

**VITAL and HEALTH STATISTICS**  
DATA FROM THE NATIONAL HEALTH SURVEY

# Proportion of Surgical Bill Paid by Insurance

## Surgical Patients Discharged From Short-Stay Hospitals

**United States - July 1963 - June 1964**

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Statistics on proportion of surgical bill paid by insurance and interval of stay for surgical patients discharged from short-stay hospitals, by sex, age, residence, geographic region, color, family income, education of head of family, usual activity status, and type of hospital. Based on data collected in household interviews during the period July 1963-June 1964.

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Washington, D.C.

September 1966

U.S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE  
John W. Gardner  
Secretary

Public Health Service  
William H. Stewart  
Surgeon General



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

In accordance with specifications established by the 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.

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*IN THIS REPORT data are presented on the characteristics of surgically treated persons discharged from short-stay hospitals during the year prior to the date of interview. In the detailed tables information is shown on the proportion of the surgical bill paid for by insurance for those persons who had operations performed in the hospital and on the type of surgical treatment they received.*

*An earlier report, "Health Insurance Coverage, United States, July 1962-June 1963" (Vital and Health Statistics, Series 10, No. 11) provided information on the extent of surgical insurance coverage in the population. The present report deals with the utilization of surgical insurance and the proportion of the total surgical bill covered by insurance.*

*This report, based on data collected during July 1963-June 1964, shows that approximately 13.6 million operations were performed on 12.8 million persons discharged from short-stay hospitals. About two-thirds of these people reported using insurance to pay for all or part of the surgical treatment. About two out of every five surgically treated persons reported that insurance covered three-fourths or more of the surgeon's fee.*

#### 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<br>reliability or precision----- | *   |

# PROPORTION OF SURGICAL BILL PAID BY INSURANCE

Mary M. Hannaford, *Division of Health Interview Statistics*

## SELECTED FINDINGS

Data collected during July 1963-June 1964 show that approximately 13.6 million operations were performed on 12.8 million persons discharged from short-stay hospitals. About two-thirds of these people reported that insurance paid for all or part of their surgical treatment. About two out of every five surgically treated persons reported that three-fourths or more of the surgeon's fee was paid for by insurance.

Deliveries, which are considered as surgical procedures in Health Interview Survey data, represented about 28.0 percent of the operations performed. A relatively low proportion of the deliveries were even partially covered by surgical insurance (49.1 percent). However, tonsillec-tomies and adenoidectomies, which represented only 8.7 percent of the operations, were covered to some extent by surgical insurance in 83.9 percent of the cases. Approximately four out of every five of these operations were performed on children under 15 years of age.

Generally, the proportion of surgically treated hospitalized persons who utilized surgical insurance varied by both sex and age. The inclusion of deliveries as operations accounted for a major part of the difference in percentages between males and females. When deliveries were excluded, however, the two percentages were quite comparable. Approximately 75.8 percent of the males used surgical insurance as compared with 63.8 percent of the females when deliveries were included and 74.9 percent of the females when deliveries were excluded.

The highest percentages of surgically treated persons who had some part of the bill paid by surgical insurance were found among children under 15 years of age (79.7 percent) and among adults 35-64 years of age (77.8 percent). Because such a small percentage of deliveries were covered by insurance, a comparatively small proportion of the population 15-34 years of age reported the use of surgical insurance. However, 64.5 percent of the persons 25-34 years reported the use of surgical insurance, while only 51.4 percent of those 15-24 years had any proportion of the surgical treatment paid by insurance. In addition to a large number of deliveries occurring to this age group, the exclusion of young people from family policies during the age span 15-24 may have accounted for the low percentage of insurance utilization in this group. Only about 55.5 percent of the hospitalized persons 65 years or older used surgical insurance. This low percentage is probably related to the low coverage status of persons in this age group.

Although a direct relationship existed between family income and the percentage of persons using insurance to pay for surgical treatment, this relationship was largely a result of the financial ability to obtain insurance coverage. The percentage of persons using surgical insurance to pay all or part of their surgical costs increased with increasing incomes, ranging from 33.8 percent for those discharged from hospitals in families with annual incomes of less than \$2,000 to 81.0 percent for those in families with annual incomes of \$7,000 or more.

## SOURCE AND QUALIFICATION OF DATA

The information contained in this publication is derived from household interviews conducted by the Health Interview Survey in cooperation with the U.S. Bureau of the Census in a probability sample of the civilian, noninstitutional population of the United States. The sample is designed so that interviews are conducted during every week of the year. For the 52-week period July 1963-June 1964, the sample was composed of approximately 42,000 households containing about 134,000 persons living at the time of the interview.

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

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

Table II of the questionnaire, from which information about the proportion of the surgical bill paid by insurance was obtained, is reproduced in Appendix III. The complete questionnaire used during July 1963-June 1964 is illustrated in *Vital and Health Statistics*, Series 10, No. 13.

A general limitation to all data obtained in household interviews is that the data are no better than the respondent's knowledge of and ability to recall the correct answers to specific questions. The estimates in this report are based upon the number of surgically treated patients who were discharged from short-stay hospitals during the 6-month period prior to the interview. Although

the 6-month-recall period was used to reduce bias due to faulty memory, 2.7 percent of the surgically treated persons indicated that they did not know when asked "Was any part of the surgeon's (doctor's) bill paid by any kind of insurance?" To compute the percentages shown in this report only those patients from whom a "yes" or "no" answer was obtained to the basic question were included. This procedure, in effect, distributed the hospital discharges from whom no information was obtained in the same manner as the discharges from whom information was obtained.

Of the total surgically treated persons, 4.8 percent of the respondents knew that some portion of the surgical bill had been paid for by insurance but they did not know how much. These "unknowns" were allocated among the discharges for whom a definite fraction of the bill was reported as paid for by insurance.

The percentages shown in the tables were computed after the two types of unknown data discussed above were distributed. Because the derived estimates were rounded to the nearest thousand before the percentages were computed, a total percentage may not necessarily equal the sum of its parts.

The detailed tables of this report (tables 1-11) show the number of surgically treated discharges and the percent of these persons with any part of the surgeon's bill paid for by insurance according to the proportion paid. In table A the persons with *any* part of the surgeon's bill paid by insurance are distributed by the proportion paid.

A companion report (*Vital and Health Statistics*, Series 10, No. 30) presents statistics on the volume of hospital discharges from short-stay hospitals. That report includes hospital experience from health interviews as well as hospital experience of persons who died prior to the time of interview.

## INTRODUCTION

Information in this report, based on data collected in health interviews conducted by the Bureau of the Census for the National Center for Health Statistics during July 1963-June 1964, refers to surgically treated persons discharged from short-stay hospitals who were alive at

Table A. Percent distribution of surgically treated discharges from short-stay hospitals with any part of surgeon's bill paid for by insurance, by proportion of payment according to selected characteristics: United States, based on data collected July 1963-June 1964

| Characteristic  | Proportion of surgeon's bill paid for by insurance |           |         |      |
|---|--|-----------|---------|------|
|   | Any part <sup>1</sup>                              | Under 1/2 | 1/2-3/4 | 3/4+ |
| Percent distribution of surgically treated discharges |  |           |         |      |
| Total-----  | 100.0  | 15.3      | 24.4    | 60.3 |
| <u>Age</u>  |  |           |         |      |
| Under 15 years-----                                   | 100.0  | 12.8      | 23.8    | 63.4 |
| 15-24 years-----                                      | 100.0  | 14.2      | 25.9    | 59.9 |
| 25-34 years-----                                      | 100.0  | 20.9      | 27.1    | 51.9 |
| 35-44 years-----                                      | 100.0  | 12.0      | 24.4    | 63.6 |
| 45-54 years-----                                      | 100.0  | 11.3      | 23.7    | 65.1 |
| 55-64 years-----                                      | 100.0  | 12.7      | 19.9    | 67.4 |
| 65-74 years-----                                      | 100.0  | 26.1      | 18.4    | 55.5 |
| 75 years and over-----                                | 100.0  | 29.1      | 30.5    | 40.0 |
| <u>Sex</u>  |  |           |         |      |
| Male-----   | 100.0  | 12.0      | 22.2    | 65.7 |
| Female, including delivery-----                       | 100.0  | 17.1      | 25.5    | 57.5 |
| Female, excluding delivery-----                       | 100.0  | 14.6      | 22.8    | 62.6 |
| <u>Family income</u>                                  |  |           |         |      |
| Under \$2,000-----                                    | 100.0  | 16.3      | 24.6    | 58.9 |
| \$2,000-\$3,999-----                                  | 100.0  | 15.1      | 21.6    | 63.3 |
| \$4,000-\$6,999-----                                  | 100.0  | 14.7      | 25.5    | 59.7 |
| \$7,000-\$9,999-----                                  | 100.0  | 13.6      | 26.0    | 60.5 |
| \$10,000 and over-----                                | 100.0  | 19.5      | 22.1    | 58.5 |
| <u>Education of head of family</u>                    |  |           |         |      |
| Under 5 years-----                                    | 100.0  | 14.8      | 24.9    | 60.6 |
| 5-8 years-----  | 100.0  | 13.1      | 23.1    | 63.7 |
| 9-12 years-----                                       | 100.0  | 15.9      | 22.6    | 61.6 |
| 13 years and over-----                                | 100.0  | 15.8      | 29.9    | 54.2 |
| <u>Region</u>   |  |           |         |      |
| Northeast-----  | 100.0  | 15.2      | 20.0    | 64.8 |
| North Central-----                                    | 100.0  | 15.2      | 23.5    | 61.3 |
| South-----  | 100.0  | 16.0      | 29.8    | 54.3 |
| West-----   | 100.0  | 14.8      | 25.0    | 60.2 |
| <u>Residence</u>                                      |  |           |         |      |
| SMSA-----   | 100.0  | 16.3      | 24.6    | 59.1 |
| Outside SMSA-nonfarm-----                             | 100.0  | 12.6      | 24.5    | 62.9 |
| Outside SMSA-farm-----                                | 100.0  | 18.1      | 20.1    | 61.6 |
| <u>Color</u>  |  |           |         |      |
| White-----  | 100.0  | 15.5      | 24.8    | 59.6 |
| Nonwhite-----   | 100.0  | 10.7      | 17.9    | 71.7 |
| <u>Usual activity status</u>                          |  |           |         |      |
| Preschool-----  | 100.0  | 14.9      | 25.7    | 59.4 |
| School-----   | 100.0  | 11.1      | 23.3    | 65.6 |
| Usually working-----                                  | 100.0  | 11.2      | 24.0    | 64.8 |
| Keeping house-----                                    | 100.0  | 19.4      | 26.1    | 54.7 |
| Retired-----  | 100.0  | 24.3      | 20.9    | 54.4 |
| Other-----  | 100.0  | 15.8      | 15.1    | 69.1 |

<sup>1</sup>Total of percents by proportion of payment may not equal 100.0 percent because of allocation of unknowns in data.

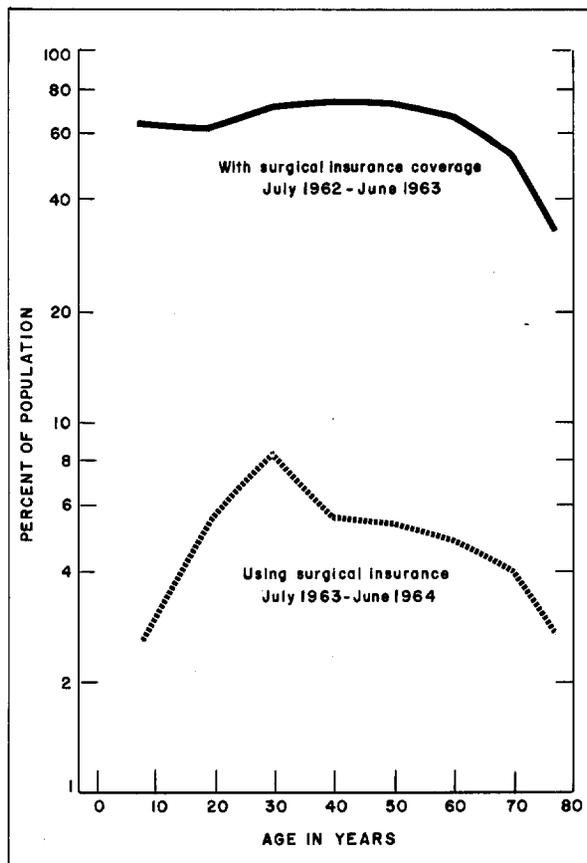


Figure 1. Comparison of percent of population with surgical insurance coverage during July 1962-June 1963 with percent of population using surgical insurance during July 1963-June 1964, by age.

the time of the interview and for whom some or all of the surgeon's (or doctor's, if a delivery was performed) bill was paid for by insurance or would be paid for by insurance. Surgical treatment for these discharges is limited to operations performed on inpatients in short-stay hospitals. A surgical operation included any cutting or piercing of the skin or other tissue; stitching of cuts or wounds; the setting of fractures and dislocations; and the introduction of tubes for drainage, "tapping," and terms ending in "scopy." Deliveries were also included as operations.

In a previous publication, "Health Insurance Coverage" (Series 10, No. 11), data collected

during July 1962-June 1963 are presented on the extent of surgical insurance coverage for the noninstitutionalized, civilian population. The data in the present report deal primarily with the surgically treated patients who had some proportion of the surgeon's bill paid for by insurance. Comparison of the two reports shows the relationship of the availability of surgical insurance for payment of surgeon's fees for various population groups with the actual utilization of surgical insurance by these groups. For instance, during July 1962-June 1963 about 65.2 percent of the population reported having surgical insurance coverage, while during July 1963-June 1964 approximately 4.7 percent of the total population not in the military service or residing in institutions used insurance to pay for surgical treatment. Even though the coverage pattern in the earlier year may have changed somewhat during 1964, it is estimated that during a year 1 out of every 13 persons with surgical insurance coverage used the insurance to pay for surgical treatment.

Figure 1<sup>1</sup> presents the patterns of the percentages of the population by age who reported that they had surgical insurance coverage during July 1962-June 1963 and that for those who reported that they had used surgical insurance to pay surgeons' fees for services rendered during July 1963-June 1964. In general, for persons 35 years and over the age curve for the population who used surgical insurance to pay surgeons' fees during July 1963-June 1964 is quite similar to that for people who had surgical insurance coverage available during July 1962-June 1963. However, relatively few children under 15 years of age had surgery paid for by insurance during July 1963-June 1964 although a large number of them were covered by family policies; a proportionately large number of people 15-24 years of age used surgical insurance during July 1963-June 1964, while a comparatively small proportion of this population group had insurance available for surgery in the previous year. Children are often dropped from family policies at about

<sup>1</sup>Figure 1 has been plotted on a semilogarithmic scale so that visual comparisons of rates of change within and between may be made. If two curves are parallel to each other, they have the same rate of increase or decrease. If a curve is horizontal, it has zero rate of change.

19 years of age, and many of these young people do not immediately purchase insurance for themselves. Also the large number of deliveries recorded for the age group 15-24 years inflated the percent of the population who used surgical insurance. Some insurance policies exclude coverage for deliveries entirely or else provide coverage for deliveries only after a policy has been in effect for a stipulated period of time. These restrictions lowered the percentage of people who used surgical insurance to pay some part of the doctor's fee for delivery. These people did, however, report surgical insurance coverage. This same phenomenon occurred among females 25-34 years, but in this age group a larger percentage was covered by policies which had been in effect long enough so that some part of the delivery cost was paid for by insurance. Because of the special restrictions related to deliveries, some of the data in the text and tables of this report exclude deliveries so that better comparisons can be made with data presented in the earlier report (Series 10, No. 11).

The reader should bear in mind that certain forms of financial protection against the costs of surgical care are not included as insurance. For example, military dependents covered by Armed Forces medical care, veterans who have had surgery in Federal hospitals, and people receiving financial assistance for their surgery under other plans or programs would be included in this report as having had surgery but no part of the bill would be reported as having been paid for by surgical insurance.

## CHARACTERISTICS OF SURGICALLY TREATED PATIENTS

The percentage of surgically treated individuals discharged from short-stay hospitals who had any part of the surgeon's bill paid for by insurance is primarily determined by two factors; first, the inclusion of the individual in an age or sex group with a high rate of surgery (for example, four out of every five operations of tonsils and adenoids were performed on children under 15 years of age, and approximately 90 percent of the deliveries were for women 15-34 years of age) and, second, the coverage of the individual by

surgical insurance prior to the time of surgery. The educational level of the head of the family and the income of the family of which the individual is a member are important factors related to the extent of insurance coverage in the population. The policyholder must have been aware of the financial protection offered by surgical insurance and financially able to obtain the policy.

Since insurance companies offer policies on a group basis, many individuals obtain their insurance through places of employment. Therefore, employed individuals are more likely to have surgical insurance, and those who are in industry or government are more likely to be covered than self-employed, service, or farm workers. An individual who lives in a heavily industrialized region or in a metropolitan area would be most likely to have surgical insurance.

Other socioeconomic characteristics that are related to one's knowledge of the necessity for purchasing insurance and the financial ability to pay for it are color and the usual activity of the individual. Many nonwhite people are in low income and educational groups and are therefore unable to purchase insurance. In fact, in July 1962-June 1963 only about two out of every five nonwhite persons had surgical insurance coverage. The usual activity status of the population designates the working population; people who, although not formally employed, have some means of obtaining insurance coverage (such as children or women keeping house who would most likely be carried on family policies purchased by the husband or father); and those population groups that might be unable to purchase insurance (such as retired elderly people who are no longer carried on various health insurance plans because of age).

### Sex and Age

Data collected during the survey year show that approximately 12,836,000 persons discharged from short-stay hospitals had surgery while in the hospital. This figure represents 6.9 percent of the total civilian, noninstitutionalized population. Although the age groups 15-34 years had the greatest proportion of people with surgery (11.7 percent), this was mostly accounted for by the inclusion of deliveries as surgical

Table B. Percent of total population surgically treated and discharged from short-stay hospitals and percent of surgically treated discharges with all or part of surgical bill paid for by insurance, by sex and age: United States, based on data collected July 1963-June 1964

| Age                    | Surgically treated discharges |      |                      |                      | Surgically treated discharges with all or part of bill paid for by surgical insurance |      |                      |                      |
|------------------------|-------------------------------|------|----------------------|----------------------|---|------|----------------------|----------------------|
|                        | Both sexes                    | Male | Female               |                      | Both sexes  | Male | Female               |                      |
|                        |                               |      | In-cluding de-livery | Ex-cluding de-livery |   |      | In-cluding de-livery | Ex-cluding de-livery |
|                        | Percent of population         |      |                      |                      | Percent of surgically treated discharges  |      |                      |                      |
| All ages-----          | 6.9                           | 4.4  | 9.3                  | 5.3                  | 67.5  | 75.8 | 63.8                 | 74.9                 |
| Under 15 years-----    | 3.3                           | 3.6  | 3.1                  | 3.0                  | 79.7  | 79.2 | 80.4                 | 80.7                 |
| 15-24 years-----       | 10.7                          | 3.6  | 17.2                 | 4.4                  | 51.4  | 73.7 | 47.3                 | 75.4                 |
| 25-34 years-----       | 12.9                          | 3.4  | 21.5                 | 7.2                  | 64.5  | 80.3 | 62.4                 | 72.4                 |
| 35-44 years-----       | 7.2                           | 3.9  | 10.3                 | 7.2                  | 76.6  | 73.3 | 77.7                 | 82.0                 |
| 45-54 years-----       | 6.6                           | 5.5  | 7.6                  | 7.5                  | 79.6  | 80.3 | 79.1                 | 79.3                 |
| 55-64 years-----       | 6.2                           | 6.7  | 5.8                  | 5.8                  | 77.3  | 82.0 | 72.0                 | 72.0                 |
| 65-74 years-----       | 6.6                           | 7.0  | 6.2                  | 6.2                  | 60.9  | 63.8 | 58.5                 | 58.5                 |
| 75 years and over----- | 6.1                           | 6.8  | 5.5                  | 5.5                  | 44.3  | 46.8 | 41.8                 | 41.8                 |

procedures in Health Interview Survey data (table B). Relatively few children under 15 years of age (3.3 percent) had surgery. There was little variation—ranging from 6.1 percent of those people 75 years and over to 7.2 percent of the population 35-44 years of age—in the percentages of the population 35 years and over who had operations.

Proportionately, about twice as many females had operations during the survey year as did males when deliveries were included as surgical procedures. When deliveries were excluded, however, the two groups were about equal. About 4.4 percent of the males had surgical treatment as compared with 5.3 percent of the females when deliveries were excluded and 9.3 percent of the females when deliveries were included. The age patterns of the percentages of the population surgically treated are quite dissimilar for males and females. Relatively few males under 45 years

of age were surgically treated; the percentages ranged from 3.4 percent of the males 25-34 years of age to 3.9 percent of those 35-44. The peak age group for males who received surgical treatment was 65-74 years (7.0 percent). Among females reporting surgical treatment, the peak age group was the childbearing ages 15-44 years, with percentages ranging from 10.3 for those 35-44 to 21.5 for those 25-34 years. The proportion of females under 15 years of age surgically treated (3.1 percent) was comparable with that of males (3.6 percent). In general, a decline in the percentages of the surgically treated population by age was noted for females 45 years and over, decreasing from 7.6 percent of the females 45-54 years of age to 5.5 percent of those 75 years and over. When deliveries were excluded as surgical procedures, only 4.4 percent of the females in the 15-24 age group and 7.2 percent of the females in the 25-44 age group were surgically treated.

About two-thirds of all persons surgically treated as hospital inpatients had some proportion of the surgeon's bill paid for by insurance. More than three-fourths of the children under 15 and adults 35-64 years of age who received surgical treatment had some part of the bill paid for by insurance. However, in the age groups where rates of surgical insurance were low, smaller percentages of the people in these age groups had any of the surgical treatment paid by insurance. About 51.4 percent of persons 15-24 years, 60.9 percent of those 65-74 years, and 44.3 percent of those 75 years and over reported using surgical insurance to pay all or part of the cost of surgery. An additional factor in the low proportion of surgical bills paid for by insurance in the age group 15-24 years is that some insurance policies do not pay for deliveries unless the policy was purchased a stipulated period of time before the delivery.

About 75.8 percent of the surgically treated males used insurance to pay at least some part of the surgeons' fees as compared with 63.8 percent of the females. This difference, however, was largely due to deliveries not paid for by surgical insurance since 74.9 percent of the females reported that insurance had paid some part of the cost of surgery when deliveries were excluded.

Estimates in "Health Insurance Coverage" show that little difference exists between the sexes by age in the possession of surgical insurance. However, the rate of surgical insurance usage varies greatly for both sex and age (fig. 2). Although 3.3<sup>2</sup> percent of the males used surgical insurance, the peak period of usage was for the age groups 45 years and over. About 4.0 percent of females (without deliveries) used surgical insurance with the peak period of usage between the ages of 25 and 54. However, when deliveries were included, 5.9 percent of females used surgical insurance with the peak period of usage being 15-44 years. By age and sex, the pattern of usage of surgical insurance reflects the varia-

tions in the rates for those persons who had surgical treatment rather than the proportion of surgically treated discharges who reported using surgical insurance.

The data in table 1 show the extent of adequacy of insurance payment to the surgeon (or doctor, in the case of delivery) for surgical treatment. About two out of every five persons surgically treated had three-fourths or more of the bill paid for by insurance (table 1). However, less than one-third of the people 65 years and over had this much of the surgical bill paid for by insurance.

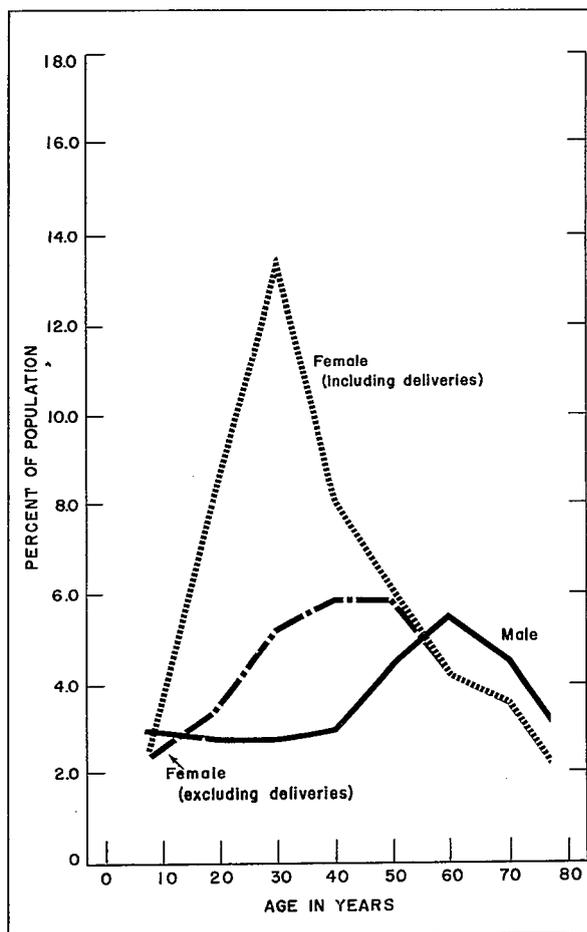


Figure 2. Percent of population using surgical insurance during July 1963-June 1964, by age and sex.

<sup>2</sup>The percent of a population group using surgical insurance is the product of the percentage of a population group with surgery and the percentage of the surgically treated population reporting insurance payment for the surgeon's bill.

Table C. Percent of total population surgically treated and discharged from short-stay hospitals and percent of surgically treated discharges with all or part of surgical bill paid for by insurance, by sex and family income: United States, based on data collected July 1963-June 1964

| Family income                  | Surgically treated discharges |      |        | Surgically treated discharges with all or part of bill paid for by surgical insurance |      |        |
|--------------------------------|-------------------------------|------|--------|---|------|--------|
|                                | Both sexes                    | Male | Female | Both sexes  | Male | Female |
| All incomes <sup>1</sup> ----- | 6.9                           | 4.4  | 9.3    | 67.5  | 75.8 | 63.8   |
| Under \$2,000-----             | 5.8                           | 3.8  | 7.4    | 33.8  | 35.4 | 33.2   |
| \$2,000-\$3,999-----           | 7.1                           | 4.4  | 9.5    | 47.7  | 58.0 | 43.4   |
| \$4,000-\$6,999-----           | 7.4                           | 4.4  | 10.3   | 74.0  | 85.1 | 69.3   |
| \$7,000-\$9,999-----           | 7.1                           | 4.1  | 10.2   | 81.6  | 85.7 | 79.9   |
| \$10,000 and over-----         | 6.6                           | 5.0  | 8.2    | 80.2  | 85.6 | 76.8   |

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

### Family Income

According to the data collected during July 1963-June 1964, there was a lower rate of people in the noninstitutionalized, living population in the extreme family income groups (i.e., less than \$2,000 and \$10,000 or more annual income) who had surgical treatment during the year prior to the date of interview than in the middle income groups. People in the lower income groups probably did not seek medical attention as often as those in higher income families because of the lack of funds available for payment of medical services. There are also a number of persons 65 years or older in this group who had a low surgery rate. Of the 5.8 percent of the population in the lowest income category who had surgery, only about one out of every three had any of the cost of the service paid for by insurance (table C). People in the highest income group probably used medical services when needed as preventive measures against more serious health problems and thus prevented, in many cases, the need for surgical treatment. Although 6.6 percent of this group were surgically treated, approximately

four out of every five persons had some part of the surgeon's bill paid for by insurance. Approximately the same proportion of people in each of the income groups in the \$2,000-\$9,999 category (7.1 to 7.4 percent) were surgically treated, but the percentage who used insurance to pay surgical fees increased with increasing income. For those in families with incomes of \$2,000-\$3,999, 47.7 percent had all or part of the surgical bill paid for by insurance, while 81.6 percent of those with incomes of \$7,000-\$9,999 had all or part of the bill paid for by insurance.

Estimates in "Health Insurance Coverage" for July 1962-June 1963 show that the percentage of the population with surgical insurance coverage increased with increasing income up to \$9,999—ranging from 28.8 percent of those with incomes of less than \$2,000 to 83.2 percent of those with incomes of \$7,000-\$9,999—but remained about the same (82.6 percent) for those with family incomes of \$10,000 or more. The pattern of usage of surgical insurance during July 1963-June 1964 by income is similar to that of surgical insurance coverage—ranging from 2.0 percent of those with incomes of less than \$2,000 to 5.8 percent of those

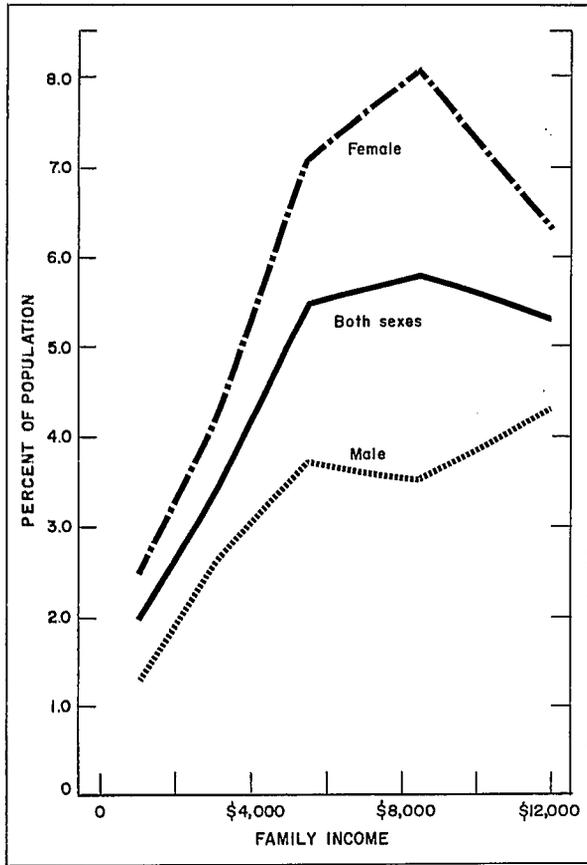


Figure 3. Percent of population using surgical insurance during July 1963-June 1964, by sex and family income.

with incomes of \$7,000-\$9,999 and dropping slightly to 5.3 percent of those in the highest income group (fig. 3).

Although a comparatively low percentage of those in the lower economic groups (less than \$2,000) were surgically treated and a small percentage of those surgically treated had some part of the surgeon's bill paid for by insurance, about 58.9 percent of those who did use surgical insurance had three-fourths or more of the bill paid for by insurance. Each income group shown in table A had approximately this same proportion of surgically treated discharges who had at least three-fourths of the surgical bill paid for by insurance.

### Education of Head of Family

There is a direct relationship between the educational level of the head of the family and the percentage of the population surgically treated (table D). Where the head of the family had completed less than 5 years of schooling, 5.3 percent of the population were surgically treated, while 7.4 to 7.5 percent of those whose head of family had completed 9 years or more of schooling were surgically treated. This relationship is expected since education is highly correlated with income. The percent of the surgically treated population who used insurance to pay all or part of the surgical fees also increased with educational attainment of the head of the family. Among those with surgery, 39.3 percent of those

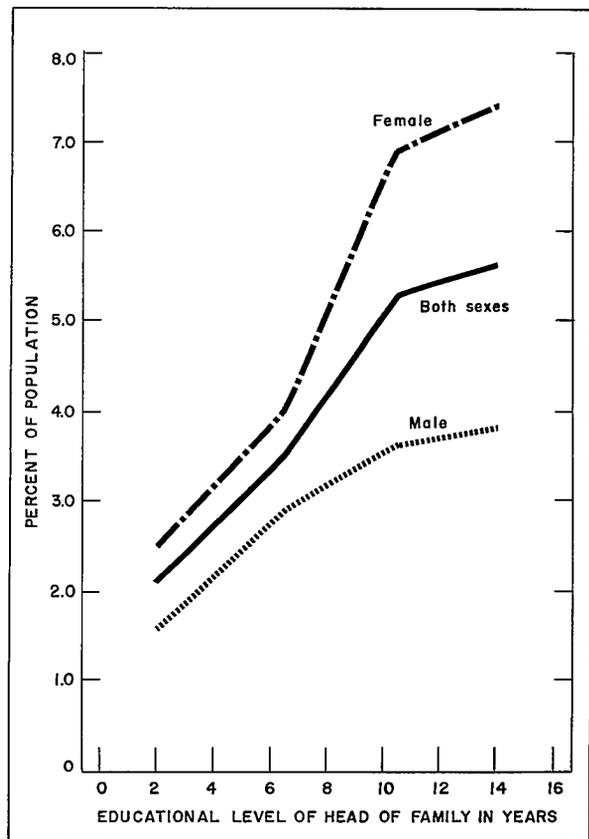


Figure 4. Percent of population using surgical insurance during July 1963-June 1964, by sex and educational level of head of family.

Table D. Percent of total population surgically treated and discharged from short-stay hospitals and percent of surgically treated discharges with all or part of surgical bill paid for by insurance, by sex and education of head of family: United States, based on data collected July 1963-June 1964

| Education of head of family               | Surgically treated discharges |      |        | Surgically treated discharges with all or part of bill paid for by surgical insurance |      |        |
|---|-------------------------------|------|--------|---|------|--------|
|   | Both sexes                    | Male | Female | Both sexes  | Male | Female |
| All educational levels <sup>1</sup> ----- | 6.9                           | 4.4  | 9.3    | 67.5  | 75.8 | 63.8   |
| Under 5 years-----                        | 5.3                           | 3.9  | 6.6    | 39.3  | 41.7 | 38.1   |
| 5-8 years-----                            | 6.0                           | 4.3  | 7.5    | 57.9  | 67.3 | 52.7   |
| 9-12 years-----                           | 7.5                           | 4.5  | 10.3   | 70.5  | 79.9 | 66.7   |
| 13 years and over-----                    | 7.4                           | 4.4  | 10.3   | 75.8  | 85.8 | 71.9   |

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

where the head of the family was in the lowest educational group had all or part of the surgical bill paid for by insurance, while 75.8 percent where the head of the family had completed at least 1 year of college had all or part of the surgical bill paid for by insurance. Figure 4 shows that the percentage of the total population by educational level using surgical insurance increases as education increases. This corresponds with the coverage pattern of surgical insurance by educational levels as shown in table 5, page 16, "Health Insurance Coverage." Among the surgically treated discharges, the percentage of persons with three-fourths or more of the surgeon's bill paid for by insurance was appreciably higher when the head of the family had 9 years or more of education than when the head of the family was in the lower educational groups (table 3). This difference is related to the variations in coverage rates by educational level shown in table D. Among those at the highest educational level (13 or more years), 41.1 percent of the people had three-fourths or more of the surgeon's fee paid for by insurance.

#### Region

Data collected during July 1963-June 1964 show that a larger percentage of the population in the Northeast (7.1 percent) and West (7.4 percent) Regions were surgically treated than in the North Central (6.7 percent) and South (6.7 percent) (table E). However, a larger percentage of the surgically treated discharges in the Northeast (72.4 percent) and North Central (73.2 percent) had some part of the surgeon's bill paid for by insurance than did those in the South (61.7 percent) and West (60.8 percent). Therefore, a comparatively larger percentage of the total civilian, noninstitutionalized population in the Northeast and North Central Regions used surgical insurance (fig. 5) than did those in the other regions. This usage of insurance is related to the higher coverage rates in these two regions (Series 10, No. 11), which in turn may be related to the heavy concentration of industrialization in the Northeast and North Central Regions, where there is more opportunity to obtain insurance coverage through places of employment.

Table E. Percent of total population surgically treated and discharged from short-stay hospitals and percent of surgically treated discharges with all or part of surgical bill paid for by insurance, by sex and geographic region: United States, based on data collected July 1963-June 1964

| Region             | Surgically treated discharges |      |        | Surgically treated discharges with all or part of bill paid for by surgical insurance |      |        |
|--------------------|-------------------------------|------|--------|---|------|--------|
|                    | Both sexes                    | Male | Female | Both sexes  | Male | Female |
| All regions-----   | 6.9                           | 4.4  | 9.3    | 67.5  | 75.8 | 63.8   |
| Northeast-----     | 7.1                           | 4.9  | 9.2    | 72.4  | 80.4 | 68.5   |
| North Central----- | 6.7                           | 4.0  | 9.2    | 73.2  | 75.6 | 72.2   |
| South-----         | 6.7                           | 4.1  | 9.0    | 61.7  | 73.3 | 56.9   |
| West-----          | 7.4                           | 4.7  | 10.1   | 60.8  | 72.5 | 55.7   |

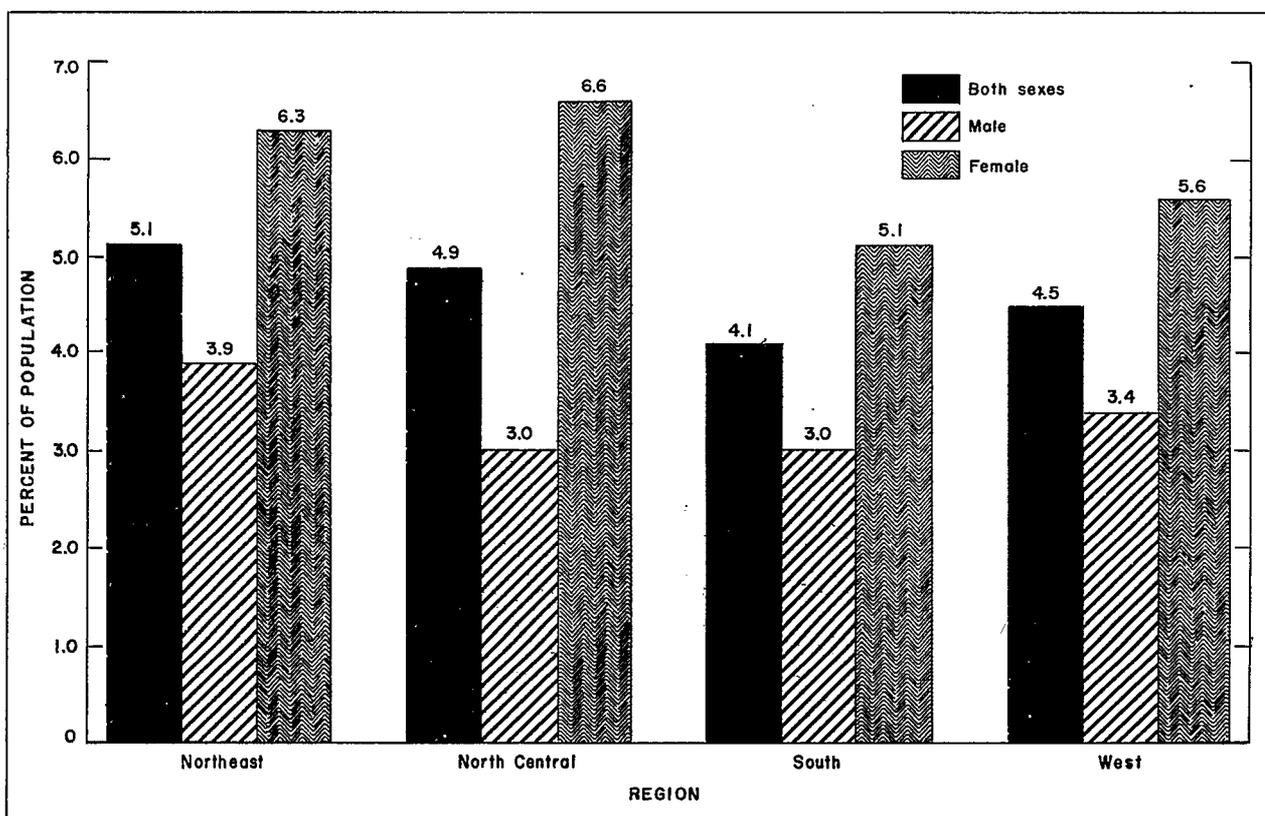


Figure 5. Percent of population using surgical insurance during July 1963-June 1964, by sex and geographic region.

Table F. Percent of total population surgically treated and discharged from short-stay hospitals and percent of surgically treated discharges with all or part of surgical bill paid for by insurance, by sex and residence: United States, based on data collected July 1963-June 1964

| Residence               | Surgically treated discharges |      |        | Surgically treated discharges with all or part of bill paid for by surgical insurance |      |        |
|-------------------------|-------------------------------|------|--------|---|------|--------|
|                         | Both sexes                    | Male | Female | Both sexes  | Male | Female |
|                         | Percent of population         |      |        | Percent of surgically treated discharges  |      |        |
| All areas-----          | 6.9                           | 4.4  | 9.3    | 67.5  | 75.8 | 63.8   |
| SMSA-----               | 7.1                           | 4.5  | 9.5    | 69.2  | 76.1 | 66.2   |
| Outside SMSA-nonfarm--- | 6.7                           | 4.1  | 9.2    | 66.0  | 78.9 | 60.6   |
| Outside SMSA-farm-----  | 5.7                           | 4.2  | 7.3    | 54.1  | 59.8 | 50.4   |

In each of the regions, at least three out of every five surgically treated persons with any part of the surgeon's bill paid for by insurance had three-fourths or more of the bill paid except in the South, where approximately 54.3 percent of the surgically treated population had this much insurance payment on the cost of the surgery (table A).

### Residence

A larger proportion of the population residing in the standard metropolitan statistical areas (SMSA's) during the survey year reported having surgical treatment in short-stay hospitals than did those living outside SMSA's. While 7.1 percent of the metropolitan population were surgically treated, approximately 5.7 percent of the non-metropolitan population living on farms and 6.7 percent not living on farms were surgically treated (table F). Of the surgically treated metropolitan population, 69.2 percent had all or part of the surgical bill paid for by insurance, while outside the metropolitan areas 66.0 percent of the nonfarm population and 54.1 percent of the farm population who were surgically treated used insurance to pay at least some part of the

surgeon's bill. Regardless of place of residence about three out of every five persons who had been surgically treated and who had any part of the bill paid for by insurance had three-fourths or more of the bill paid (table A).

### Color

A higher percentage of white persons (7.1 percent) were surgically treated during the year prior to the date of interview than were nonwhite (5.3 percent) (table G). About 70.1 percent of the surgically treated white persons reported using insurance to pay all or part of the surgical costs, while approximately 41.3 percent of the nonwhite surgically treated persons used surgical insurance to pay all or part of the surgeon's fees. This means that in the total population the rate for white persons using surgical insurance (5.0 percent) was twice that for nonwhite persons (2.2 percent) (fig. 6). This difference in usage is related to differences in coverage rates. About 68.5 percent of the white persons had surgical insurance coverage in July 1962-June 1963 as compared with 40.2 percent of the nonwhite population.

Table G. Percent of total population surgically treated and discharged from short-stay hospitals and percent of surgically treated discharges with all or part of surgical bill paid for by insurance, by sex and color: United States, based on data collected July 1963-June 1964

| Color         | Surgically treated discharges |      |        | Surgically treated discharges with all or part of bill paid for by surgical insurance |      |        |
|---------------|-------------------------------|------|--------|---|------|--------|
|               | Both sexes                    | Male | Female | Both sexes  | Male | Female |
| Total-----    | 6.9                           | 4.4  | 9.3    | 67.5  | 75.8 | 63.8   |
| White-----    | 7.1                           | 4.5  | 9.6    | 70.1  | 78.8 | 66.2   |
| Nonwhite----- | 5.3                           | 3.2  | 7.3    | 41.3  | 44.0 | 40.2   |

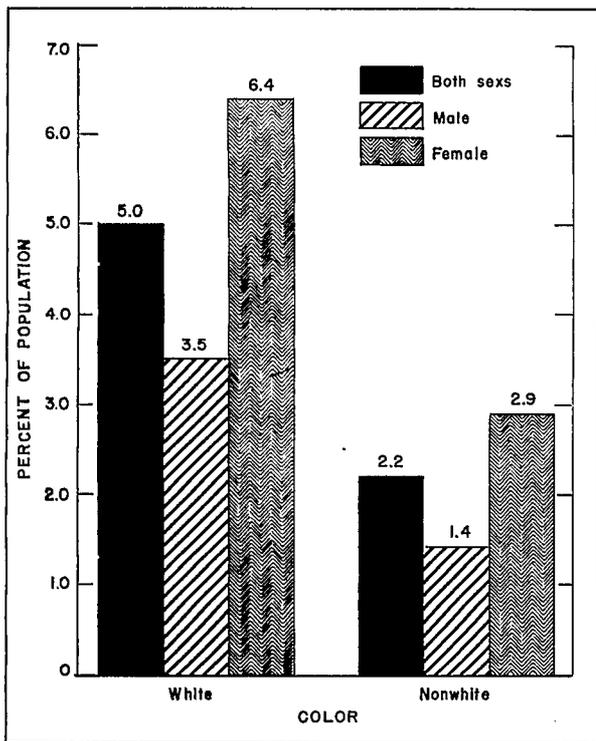


Figure 6. Percent of population using surgical insurance during July 1963-June 1964, by sex and color.

Although a smaller percentage of the nonwhite population with surgical insurance coverage used their insurance, approximately 71.7 percent of those who did use it had three-fourths or more of the surgeon's bill paid for by insurance, while only about 59.6 percent of the white population using insurance received this much benefit from the coverage (table A).

#### Usual Activity Status

The usual activity of an individual is the activity at which he spent most of his time during the 12-month period preceding the date of interview. Table H shows that the activity group with the highest percentage of surgically treated discharges during July 1963-June 1964 were females keeping house (15.2 percent). Approximately 7.7 percent of the retired population and 6.5 percent of the "other" activity group received surgical treatment during the survey year.

To a large extent, the percentages of persons in each activity group who used insurance to pay for their surgery reflected the pattern of insurance usage characteristic of the age groups included in the activity group. For example, 75.8 to 80.0 percent of the surgically treated children under 17 years of age used surgical insurance,

Table H. Percent of total population surgically treated and discharged from short-stay hospitals and percent of surgically treated discharges with all or part of surgical bill paid for by insurance, by sex and usual activity status: United States, based on data collected July 1963-June 1964

| Usual activity status          | Surgically treated discharges |      |        | Surgically treated discharges with all or part of bill paid for by surgical insurance |      |        |
|--------------------------------|-------------------------------|------|--------|---|------|--------|
|                                | Both sexes                    | Male | Female | Both sexes  | Male | Female |
| All activities---              | 6.9                           | 4.4  | 9.3    | 67.5  | 75.8 | 63.8   |
| Preschool (under 6 years)----- | 3.3                           | 3.8  | 2.7    | 75.8  | 73.5 | 79.3   |
| School (6-16 years)-----       | 3.4                           | 3.3  | 3.5    | 80.0  | 83.3 | 77.0   |
| Usually working-----           | 5.6                           | 4.4  | 8.4    | 78.6  | 82.0 | 74.7   |
| Keeping house-----             | 15.2                          | ...  | 15.2   | 58.9  | ...  | 58.9   |
| Retired-----                   | 7.7                           | 7.5  | 8.6    | 50.2  | 53.9 | *      |
| Other-----                     | 6.5                           | 5.8  | 7.6    | 61.4  | 61.5 | 61.2   |

while 58.9 percent of the women keeping house and 50.2 percent of the retired population had some part of the surgical bill paid for by insurance. A large proportion of the working population who had surgery reported the use of surgical insurance (78.6 percent). Since the activity group classed as "other" has students still carried on family policies, unemployed people, young people who had not purchased health insurance, and persons who have never been able to work, the 61.4 percent of the surgically treated discharges in this group who used surgical insurance to pay costs of operations is a combination of population groups, some of which have a high rate of surgical insurance coverage and others which have a very low rate of surgical insurance coverage.

About 60.0 percent or more of the discharges in each activity group shown in tables 7 and A who used surgical insurance to pay for surgical treatment had three-fourths or more of the bill paid for by insurance with the exception of women keeping house (54.7 percent) and retired persons (54.4 percent).

## HOSPITAL RELATED ITEMS FOR SURGICALLY TREATED PATIENTS

Not every surgically treated discharge hospitalized for a particular condition during July 1963-June 1964 was surgically treated for that condition; furthermore, in some instances more than one type of operation was performed during a hospital episode. For these reasons, the number of surgical procedures performed (13.6 million) is not equivalent to the number of surgically treated discharges (12.8 million).

Data in table 8 describe how adequately individuals were covered by insurance for the surgical treatment of various conditions. Since many insurance policies stipulate a prescribed maximum payment on the charge of various types of operations determined by the type of policy (for example, low and high option plans), data are presented in table 9 that show the proportion of the cost of surgery that was paid for by insurance by type of operation.

Table J. Number of surgically treated females with deliveries discharged from short-stay hospitals with all or part of doctor's bill paid for by insurance, by proportion of bill paid and age: United States, based on data collected July 1963-June 1964

| Age                    | Surgically treated female discharges with deliveries in thousands | Proportion of doctor's bill paid for by insurance |           |         |             |
|------------------------|---|---|-----------|---------|-------------|
|                        |   | Any part  | Under 1/2 | 1/2-3/4 | 3/4 or more |
| All ages-----          | 3,814   | 49.2  | 10.7      | 15.1    | 23.4        |
| Under 15 years-----    | *   | *   | *         | *       | *           |
| 15-24 years-----       | 1,816   | 37.9  | 5.9       | 11.4    | 20.6        |
| 25-34 years-----       | 1,607   | 57.4  | 15.3      | 17.7    | 24.3        |
| 35-44 years-----       | 380   | 67.6  | 14.2      | 21.6    | 31.8        |
| 45 years and over----- | *   | *   | *         | *       | *           |

### Condition for Which Hospitalized

About 29.7 percent of the 12.8 million surgically treated people discharged from short-stay hospitals during July 1963-June 1964 were hospitalized for deliveries. About half of the females hospitalized for deliveries (49.2 percent) reported that insurance paid for all or part of the cost of delivery and, of those who did use insurance, only about 47.6 percent reported that three-fourths or more of the doctor's bill had been paid for by insurance. About 37.9 percent of the females 15-24 years of age who were hospitalized for deliveries reported using insurance to pay delivery costs (table J). However, this proportion increased with age. About 67.6 percent of females 35-44 years of age reported using insurance for paying delivery fees. Therefore, young females were largely responsible for the small percentage of females with deliveries for whom insurance paid some part of the cost.

A high percentage of the surgically treated persons were hospitalized for respiratory conditions (10.2 percent) and benign and unspecified neoplasms (8.4 percent). Likewise, a large percentage of the groups hospitalized for respiratory conditions (83.9 percent) and for benign and unspecified neoplasms (82.4 percent) had financial assistance from insurance in paying the surgeon's fees. In both groups using surgical insurance,

about three out of every five persons had three-fourths or more of the bill paid for by insurance (62.0 percent for respiratory conditions and 60.2 percent for benign and unspecified neoplasms).

Although people hospitalized for mental conditions, personality disorders, mental deficiency, vascular lesions, and other diseases of the nervous system and sense organs represented only 1.1 percent of the surgically treated discharges, 74.3 percent of those surgically treated had all or part of the bill paid by insurance. However, relatively few of the people using surgical insurance for these conditions reported three-fourths or more of the bill paid in this manner (41.3 percent).

Approximately 1.0 percent of the surgically treated discharges were hospitalized for diseases of the heart, hypertension without heart involvement, or other diseases of the circulatory system. Only about 50.9 percent of the discharges hospitalized with these diseases used surgical insurance, but of those who did use this form of payment, a higher proportion had three-fourths or more of the surgical bill covered by insurance than did people hospitalized for any other condition (81.3 percent).

### Type of Operation

For discharges who had multiple operations during a hospitalization, the proportion of the

surgical bill paid for by insurance takes into account the total bill for all operations the individual had during that hospitalization. Therefore, the proportion of the total surgical bill paid for by insurance was assigned to each operation the person had during a single hospitalization. In the extreme intervals of insurance payment (i.e., less than one-half and three-fourths or more) this procedure resulted in a slight underestimation of the proportion paid by insurance and a corresponding overestimation in the one-half to three-fourths interval. The types of surgical procedures that occurred most frequently were deliveries, tonsillectomies and/or adenoidectomies, and dilatation and curettage.

The 3,820,000 deliveries shown in table 9 represented 28 percent of the total 13,623,000 surgical procedures performed.

About 68.6 percent of the 156,000 Cesarean deliveries were paid for (all or in part) by insurance, while only 48.2 percent of all other deliveries had some part of the doctor's fees paid by insurance. Of the Cesarean deliveries for which insurance paid some of the cost, 50.4 percent of them had three-fourths or more paid in this manner as compared with 47.5 percent of all other deliveries.

Because operations for tonsils and adenoids are performed primarily on children and a comparatively high proportion of children (65 percent) have surgical insurance coverage (table 6, Series 10, No. 11), a rather large percentage of these operations had some part of the surgical cost paid by insurance (83.9 percent). About 61.9 percent of these operations with some part of the bill paid by insurance had three-fourths or more of the surgeon's bill paid.

Of the operations for dilatation and curettage about 71.6 percent had insurance coverage and approximately 58.9 percent of these were in the largest interval of payment by surgical insurance (three-fourths or more).

### Interval of Hospital Stay

The relationship of the interval of stay in the hospital to the percentage of the surgically treated discharges with surgical insurance payment is shown in table 10. With the exception of those persons 15-44 years, in each age group surgical

discharges with 15 days or more of hospital stay had a smaller percentage using surgical insurance for paying all or part of surgeon's fees than did those with shorter lengths of stay. Since a relatively small proportion of females used insurance to pay delivery fees and since length of stay in the hospital for deliveries is generally for a short period (less than 8 days), it is quite possible that the high proportion of deliveries in the 15-44 age group accounts for the lower percentage of insurance usage for discharges with less than 8 days of hospital stay. Although a smaller proportion of persons with 15 days or more of stay reported using surgical insurance, a high percentage of those who did use insurance had three-fourths or more of the surgical bill paid by insurance (64.4 percent).

Data in "Health Insurance Coverage" show that people with hospital insurance coverage had shorter hospital stays than did those without insurance. Data about average length of stay for surgically treated discharges from short-stay hospitals are shown in this section of the report to determine if this relationship existed among persons using surgical insurance.

The average length of hospital stay for surgically treated persons using insurance to pay for surgical treatment (7.2 days) was shorter than that for those without surgical insurance (7.6 days) (table K). This relation occurs for both males (8.3 days for males with surgical insurance and 12.3 days for those without insurance) and for females when deliveries were excluded as surgical procedure (7.5 days for females with surgical insurance and 9.6 days for those without insurance). Since most persons with surgical insurance also have hospital insurance coverage, shorter lengths of stays for persons using surgical insurance may be related to the fact that people with hospital insurance have shorter lengths of hospital stay (see "Health Insurance Coverage").

### Hospital Ownership

As shown by data collected during July 1963-June 1964, 75.1 percent of surgically treated persons discharged from osteopathic hospitals, 73.8 percent discharged from nonprofit hospitals,

Table K. Average length of stay per surgically treated patient discharged from short-stay hospitals, by sex, surgical insurance, and age, including and excluding deliveries: United States, based on data collected July 1963-June 1964

| Surgical insurance and age                            | Both sexes | Male | Female               |                      |
|---|------------|------|----------------------|----------------------|
|   |            |      | Including deliveries | Excluding deliveries |
| <u>All persons</u>                                    |            |      |                      |                      |
| Average length of stay per surgically treated patient |            |      |                      |                      |
| All ages-----   | 7.3        | 9.4  | 6.4                  | 8.1                  |
| Under 15 years-----                                   | 4.4        | 4.3  | 4.5                  | 4.5                  |
| 15-24 years-----                                      | 5.3        | 10.8 | 4.3                  | 5.4                  |
| 25-34 years-----                                      | 5.4        | 8.8  | 4.9                  | 5.8                  |
| 35-44 years-----                                      | 7.3        | 8.0  | 7.1                  | 8.1                  |
| 45-54 years-----                                      | 10.7       | 12.8 | 9.3                  | 9.3                  |
| 55-64 years-----                                      | 12.2       | 11.8 | 12.6                 | 12.6                 |
| 65-74 years-----                                      | 13.1       | 14.0 | 12.3                 | 12.3                 |
| 75 years and over-----                                | 16.0       | 14.2 | 17.6                 | 17.6                 |
| Persons using surgical insurance                      |            |      |                      |                      |
| All ages-----   | 7.2        | 8.3  | 6.6                  | 7.5                  |
| Under 15 years-----                                   | 3.6        | 3.6  | 3.7                  | 3.7                  |
| 15-24 years-----                                      | 6.3        | 12.5 | 4.6                  | 4.8                  |
| 25-34 years-----                                      | 5.5        | 7.1  | 5.3                  | 6.0                  |
| 35-44 years-----                                      | 7.3        | 7.4  | 7.3                  | 8.1                  |
| 45-54 years-----                                      | 10.3       | 11.0 | 9.8                  | 9.9                  |
| 55-64 years-----                                      | 10.6       | 10.4 | 11.0                 | 11.0                 |
| 65-74 years-----                                      | 12.1       | 12.1 | 12.2                 | 12.2                 |
| 75 years and over-----                                | 14.3       | 12.6 | 16.0                 | 16.0                 |
| Persons not using surgical insurance <sup>1</sup>     |            |      |                      |                      |
| All ages-----   | 7.6        | 12.3 | 6.2                  | 9.6                  |
| Under 15 years-----                                   | 7.0        | 6.6  | 7.4                  | 7.5                  |
| 15-24 years-----                                      | 4.4        | 6.9  | 4.1                  | 6.8                  |
| 25-34 years-----                                      | 5.1        | 13.6 | 4.3                  | 5.1                  |
| 35-44 years-----                                      | 7.4        | 9.4  | 6.5                  | 8.2                  |
| 45-54 years-----                                      | 12.1       | 18.7 | 7.3                  | 7.4                  |
| 55-64 years-----                                      | 17.1       | 18.3 | 16.4                 | 16.4                 |
| 65-74 years-----                                      | 14.4       | 17.1 | 12.4                 | 12.4                 |
| 75 years and over-----                                | 17.1       | 15.5 | 18.6                 | 18.6                 |

<sup>1</sup>Includes unknown insurance usage.

and 70.1 percent discharged from proprietary hospitals reported insurance payment of all or part of their surgical bill (table 11). As would be expected, relatively few people discharged from

government hospitals, either Federal or non-Federal, had insurance coverage for any part of the surgical bill.

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Table 1. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, sex, and age: United States, based on data collected July 1963-June 1964

[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                          | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|--------------------------------------|--|--|-----------|---------|------|
|                                      |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>Both sexes</u>                    |  | Percent of surgically treated discharges           |           |         |      |
| All ages-----                        | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| Under 15 years-----                  | 1,951                                      | 79.7   | 10.2      | 19.0    | 50.5 |
| 15-24 years-----                     | 2,898                                      | 51.4   | 7.3       | 13.3    | 30.8 |
| 25-34 years-----                     | 2,752                                      | 64.5   | 13.5      | 17.5    | 33.5 |
| 35-44 years-----                     | 1,733                                      | 76.6   | 9.2       | 18.7    | 48.7 |
| 45-54 years-----                     | 1,400                                      | 79.6   | 9.0       | 18.9    | 51.8 |
| 55-64 years-----                     | 1,010                                      | 77.3   | 9.8       | 15.4    | 52.1 |
| 65-74 years-----                     | 733  | 60.9   | 15.9      | 11.2    | 33.8 |
| 75 years and over-----               | 358  | 44.3   | 12.9      | 13.5    | 17.7 |
| <u>Male</u>                          |  |  |           |         |      |
| All ages-----                        | 3,936                                      | 75.8   | 9.1       | 16.8    | 49.8 |
| Under 15 years-----                  | 1,069                                      | 79.2   | 11.1      | 19.7    | 48.3 |
| 15-24 years-----                     | 462  | 73.7   | 9.5       | 12.7    | 51.5 |
| 25-34 years-----                     | 340  | 80.3   | 4.8       | 19.4    | 55.9 |
| 35-44 years-----                     | 451  | 73.3   | 5.7       | 16.2    | 51.4 |
| 45-54 years-----                     | 570  | 80.3   | 5.5       | 17.7    | 57.5 |
| 55-64 years-----                     | 520  | 82.0   | 10.4      | 15.5    | 56.1 |
| 65-74 years-----                     | 354  | 63.8   | 12.5      | 12.5    | 38.8 |
| 75 years and over-----               | 170  | 46.8   | 14.1      | 16.7    | 16.7 |
| <u>Female (including deliveries)</u> |  |  |           |         |      |
| All ages-----                        | 8,900                                      | 63.8   | 10.9      | 16.3    | 36.7 |
| Under 15 years-----                  | 883  | 80.4   | 9.2       | 18.1    | 53.3 |
| 15-24 years-----                     | 2,436                                      | 47.3   | 6.9       | 13.3    | 27.1 |
| 25-34 years-----                     | 2,412                                      | 62.4   | 14.7      | 17.2    | 30.5 |
| 35-44 years-----                     | 1,282                                      | 77.7   | 10.4      | 19.5    | 47.7 |
| 45-54 years-----                     | 830  | 79.1   | 11.2      | 19.7    | 48.2 |
| 55-64 years-----                     | 489  | 72.0   | 9.1       | 15.3    | 47.9 |
| 65-74 years-----                     | 379  | 58.5   | 19.5      | 9.9     | 28.8 |
| 75 years and over-----               | 188  | 41.8   | 12.4      | 10.7    | 18.6 |
| <u>Female (excluding deliveries)</u> |  |  |           |         |      |
| All ages-----                        | 5,086                                      | 74.9   | 10.9      | 17.1    | 46.9 |
| Under 15 years-----                  | 880  | 80.7   | 9.2       | 18.1    | 53.5 |
| 15-24 years-----                     | 620  | 75.4   | 9.8       | 19.0    | 46.6 |
| 25-34 years-----                     | 805  | 72.4   | 13.0      | 15.9    | 43.5 |
| 35-44 years-----                     | 903  | 82.0   | 8.7       | 18.5    | 54.8 |
| 45-54 years-----                     | 822  | 79.3   | 11.3      | 19.9    | 48.1 |
| 55-64 years-----                     | 489  | 72.0   | 9.1       | 15.3    | 47.9 |
| 65-74 years-----                     | 379  | 58.5   | 19.5      | 9.9     | 28.8 |
| 75 years and over-----               | 188  | 41.8   | 12.4      | 10.7    | 18.6 |

Table 2. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, age, and family income: United States, based on data collected July 1963-June 1964

[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 family income          | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|--------------------------------|--|--|-----------|---------|------|
|                                |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>All ages</u>                |  | Percent of surgically treated discharges           |           |         |      |
| All incomes <sup>1</sup> ----- | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| Under \$2,000-----             | 1,250                                      | 33.8   | 5.5       | 8.3     | 19.9 |
| \$2,000-\$3,999-----           | 2,143                                      | 47.7   | 7.2       | 10.3    | 30.2 |
| \$4,000-\$6,999-----           | 4,356                                      | 74.0   | 10.9      | 18.9    | 44.2 |
| \$7,000-\$9,999-----           | 2,604                                      | 81.6   | 11.1      | 21.2    | 49.4 |
| \$10,000 and over-----         | 1,897                                      | 80.2   | 15.6      | 17.7    | 46.9 |
| <u>Under 15 years</u>          |  |  |           |         |      |
| All incomes <sup>1</sup> ----- | 1,951                                      | 79.7   | 10.2      | 19.0    | 50.5 |
| Under \$2,000-----             | 91   | *  | *         | *       | *    |
| \$2,000-\$3,999-----           | 212  | 49.5   | *         | 9.9     | 38.2 |
| \$4,000-\$6,999-----           | 765  | 85.1   | 13.3      | 19.3    | 52.5 |
| \$7,000-\$9,999-----           | 451  | 90.8   | 11.8      | 17.2    | 61.8 |
| \$10,000 and over-----         | 357  | 92.0   | 11.4      | 28.2    | 52.4 |
| <u>15-44 years</u>             |  |  |           |         |      |
| All incomes <sup>1</sup> ----- | 7,384                                      | 62.3   | 10.1      | 16.1    | 36.0 |
| Under \$2,000-----             | 639  | 30.2   | 2.5       | 7.7     | 20.0 |
| \$2,000-\$3,999-----           | 1,257                                      | 38.4   | 5.8       | 8.0     | 24.7 |
| \$4,000-\$6,999-----           | 2,688                                      | 67.6   | 10.0      | 18.4    | 39.1 |
| \$7,000-\$9,999-----           | 1,575                                      | 78.2   | 11.1      | 22.5    | 44.7 |
| \$10,000 and over-----         | 956  | 75.5   | 20.1      | 16.6    | 39.0 |
| <u>45-64 years</u>             |  |  |           |         |      |
| All incomes <sup>1</sup> ----- | 2,409                                      | 78.6   | 9.3       | 17.4    | 51.9 |
| Under \$2,000-----             | 203  | 35.4   | *         | 9.6     | 20.2 |
| \$2,000-\$3,999-----           | 373  | 70.5   | 11.7      | 13.6    | 44.8 |
| \$4,000-\$6,999-----           | 716  | 86.3   | 8.7       | 21.8    | 56.0 |
| \$7,000-\$9,999-----           | 502  | 89.3   | 11.3      | 20.9    | 57.1 |
| \$10,000 and over-----         | 470  | 85.4   | 8.4       | 14.2    | 62.6 |
| <u>65 years and over</u>       |  |  |           |         |      |
| All incomes <sup>1</sup> ----- | 1,091                                      | 55.4   | 15.0      | 11.9    | 28.6 |
| Under \$2,000-----             | 316  | 41.6   | 14.3      | 7.8     | 19.5 |
| \$2,000-\$3,999-----           | 302  | 57.3   | 12.1      | 16.4    | 29.2 |
| \$4,000-\$6,999-----           | 187  | 73.5   | 23.2      | 11.4    | 38.9 |
| \$7,000-\$9,999-----           | 76   | *  | *         | *       | *    |
| \$10,000 and over-----         | 113  | 59.8   | 20.6      | *       | 29.9 |

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

Table 3. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, age, and education of head of family: United States, based on data collected July 1963-June 1964

[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 education of head of family       | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|---|--|--|-----------|---------|------|
|   |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>All ages</u>                           |  | Percent of surgically treated discharges           |           |         |      |
| All educational groups <sup>1</sup> ----- | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| Under 5 years-----                        | 602  | 39.3   | 5.8       | 9.8     | 23.8 |
| 5-8 years-----                            | 2,782                                      | 57.9   | 7.6       | 13.4    | 36.9 |
| 9-12 years-----                           | 6,547                                      | 70.5   | 11.2      | 15.9    | 43.4 |
| 13 years and over-----                    | 2,765                                      | 75.8   | 12.0      | 22.7    | 41.1 |
| <u>Under 15 years</u>                     |  |  |           |         |      |
| All educational groups <sup>1</sup> ----- | 1,951                                      | 79.7   | 10.2      | 19.0    | 50.5 |
| Under 5 years-----                        | *  | *  | *         | *       | *    |
| 5-8 years-----                            | 342  | 65.8   | 7.4       | 14.5    | 43.7 |
| 9-12 years-----                           | 1,093                                      | 81.7   | 11.3      | 17.1    | 53.4 |
| 13 years and over-----                    | 467  | 86.8   | 11.0      | 27.6    | 48.1 |
| <u>15-44 years</u>                        |  |  |           |         |      |
| All educational groups <sup>1</sup> ----- | 7,384                                      | 62.3   | 10.1      | 16.1    | 36.0 |
| Under 5 years-----                        | 262  | 27.2   | *         | 10.0    | 15.2 |
| 5-8 years-----                            | 1,331                                      | 51.3   | 5.8       | 12.9    | 32.5 |
| 9-12 years-----                           | 4,073                                      | 64.7   | 10.2      | 15.5    | 39.0 |
| 13 years and over-----                    | 1,658                                      | 70.9   | 13.9      | 21.5    | 35.5 |
| <u>45-64 years</u>                        |  |  |           |         |      |
| All educational groups <sup>1</sup> ----- | 2,409                                      | 78.6   | 9.3       | 17.4    | 51.9 |
| Under 5 years-----                        | 146  | 57.4   | *         | 16.3    | 35.5 |
| 5-8 years-----                            | 677  | 72.3   | 8.5       | 15.6    | 48.3 |
| 9-12 years-----                           | 1,071                                      | 82.2   | 11.9      | 17.0    | 53.3 |
| 13 years and over-----                    | 469  | 85.2   | 6.0       | 22.1    | 57.3 |
| <u>65 years and over</u>                  |  |  |           |         |      |
| All educational groups <sup>1</sup> ----- | 1,091                                      | 55.5   | 15.0      | 11.9    | 28.6 |
| Under 5 years-----                        | 154  | 35.9   | 13.4      | *       | 18.3 |
| 5-8 years-----                            | 431  | 49.3   | 12.1      | 10.5    | 26.9 |
| 9-12 years-----                           | 310  | 64.8   | 22.4      | 12.4    | 30.0 |
| 13 years and over-----                    | 172  | 68.8   | 11.5      | 21.7    | 35.7 |

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

Table 4. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, age, and geographic region: United States, based on data collected July 1963-June 1964

[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 region                           | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|--|--|--|-----------|---------|------|
|  |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>All ages</u>                          |  |  |           |         |      |
| Percent of surgically treated discharges |  |  |           |         |      |
| All regions-----                         | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| Northeast-----                           | 3,301                                      | 72.4   | 11.0      | 14.5    | 46.9 |
| North Central-----                       | 3,531                                      | 73.2   | 11.1      | 17.2    | 44.9 |
| South-----                               | 3,799                                      | 61.7   | 9.9       | 18.4    | 33.5 |
| West-----                                | 2,205                                      | 60.8   | 9.0       | 15.2    | 36.6 |
| <u>Under 15 years</u>                    |  |  |           |         |      |
| All regions-----                         | 1,951                                      | 79.7   | 10.2      | 19.0    | 50.5 |
| Northeast-----                           | 539  | 82.8   | 10.1      | 17.2    | 55.6 |
| North Central-----                       | 619  | 82.5   | 12.8      | 15.6    | 54.1 |
| South-----                               | 474  | 75.8   | 8.9       | 27.4    | 39.3 |
| West-----                                | 320  | 74.9   | 7.6       | 16.8    | 50.2 |
| <u>15-44 years</u>                       |  |  |           |         |      |
| All regions-----                         | 7,384                                      | 62.3   | 10.1      | 16.1    | 36.0 |
| Northeast-----                           | 1,796                                      | 68.6   | 10.8      | 14.9    | 42.9 |
| North Central-----                       | 1,971                                      | 70.0   | 10.9      | 18.0    | 41.0 |
| South-----                               | 2,340                                      | 55.4   | 9.5       | 16.5    | 29.4 |
| West-----                                | 1,277                                      | 54.1   | 8.8       | 14.6    | 30.6 |
| <u>45-64 years</u>                       |  |  |           |         |      |
| All regions-----                         | 2,409                                      | 78.6   | 9.3       | 17.4    | 51.9 |
| Northeast-----                           | 659  | 78.3   | 10.4      | 12.8    | 55.1 |
| North Central-----                       | 649  | 82.9   | 7.8       | 15.9    | 59.2 |
| South-----                               | 727  | 77.9   | 11.1      | 22.8    | 43.9 |
| West-----                                | 375  | 73.1   | 6.0       | 16.8    | 50.3 |
| <u>65 years and over</u>                 |  |  |           |         |      |
| All regions-----                         | 1,091                                      | 55.5   | 15.0      | 11.9    | 28.6 |
| Northeast-----                           | 308  | 63.2   | 14.5      | 11.1    | 37.5 |
| North Central-----                       | 292  | 53.1   | 17.2      | 17.9    | 17.6 |
| South-----                               | 258  | 46.0   | 11.3      | *       | 29.7 |
| West-----                                | 234  | 58.6   | 17.1      | 13.1    | 28.4 |

Table 5. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, age, and residence: United States, based on data collected July 1963-June 1964

[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 residence         | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|---------------------------|--|--|-----------|---------|------|
|                           |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>All ages</u>           |  | Percent of surgically treated discharges           |           |         |      |
| All areas-----            | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| SMSA-----                 | 8,447                                      | 69.2   | 11.3      | 17.0    | 40.9 |
| Outside SMSA-nonfarm----- | 3,722                                      | 66.0   | 8.3       | 16.2    | 41.5 |
| Outside SMSA-farm-----    | 667  | 54.1   | 9.8       | 10.9    | 33.3 |
| <u>Under 15 years</u>     |  |  |           |         |      |
| All areas-----            | 1,951                                      | 79.7   | 10.2      | 19.0    | 50.5 |
| SMSA-----                 | 1,347                                      | 82.0   | 11.9      | 19.0    | 51.0 |
| Outside SMSA-nonfarm----- | 509  | 79.1   | 7.4       | 19.3    | 52.2 |
| Outside SMSA-farm-----    | 95   | *  | *         | *       | *    |
| <u>15-44 years</u>        |  |  |           |         |      |
| All areas-----            | 7,384                                      | 62.3   | 10.1      | 16.1    | 36.0 |
| SMSA-----                 | 4,841                                      | 63.9   | 11.0      | 17.1    | 35.8 |
| Outside SMSA-nonfarm----- | 2,201                                      | 61.2   | 8.3       | 15.0    | 37.9 |
| Outside SMSA-farm-----    | 342  | 46.4   | 8.4       | 9.6     | 28.4 |
| <u>45-64 years</u>        |  |  |           |         |      |
| All areas-----            | 2,409                                      | 78.6   | 9.3       | 17.4    | 51.9 |
| SMSA-----                 | 1,601                                      | 78.9   | 9.0       | 16.8    | 53.2 |
| Outside SMSA-nonfarm----- | 643  | 78.2   | 8.1       | 20.1    | 50.0 |
| Outside SMSA-farm-----    | 165  | 77.1   | 16.6      | 12.7    | 47.8 |
| <u>65 years and over</u>  |  |  |           |         |      |
| All areas-----            | 1,091                                      | 55.5   | 15.0      | 11.9    | 28.6 |
| SMSA-----                 | 658  | 58.2   | 17.8      | 12.9    | 27.5 |
| Outside SMSA-nonfarm----- | 369  | 53.4   | 9.8       | 11.6    | 32.0 |
| Outside SMSA-farm-----    | 64   | *  | *         | *       | *    |

Table 6. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, age, and color: United States, based on data collected July 1963-June 1964

[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 color            | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|--------------------------|--|--|-----------|---------|------|
|                          |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>All ages</u>          |  | Percent of surgically treated discharges           |           |         |      |
| Total-----               | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| White-----               | 11,669                                     | 70.1   | 10.9      | 17.4    | 41.8 |
| Nonwhite-----            | 1,166                                      | 41.3   | 4.4       | 7.4     | 29.6 |
| <u>Under 15 years</u>    |  |  |           |         |      |
| Total-----               | 1,951                                      | 79.7   | 10.2      | 19.0    | 50.5 |
| White-----               | 1,817                                      | 82.4   | 10.7      | 20.1    | 51.6 |
| Nonwhite-----            | 134  | 44.0   | *         | *       | 35.1 |
| <u>15-44 years</u>       |  |  |           |         |      |
| Total-----               | 7,384                                      | 62.3   | 10.1      | 16.1    | 36.0 |
| White-----               | 6,607                                      | 65.2   | 10.8      | 17.0    | 37.5 |
| Nonwhite-----            | 777  | 36.8   | 4.1       | 8.8     | 23.9 |
| <u>45-64 years</u>       |  |  |           |         |      |
| Total-----               | 2,409                                      | 78.6   | 9.3       | 17.4    | 51.9 |
| White-----               | 2,217                                      | 80.5   | 9.6       | 18.4    | 52.6 |
| Nonwhite-----            | 193  | 56.8   | *         | *       | 43.7 |
| <u>65 years and over</u> |  |  |           |         |      |
| Total-----               | 1,091                                      | 55.5   | 15.0      | 11.9    | 28.6 |
| White-----               | 1,029                                      | 56.2   | 15.9      | 12.7    | 27.7 |
| Nonwhite-----            | 63   | *  | *         | *       | *    |

Table 7. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, sex, and usual activity status: United States, based on data collected July 1963-June 1964

[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 usual activity status | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|-------------------------------|--|--|-----------|---------|------|
|                               |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>Both sexes</u>             |  | Percent of surgically treated discharges           |           |         |      |
| All activities-----           | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| Preschool-----                | 822  | 75.8   | 11.3      | 19.5    | 45.0 |
| School-----                   | 1,391                                      | 80.0   | 8.9       | 18.6    | 52.5 |
| Usually working-----          | 3,555                                      | 78.6   | 8.8       | 18.9    | 50.9 |
| Keeping house-----            | 5,771                                      | 58.9   | 11.4      | 15.4    | 32.2 |
| Retired-----                  | 575  | 50.2   | 12.2      | 10.5    | 27.3 |
| Other-----                    | 722  | 61.4   | 9.7       | 9.3     | 42.4 |
| <u>Male</u>                   |  |  |           |         |      |
| All activities-----           | 3,936                                      | 75.8   | 9.1       | 16.8    | 49.8 |
| Preschool-----                | 484  | 73.5   | 11.7      | 19.4    | 42.4 |
| School-----                   | 688  | 83.3   | 9.9       | 20.3    | 53.0 |
| Usually working-----          | 1,900                                      | 82.0   | 7.7       | 17.9    | 56.5 |
| Keeping house-----            | ...  | ...  | ...       | ...     | ...  |
| Retired-----                  | 477  | 53.9   | 11.8      | 12.2    | 30.1 |
| Other-----                    | 387  | 61.5   | 8.7       | 7.1     | 45.6 |
| <u>Female</u>                 |  |  |           |         |      |
| All activities-----           | 8,900                                      | 63.8   | 10.9      | 16.3    | 36.7 |
| Preschool-----                | 337  | 79.3   | 10.8      | 19.5    | 48.9 |
| School-----                   | 703  | 77.0   | 8.0       | 16.8    | 52.0 |
| Usually working-----          | 1,655                                      | 74.7   | 10.1      | 20.0    | 44.6 |
| Keeping house-----            | 5,771                                      | 58.9   | 11.4      | 15.4    | 32.2 |
| Retired-----                  | 98   | *  | *         | *       | *    |
| Other-----                    | 336  | 61.2   | 10.9      | 11.9    | 38.5 |

Table 8. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance and condition for which hospitalized: United States, based on data collected July 1963-June 1964

[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]

| Condition for which hospitalized  | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|---|--|--|-----------|---------|------|
|   |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
|   |  | Percent of surgically treated discharges           |           |         |      |
| All conditions-----   | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| Malignant neoplasms-----  | 249  | 72.8   | 15.6      | 9.9     | 47.3 |
| Benign and unspecified neoplasms-----   | 1,077                                      | 82.4   | 10.5      | 22.3    | 49.6 |
| Endocrine, allergic, and metabolic disorders-----   | 135  | 70.0   | *         | 20.8    | 44.6 |
| Diseases of the eye and visual impairments-----   | 294  | 63.7   | 14.4      | 13.7    | 35.6 |
| Mental, personality disorders, deficiencies, vascular lesions, and other diseases of nervous system and sense organs----- | 146  | 74.3   | 14.3      | 30.0    | 30.7 |
| Varicose veins (excluding hemorrhoids)-----   | 106  | 80.2   | 14.2      | 22.6    | 43.4 |
| Hemorrhoids-----  | 239  | 85.2   | 10.1      | 24.9    | 49.8 |
| Diseases of the heart, hypertension without heart involvement, and other diseases of the circulatory system-----          | 122  | 50.9   | *         | *       | 41.4 |
| Respiratory conditions-----   | 1,314                                      | 83.9   | 10.0      | 21.9    | 52.0 |
| Ulcer of stomach and duodenum-----  | 117  | 78.6   | *         | 19.7    | 47.0 |
| Appendicitis-----   | 342  | 75.1   | *         | 21.4    | 50.7 |
| Hernia-----   | 543  | 77.3   | 8.1       | 19.8    | 49.2 |
| Diseases of the gallbladder-----  | 340  | 70.3   | 6.2       | 17.5    | 46.9 |
| Other digestive system conditions-----  | 369  | 64.5   | 4.9       | 10.1    | 49.1 |
| Male genital disorders-----   | 231  | 68.4   | 11.7      | 17.7    | 39.0 |
| Female breast and genital disorders-----  | 677  | 77.0   | 11.7      | 14.0    | 51.3 |
| Other genitourinary system conditions-----  | 395  | 81.1   | 5.3       | 14.7    | 60.8 |
| Deliveries-----   | 3,814                                      | 49.2   | 10.7      | 15.1    | 23.4 |
| Complications of pregnancy and the puerperium-----  | 261  | 55.6   | 12.3      | 13.0    | 30.3 |
| Diseases of the skin-----   | 162  | 87.4   | 15.7      | 20.8    | 51.6 |
| Conditions of bones and joints-----   | 234  | 80.0   | 14.7      | 11.1    | 53.8 |
| Other conditions of the musculoskeletal system-----   | 190  | 81.6   | 11.1      | 13.7    | 56.8 |
| Fractures and dislocations-----   | 730  | 70.7   | 14.6      | 7.4     | 48.8 |
| Other current injuries-----   | 415  | 62.6   | 7.7       | 6.7     | 48.5 |
| All other conditions and observations-----  | 332  | 67.6   | 12.3      | 18.6    | 36.8 |

Table 9. Number of operations for patients discharged from short-stay hospitals and percent of operations, by proportion of surgeon's bill paid for by insurance and type of operation: United States, based on data collected July 1963-June 1964

[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]

| Type of operation  | Number of operations in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|--|-----------------------------------|--|-----------|---------|------|
|  |                                   | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
|  |                                   | Percent of operations                              |           |         |      |
| All operations-----  | 13,623                            | 67.9   | 10.2      | 17.0    | 40.8 |
| Operation on the endocrine system-----                                       | 85                                | 80.5   | *         | 29.3    | 43.9 |
| Operation on the brain and skull-----  | 94                                | 70.2   | *         | *       | 40.4 |
| Other operations on the nervous system (except eye and ear)-----             | 90                                | 72.9   | *         | *       | 42.4 |
| Operation on eye-----  | 327                               | 61.4   | 13.0      | 13.3    | 34.9 |
| Operation on ear and/or mastoid process-----                                 | 99                                | 72.7   | 17.2      | 25.3    | 30.3 |
| Operation on varicose veins-----   | 98                                | 77.6   | 17.3      | 21.4    | 38.8 |
| Tonsillectomy and/or adenoidectomy-----                                      | 1,183                             | 83.9   | 9.3       | 22.6    | 51.9 |
| Operation on throat, pharynx, tonsils, nose, nasopharynx, sinus, n.e.c.----- | 145                               | 82.1   | 20.0      | 13.6    | 48.6 |
| Operation on teeth, gums, and jaw, n.e.c.-----                               | 191                               | 58.2   | *         | 11.5    | 41.2 |
| Operation for ulcers of stomach, duodenum, or jejunum-----                   | 88                                | 77.3   | *         | 19.3    | 50.0 |
| Other operation on stomach, duodenum, or jejunum-----                        | 123                               | 71.5   | *         | 18.7    | 44.7 |
| Operation for appendicitis-----  | 353                               | 74.1   | *         | 21.0    | 49.4 |
| Repair of hernia-----  | 607                               | 76.3   | 7.1       | 18.5    | 50.7 |
| Operation on intestine, n.e.c.-----  | 233                               | 74.7   | 13.3      | 13.3    | 48.0 |
| Operation for hemorrhoids-----   | 253                               | 82.4   | 9.6       | 24.8    | 48.4 |
| Operation on gallbladder or gall ducts-----                                  | 353                               | 69.1   | 6.0       | 17.4    | 45.7 |
| Other operation on digestive system and abdominal region, n.e.c.-----        | 189                               | 65.6   | 11.5      | *       | 49.2 |
| Operation on kidney-----   | 138                               | 83.3   | 10.9      | 15.2    | 57.2 |
| Operation on bladder-----  | 368                               | 79.9   | *         | 17.4    | 58.7 |
| Operation on prostate gland or for any prostate condition--                  | 177                               | 59.2   | 14.4      | 17.2    | 27.0 |
| Other operation on male genital organs-----                                  | 148                               | 73.6   | *         | 30.4    | 35.1 |
| Operation on female breast-----  | 245                               | 82.6   | 14.9      | 8.7     | 59.3 |
| Hysterectomy-----  | 445                               | 81.0   | 8.8       | 22.4    | 49.8 |
| D and C (dilatation and curettage)-----                                      | 765                               | 71.6   | 10.6      | 19.0    | 42.2 |
| Other operation on female genital organs-----                                | 507                               | 76.6   | 9.3       | 21.6    | 45.8 |
| Operation on skin and subcutaneous tissue, n.e.c.-----                       | 444                               | 80.0   | 8.8       | 17.7    | 53.7 |
| Operation for fractures and dislocations-----                                | 667                               | 73.1   | 14.1      | 9.2     | 49.8 |
| Other operation on musculoskeletal system, n.e.c.-----                       | 867                               | 73.9   | 10.0      | 14.1    | 49.9 |
| Cesarean delivery-----   | 156                               | 68.6   | *         | 26.9    | 34.6 |
| All other deliveries-----  | 3,664                             | 48.2   | 10.8      | 14.5    | 22.9 |
| All other operations-----  | 520                               | 70.7   | 11.4      | 14.0    | 45.3 |

Table 10. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, age, and length-of-stay intervals: United States, based on data collected July 1963-June 1964

[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 length-of-stay intervals | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|----------------------------------|--|--|-----------|---------|------|
|                                  |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>All ages</u>                  |  | Percent of surgically treated discharges           |           |         |      |
| All intervals-----               | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| 1-3 days-----                    | 4,983                                      | 64.7   | 9.0       | 15.7    | 40.0 |
| 4-7 days-----                    | 4,484                                      | 67.8   | 11.2      | 18.1    | 38.5 |
| 8-14 days-----                   | 2,098                                      | 75.1   | 10.7      | 18.0    | 46.5 |
| 15 days and over-----            | 1,270                                      | 64.8   | 12.3      | 10.8    | 41.7 |
| <u>Under 15 years</u>            |  |  |           |         |      |
| All intervals-----               | 1,951                                      | 79.7   | 10.2      | 19.0    | 50.5 |
| 1-3 days-----                    | 1,402                                      | 83.0   | 10.9      | 19.6    | 52.7 |
| 4-7 days-----                    | 319  | 74.2   | 10.6      | 19.7    | 44.2 |
| 8-14 days-----                   | 128  | 69.6   | *         | 20.8    | 44.8 |
| 15 days and over-----            | 103  | 62.9   | *         | *       | 48.5 |
| <u>15-44 years</u>               |  |  |           |         |      |
| All intervals-----               | 7,384                                      | 62.3   | 10.1      | 16.1    | 36.0 |
| 1-3 days-----                    | 2,920                                      | 53.4   | 8.4       | 13.5    | 31.6 |
| 4-7 days-----                    | 3,227                                      | 65.3   | 11.8      | 18.3    | 35.2 |
| 8-14 days-----                   | 893  | 77.6   | 9.0       | 17.9    | 50.6 |
| 15 days and over-----            | 344  | 69.6   | 11.3      | 13.4    | 45.1 |
| <u>45-64 years</u>               |  |  |           |         |      |
| All intervals-----               | 2,409                                      | 78.6   | 9.3       | 17.4    | 51.9 |
| 1-3 days-----                    | 502  | 80.3   | 7.4       | 16.1    | 56.9 |
| 4-7 days-----                    | 670  | 78.9   | 7.5       | 17.6    | 53.8 |
| 8-14 days-----                   | 748  | 81.8   | 12.1      | 21.0    | 48.8 |
| 15 days and over-----            | 489  | 71.5   | 9.9       | 12.8    | 49.1 |
| <u>65 years and over</u>         |  |  |           |         |      |
| All intervals-----               | 1,091                                      | 55.5   | 15.0      | 11.9    | 28.6 |
| 1-3 days-----                    | 158  | 56.8   | 10.1      | 20.3    | 26.4 |
| 4-7 days-----                    | 269  | 61.8   | 13.4      | 15.4    | 33.5 |
| 8-14 days-----                   | 329  | 54.9   | 14.5      | 10.4    | 30.0 |
| 15 days and over-----            | 335  | 50.3   | 19.4      | 6.5     | 24.5 |

Table 11. Number of surgically treated discharges from short-stay hospitals and percent of surgically treated discharges, by proportion of surgeon's bill paid for by insurance, sex, and type of hospital ownership: United States, based on data collected July 1963-June 1964

[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 type of hospital ownership | Surgically treated discharges in thousands | Proportion of surgeon's bill paid for by insurance |           |         |      |
|------------------------------------|--|--|-----------|---------|------|
|                                    |  | Any part   | Under 1/2 | 1/2-3/4 | 3/4+ |
| <u>Both sexes</u>                  |  | Percent of surgically treated discharges           |           |         |      |
| Total-----                         | 12,836                                     | 67.5   | 10.3      | 16.5    | 40.7 |
| Nonprofit-----                     | 8,898                                      | 73.8   | 11.8      | 18.0    | 43.9 |
| Proprietary-----                   | 822  | 70.1   | 10.9      | 16.9    | 42.2 |
| Government-non-Federal-----        | 2,160                                      | 52.0   | 7.0       | 13.4    | 31.6 |
| Government-Federal-----            | 455  | *  | *         | *       | *    |
| Osteopathic-----                   | 337  | 75.1   | 7.5       | 17.1    | 50.6 |
| Other-----                         | 165  | 69.8   | *         | 16.8    | 49.0 |
| <u>Male</u>                        |  |  |           |         |      |
| Total-----                         | 3,936                                      | 75.8   | 9.1       | 16.8    | 49.8 |
| Nonprofit-----                     | 2,726                                      | 82.3   | 10.6      | 17.8    | 53.9 |
| Proprietary-----                   | 281  | 79.0   | 11.4      | 22.1    | 46.0 |
| Government-non-Federal-----        | 589  | 62.8   | 5.4       | 14.7    | 42.4 |
| Government-Federal-----            | 187  | *  | *         | *       | *    |
| Osteopathic-----                   | 91   | 93.3   | *         | 19.1    | 69.7 |
| Other-----                         | 61   | *  | *         | *       | *    |
| <u>Female</u>                      |  |  |           |         |      |
| Total-----                         | 8,900                                      | 63.8   | 10.9      | 16.3    | 36.7 |
| Nonprofit-----                     | 6,171                                      | 70.0   | 12.3      | 18.0    | 39.6 |
| Proprietary-----                   | 541  | 65.5   | 10.9      | 14.4    | 40.3 |
| Government-non-Federal-----        | 1,570                                      | 48.1   | 7.6       | 12.9    | 27.5 |
| Government-Federal-----            | 268  | *  | *         | *       | *    |
| Osteopathic-----                   | 245  | 68.6   | 9.0       | 15.9    | 44.1 |
| Other-----                         | 103  | 68.8   | *         | 17.2    | 49.5 |

## APPENDIX I

### TECHNICAL NOTES ON METHODS

#### Background of This Report

This report is one of a series of statistical reports prepared by the National Health Survey. It is based on information collected in a continuing nationwide sample of households in the Health Interview Survey, a major part 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 1964.

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. It should also be noted that the estimates shown do not represent a complete count of surgically treated discharges from short-stay hospitals during the period since no adjustment has been made for household members who were hospitalized for surgical treatment during the 6-month-recall period but who died prior to the time the household was interviewed.

#### 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 357 from about 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 combined and treated in this discussion as an ultimate stage. Within PSU's, then, ultimate stage units called segments are defined in such a manner that each segment contains an expected nine

households. A segment consists of a cluster of neighboring households or addresses. Two general types of segments are used: (1) area segments which are defined geographically, and (2) B segments which are defined from a list of addresses from the Decennial Census and Survey of Construction. Each week a random sample of about 90 segments is drawn. In the approximately 800 households in these 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 for the 12-month period ending June 1964 included about 134,000 persons from 42,000 households in about 4,700 segments.

The overall 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.*—Field operations for the household survey are performed by the Bureau of the Census under specifications established by the National Center for Health Statistics. In accordance with these specifications the Bureau of the Census selects the sample, conducts the field interviewing as an agent of NCHS, and performs a manual editing and coding of the questionnaires. The Survey, using NCHS electronic computers, carries out further editing and tabulates the edited data.

*Estimating methods.*—Each statistic produced by the survey—for example, the number of surgically treated discharges from short-stay hospitals—is the result of two stages of ratio estimation. In the first of these, the control factor is the ratio of the 1960 decennial population count to the 1960 estimated population in the National Health Survey's first-stage sample of PSU's. These factors are applied for some 25 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 this 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.

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

### 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 with persons in the sampled households. Each person 19 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 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. A description of the classes of statistics used in the health survey and general rules for determining relative sampling errors are presented in Appendix I of "Current Estimates" (*Vital and Health Statistics*, Series 10, No. 13).

The following guide indicates the appropriate rules and charts to be used in deriving relative standard errors for estimates shown in this report.

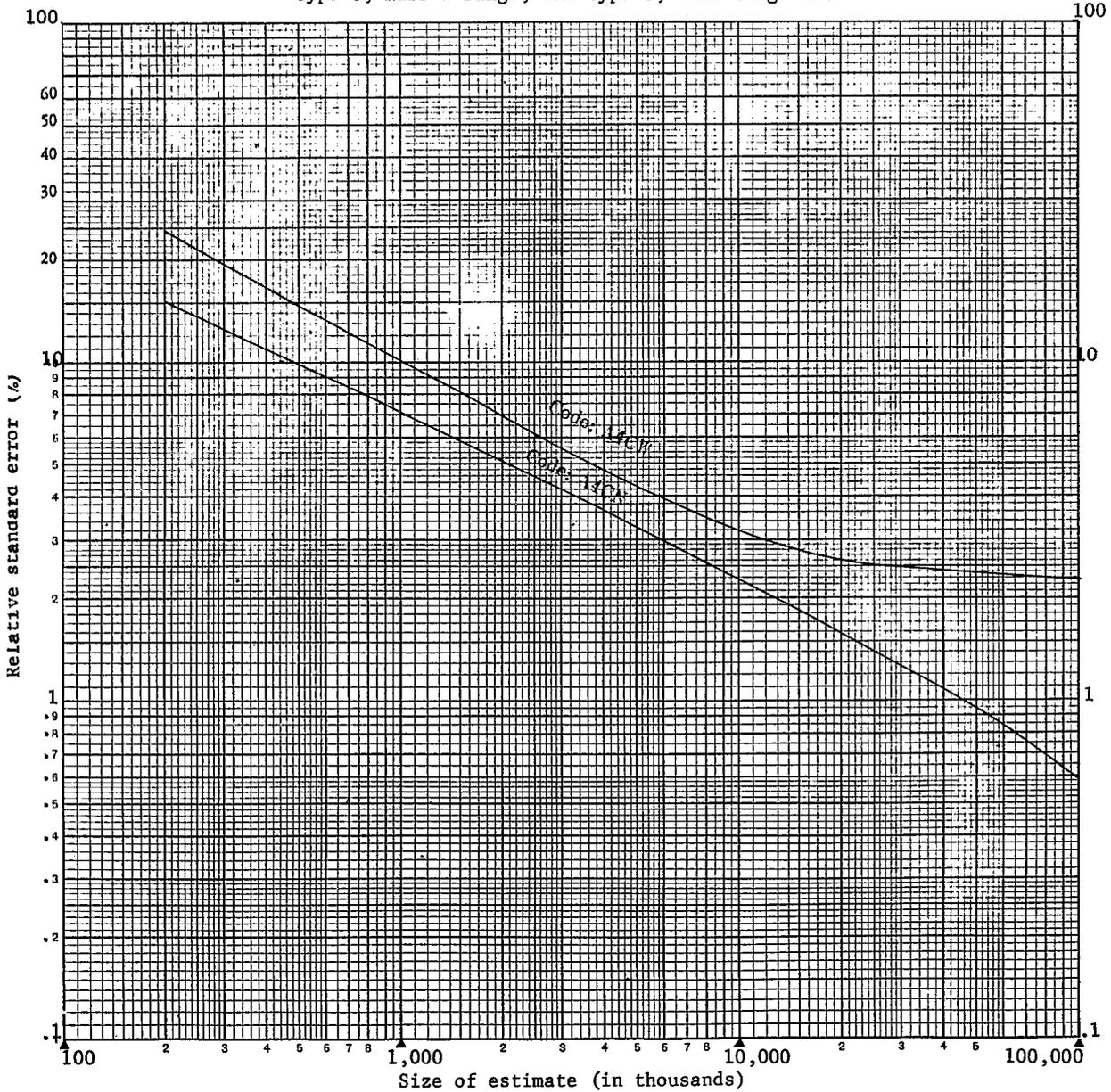
## Guide to Use of Relative Standard Error Charts

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; and (4) the range of the statistic as described in *Vital and Health Statistics*, Series 10, No. 13.

| Statistic                   | Use: |                                |          |
|-----------------------------|------|--------------------------------|----------|
|                             | Rule | Code                           | on page  |
| Number of:                  |      |                                |          |
| Hospital discharges-----    | 1    | A4CN                           | 33       |
| Hospital days-----          | 1    | A4CW                           | 33       |
| Operations-----             | 1    | A4CN                           | 33       |
| Percent distribution of:    |      |                                |          |
| Hospital discharges-----    | 2    | P4CN-M                         | 34       |
| Hospital days-----          | 2    | P4CW                           | 35       |
| Operations-----             | 2    | P4CN-M                         | 34       |
| Average length of stay----- | 4(b) | } Numer: A4CW<br>} Denom: A4CN | 33<br>33 |

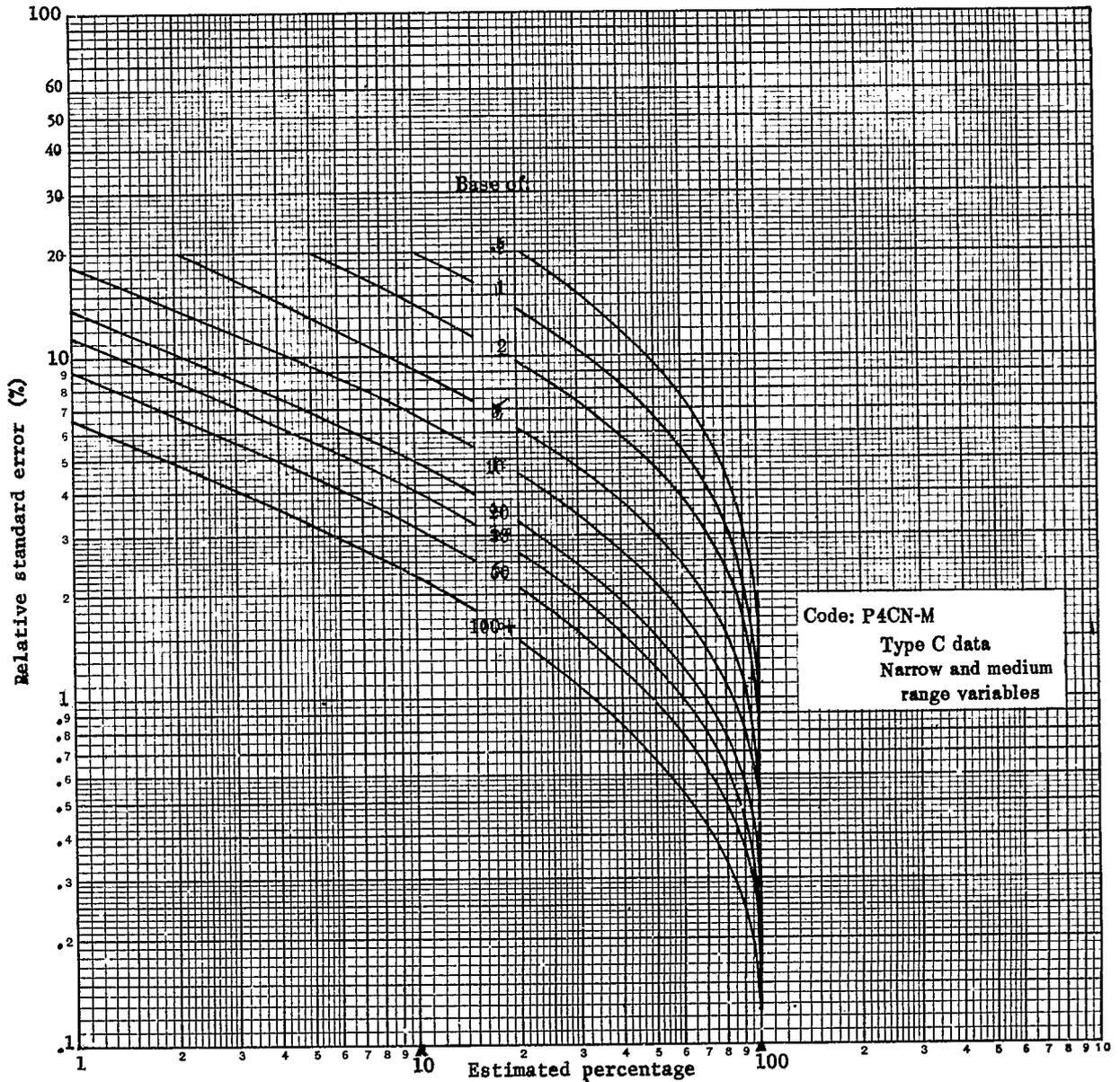
Relative standard errors for aggregates based on four quarters of data collection for type C, Narrow range, and type C, Wide range data



Example of use of chart: An aggregate of 1,000,000 (on scale at bottom of chart) for a Narrow range type C statistic (code: A4CN) has a relative standard error of 7.1 percent, read from scale at left side of chart, or a standard error of 71,000 (7.1 percent of 1,000,000).

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

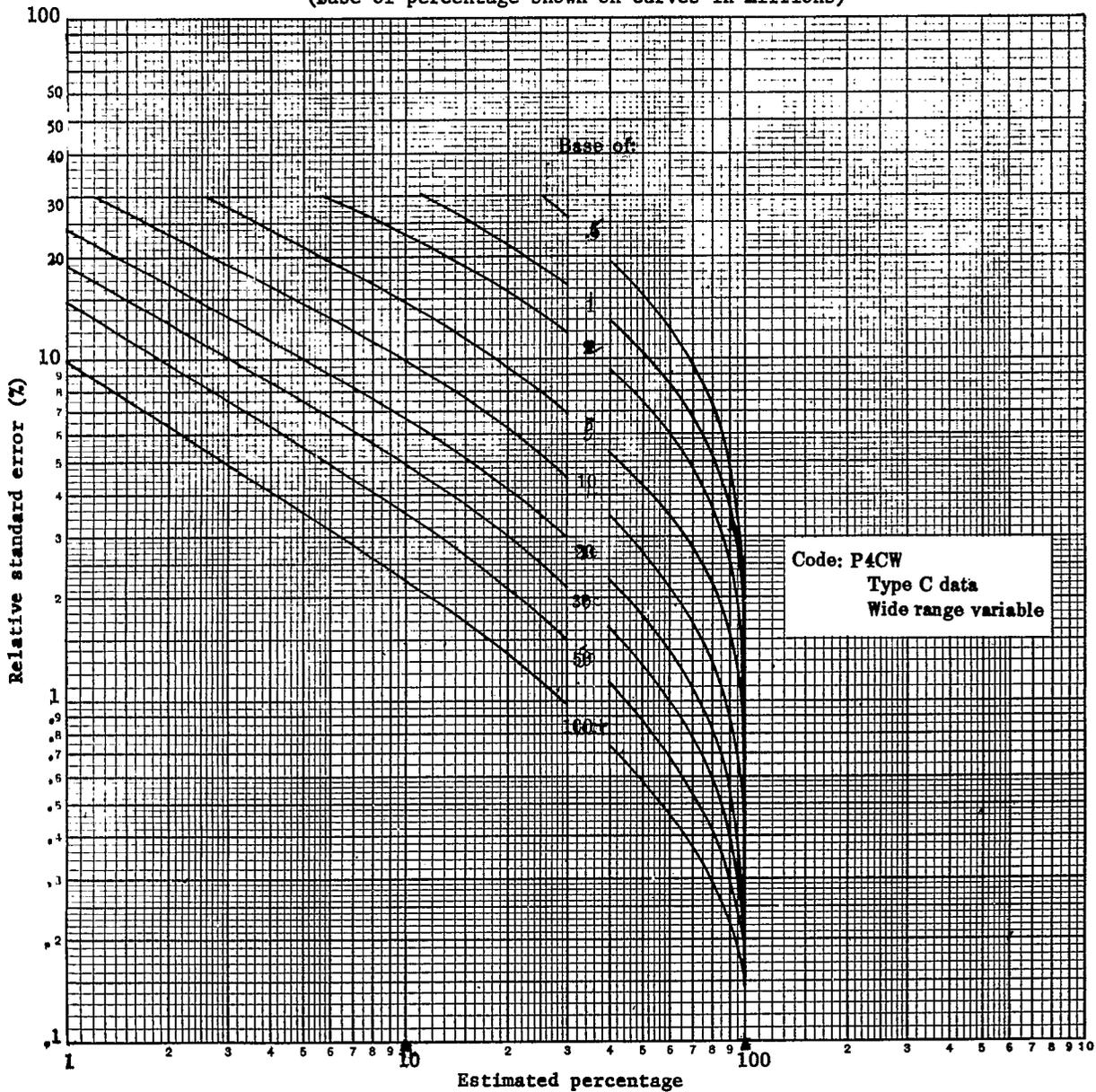
(Base of percentage shown on curves in millions)



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 4.6 percent (read from 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 4.6 percent or 0.9 percentage points.

Relative standard errors for percentages based on four quarters of data collection for type C data, Wide 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 6.3 percent (read from 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 6.3 percent or 1.3 percentage points.



## APPENDIX II

### DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

#### Terms Relating to Hospitalization

*Hospital discharge.*—A hospital discharge is the completion of any continuous period of stay of 1 or more nights in a hospital, as an inpatient, except for 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 during the 12-month period prior to the interview week. (Estimates were based on discharges which occurred during the 6-month period prior to the interview.)

*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 current Guide Issue of *Hospitals*, the Journal of the American Hospital Association; (2) named in the listing of hospitals in the 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.

*Hospital ownership.*—Hospital ownership is a classification of hospitals according to the type of organization that controls and operates the hospital. The category to which an individual hospital is assigned and the definition of these categories follow 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.

*Hospital day.*—A hospital day is a day on 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 2 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 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.

*Condition for which hospitalized.*—The condition for which hospitalized is the condition responsible for a hospitalization. If there is more than one hospital condition for any one episode, only that one believed to be chiefly responsible for the stay in the hospital is tabulated. If a person enters a hospital for diagnostic tests or for an operation, the condition that made the tests or operation necessary is considered to be the condition for which hospitalized.

Normal delivery in a hospital is included as a condition for which hospitalized but care of the well, newborn infant is not.

Conditions, except impairments, are coded by type according to the International Classification of Diseases, with certain modifications adopted to make the code more suitable for a household-interview-type survey. For Survey results for the period ending June 1964, the 1955 Revision of the International Classification was used. Impairments are coded according to a special supplementary classification.

The list at the end of this appendix shows the code numbers of the International Classification and special supplementary classification of impairments included in the condition groups used in this report.

*Surgical operation.*—A surgical operation includes any cutting or piercing of the skin or other tissue; stitching of cuts or wounds; setting of fractures and dislocations; and the introduction of tubes for drainage, "tapping," and terms ending in "scopy" (e.g., cystoscopy).

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.

## Terms Relating to Surgical Insurance

*Surgical insurance.*—Insurance which pays all or part of the doctor's or surgeon's bill for an operation performed either in a hospital or in the doctor's office. Insurance which pays the costs of visits to a doctor's office for postoperative care is included as surgical insurance.

*Proportion of surgeon's bill paid by insurance.*—The proportion of the surgeon's bill paid (also referred to as fraction of surgeon's bill paid) by insurance was determined by the respondent's own estimate of the part of the total surgical bill that was paid for or was expected to be paid for by insurance. The response categories used are: (a) no part of the surgeon's bill paid by insurance, (b) less than one-half, (c) one-half and up to but not including three-fourths, (d) three-fourths or more.

## Demographic, Social, and Economic Terms

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

*Color.*—In this report the population has been subdivided into two groups according to race, "white" and "nonwhite." Nonwhite includes Negro, American Indian, Chinese, Japanese, and so forth. Mexican persons are considered white unless definitely known to be Indian or members of another nonwhite race.

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

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

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

The categories of educational status show the highest grade of school completed. Only grades completed in regular schools, where persons are given a formal education, are included. A "regular" school is one which advances a person toward an elementary or high school diploma or a college, university, or professional school degree. Thus, education in vo-

ational, trade, or business schools outside the regular school system is not counted in determining the highest grade of school completed.

*Usual activity status.*—All persons in the population 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. Children under 6 years of age are classified as "pre-school." All persons aged 6-16 years are classified as "school age."

The categories of usual activity status used in this report for persons aged 17 years and over are as follows: *usually working*, *usually keeping house*, *retired*, and *other*. 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 1 week. Third, the minimum age for usually working persons is 17 in the National Health Survey and the official labor force categories include all persons aged 14 years or older. Finally, in the definitions of specific categories which follow, certain marginal groups are classified differently to simplify procedures.

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

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

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

*Other* includes males 17 years of age or older not classified as "working" or "retired" and females 17 years of age or older not classified as "working," "keeping house," or "retired." Persons aged 17 years and over who are going to school are included in this group.

*Residence.*—The place of residence of a member of the civilian, noninstitutional population is classified as either inside a standard metropolitan statistical area (SMSA) or outside an SMSA, according to farm or non-farm residence.

*Standard metropolitan statistical areas.*—The definitions and titles of standard metropolitan statistical areas (SMSA's) are established by the U.S. Bureau of the Budget with the advice of the Federal Committee on Standard Metropolitan Statistical Areas. There were 212 SMSA's defined for the 1960 Decennial Census for which data may be provided for places of residence in the Health Interview Survey.

The definition of an individual SMSA involves two considerations: first, a city or cities of specified population which constitute the central city and identify the county in which it is located as the central county; and second, economic and social relationships with contiguous counties (except in New England) which are metropolitan in character, so that the periphery of the specific metropolitan area may be determined. SMSA's are not limited by State boundaries.

*Farm and nonfarm residence.*—The population residing outside SMSA's is subdivided into the farm population which comprises all non-SMSA residents living on farms and the nonfarm population which comprises the remaining non-SMSA population. The farm population includes persons living on places of 10 acres or more from which sales of farm products amounted to \$50 or more during the previous 12 months or on places of less than 10 acres from which sales of farm products amounted to \$250 or more during the preceding 12 months. Other persons living in non-SMSA territory were classified as nonfarm if their

household paid rent for the house but their rent did not include any land used for farming.

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

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

| <i>Region</i>    | <i>States Included</i>   |
|------------------|--|
| 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, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas |
| West-----        | Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Alaska, Washington, Oregon, California, Hawaii   |

*Condition for Which Hospitalized*

*International Classification of Diseases  
Code numbers<sup>1</sup>*

|   |  |
|---|--|
| Malignant neoplasms-----  | 140-205  |
| Benign and unspecified neoplasms-----   | 210-239  |
| Endocrine, allergic, and metabolic disorders-----   | 240-254, 260, 270-289  |
| Diseases of the eye and visual impairments-----   | 370-388, 753.0, 781.0-781.2, X00-X05   |
| Mental, personality disorders, deficiencies, vascular lesions, and other diseases of nervous system and sense organs----- | 083.1, 083.2, 300-326, 300-334, 340-369, 390-396, 780, 781, 790, X06-X19, except 781.0-781.2 |
| Varicose veins (excluding hemorrhoids)-----   | 460, 462   |
| Hemorrhoids-----  | 461  |
| Disease of the heart, hypertension without heart involvement, and other diseases of the circulatory system-----           | 400-402, 410-447, 450-456, 463-468, 782  |
| Respiratory conditions-----   | 470-475, 480-502, 510-527, 783, X36  |
| Ulcer of stomach and duodenum-----  | 540-542  |
| Appendicitis-----   | 550-553  |
| Hernia-----   | 560, 561   |
| Diseases of the gallbladder-----  | 584-586  |
| Other digestive system conditions-----  | 530-539, 543-545, 570-583, 587, 784, 785, X35  |
| Male genital disorders-----   | 610-617  |
| Female breast and genital disorders-----  | 620-637  |
| Other genitourinary system conditions-----  | 590-609 (620, 621 males), 786, 789, X37, X38   |
| Deliveries-----   | 660, 670-678   |
| Complications of pregnancy and the puerperium-----  | 640-652, 680-689   |
| Diseases of the skin-----   | 690-716  |
| Conditions of bones and joints-----   | 720-725, 730-733, 735, 738, (N800-N829) <sup>2</sup> , X70-X79                               |
| Other conditions of the musculoskeletal system-----   | 726, 727, 740-744, 787, X20-X34, X80-X89   |
| Fractures and dislocations-----   | N800-N839 <sup>3</sup>   |
| Other current injuries-----   | N840-N999 <sup>3</sup>   |
| All other conditions and observations-----  | All other ICD and "X-Code" numbers   |

<sup>1</sup>Conditions, except impairments, are coded according to the International Classification of Diseases with certain modifications, and impairments are coded according to a special supplementary classification referred to as the "X-Code." Numbers preceded by the letter "X" refer to this special supplementary classification. Copies of this code are available upon request. If the conditions included in an "ICD" number are equivalent to those included in an "X-Code" category, the ICD number is not used.

<sup>2</sup>With .9 in the 4th digit.

<sup>3</sup>Other than .9 in the 4th digit.

APPENDIX III

QUESTIONNAIRE ITEMS REFERRING TO HOSPITALIZATIONS AND PROPORTION OF SURGEON'S (DOCTOR'S) BILL PAID FOR BY ANY KIND OF INSURANCE

| Table II - HOSPITALIZATIONS |                    |                                  |  |   |   |  |   |  |  |
|-----------------------------|--------------------|----------------------------------|--|---|---|--|---|--|--|
| Line Number                 | Col. No. of person | Question No.                     | USE YOUR CALENDAR  |   |   |  | Complete from entries in Columns (c) and (d); or, if not clear ask the questions. |  | For what condition did you enter the hospital -- do you know the medical name?<br><br>(If medical name not known, enter respondent's description.)<br><br>(Entry must show "Cause," "Kind," and "Part of body" in same detail as required in Table I.) |
|                             |                    |                                  | You said that you were in the hospital (once, twice, etc.) during the past year --<br><br>When did you enter the hospital (the last time)?<br><br>(Enter month, day and year; if exact date not known, obtain estimate.) | How many nights were you in the hospital?<br><br>(If exact number not known accept best estimate) | How many of these -- nights were in the post 12 months? | How many of these -- nights were last week or the week before? | Were you still in the hospital last Sunday night?                                 |  |  |
| (a)                         | (b)                | (c)                              | (d)  | (e)   | (f)   | (g)  | (h)   |  |  |
| 1                           |                    | Month _____ Day _____ Year _____ | Nights _____   | Nights _____  | Nights _____  | <input type="checkbox"/> Yes<br><input type="checkbox"/> No    |   |  |  |
| 2                           |                    | Month _____ Day _____ Year _____ | Nights _____   | Nights _____  | Nights _____  | <input type="checkbox"/> Yes<br><input type="checkbox"/> No    |   |  |  |
| 3                           |                    | Month _____ Day _____ Year _____ | Nights _____   | Nights _____  | Nights _____  | <input type="checkbox"/> Yes<br><input type="checkbox"/> No    |   |  |  |
| 4                           |                    | Month _____ Day _____ Year _____ | Nights _____   | Nights _____  | Nights _____  | <input type="checkbox"/> Yes<br><input type="checkbox"/> No    |   |  |  |

| Were any operations performed on you during this stay at the hospital?<br>If "Yes," ask:<br>(a) What was the name of the operation?<br>(b) Any other operations? | Ask Col. (j) - (n) ONLY for completed hospitalizations ("No" in Col. (g)) AND delivery or operation shown in Col. (h) or Col. (i) |   |   |  | TABLE II - HOSPITALIZATIONS<br>Ask for all hospitalizations   |   | Line Number |
|--|---|---|---|--|---|---|-------------|
|  | Was any part of the surgeon's (doctor's) bill paid for by any kind of insurance?  | If "No" to Col. (j), ask: Do you expect any of the surgeon's (doctor's) bill to be paid for by insurance of any kind? | Did (will) the insurance pay for 1/2 or more of the surgeon's (doctor's) bill?                | Did (will) the insurance pay for 3/4 or more of the surgeon's (doctor's) bill? | What is the name of the insurance company or plan?<br><br>(If unable to determine whether or not insurance, describe in footnote space below.)  | What is the name and address of the hospital you were in?<br><br>(Enter full name of hospital, street or highway on which it is located, city and State; if city not known, enter country.) |             |
| (i)  | (j)   | (k)   | (l)   | (m)  | (n)   | (o)   |             |
| <input type="checkbox"/> Yes <input type="checkbox"/> No   | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (k))                                     | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (o))                         | <input type="checkbox"/> Yes (Go to Col. (m))<br><input type="checkbox"/> No (Go to Col. (n)) | <input type="checkbox"/> Yes<br><input type="checkbox"/> No                    | <input type="checkbox"/> Yes insurance<br>Not insurance (Check one):<br><input type="checkbox"/> Armed Forces Medicare<br><input type="checkbox"/> Free care<br><input type="checkbox"/> Other (Specify in footnotes) | Name _____<br>Street _____ City and State _____   | 1           |
| <input type="checkbox"/> Yes <input type="checkbox"/> No   | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (k))                                     | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (o))                         | <input type="checkbox"/> Yes (Go to Col. (m))<br><input type="checkbox"/> No (Go to Col. (n)) | <input type="checkbox"/> Yes<br><input type="checkbox"/> No                    | <input type="checkbox"/> Yes insurance<br>Not insurance (Check one):<br><input type="checkbox"/> Armed Forces Medicare<br><input type="checkbox"/> Free care<br><input type="checkbox"/> Other (Specify in footnotes) | Name _____<br>Street _____ City and State _____   | 2           |
| <input type="checkbox"/> Yes <input type="checkbox"/> No   | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (k))                                     | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (o))                         | <input type="checkbox"/> Yes (Go to Col. (m))<br><input type="checkbox"/> No (Go to Col. (n)) | <input type="checkbox"/> Yes<br><input type="checkbox"/> No                    | <input type="checkbox"/> Yes insurance<br>Not insurance (Check one):<br><input type="checkbox"/> Armed Forces Medicare<br><input type="checkbox"/> Free care<br><input type="checkbox"/> Other (Specify in footnotes) | Name _____<br>Street _____ City and State _____   | 3           |
| <input type="checkbox"/> Yes <input type="checkbox"/> No   | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (k))                                     | <input type="checkbox"/> Yes (Go to Col. (j))<br><input type="checkbox"/> No (Go to Col. (o))                         | <input type="checkbox"/> Yes (Go to Col. (m))<br><input type="checkbox"/> No (Go to Col. (n)) | <input type="checkbox"/> Yes<br><input type="checkbox"/> No                    | <input type="checkbox"/> Yes insurance<br>Not insurance (Check one):<br><input type="checkbox"/> Armed Forces Medicare<br><input type="checkbox"/> Free care<br><input type="checkbox"/> Other (Specify in footnotes) | Name _____<br>Street _____ City and State _____   | 4           |

NOTE: Complete questionnaire used during interview period July 1963-June 1964 may be found in Series 10, No. 13.

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