Patterns of Hospital Prepayment Coverage in the United States, 1956

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NATIONAL household survey of the use of general hospitals has afforded an unusual opportunity to obtain firsthand information on the extent of hospital prepayment The survey covered about 27,000 households, consisting of some 90,000 persons of all ages, drawn from the civilian noninstitutional population of each State then in the Union. It was conducted by the Bureau of the Census in September 1956, in connection with its Current Population Survey, for the Division of Hospital and Medical Facilities of the Public Health Service. It included three-fourths of the families in each of the 330 sample areas comprising the Current Population Survey base (1). Three earlier reports have described the survey procedures and presented provisional findings on various factors associated with the use of general hospitals (2-4).

As a supplement to the main objective of obtaining information on hospital use, three questions were asked in the survey interview about hospital insurance and membership in other plans providing protection against the costs of hospital care. These questions determined whether or not persons had such protection, the principal type of plan held, and the services covered by the plan. This information could be matched with other data collected on personal and family characteristics. To facilitate accuracy on the part of the respondents, each family was sent a letter ex-

Mr. Odoroff is chief and Mr. Abbe is assistant chief of the Program Evaluation and Reports Branch, Division of Hospital and Medical Facilities, Public Health Service. plaining the nature and purpose of the survey and asking them to prepare in advance to supply information about hospitalization insurance or other prepayment coverage.

Instructions to the enumerators contained several definitions relating to prepayment coverage. The insurance or prepayment plans to be included were those of a general nature covering all or some part of hospital costs regardless of the reason for entering the hospital. They included the following:

- 1. Commercial hospital insurance (when not limited to accidents), on either an individual or group basis.
- 2. Blue Cross or Blue Shield plans, or other nonprofit plans sponsored by medical societies, on either an individual or group basis.
- 3. Consumer-sponsored plans (not types 1 and 2) which provide prepaid hospital care, including cooperatives and plans sponsored by fraternal organizations.
- 4. Industrial plans of an employer or union which provide hospital care beyond that legally required for industrial accidents.
- 5. Other free or reduced-cost hospital plans, such as hospital employee benefits, free hospital care for dependents of Armed Forces members, and the like.

The following policies and plans were excluded since they are for particular purposes or of uncertain availability: (a) policies covering only accidents, "dread diseases," income lost from disability, clinic or office visits, or liability for injury to others, and (b) free hospital care for veterans in Veterans Administration hospitals.

After establishing the existence of prepay-

ment coverage in a household, the enumerator asked: "What kind of insurance or plan is it—Blue Cross or something else?" In designating the type of prepayment plan, the term "Blue Cross" is used to include the prepayment plans of more than 80 nonprofit corporate organizations for hospital care, together with related plans of a similar nature covering surgical care under the general term "Blue Shield." "Other plans" are all those not identified as Blue Cross or Blue Shield. For persons who had Blue Cross and another prepayment plan, the enumerators identified and reported only the most comprehensive one. Hence, no more than one plan is reported for each person in the study.

The enumerator next asked: "What kinds of services does the plan cover?" Since all persons previously identified as covered by a prepayment plan were understood to be eligible for hospital care, this question was intended to find out for what other services, if any, they were eligible. The categories of services were defined as follows:

Hospital care: The cost of room and board at the hospital, nursing care, and use of the laboratory, operating room, and similar facilities, whether or not the prepayment plan covers the full cost of all these services.

Surgery: All fees (or any part of the fees) charged by surgeons for performing operations.

Table 1. Hospital prepayment coverage status by race and sex, September 1956

	Percent of population with hospital prepayment coverage					
Race and sex	All types of coverage	Hos- pital and sur- gical	Hos- pital only	Other services 1		
All persons Male Female	63.6 64.1 63.2	49.2 49.7 48.8	8.4 8.4 8.4	6.0 6.0 6.0		
White Male Female	67.0 67.4 66.6	$52.1 \\ 52.6 \\ 51.7$	8.4 8.4 8.4	6.4 6.3 6.5		
Nonwhite Male Female	$ \begin{array}{r} 35.7 \\ 36.3 \\ 35.2 \end{array} $	25.2 25.5 24.9	7.8 7.8 7.8	$ \begin{array}{c c} 2.7 \\ 2.9 \\ 2.6 \end{array} $		

¹Other combinations of services or other single services.

Table 2. Hospital prepayment coverage status by age and sex, September 1956

	Percent of population with hospital prepayment coverage				
Age group (years)	All types of coverage	Hos- pital and sur- gical	Hos- pital only	Other serv- ices ¹	
All persons					
All ages	63.6	49.2	8.4	6.0	
Under 14	64.1 60.8 70.8 71.5 68.5 62.6 36.5	50.3 47.7 55.9 55.3 52.9 46.9 25.1	7.1 7.8 7.7 9.4 9.7 11.2 8.5	6.7 5.3 7.1 6.9 5.9 4.7 2.9	
Male					
All ages	64.1	49.7	8.4	6.0	
Under 14 14-24 25-34 35-44 45-54 55-64 65 and over	64.0 59.0 70.5 71.9 70.0 64.9 39.2	50.1 47.0 55.7 55.2 54.3 49.1 27.2	7.3 7.8 9.6 9.4 10.8 8.9	6.5 4.6 7.0 7.1 6.3 5.1 3.2	
Female					
All ages	63.2	48.8	8.4	6.0	
Under 14	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	50.4 48.4 56.1 55.4 51.6 44.6 23.4	6.9 8.1 7.7 9.2 9.9 11.6 8.2	6.9 5.9 7.3 6.7 5.7 4.3 2.6	

¹ See table 1, footnote 1.

Other services: Includes general care by a doctor in a hospital, all hospital costs beyond a certain amount (major medical expense insurance), and similar services other than hospital care as described above. This category may include combinations of services in a hospital other than hospital care and surgery or other single services.

This report presents national data on the percentage of the civilian population with hospital prepayment coverage, in accordance with the definitions described above. The data on the extent of coverage are shown in the accompanying tables with respect to demographic, social, and economic characteristics of the people covered. Coverage is classified by race and sex, age and sex, veteran status, urban-rural type of residence, employment status, and income status for families and individuals. Highlights of the findings are discussed below.

Demographic Factors

Race and sex. Very little difference appears in the extent of prepayment protection for men and that for women, either in the total coverage or in the various forms (table 1). The nonwhite population, however, has much less coverage than the white population. Of the white population, 52.1 percent have hospital and surgical prepayment protection, but only 25.2 percent of the nonwhite population are covered. Coverage under all plans stands at 67.0 percent for the white population and at 35.7 percent for the nonwhite.

Age. The proportion of the population with hospital prepayment protection varies considerably with age (table 2). Coverage under all plans for children under 14 years old is reported as 64.1 percent. The rate rises to a maximum of about 71 percent for persons 25 to 44 years of age, then decreases moderately to age 64. For persons 65 and over, prepayment coverage under all plans combined falls to 36.5 percent, coverage for men of this age reaching 39.2 percent and for women dropping to 34.2 percent.

Table 3. Hospital prepayment coverage status for males 14 years and over by veteran status, September 1956

	Percent of males 14 years and over with hospital prepayment coverage					
Veteran status	All types of coverage	Hos- pital and surgical	Hos- pital only	Other serv- ices 1		
All males 14 years and over	64. 1	49. 5	8. 9	5. 7		
Veterans World War I Other veterans Nonveterans	70. 6 73. 9 64. 1 60. 3	54. 6 57. 2 49. 5 46. 5	8. 9 8. 9 9. 0 8. 8	7. 1 7. 8 5. 6 5. 0		

¹ See table 1, footnote 1.

Table 4. Hospital prepayment coverage status by type of residence, September 1956

	Percent of population with hospital prepayment coverage				
Type of residence	All types of cov- erage	Hospi- tal and surgi- cal	Hos- pital only	Other serv- ices 1	
Urban Within urbanized	68.2	51.9	9.8	6.5	
areas, total 2	69.2	52.5	10.8	6.0	
1 million or more_	69.0	51.3	12.8	4.8	
250,000-999,999	68.4	51.8	8.6	8.1	
Under 250,000 Outside urbanized	70.7	56.2	8.3	6.3	
areas, total	65.7	50.6	7.3	7.8	
25,000 or more	70.3	59.7	5.9	4.7	
2,500-24,999	64.0	47.4	7.7	8.9	
Rural nonfarm	64.4	51.1	6.9	6.5	
Rural farm	40.3	32.7	4.7	2.9	

¹ See table 1, footnote 1.

Veteran status. Only minor variation exists with respect to veteran status for total prepayment coverage (table 3). The rate for all veterans is 70.6 percent and for nonveterans, 60.3 percent. The younger veterans of World War II have a slightly higher percentage of coverage.

Social Factors

Type of residence. The rate of coverage for hospital prepayment protection is consistently high for persons in cities of 50,000 inhabitants or more (table 4). These cities and their built-up fringe areas, defined by the Bureau of the Census as "urbanized areas," have a coverage rate of 69.2 percent. The level of prepayment protection is slightly less for people residing in cities with populations between 2,500 and 25,000, where 64.0 percent are covered. Coverage is much less, 40.3 percent, for people who live on farms.

Employment status and industry. Very marked differentials appear in the proportion

² Urbanized areas comprise a central city of 50,000 population with its urban fringe, defined as contiguous areas of a population density of 500 dwelling units per square mile, plus similar noncontiguous areas within 1½ miles highway distance. (Metropolitan areas include entire counties and are usually considerably larger than their urbanized areas.) U.S. Bureau of the Census: Census of Population: 1950, vol. 1, pp. xxvii and xxxv.

of hospital prepayment protection according to employment status (table 5). Among wage and salary workers in agriculture the coverage rate is 26.5 percent, much less than one-half the rate of 68.1 percent for all persons in the labor force. At the other end of the scale, wage and salary workers in manufacturing have prepayment protection for 84.9 percent of their number. The lowest coverage among employed persons outside agriculture is in domestic service, with 44.6 percent covered. Among disabled persons, who cannot work, the coverage is about 21 percent.

Income and Family Status

Income is more closely associated with the extent of prepayment protection than any other factor investigated. For both primary families and primary individuals, prepayment pro-

tection rises rapidly as income increases (table 6). When family income is less than \$1,000, only 18.4 percent of primary family members have coverage of any kind. This figure may be compared with 65.2 percent for all primary families and a maximum of 83.6 percent for families with incomes between \$7,500 and \$10,000. A slightly lower proportion of families with incomes over \$10,000, 80.1 percent, have prepayment coverage. For all primary individuals (who live alone or else maintain a household with persons not related to them) the level of prepayment coverage is 47.5 percent, or less than three-fourths of the coverage for all members of primary families.

Income is also related to the type of protection plan carried. Prepayment coverage increases steadily with income, both under Blue Cross plans (including Blue Shield) and under

Table 5. Hospital prepayment coverage status of persons aged 14 years and over by employment status and industry, September 1956

	Percent of 1	oopulation, a	nged 14 years ment cov		with hospits	al prepay-
Employment status and industry	All types of coverage			Hospital and sur-	Hospital	Other
	All persons	Male	Female	gical	only	services 1
Total, 14 years and over	63. 4	64. 1	62. 8	48. 8	8. 9	5.
In labor force	68. 1	68. 1	68. 3	52. 7	9. 3	6.
Employed	68. 9	68. 9	69. 0	53. 3	9. 4	6.
Agriculture	32. 6	33. 8	29. 2	25. 2	5. 0	2.
Wage and salary workers	26. 5	27. 7	23. 2	19. 4	4. 4	2.
Self-employed workers	36. 7	36. 6		29. 6	4. 9	2.
Unpaid family workers	31. 5	33. 0	30. 8	23. 5	6. 0	2.
Nonagricultural industries	73. 5	73. 9	72. 8	56 . 9	10. 0	6.
Wage and salary workers	75. 2	75. 9	73. 8	58. 4	10. 0	6.
Mining 2	81. 5	80. 8		58. 9	4. 3	18.
Construction	59. 0	58. 4		45. 0	9. 0	4.
Manufacturing	84. 9	85. 7	82. 5	67. 4	10. 5	7.
Transportation	81. 3	81. 5	80. 5	63. 5	10. 5	7.
Trade	70. 8	69. 3	73. 1	55. 2	9. 2	6.
Services	67. 7	67. 8	67. 7	51. 3	10. 2	6.
Private households	44. 6	47. 1	44. 2	34. 0	7. 2	3.
Professional services	74. 5	71. 0	76. 4	56. 6	11. 2	6.
Other services	71. 0	68. 0	74. 8	53. 5	10. 6	6.
Public administration	75. 1	72. 6	81. 8	56. 6	10. 7	7.
Self-employed workers	60. 4	59. 9	62. 3	44. 4	9. 9	6.
Unpaid family workers	60. 8		62. 5	51. 5	5. 9	3.
Unemployed	41. 8	35. 8	50. 2	31. 2	6. 1	4.
Not in labor force	56. 7	45. 1	59. 6	43. 4	8. 3	5.
Keeping house	60. 7		60. 6	46. 3	8. 6	5.
Going to school	63. 7	63. 4	63. 9	49. 7	8. 2	5.
Unable to work	20. 7	23. 2	17. 2	13. 4	6. 1	1.
Other nonworkers	38. 2	36. 1	46. 9	28. 0	7. 4	2.

¹ See table 1, footnote 1. ² Includes forestry and fisheries.

Table 6. Hospital prepayment coverage status by family status and income, September 1956

Percent of population with hospital prepayment covers					
Family status and income ¹	All types of coverage	Hos- pital and sur- gical	Hos- pital only	Other services 2	
Members of primary families					
All incomes	65. 2	50. 6	8. 5	6. 1	
Under \$1000	18. 4 31. 6 47. 3 65. 2 74. 8 81. 3 83. 6 80. 1 62. 0	12. 7 23. 1 36. 3 51. 1 59. 1 63. 8 65. 3 60. 4 46. 5	4. 2 5. 8 6. 8 8. 9 8. 4 9. 6 9. 1 12. 7 10. 8	1. 6 2. 7 4. 1 5. 3 7. 3 7. 9 9. 2 7. 0 4. 7	
Primary individuals All incomes	47. 5	34. 3	8. 6	4. 5	
Under \$1000 \$1000-\$1999 \$2000-\$2999 \$3000-\$3999 \$4000-\$4999 \$5000 and over Income not reported	25. 1 40. 4 56. 2 73. 8 77. 3 73. 0 56. 7	16. 4 28. 2 40. 3 58. 0 58. 9 56. 2 36. 1	6. 7 7. 7 10. 3 10. 3 9. 5 8. 6 15. 5	2. 0 4. 5 5. 5 5. 5 8. 9 8. 1 5. 2	

¹ Primary family members include persons related by blood, marriage, or adoption (one being the head of the household); primary individuals are heads of households not living with relatives. "Income" for members of primary families includes money income of all members of the family; for primary individuals, it includes personal income only.

other sources of coverage (table 7). However, the proportion of all coverage carried by Blue Cross-Blue Shield is about 40 percent for persons with family incomes of less than \$1,000, and about 60 percent at incomes of \$10,000 or more.

Comparison With Other Studies

The data obtained from this study in 1956 provide a useful benchmark in the field of prepayment coverage, which is one of the most rapidly changing aspects of medical care today. One other study on a national scale was conducted in 1953 by Anderson and Feldman, for the Health Information Foundation (5). In addition, annual estimates on the number

of people protected for hospital, surgical, and regular medical expense have been compiled since 1940 by the Health Insurance Council, which now comprises eight insurance associations. These estimates afford a panorama not elsewhere available as to historical trends in the health insurance field (6).

A fairly close correlation appears between

Table 7. Hospital prepayment coverage status by source of principal coverage, by family status and income for selected age groups, September 1956

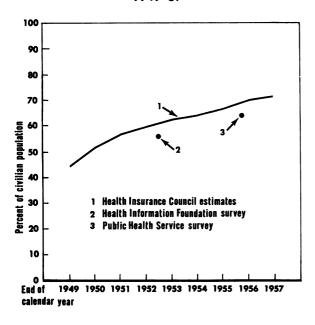
Family status and	Percent of population with hospital prepayment coverage, by source of principal coverage			
income 1	All sources	Blue Cross- Blue Shield	Other plans	
Members of primary families, 14 years and over				
All incomes	65. 3	32. 9	32. 4	
Under \$1000	19. 9 34. 6 49. 6 65. 5 74. 0 80. 6 82. 7 79. 4 62. 5	7. 1 13. 7 20. 4 30. 4 37. 4 41. 9 46. 6 48. 8 34. 9	12. 8 20. 9 29. 2 35. 1 36. 6 38. 7 36. 1 30. 6 27. 6	
Members of primary fam- ilies, under 14 years				
All incomes	64. 9	32 . 0	32. 9	
Under \$1000	14. 8 24. 3 42. 2 64. 6 76. 4 82. 9 86. 2 82. 7 60. 3	5. 7 10. 8 16. 2 30. 9 38. 2 40. 9 47. 6 49. 3 31. 1	9. 1 13. 5 26. 0 33. 7 38. 2 42. 0 38. 6 33. 4 29. 2	
Primary individuals				
All incomes	47. 5	23. 4	24. 1	
Under \$1000	25. 1 40. 4 56. 2 73. 8 77. 3 73. 0 56. 7	10. 6 19. 9 27. 8 38. 4 30. 8 35. 1 32. 7	14. 5 20. 5 28. 4 35. 4 36. 5 37. 9 24. 0	
10 11 00 11 1			<u> </u>	

¹ See table 6, footnote 1.

² See table 1, footnote 1.

the trend estimates and the data of the 1953 and 1956 surveys, as shown in the accompanying chart. In this chart all data are related to the total civilian population. Adjustments from a population base covering only the noninstitutional population were considered advisable for the data of the two surveys in the comparison because of the difficulty in projecting annual change in institutional population for trend purposes. On this basis, the 1953 survey shows a level of prepayment coverage 6.4 percent below the interpolated percentage estimate of the Health Insurance Council. The 1956 survey shows a level 7.8 percent below the interpolated estimate of the Health Insurance Council. The close agreement of these differentials in the 1953 study and in the present report, when a substantially larger sample base was used (about 90,000 persons, as compared with 8,846 persons), suggests the possibility of overstatement in the annual trend series. One recognized difficulty in the Health Insurance Council estimates is an exact adjustment for duplicate coverage. This was noted in the report of the 1953 survey (5). Other possible sources of differences noted therein include some lag in processing lapsed policies and the likelihood of some under-reporting of coverage by survey response, such as the failure to men-

Hospital prepayment coverage, United States, 1949–57



tion disability policies which carry minor payments for hospital charges.

Another survey on a small scale in Ohio, Connecticut, and Vermont in 1953-54 found that 69 percent of the 1,657 persons studied had hospital prepayment coverage, but this level appears to be sectional in nature (7).

Some comparisons can be made between the Health Information Foundation survey of 1953 and the Public Health Service survey of 1956 with respect to coverage according to socioeconomic characteristics. Table 8 sets forth direct results of the two surveys, based on the noninstitutional civilian population.

Between 1953 and 1956 coverage increased 11 percent nationally, but in rural nonfarm areas it increased 24 percent. Rural nonfarm areas include communities below 2,500 in population and the nonurban fringes of large cities, where it may be assumed that rapid growth in population is principally of urban-oriented families.

Persons aged 65 years or over with prepayment coverage have increased from 31 percent in 1953 to 36.5 percent in 1956, a proportional gain of 18 percent. A more extensive analysis of the original data of the 1956 survey relating to persons 65 and over has been carried out through special tabulations developed for the Social Security Administration (8).

Levels of prepayment coverage for selected industries in the two studies are shown in table 8 because of their general similarity, although in some cases the reporting bases are different. Distribution of coverage by family income groups also shows fairly close similarity, although income groups were not identical.

Summary

The type and extent of prepayment protection against the costs of hospital care were studied in a national household survey in 1956. A sample of about 27,000 families with 90,000 persons of all ages was interviewed, with sample areas in every State. Hospital prepayment coverage was carried by 63.6 percent of the noninstitutional civilian population. This may be compared with a level of 57 percent found by a Health Information Foundation study in 1953. Hospital and surgical expenses were covered in 1956 for 49.2 percent of the population; hospital expenses only, for 8.4 per-

cent; and other hospital benefits (other combinations of service or other single services), for 6.0 percent.

Table 8. Patterns of hospital prepayment coverage by socioeconomic characteristics, 1953 and 1956

	Percent of civilian noninstitu- tional population covered					
Socioeconomic characteristic	HIF survey, July 1953 ¹ (Base: 8,846 persons)	PHS survey, Septem- ber 1956 (Base: 90,000 persons)	Percent increase			
Place of residence						
All areas	57	63.6	11			
Urban Rural nonfarm Rural farm	64 52 38	68.2 64.4 40.3	7 24 6			
Age						
Under 6	56 58 49 64 65 63 54	} 2 64.1 3 60.8 70.8 71.5 68.5 62.6 36.5	11 10 9 16 18			
Employment 4						
Manufacturing Mining Transportation Professional services_ Trade Construction Agriculture	87 89 74 72 67 57	84.9 6 81.5 81.3 74.5 70.8 59.0 32.6	(5) (5) (5) (5) (5) (5) (5) (6)			
Family income						
All incomes	57	65.2	14			
Under \$1000 \$1000-\$1999 \$2000-\$2999 \$3000-\$3999 \$	} 26	$ \left\{ \begin{array}{r} 18.4 \\ 31.6 \\ 47.3 \\ 65.2 \end{array} \right. $				
\$4000-\$4999 \$5000-\$7499 \$7500-\$9999	* 64 71 } 71	74.8 81.3 ∫ 83.6	14			
\$10,000 and over)	80.1				

¹ See reference 5.

The most important contrasts in the extent of prepayment protection are associated with variation in income. In primary families with incomes of less than \$1,000 only 18 percent of the members had protection of any kind. The highest coverage rate was 83.6 percent in families with incomes between \$7,500 and \$10,000. Differences in the rate of prepayment coverage were also great with respect to type of employment: wage and salary workers in agriculture had only 26.5 percent coverage, while those in manufacturing had 84.9 percent. Age, too, was related notably to extent of coverage. Persons 65 years or over had a coverage rate of 36.5 percent, while maximum coverage amounted to 71.5 percent at ages 35 to 44 years. People living on farms had a total coverage of only 40.3 percent. Persons with low incomes had a lower proportion of their total coverage under Blue Cross and Blue Shield than did persons of above-average incomes.

These patterns of hospital prepayment coverage in 1956 provide a benchmark in a rapidly changing field. They also underscore those aspects of our social fabric in which health care is uncertain.

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² Under 14 years.

³ 14-24 years.

⁴ Coverage basis, 1953 study: percent of families; 1956 study: percent of persons 14 years and over.

Not fully comparable.

⁶ Includes forestry and fisheries.

⁷ \$2,000-\$3,500. ⁸ \$3,500-\$4,999.

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