

Hospitalization Insurance and Hospital Utilization Among Aged Persons: March 1952 Survey

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Current, factual information has been lacking on many points concerned with illness as a cause of insecurity among aged persons. To obtain basic Nation-wide information on some of these matters, a special survey was made in March 1952 through the medium of the monthly Current Population Survey made by the Bureau of the Census. The data collected concern the extent to which persons in the noninstitutional population aged 65 and over own hospitalization insurance, the amount of hospital care they receive, and the methods and resources used to meet their hospital bills. The results of the survey will be published in a monograph, now in preparation; the major findings are summarized in the article that follows.

IT IS now widely recognized that the costs of hospital and other medical care create serious economic problems for aged persons as for others, and that people need protection against these costs. Indeed, the need for distribution of medical costs among groups of people and over periods of time—through insurance, taxation, or both—is presumably greater for the aged than for younger persons, because older people have more-than-average amounts of illness and less-than-average financial resources.

With respect to hospital care for the aged, three basic assumptions have had rather wide acceptance: (1) That older people need more care per capita than the population generally, reflecting the relatively higher morbidity rates of the advanced ages; (2) that they are not receiving the care they need, for many reasons—including lack of hospital resources in many communities, insufficiency

of less expensive facilities suitable for the care of aged persons who need medical supervision but not care for acute illness, limited ability to pay for hospital and other medical care, and inadequate public provisions for hospital care for needy and medically needy persons in many parts of the country; (3) that only a small proportion of the older persons have substantial or comprehensive insurance protection against hospital and other medical costs, because the common forms of voluntary insurance are not readily available to people past age 65 or are purchasable only at prices beyond their means.

These have remained largely assumptions because current factual information has been either fragmentary or completely lacking. Indeed, there has been no substantial quantitative information of current reliability concerning hospital utilization by older persons in the United States, except for limited data concerning needy or other special groups. As a result, it has not been possible to make a careful evaluation of current circumstances and needs of the aged or to undertake altogether reliable program planning for their hospital care, though their lack of economic security when confronted

by expensive illness has been plainly evident and many of its consequences have been recognized.

Method of the Survey

To assemble some basic Nation-wide information on the ownership of hospitalization insurance by the population aged 65 and over and on the receipt of hospital care by insured and noninsured individuals in those age groups, a special survey was made in March 1952. The field survey was made for the Social Security Administration by the Bureau of the Census, in connection with its regular monthly Current Population Survey that is designed to assemble, on a sample basis, national information concerning the civilian noninstitutional population of the United States. Although designed primarily to provide current statistics concerning employment and unemployment for the *Monthly Report on the Labor Force*, the Current Population Survey is frequently used for special surveys on a wide variety of subjects that lend themselves to inquiry through a scientifically selected sample of households throughout the country.¹

The Bureau of the Census added to its schedule for the March 1952 survey a series of special questions. These were asked of, or about, persons aged 65 or over in the 25,000 households that constitute the representative survey sample. About 6,000 persons aged 65 and over are among the 60,000 aged 14 and over surveyed monthly. The data collected included,

¹ For a detailed description see Morris H. Hansen and William N. Hurwitz, *Sampling Methods Applied to Census Work*, Bureau of the Census, 1946; and *Concepts and Methods Used in Current Labor Force Statistics Prepared by the Census Bureau*, Labor Force Memorandum No. 5, Bureau of the Census, November 1950.

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in addition to the answers to the special questions on insurance ownership and hospital experience, the items covered in the regular monthly inquiries concerning age, sex, race, occupation, industry, and place of residence. Thus, the answers to the special questions could be related to these basic characteristics of the individuals.

The special questions asked of, or about, any person aged 65 or over located in the household were as follows: (1) "Does _____ have hospitalization insurance or belong to a plan that covers all or part of the costs of hospitalization?" (2) "Was _____ a patient in a hospital any time during 1951?" If the reply to the second question was in the affirmative, it was followed by (3) "How many days, altogether, was _____ in the hospital in 1951?" (4) "What is the name of the hospital?" and (5) "How was the hospital bill taken care of?"

The interviewers were instructed to exclude "accident only" and "weekly indemnity" ("cash sickness") insurance. The name of the hospital was requested to enable the schedule editors to exclude hospitalization in mental and tuberculosis institutions without having the interviewers ask probing questions. Care in nursing homes, convalescent homes, or homes for the aged and for incurables was excluded. The final data were confined to care in general and special (short-term) hospitals, regardless of type of control, so that Federal, State, county, city, and private nonprofit and proprietary hospitals were included.

Limitations of the Data

Data collected through a sample are subject to sampling variability. In the present study, the range of possible sampling variability is of known magnitude and can be taken into account when interpreting the results. In addition to sampling variability, there were possible inaccuracies because of the respondent's incomplete knowledge or unreliable memory.

It was recognized in advance that many survey respondents might have faulty ideas about the hospital insurance they owned, especially if an

insurance claim had not been filed, and that there might be some misstatement of the extent of insurance protection. Since the survey could not look into the details of insurance policies, no attempt was made to ascertain the precise scope of the insurance owned or of the kinds and amounts of benefits provided. Consequently, persons reported as owning hospitalization insurance are regarded as having some hospitalization insurance, whether comprehensive or limited in the protection it provides.

Ownership of insurance was recorded as of the survey date, and the ratios of insured persons to all persons aged 65 and over are therefore as of March 1952. When calculating hospitalization rates with reference to insured status, it was assumed that the insured status reported in March 1952 had been continuously maintained in 1951. To the extent that some persons who were hospitalized in 1951 and had insurance then did not have it in March 1952, a slight error arises. However, no non-insured persons in March 1952 reported using insurance to pay hospital bills in 1951. In the converse situation it is unlikely that—in this surveyed population of older persons—many persons who were hospitalized in 1951 and did not have insurance then would have obtained it by March 1952.

Responses concerning the occurrence of a hospital stay and its length are believed to be substantially accurate, though in some instances they may be faulty. The returns are probably highly accurate as to hospital admissions, especially because there were relatively few multiple admissions per surveyed person in the course of the year, but they may contain both overstatements and understatements, probably of offsetting magnitudes, on the number of days spent in the hospital.

A more important limitation on the data concerning hospital care results from the fact that the interviews were held in March 1952 and the data sought were for hospital care received in 1951. As in other surveys that collect information retroactively, this method can provide reasonably accurate information on the amount of hospital care received

by the surveyed population. No error results if the findings are used as an indication of the care received in 1951 by that population. If, however, the results are to be used to indicate the amount of hospital care furnished during 1951 by all the hospitals of the country to all persons who were aged 65 and over at the time they received the care, adjustments must be made.

Such an adjustment is especially necessary with respect to the care furnished in 1951 to persons who were no longer living in March 1952 and therefore not in the surveyed population. The adjustment is of considerable consequence with respect to older persons, because of their relatively high death rates and the relatively large amount of hospital care furnished to those who die in the course of a year. Rates that show the amount of hospital care furnished in 1951 to all persons aged 65 and over, including decedents, are presented after the rates for the March 1952 population have been given in detail.

The Bureau of the Census sample relates to all civilians living within the continental limits of the United States, except inmates of penal institutions, mental institutions, homes for the aged, infirm, and needy, and similar places. The findings are therefore applicable only to the civilian noninstitutional population. Statistical tests indicate that omission of the institutional population aged 65 and over in the survey month—approximately 1 million persons—has only a negligible effect on the hospital utilization rates. This group received such a small amount of care from general and special (short-term) hospitals in 1950, in comparison with those in the noninstitutional population, that hardly any adjustment is needed in arriving at an estimate of total hospital care in such hospitals for all persons aged 65 and over.

Ownership of Hospitalization Insurance

Since the ownership of hospitalization insurance may affect the rate or extent of hospitalization substantially, the findings with respect to insurance are presented first.

The survey indicates that of the 12.0 million persons in the noninstitutional population aged 65 and over in March 1952, about 3.2 million or 26.3 percent had some hospitalization insurance. Table 1 shows the percentage distribution of the 12.0 million with respect to age, sex, race, and other characteristics; it also shows, as percentages of the 12.0 million persons, the number in each subgroup who had hospitalization insurance. The uneven distribution of insurance is evident in many of the subgroups. Several subgroups have a much higher or a much lower proportion insured than 1 in 4—the average for the whole population. Nearly every category in the age bracket 65–69, and all the age-sex categories “in the labor force,” have more than 1 in 4; the nonwhite groups, the farm residents, and those “not in the labor force” have less than 1 in 4.

The percentage distribution of the 3.2 million persons having some hospitalization insurance is shown in table 2. The points noted earlier about the distribution of insurance ownership are even clearer when tables 1 and 2 are compared. Though men constituted 47 percent of the total survey group in March 1952, they represented 54 percent of those with some insurance. Persons aged 65–69 made up 40 percent of the total but 55 percent of the insured group. The nonwhite population accounted for 7 percent of the total but only 3 percent of the insured population. For farm residents, the corresponding percentages were 15 and 9; for persons in the labor force, 23 and 39; and for those not in the labor force, 77 and 61.

Age, sex, and race.—The extent and distribution of hospitalization insurance by age, sex, and race are summarized in table 3. As noted earlier, 26.3 percent of the survey group reported having some hospitalization insurance in March 1952. About 30 percent of the men and 23 percent of the women were protected by some kind or amount of insurance against hospital bills. In contrast to 27.5 percent of the aged white population, only 10.5 percent of the aged nonwhite population reported owning insurance.

The prevalence of insurance own-

Table 1.—Noninstitutional population aged 65 and over, by selected characteristics and by ownership of hospitalization insurance, March 1952

Population group	Percentage distribution, by age group				Number aged 65 and over (in thousands)
	65 and over	65-69	70-74	75 and over	
Total.....	100.0	40.1	27.9	32.0	12,006
With some insurance.....	26.3	14.5	6.9	4.8	3,158
Sex:					
Male.....	46.8	19.5	13.1	14.2	5,620
With some insurance.....	14.2	8.2	3.7	2.3	1,705
Female.....	53.2	20.6	14.8	17.8	6,386
With some insurance.....	12.1	6.4	3.2	2.6	1,453
Race:					
White.....	92.7	36.9	25.9	29.9	11,128
With some insurance.....	25.5	14.1	6.8	4.7	3,062
Nonwhite.....	7.3	3.2	1.9	2.2	878
With some insurance.....	0.8	0.5	0.1	0.2	96
Residence:					
Urban.....	63.6	26.1	17.5	20.0	7,640
With some insurance.....	19.3	11.0	5.0	3.3	2,323
Rural-nonfarm.....	21.0	7.7	5.9	7.3	2,522
With some insurance.....	4.6	2.3	1.2	1.1	555
Farm.....	15.4	6.3	4.4	4.7	1,844
With some insurance.....	2.3	1.3	0.7	0.4	280
Employment status:					
In the labor force.....	23.2	14.0	6.2	3.0	2,788
With some insurance.....	10.2	6.9	2.4	0.9	1,225
Male.....	19.1	11.3	5.3	2.5	2,296
With some insurance.....	8.5	5.7	2.0	0.7	1,021
Female.....	4.1	2.7	0.9	0.5	492
With some insurance.....	1.7	1.2	0.3	0.1	204
Not in the labor force.....	76.8	26.1	21.7	29.0	9,218
With some insurance.....	16.1	7.6	4.5	4.0	1,935
Male.....	27.7	8.2	7.8	11.7	3,324
With some insurance.....	5.7	2.5	1.7	1.5	584
Female.....	49.1	17.9	13.9	17.3	5,894
With some insurance.....	10.4	5.2	2.8	2.4	1,249

ership decreased with advancing age among both men and women.² Among white men, for example, the reported ownership of insurance decreased from 44 percent for those aged 65–69 to 30 percent for those aged 70–74 and to 16 percent for those aged 75 and over. The proportions with insurance were consistently lower among women than among men. The rates for white women were 33 percent insured at ages 65–69, 23 percent at ages 70–74, and 15 percent at ages 75 and over. The difference between white men and white women in the relative number insured, which was substantial at ages 65–69 (44 percent as against 33 percent) was relatively unimportant at the highest ages (approximately 15 percent in both instances). As will become clear later, these figures reflect the association of insurance ownership and gainful employment and the fact that at the highest ages few of either sex are employed.

Urban-rural residence.—Hospitalization insurance was most general

² The only exception appears in the case of nonwhite men, a relatively small group for which there was a large probable error in the survey sample.

among urban residents and least among persons living on farms (table 4). The percent with some hospitalization insurance in the total urban group (30 percent) was twice that for farm residents (15 percent). In large measure, these relationships in insurance ownership according to residence also obtained in the age groups 65–69 and 70–74 and for men and women separately. In the highest age group, 75 and over, they still obtained for both sexes but not for men or for women separately. Among the men the residence differences in insurance ownership were much reduced, and among the women they were much increased; the insurance percentage for women on farms was only one-seventh as large as for those in urban areas.

Employment status.—Before considering the ownership of hospitalization insurance in relation to employment status, it is important to recall the atypical characteristics of the aged population with respect to this factor. In the first block of columns in table 5, it is seen that only 41 percent of the men and only 8 percent of the women aged 65 and over were in the labor force in March 1952. That

Table 2.—Insured, noninstitutional population aged 65 and over, by selected characteristics, March 1952

Population group	Percentage distribution, by age group			
	65 and over	65-69	70-74	75 and over
Sex:				
Both sexes.....	100.0	55.4	26.3	18.3
Male.....	53.9	31.2	14.1	8.6
Female.....	46.1	24.2	12.2	9.7
Race:				
White.....	97.0	53.6	25.7	17.7
Nonwhite.....	3.0	1.8	0.6	0.6
Residence:				
Urban.....	73.5	41.8	19.0	12.7
Rural-nonfarm.....	17.6	8.8	4.6	4.2
Farm.....	8.9	4.8	2.7	1.4
Employment status:				
In the labor force.....	38.7	26.2	9.2	3.3
Male.....	32.3	21.7	7.8	2.8
Female.....	6.4	4.5	1.4	0.5
Not in the labor force.....	61.3	29.2	17.1	15.0
Male.....	21.6	9.5	6.4	5.7
Female.....	39.7	19.7	10.7	9.3

is, 6 out of 10 men and 9 out of every 10 women were not in the labor force; they were classified as engaged in "keeping house," "unable to work," or "other" (meaning, generally, retired from gainful work). In the second block of columns, it is seen that 44.5 percent of the men in the labor force, but only 20 percent of those not in the labor force, reported having some hospitalization insurance. Among women the percentages with some insurance were similar (41 percent and 21 percent, respectively), though only 8 percent were actually in the labor force.

Among the employed men, 19.5 percent of those employed in agriculture had some hospitalization insurance, a figure similar to that for all insured men not in the labor force (20 percent), and the percentage shows no substantial decline with advancing age. In contrast, more than 55 percent of the aged men employed in nonagricultural industries were reported as having some insurance; the percentage declines sharply with advancing age (from 61 percent at ages 65-69 to 39 percent among those aged 75 and over) but remains consistently above that for men not in the labor force. Among men not in the labor force, the highest insurance percentage is found among those in the ages 65-69 and classified as "other" (33 percent); this percentage, too, declines—to only 15 percent for the oldest group.

Among women not in the labor force, the largest group numerically and the group with the highest percentage of insured persons was that classified as "keeping house." This group probably included most of the women whose insured status resulted from their being dependents of insured men, a fact applying particularly to those aged 65-69. Almost 29 percent of the women in this age group and not in the labor force were covered by some hospitalization insurance, but only 14 percent at ages 75 and over had some insurance.

One subclassification of persons not in the labor force deserves special note. Only 10-11 percent of those in the category "unable to work" had some hospitalization insurance; and the proportion declined from 14-17 percent at ages 65-69 to 9 percent for those aged 75 and over.

Comment on insurance ownership.—From the preceding analysis, several key facts emerge with regard to the distribution of hospitalization insurance in the population aged 65 and over. It has become apparent that variations in insured status—especially the higher insurance percentages among men than among women, the higher percentages in the lowest of the three age groups, and the higher percentages among urban than among rural residents—are all related to the wider prevalence of insurance ownership among persons in the labor force and particularly among those employed in nonagricultural industries. In view of the decreasing participation in the labor force as age advances, the almost negligible proportions of women aged 65 and over who are gainfully employed, and—with rising age—the increasing preponderance of women among those not in the labor force, the interrelationship of insurance ownership and of the opportunity to purchase insurance by reason of employment becomes increasingly clear.

The "opportunity" to purchase hospitalization insurance has two facets for persons aged 65 and over—their eligibility for such insurance and their ability to pay the premiums. More than two-thirds of the hospitalization insurance now in force in the United States has been sold as group insurance, principally by Blue

Cross plans and by commercial companies. For older persons as for others, participation in a group—usually a group of employed persons—is a necessary condition to securing the protection afforded by group insurance. Individual insurance policies, although not requiring that the older person belong to a recognized group, may also require work at steady employment as a condition of eligibility. An exception to these generally practiced underwriting rules is the conversion privilege available in a number of Blue Cross plans; this procedure permits older persons, when they retire, to convert their group membership to individually purchased Blue Cross insurance, usually with a higher premium. By its very nature, individually purchased insurance is not accompanied by an employer contribution toward premiums, whether the policy is obtained from a Blue Cross plan or a commercial company, and the premium is higher for the same or even for lesser insurance protection than it is with group insurance.

Fifty-five percent of the insured persons were in the age group 65-69, and 31 percent were men in these ages, though this age group contains only 40 percent of the 12 million people aged 65 and over in the noninstitutional population and men represented less than 20 percent of the 12 million. Twenty-two percent of all the insured persons were men aged 65-69 in the labor force, although this group equaled only 11 percent of the aged population. Among men aged 65-69 who were

Table 3.—Percent of persons who had some insurance, by age, sex, and race, noninstitutional population aged 65 and over, March 1952

Sex and race	Age group			
	65 and over	65-69	70-74	75 and over
Both sexes.....	26.3	36.4	24.8	15.0
White.....	27.5	38.3	26.1	15.6
Nonwhite.....	10.5	14.7	7.0	7.6
Male.....	30.2	42.3	28.2	15.8
White.....	31.4	43.6	29.9	16.2
Nonwhite.....	15.7	25.0	8.3	10.3
Female.....	22.8	30.9	21.7	14.4
White.....	24.2	33.3	22.8	15.1
Nonwhite.....	6.3	7.2	5.5	5.5

Table 4.—Percentage distribution of noninstitutional population aged 65 and over by age and by urban-rural residence and the percent of persons who had some insurance, March 1952

Residence and sex	Age group			
	65 and over	65-69	70-74	75 and over
Percentage distribution of population				
Total.....	100.0	40.1	27.9	32.0
Urban.....	100.0	41.0	27.5	31.5
Rural-nonfarm.....	100.0	36.9	28.2	34.9
Farm.....	100.0	40.9	28.7	30.4
Percent with some insurance				
Total.....	26.3	36.4	24.8	15.0
Urban.....	30.4	42.4	28.6	16.7
Rural-nonfarm.....	22.0	29.8	20.4	15.0
Farm.....	15.2	20.4	15.6	8.0
Male.....	30.2	42.3	28.2	15.8
Urban.....	35.8	50.0	33.8	16.7
Rural-nonfarm.....	25.7	35.4	24.7	15.8
Farm.....	16.7	21.3	15.2	12.6
Female.....	22.8	30.9	21.7	14.4
Urban.....	26.0	35.3	24.4	16.6
Rural-nonfarm.....	18.4	24.2	16.4	14.3
Farm.....	13.5	19.6	16.2	2.4

employed in nonagricultural industries, 61 percent had some insurance. This concentration is in turn largely responsible for the relatively high rate of insurance ownership among urban residents aged 65-69 and at all ages 65 and over.

Commonly faced with employment as a condition of maintaining group insurance, and with relatively high premiums (with no employer contribution) as a condition of obtaining individual insurance, persons past age 65 and not in the labor force have less opportunity than most persons to obtain hospitalization insurance. Nearly 77 percent of the aged population were not in the labor force, but only one-fifth of these persons had some insurance. Individual insurance usually carries limitations with respect to preexisting diseases or defects, so that its value in furnishing insurance protection may be highly limited. The higher risk rates of older persons are reflected in the higher premiums charged them for commercial individual policies, though this statement is not applicable to Blue Cross. It is not surprising, therefore, that those who can readily participate in groups and who

have income from gainful employment, or dependents of such persons, have most of the hospitalization insurance in the population aged 65 and over.

Hospital Care Received in 1951 by the March 1952 Noninstitutional Population

The special survey questions were designed to determine how many aged people went into general or special (short-term) hospitals within a 12-month period, how long they stayed on the average, and how many days of hospital care (per 100 aged persons in the population) were received. The data on hospital utilization were correlated with the insured status of the population and of the patients in order to measure the relation between insurance protection and hospital utilization.

As noted earlier, the data on hospital utilization in table 6 refer to hospitalization received in 1951 by all persons aged 65 and over and not in institutions who were alive and therefore included in the sample surveyed in March 1952. A second series of rates (table 8) takes into account persons aged 65 and over who became 65 or died after being admitted to a hospital in 1951.

Age, sex, and race.—In table 6, the findings of the survey on admissions, length of stay, and days of hospital care are presented for the total surveyed population—insured and noninsured. The average admission rate

for the total group was 7.3 per 100 persons. The distribution by age, sex, and race shows that insured persons had uniformly higher admission rates than the noninsured, except for the small group of insured women aged 75 and over. Admissions among insured persons varied by age and sex from 6.0 to 15.0 per 100, and averaged 10.3. The corresponding range for the noninsured was not so wide, varying from 5.3 to 7.9 per 100, with an average of 6.3. Since there were more persons without insurance than with it, the admission rate for the entire group is closer to that of the noninsured than the insured. In almost all instances the admission rate for women was lower than the comparable rate for men. The rate was much lower for the nonwhite than for the white group, but this difference resulted wholly from the divergence among the noninsured.

Insured persons and the noninsured showed large differences in average length of stay, as in admission, but the relationship is reversed; the average duration was 14.7 days of care for the insured and 27 days for the noninsured. For the two groups combined, it was 22.5 days of care. When age and sex differences are considered, there was not much variation in the average number of hospital days per admission among the insured, with the two exceptions of the nonwhite group (21.8 days) and women aged 75 and over (9.1 days). Except in this last age group,

Table 5.—Percentage distribution of noninstitutional population aged 65 and over by age, sex, and employment status, and the percent of persons who had some insurance, March 1952

Employment status	Percentage distribution of population, by age group				Percent with some insurance, by age group			
	65 and over	65-69	70-74	75 and over	65 and over	65-69	70-74	75 and over
Male, total.....	100.0	41.6	28.0	30.4	30.2	42.3	28.2	15.8
In the labor force.....	40.9	24.2	11.3	5.4	44.5	50.9	38.3	29.3
Employed.....	39.2	22.8	11.0	5.4	45.2	52.2	38.2	29.7
In agriculture.....	11.2	5.1	3.7	2.3	19.5	22.5	16.5	17.5
In nonagricultural industries.....	28.2	17.7	7.3	3.1	55.4	60.9	49.3	38.8
Unemployed.....	1.7	1.4	0.3	0.0	26.8	23.3	44.4	0.0
Not in the labor force.....	59.1	17.4	16.7	25.0	20.4	30.5	21.4	12.8
Keeping house.....	0.5	0.2	0.1	0.2	15.4	33.3	-----	-----
Unable to work.....	14.3	3.2	3.1	8.0	10.9	17.2	10.6	8.5
Other.....	44.4	14.0	13.6	16.8	23.5	33.4	23.9	15.1
Female, total.....	100.0	38.8	27.7	33.5	22.8	30.9	21.7	14.4
In the labor force.....	7.7	5.1	1.7	1.0	41.2	44.0	43.1	23.3
Not in the labor force.....	92.3	33.7	26.1	32.5	21.3	28.9	20.3	14.1
Keeping house.....	79.3	31.5	23.8	23.4	22.8	29.5	21.0	15.7
Unable to work.....	9.8	1.4	1.3	7.1	10.1	13.6	14.0	8.6
Other.....	3.8	0.8	1.0	2.0	18.0	32.0	13.3	14.9

insured women stayed longer in the hospital on the average than insured men. One group—men aged 70-74—distorted the averages of the noninsured. A relatively small number of admissions among this group accounted for a disproportionate number of days of care, because some of the men remained in the hospital a full year. With this one exception, women stayed longer on the average than men in all instances among the noninsured, as among the insured.

Even with their higher-than-average admission rates, insured persons had a somewhat smaller amount of hospital care (days per 100 persons) than the noninsured, because their average length of stay per admission was so much below that for the noninsured. The whole group received 165 days' care per 100 persons; the insured among them used 151 days and the noninsured used 170 days. Among the noninsured, nonwhite persons had less than half as much hospital care as white persons; among the insured, the relationship was nearly the reverse. Women, despite their longer average stay per admis-

sion, received fewer days of hospitalization per 100 than men, but there are variations in this relationship when insured and noninsured persons are compared.

It is important to note that the data in table 6 show a striking lack of progression in the rates with advancing age. Regardless of which of the three types of rates is examined, no regular or steady progression is seen. This condition is equally true for any group, whether insured or not. If only the two age groups 65-69 and 75 and over are compared, however, there is evidence of increased hospital utilization for the oldest group; but the rates for the age group 70-74 are sometimes higher and sometimes lower than the rates for the other age groups. A partial explanation for this finding, as will be discussed later, lies in the fact that persons who died during 1951 were not included in the survey.

Urban-rural residence.—The three residence categories—urban, rural-nonfarm, and farm—proved to be markedly different in the extent to which they used hospital facilities.

Measured in days of hospital care per 100 persons, the urban population received the largest amount of hospital care—184 days per 100 persons—and the farm population the least—86 days per 100 persons.

One of the most striking points to observe in the first block of table 6 is the relatively high admission rates of the insured farm groups; since these admissions were accompanied by average stays only moderately less than those for the other groups, the resulting days of hospital care per 100 persons (208) were higher than the average for all groups. The noninsured farm group, much larger than the insured group, had both low admission rates and very short average stays; they had only 5.5 admissions per 100 persons, the average stay was less than 12 days, and the members of this group received only 64 days of hospital care per 100 noninsured.

The urban and rural-nonfarm groups were not greatly different in the number of days of hospital care per 100 persons received in 1951, but the similarity tends to conceal the fact that their admission rates and average lengths of stay show substantial differences. When the insured population is considered, the urban and the rural-nonfarm groups also had similar days of hospital care per 100 persons, and in this instance similar admission rates and durations. This similarity did not obtain, however, for the separate sex subgroups; urban men had a somewhat lower admission rate and a shorter average stay than rural-nonfarm men, but the reverse was true for women.

Among the noninsured the urban group averaged 12 more days per admission than the rural-nonfarm group, although its rate of admission was lower. The long stays resulted in 34 days of care per admission in the noninsured urban group and 201 days per 100 noninsured persons.

It is evident that any consideration of hospital utilization by different residence groups must take into account both the extent of insurance ownership and the sex of the recipients of hospital care.

Employment status.—It will be noted, in the lowest segment of table 6, that admission rates were slightly

Table 6.—Hospital utilization in 1951 among the noninstitutional population aged 65 and over in March 1952, by selected characteristics

Population group	Admissions per 100 persons			Hospital days per admission			Hospital days per 100 persons		
	Total	With some insurance	With no insurance	Total	With some insurance	With no insurance	Total	With some insurance	With no insurance
Age and sex:									
Both sexes.....	7.3	10.3	6.3	22.5	14.7	27.0	165	151	170
65-69.....	7.8	10.2	6.5	18.0	13.9	21.6	141	141	140
70-74.....	6.9	10.6	5.7	31.0	14.9	40.9	213	158	232
75 and over.....	7.1	10.2	6.6	21.5	16.5	22.8	153	168	150
Male.....	8.2	11.6	6.8	22.3	14.6	28.0	184	169	190
65-69.....	9.6	11.8	7.9	14.1	13.3	14.9	135	158	118
70-74.....	6.8	8.7	6.1	41.5	13.2	57.3	283	114	350
75 and over.....	7.7	15.0	6.3	20.6	19.8	20.9	158	298	132
Female.....	6.5	8.8	5.9	22.6	14.7	26.2	148	130	154
65-69.....	6.2	8.0	5.4	23.6	15.1	29.3	146	121	157
70-74.....	6.9	12.8	5.3	21.8	16.3	25.5	151	208	135
75 and over.....	6.7	6.0	6.8	22.3	9.1	24.2	149	54	165
Race:									
White.....	7.6	10.3	6.6	22.4	14.3	27.1	170	148	178
Nonwhite.....	4.1	10.9	3.3	25.1	21.8	26.4	103	237	88
Residence:									
Urban.....	7.1	9.8	6.0	25.8	14.9	33.6	184	145	201
Male.....	8.3	11.2	6.6	25.3	13.9	36.1	210	156	240
Female.....	6.2	8.1	5.5	26.4	16.3	31.6	164	133	175
Rural-nonfarm.....	8.2	9.5	7.8	19.9	15.2	21.6	164	144	169
Male.....	9.3	12.3	8.3	20.6	17.5	22.2	192	215	184
Female.....	7.2	6.8	7.3	19.1	7.6	21.6	137	52	157
Farm.....	7.0	15.2	5.5	12.4	13.7	11.7	86	208	64
Male.....	6.7	12.2	5.6	12.7	13.8	12.2	85	168	69
Female.....	7.2	19.6	5.3	12.1	13.5	11.2	87	266	59
Employment status:									
In the labor force.....	6.4	8.5	4.7	12.6	12.0	13.5	81	102	64
Male.....	6.9	9.2	5.1	12.2	11.8	12.8	85	108	66
Female.....	3.8	5.1	2.8	16.3	13.8	19.5	61	70	55
Not in the labor force.....	7.6	11.4	6.6	25.0	15.9	29.1	190	181	193
Male.....	9.1	15.0	7.6	27.6	17.3	32.9	252	258	250
Female.....	6.8	9.4	6.1	22.9	14.8	26.4	156	139	160

higher and that average length of stay was about twice as high among persons not in the labor force as among those in the labor force. As a result, days of hospital care per 100 were more than twice as many for the former as for the latter.

The concentration of insurance ownership among the employed made the differentiation by insured status of great importance when measuring the hospitalization rates of persons in the labor force and those not in the labor force.

Considering first the insured in the two groups, it is evident that those in the labor force received a much smaller amount of hospital care than those not in the labor force. Their admission rate is lower—8.5 per 100 compared with 11.4—their average stay is 4.0 days shorter per admission, and their days of care per 100 persons are only a little more than half those of insured persons not in the labor force. For the insured women in the labor force the rates are especially low. The highest rate for any insured group is found for men not in the labor force.

Among the noninsured, persons in the labor force had strikingly low rates, in marked contrast to those not in the labor force. The three types of rates are different for men and women; nonworking women enter the hospital less often, remain a somewhat shorter time on the average, and therefore receive many fewer days of hospital care per 100 persons than the nonworking men.

Length of hospitalization.—The average duration of 22.5 hospital days per admission for all hospital cases in the surveyed population and the averages of 15 and 27 days among the insured and noninsured persons conceal the variations in length of individual cases—from 1 day to the whole year (table 7). Of all persons hospitalized, 83 percent had stays of less than 31 days; the comparable figures were 89 percent among the insured and 80 percent among the noninsured. In other words, the proportion of hospitalized persons with less than 31 days was larger among the insured (who had higher admission rates, as shown in table 6) than among the noninsured. For the whole group, hospital stays of less than 31

Table 7.—Hospitalized persons and days of hospital care in 1951, by specified durations and insured status, among the noninstitutional population aged 65 and over in March 1952

Durations	Total	With some insurance	With no insurance
Hospitalized persons, percent.....	100.0	100.0	100.0
Receiving less than 31 days of care.....	82.8	88.7	79.6
Receiving 31-365 days of care.....	17.2	11.3	20.4
Hospital days, percent.....	100.0	100.0	100.0
Persons receiving less than 31 days of care.....	41.2	65.3	33.7
Persons receiving 31-365 days of care.....	58.8	34.7	66.3
Days, to the 31st.....	20.7	20.6	20.7
Days, beyond the 30th.....	38.1	14.1	45.6
Hospitalized persons, percent.....	100.0	100.0	100.0
Receiving less than 61 days of care.....	93.0	97.9	90.4
Receiving 61-365 days of care.....	7.0	2.1	9.6
Hospital days, percent.....	100.0	100.0	100.0
Persons receiving less than 61 days of care.....	59.7	90.6	49.9
Persons receiving 61-365 days of care.....	40.3	9.4	50.1
Days, to the 61st.....	16.7	7.7	19.5
Days, beyond the 60th.....	23.6	1.7	30.6

days accounted for 41 percent of the days of hospital care; among the insured, hospital stays of that duration accounted for more than 65 percent of the days and among the noninsured for only 34 percent.

Seventeen percent of the hospitalized persons stayed in the hospital for more than 30 days in a year, and they received 59 percent of all the days of hospital care—38 percent of them days beyond the thirtieth. Among the insured, the days beyond the thirtieth accounted for 14 percent, and among the noninsured for 46 percent.

Only 7 percent of the hospitalized persons had 61 or more days of hospitalization in the year, but they received 40 percent of all the hospital days of care; more than half of this 40 percent represented days after the sixtieth. Among the persons owning insurance, the 2 percent with long hospitalization received 9 percent of the days of care; 10 percent of the noninsured had 50 percent.

This type of tabulation is useful in indicating the effect of restricting days of hospital care in an insurance plan to a maximum of 30 or 60 days—

or to some other number—in a year. It shows that such limitations do not affect a large proportion of hospitalized persons but may drastically limit the proportion of days covered by insurance, because even relatively few cases with long durations can have a substantial effect on the count of hospital days.

Hospital Care Received by All Persons Aged 65 and Over in 1951

It was noted earlier, in connection with certain limitations to be observed in using the results of the survey, that the data on hospital utilization describe the hospital care received in 1951 by the population surveyed in March 1952. The data are useful in their own right, especially since they invite analyses not hitherto possible for current or recent data. They need adjustment, however, if they are to be used to indicate the amount of care furnished in 1951 by all the hospitals of the country to all persons who were aged 65 and over when they received care. A subtraction must be made for hospital care recorded in the survey for persons who were aged 65 in March 1952 but under that age during part or all of the year 1951, and an addition must be made for hospital care received in 1951 by persons aged 65 and over who died during that year.

The need for these adjustments may be seen even more clearly if we consider a hypothetical situation. Assume the existence of a stationary population of persons aged 65 and over for the year 1951. During the year it will gain persons who complete their sixty-fourth year and become 65. On the average, in the course of 1951, each of these new entrants lives one-half year at the average hospitalization risk rate for persons aged 64, and one-half year at the average risk rate for persons aged 65. Only approximately half the hospital care they receive during the year should therefore be counted as care furnished to persons aged 65 and over. Also, in the course of the year, this stationary population will lose an equal number of persons through death. On the average, each of these decedents lives one-half year in 1951; but their hospitalization is

much higher than is indicated by the risk rate for all persons aged 65 and over—possibly because they have a higher average age than do all persons aged 65 and over, and certainly because the admission rates for decedents are much higher than those for survivors.

The actual aged population differs from this hypothetical one since it increases each year. Almost 1 million persons reach age 65 and about 750,000 die during the year. While the two groups nearly balance in number, the decedents account for a great deal more hospital care than those entering the population group, so that the groups do not offset each other with respect to hospital utilization.

A reduction for those who were under age 65 for part or all of 1951 was made by assuming that those entering the age group 65–69 had admission rates and durations of hospital stay similar to those recorded for the surveyed population at these ages (table 6). These sex-specific rates were applied to one-half the number of men and one-half the number of women who had their sixty-fifth birthday between January 1951 and January 1952.

An addition for decedents involved several steps. First, place of occurrence of death for a 10-percent sample of deaths among persons aged 65 and over was determined separately, by sex, for the three age groups used throughout this study.³ The distribution by place of occurrence was applied to the total number of deaths reported for 1951 for persons aged 65 and over, giving the numbers that occurred in that year in general and special hospitals, in other types of institutions, and at home or in locations other than institutions. Thus, the 750,000 deaths that occurred in 1951 among persons aged 65 and over may be considered in three categories: (a) the 230,000 that occurred in general and special hospitals, (b) the 90,000 that occurred in other institutions—those for mental disease or tuberculosis, nursing homes, prisons,

and so on—and (c) the 430,000 deaths that took place outside institutions.

Next, each death in (a) was counted as one admission; terminal cases admitted to hospitals in 1950 were assumed to offset multiple admissions in 1951 among these decedents. The deaths in (b) were ignored, because these persons were not part of the noninstitutional population and available data indicate that they received only a statistically negligible amount of general and special hospital care in 1951 before entering the institutions in which they died. For those in (c), the age-sex specific hospital admission rates found for the surveyed population (table 6) were applied to half the number of deaths in each age-sex group. Then the estimated number of admissions for each age-sex group in (a) and (c) was assigned the average length of stay reported for the surveyed population, giving the number of hospital days to be added for these decedents.

Admissions and days of care derived from the survey data were then reduced by the estimates for those who reached age 65 in 1951, and they were increased by the estimates for the decedents. These adjusted figures were applied to the 1951 average noninstitutional population aged 65 and over, derived by applying the March 1952 age-sex proportions to the Census Bureau estimates for the 1951 midyear population aged 65 and over (both sexes 11,728,000, men 5,504,000, and women 6,224,000). The adjusted admissions and days of care per 100 persons are shown in table 8.⁴

In the adaptation of the hospitalization data to a concept that reflects all hospital care received by anyone who was aged 65 or over in 1951, the days of care resulting may be slightly overstated or understated for the two adjustments, if the average duration of hospital stay of persons reaching age 65 or of decedents differs much from that of the surveyed population. The probability is in the direction of overstatement with respect to the decedents, but no applicable data on the average length of terminal hos-

pitalized illnesses were readily available to test this point.

Unfortunately, adjustments similar to these for age and sex could not be made for residence, employment status, or insurance ownership.

The figures shown in table 8 indicate, in terms of admissions and days of hospital care, the total amount of hospital care furnished in 1951 by all general and special (short-term) hospitals to all persons in the civilian noninstitutional population aged 65 and over. Such data as are available indicate that only a relatively small amount of care is furnished by these hospitals to the institutional population. The adjusted rates may therefore be regarded as indicative of the hospital care furnished to all persons aged 65 and over.

Omissions for persons aged 64 and additions for the decedents increased the admission rate by 27 percent—from 7.3 to 9.3 per 100 persons. The number of days of care received increased by 24 percent—from 165 to 205 days per 100 persons. The changes in the admission rates and in the hospital days per 100 persons, by age and sex, range from an almost negligible proportion for those aged 65–69 (about 9–10 percent) up to about 40 percent for women aged 75 and over and about 52 percent for men of that age. In this series, both admission rates and rates of hospital days rise regularly with increasing age among the women but not among the men; progression in the latter group is still distorted by the figures for the age group 70–74, which had low admission rates but long average durations.

Methods of Paying Hospital Bills

When making the March 1952 survey, the enumerators were instructed to ask any person aged 65 and over who had been hospitalized how his hospital bill had been met. The alternatives given were (1) by self or spouse, (2) by relatives, (3) through insurance, (4) no charge, and (5) in other ways. More than one method of payment could be indicated, and a fourth of the hospitalized persons did use more than one source or method to meet the bills. The findings have been analyzed by the hospitalized person's age, residence, and

³ Data from the National Office of Vital Statistics sample of 1949 death certificates, analyzed by machine tabulations by the Bureau of Old-Age and Survivors Insurance.

⁴ Since the average length of stay of each admission that was added or subtracted was assumed to be the same as for surveyed population, the length of stay per admission was unchanged by the adjustment and is not shown in table 8.

labor-force status, as well as by sex and insured status, but space does not permit inclusion of the detailed analyses here. The analyses showed that for persons in the age groups 65-69 and 75 and over, however, help from relatives other than the spouse was important; care with no charge was most common for the age group 70-74; and payment by insurance, or by insurance supplemented by private means, decreased markedly as age advanced.

The rural-nonfarm group, among the different residence categories, received the highest proportion of care with no charge; the proportion was higher for the women than for the men in this group. Among those not in the labor force, 20 percent of the women and 30 percent of the men had care with no charge. Only a small proportion of hospitalized farm residents had care with no charge; the proportion who financed the care themselves or with assistance from relatives was much higher than the average.

More than half the employed men who were hospitalized reported using insurance alone or along with other resources, but only a third of the hospitalized nonworking men used insurance.

Table 9 summarizes some of the findings; it permits comparisons of the sources or methods of payment used by the insured and the non-insured and shows the differences between sources used by men and women in meeting the bills. In the whole group of hospitalized persons, 76 percent used only a single source. Of these, 38 percent met their hospital bills unaided, 14 percent had hospital care with no charge, and 13 percent had adequate hospital insurance (35 percent of the hospitalized persons were covered by some insurance). Among those with insurance (43 percent of the hospitalized men and 27 percent of the hospitalized women), the insurance proved entirely adequate for 46 percent of the men but paid the entire costs for only 18 percent of the women. A greater percentage of non-insured men than noninsured women received care with no charge; relatives assumed entire responsibility for payment for a larger percentage

Table 8.—Hospital utilization in 1951 among the noninstitutional population aged 65 and over in March 1952¹ and among the noninstitutional population aged 65 and over at the time of receiving hospital care,² by sex and age

Sex and age	Admissions per 100 persons			Hospital days per 100 persons		
	Survey population, March 1952	1951 population (adjusted)	Percentage increase	Survey population, March 1952	1951 population (adjusted)	Percentage increase
Both sexes.....	7.3	9.3	27.4	165	205	24.2
65-69.....	7.8	8.6	10.3	141	154	9.2
70-74.....	6.9	8.9	29.0	213	259	21.6
75 and over.....	7.1	10.4	46.5	153	223	45.8
Male.....	8.2	10.5	28.0	184	229	24.5
65-69.....	9.6	10.5	9.4	135	148	9.6
70-74.....	6.8	9.3	36.8	283	337	19.1
75 and over.....	7.7	11.7	51.9	158	241	52.5
Female.....	6.5	8.2	26.2	148	184	24.3
65-69.....	6.2	6.8	9.7	146	159	8.9
70-74.....	6.9	8.7	26.1	151	189	25.2
75 and over.....	6.7	9.4	40.3	149	208	39.6

¹ Confined to the living population aged 65 and over in March 1952.

² Includes persons aged 65 and over who died in

1951, and excludes persons who were aged 64 when hospitalized.

of women than of men.

The second part of table 9 was prepared to reflect the extent to which each source, whether alone or in combination with another source, was used to meet the hospital bill. For the group as a whole, the patient or spouse contributed toward the bill in 59 percent of the instances of hospitalization, meeting it entirely in 38 percent of the cases and contributing to it in 21 percent of the cases. The immediate family (patient, spouse, or relative) assisted 72 percent of the patients to meet the bill. Insurance played a part in 31 percent of the cases. Among the insured, of course, insurance was the principal source, though it was supplemented by other means for 53 percent of the cases and was the only source used for 36 percent. Care with no charge is a negligible factor among insured persons but an important element among those without insurance; 22 percent of the latter had hospital care with no charge.

Insured men had the help of insurance in a greater proportion of cases than insured women. Noninsured men had comparatively less help from relatives than noninsured women and relied more often on care with no charge.

The table shows that even among the insured, with their relatively short stays in the hospital, assistance from the family was needed in the majority of cases of hospitalized illness. Among those with no insurance, help from relatives alone, or in addi-

tion to the contribution of the patient or his spouse, was received by 22 percent of the cases (17 percent of the men and 25 percent of the women).

This table reflects only the experience of those who received hospital care. It must be kept in mind that there were undoubtedly many aged persons, unwilling to call on relatives or to accept free care, who went without such care. This possibility is suggested by the relatively low utilization rates among the noninsured. Once admitted to a hospital, the non-insured have longer-than-average stays; but it is also significant that they have lower-than-average admission rates.

Summary and Conclusions

The results of the survey appear to confirm and now give quantitative dimensions to some widely accepted assumptions regarding the need and receipt of hospital care by the aged and their problems in paying hospital bills.

The major findings about hospitalization insurance in the surveyed population may be briefly summarized as follows. Slightly more than a fourth of the aged population had some hospitalization insurance in March 1952. Whether of comprehensive or limited scope, the insurance was unevenly distributed. Proportionately more men than women had insurance; the white population had proportionately nearly three times as many with insurance as the nonwhite

Table 9.—Method of payment of hospital bills and percent of hospitalized persons, among the noninstitutional population aged 65 and over in March 1952, using specified sources to pay hospital bills, by sex and insured status, 1951

Source of payment	Total			Male			Female		
	Total	With some insurance	With no insurance	Total	With some insurance	With no insurance	Total	With some insurance	With no insurance
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Payment from a single source.....	76.1	45.4	92.8	75.2	54.8	90.9	77.0	30.0	94.1
By person or spouse.....	38.1	6.7	55.1	33.5	6.0	54.5	42.9	8.0	55.5
By relative.....	10.2	1.5	15.0	4.6	—	8.2	16.0	4.0	20.4
By insurance.....	12.6	35.8	—	20.1	46.4	—	4.8	18.0	—
By others.....	1.3	0.7	1.6	2.1	1.2	2.7	0.5	—	0.7
No charges.....	13.9	0.7	21.1	14.9	1.2	25.5	12.8	—	17.5
Payment from multiple sources.....	23.9	54.6	7.2	24.8	45.2	9.1	23.0	70.0	5.9
Payment from single or multiple sources involving: ¹									
Person or spouse ²	58.8	53.7	61.5	57.3	48.9	63.6	50.8	62.0	59.8
Person, spouse, and relative ²	72.2	62.7	77.3	62.9	51.3	71.8	81.1	82.0	81.6
Relative.....	18.1	11.2	21.9	10.8	2.4	17.3	25.5	26.0	25.4
Insurance.....	31.2	88.8	—	39.7	91.7	—	21.9	84.0	—
Others.....	1.6	0.7	2.0	2.1	1.2	2.7	1.0	—	1.4
No charges.....	14.7	1.5	21.9	14.9	1.2	25.5	14.3	2.0	18.9

¹ Not additive.

² Includes a few instances of payment by patient

plus free care, relative plus free care, and relative and other.

population. Such insurance as was owned at the time was heavily concentrated in the age group 65-69 and was most common among urban residents and among persons in the labor force—especially those with nonagricultural employment.

The finding that 26 percent of the civilian noninstitutional population aged 65 and over had some kind or amount of hospitalization insurance in March 1952 may be contrasted with the 56 percent of the civilian population of all ages ⁷ and 60 percent of the civilian population under age 65 who were reported as insured at the end of 1951. There was wider ownership of hospitalization insurance among aged persons than had been previously estimated on the basis of fragmentary data, but the survey data confirm that the older population has lagged far behind the general population in the extent to which they have acquired some insurance protection against the costs of hospitalization.

The frequency of hospitalization and the amount of hospital care received varied in the older ages by sex and by age as well as by other population characteristics. Men aged 65 or over had higher hospital admission

rates than women, but their stays, except in the age group 70-74, were on the average shorter than those of the women. Urban residents received more days of hospital care per 100 persons than farm residents. Those in the labor force received fewer days of care than those not in the labor force.

Insured persons had higher hospital admission rates than noninsured persons in all the categories used to classify the population aged 65 and over, but in most instances insured persons had shorter hospital stays than the noninsured so that their days of hospital care per 100 persons were lower than the comparable figures for the groups with no insurance.

The survey provided data that tend to confirm as still valid the assumption that older people receive and presumably need more hospital care than younger persons. Measured in terms of days of hospital care in general and special hospitals, persons aged 65 and over, including decedents, received about 205 days of care per 100 persons in 1951, while the general population (including the aged) received about 113. If admitted to a hospital, the aged persons remained 22 days on the average; the average length of stay for the general population was 10.1 days. Admissions per 100 persons were, how-

ever, lower for the aged population (9.3) than for the general population (11.2). ⁶

The following comparison between persons aged 65 and over as reported in the present survey and those reported in the two previous national surveys indicates trends over the past 15-20 years.

Year and survey	Admissions per 100 persons	Hospital days per admission	Hospital days per 100 persons
1928-31, Committee on the Costs of Medical Care ¹	6.1	24.6	150
1935-36, National Health Survey ²	5.0	29.0	146
1951, present survey.....	9.3	22.0	205

¹ Selwyn D. Collins, "Frequency and Volume of Hospital Care for Specific Diseases in Relation to All Illnesses Among 9,000 Families, Based on Nationwide Periodic Canvasses, 1928-31." *Public Health Reports*, Sept. 25, 1942, p. 1207. (Combination of data in table 1 for surgical and nonsurgical cases.)

² G. St. J. Perrott, Marcus S. Goldstein, and Selwyn D. Collins, *Illness and Health Services in an Aging Population: Health Status and Health Requirements of an Aging Population*, Federal Security Agency, Public Health Service Publication No. 170, 1952, table 4, page 10.

In the interval there has been an increase of about 50 percent in the admission rate, and though the average length of stay declined somewhat, the amount of hospital care increased about one third.

Despite recognized increases in hospital utilization in the recent past, there is a common assumption that older persons are not getting the amount of hospital care they need. It is difficult to test this factually, because "need" is hard to define or to measure. Some inferences, though no clear-cut confirmation, can be drawn from the survey data, which tend to indicate the validity of this assumption. For example, insured persons appear to have been better-than-average risks in the aged population. The durations of their hospital stays were shorter than those of the noninsured, they required fewer days per 100 persons than the noninsured, and yet their admission rates were higher. This was equally true whether or not these persons were in the labor force. If it is inferred that the insured per-

⁶ Rates for the general population based on "Hospital Service in the United States," *Journal of the American Medical Association*, May 10, 1952, table G, p. 151.

sons entered hospitals more freely because the financial barrier was lowered or removed, their admission rates may approximate their real need. If their rates are not exaggerated by overhospitalization, it follows that some of the noninsured, deterred by higher economic barriers, went without needed care, since the admission rate of the whole noninsured group was only about 60 percent that of the insured. Other indirect evidence of the same nature is found in the fact that certain groups received less care than would be indicated by comparison with other groups. The nonwhite and farm groups were in this category.

The low admission rates of the noninsured farm residents suggest a correlation between unavailability of facilities, or distance from facilities, and admission to the hospital. That this can be only a partial explanation, however, of the low utilization rates of this group as measured in hospital days received is evident from the relatively high admission rates for the insured farm population. A somewhat similar indication of financial barriers to needed care is seen from comparisons of the insured and noninsured by race. In this instance it is possible that the insured nonwhite persons who had relatively high hospital utilization rates may have been in the main urban dwellers with relatively easy access to hospitals and that the noninsured may have been largely rural residents. A possible lack of facilities for care of the chronically ill is not germane to these points as an explanation for failure to get needed care, since care in special institutions for the chronic sick, in nursing homes, or similar places was not included in the data.

The analysis of methods of meeting hospital bills points to the problems encountered by those who are hospitalized and suggests that the hospitalization insurance reported among persons aged 65 and over varies widely in the amount of protection it affords. Three-fourths of the hospitalized persons relied on a single source to meet the hospital bill, but a fourth had to use more than one. More than half of those with insur-

ance had to supplement the insurance with other means. Among the insured, 46 percent of the men but only 18 percent of the women had insurance whose benefit provisions were sufficient to meet the entire hospital bill, suggesting wide differences in the amount of protection.

The findings suggest that various inadequacies in the insurance protection (such as limitations on dependents' benefits, limitations on the number of days of hospital care for which the insurance will pay, fixed indemnity amounts per day of care that are less than the charges made by the hospitals, and exclusion of chronic and other conditions from the terms of the insurance contract) are probably all reflected in the high percentage of insured hospitalized persons who had to supplement their insurance by using other personal resources, or receive help from relatives in meeting the hospital bills. In the absence of a cross tabulation of the individual method of paying the bill with the duration of the individual case, some of these points cannot be verified even though it is known that only a small percent of the insured hospitalized persons had stays longer than 30 days.

It is worth recalling that among those who were hospitalized, 15 percent—22 percent among the noninsured persons but less than 2 percent among the insured persons—received their hospital care without charges from the hospital. This substantial amount of "free" hospital care among older people must not, however, be interpreted as meaning that all who could not pay hospital bills received care without charge. Care with no charge to the patient, because the burden is assumed either by the hospital or by public aid or private charity, has been unevenly available in different parts of the country. It is therefore not surprising that, even apart from those whose bills were paid by themselves, by insurance, or by both, a third of the hospitalized persons had their bills paid in whole or in part by relatives or others. Indeed, 45 percent of the noninsured hospitalized persons were unable to finance their hospital care without

supplemental help from other sources.

The insured, too, for whom their insurance benefits probably met a large part of the direct payments they had to make at the time of hospitalization, had to have supplemental funds more often than not. Persons entirely without any of these sources for supplemental help with hospital bills may never have entered the hospital.

The farm families were outstanding in the extent to which they reported financing their own hospital care—70 percent paid their bills entirely by themselves or only with help from relatives. That they were able to assume responsibility for their own care in such a high proportion of cases may have been due to the relatively low cost of their periods of hospitalization, since their admissions were fewer and their durations shorter than those of other groups. The converse may, however, be true—that hospital admission rates were low and hospital stays were short among farm families because they could not afford a greater frequency and a larger amount of care, that "free" care was less available, and that many could not afford hospital care at all and did not receive it. Wider ownership of insurance with more comprehensive benefits, or broader public provisions, or both, would probably alter the picture.

As noted earlier, the survey shows that the ownership of hospitalization insurance is more extensive among those aged 65 and over than had been indicated by previously available data. But this finding should not obscure the fact that insurance still extends to only one-fourth of this population. Much wider and more comprehensive protection against hospital costs is needed, whether achieved through private or public insurance, tax-supported services, or both. The meager financial resources of large proportions of the older population suggest that, if the need is to be met through insurance, its ownership after age 65 should not be dependent on employment status or on ability to pay uniform (or perhaps any) premiums after retirement from the labor force.