but limited to certain types of schools or in school attendance.
3. Able to go to school but limited in other activities.
4. Not limited in any of these ways.

Card F

NATIONAL HEALTH SURVEY

For: Children under 6 years old

1. Not able to take part at all in ordinary play with other children.
2. Able to play with other children but limited in amount or kind of play.
4. Not limited in any of these ways

Card G

NATIONAL HEALTH SURVEY

1. Confined to the house all the time, except in emergencies.
2. Able to go outside but need the help of another person in getting around outside
3. Able to go outside alone but have trouble in getting around freely.
4. Not limited in any of these ways.

Card H

NATIONAL HEALTH SURVEY

Family income during past 12 months

Group 1. Under $500 (Including loss)
Group 2. $500 - $999
Group 3. $1,000 - $1,999
Group 4. $2,000 - $2,999
Group 5. $3,000 - $3,999
Group 6. $4,000 - $4,999
Group 7. $5,000 - $6,999
Group 8. $7,000 - $9,999
Group 9. $10,000 and over

* U. S. GOVERNMENT PRINTING OFFICE : 1963 O - 691-860

OUTLINE OF REPORT SERIES FOR VITAL AND HEALTH STATISTICS

Public Health Service Publication No. 1000

SERIES 1-4. GENERAL SERIES. Program descriptions, methodological research, and analytical studies of vital and health statistics. Earlier reports of this kind have appeared in "Vital Statistics–Special Reports" and in "Health Statistics from the National Health Survey," Series A and D, PHS Publication No. 584.

Series 1: Programs and collection procedures.– Reports which describe the general programs of the National Center for Health Statistics and its offices and divisions, data collection methods used, definitions, and other material necessary for understanding of the technical characteristics of published data.

Series 2: Data evaluation and methods research.–Studies of new statistical methodology including: experimental tests of new survey methods, studies of vital statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, contributions to statistical theory.

Series 3: Analytical Studies.–This series comprises reports presenting analytical or interpretive studies based on vital and health statistics.

Series 4: Documents and committee reports.– Final reports of major committees concerned with vital and health statistics and documents such as recommended model vital registration laws and revised birth and death certificates.

SERIES 10-12. DATA FROM THE NATIONAL HEALTH SURVEY

Earlier reports of the kind appearing in Series 10 have been issued as "Health Statistics from the National Health Survey," Series B and C, PHS Publication No. 584.

Series 10: Statistics on illness, accidental injuries, disability, use of hospital, medical, dental, and other services, and other health-related topics, based on data collected in the continuing National Health Interview Survey.

Series 11: Data from the Health Examination Survey based on the direct examination, testing, and measurement of national samples of the population of the United States, including the medically defined prevalence of specific diseases, and distributions of the population with respect to various physical and physiological measurements.

Series 12: Data from the Health Records Survey relating to the health characteristics of persons in institutions, and on hospital, medical nursing, and personal care received, based on national samples of establishments providing these services and samples of the residents of patients, or of records of the establishments.

SERIES 20-23. DATA FROM THE NATIONAL VITAL STATISTICS SYSTEM

Earlier reports of this kind have been issued in "Vital Statistics–Special Reports."

Series 20: Various reports on mortality, tabulations by cause of death, age, etc., time series of rates, data for geographic areas, States, cities, etc.–other than as included in annual or monthly reports.

Series 21: Data on natality such as birth by age of mother, birth order, geographic areas, States, cities, time series of rates, etc.–compilations of data not included in the regular annual volumes or monthly reports.

Series 22: Data on marriage and divorce by various demographic factors, geographic areas, etc.–other than that included in annual or monthly reports.

Series 23: Data from the program of sample surveys related to vital records. The subjects being covered in these surveys are varied including topics such as mortality by socioeconomic classes, hospitalization in the last year of life, X-ray exposure during pregnancy, etc.

Catalog Card

U.S. National Center for Health Statistics

Length of convalescence after surgery, United States, July 1960-June 1961. Statistics on the length of convalescence after tonsillectomy, appendectomy, hernia operation, hemorrhoidectomy, hysterectomy, and delivery other than Cesarean, by age, sex, usual activity, and family income. Based on data collected in household interviews during the period July 1960-June 1961. Washington, U.S. Dept. of Health, Education, and Welfare. Public Health Service, 1963.

47 p. diagrs., tables. 27cm. (*Its* Vital and Health Statistics, Series 10, no. 3)
U.S. Public Health Service. Publication no. 1000, Series 10, no. 3

1. Convalescence. 2. Surgery - Cases, clinical reports, statistics. I. Title.
II. Series: U.S. Public Health Service. Publication no. 1000, Ser. 10, no. 3.

Cataloged by Department of Health, Education, and Welfare Library.