

*Health Insurance Benefits
for Personal Health Services*

1953 and 1958: Nationwide Surveys

Odin W. Anderson, Ph.D.

Research Director, Health Information Foundation

Patricia Collette

*Study Director, National Opinion Research Center,
University of Chicago*

Jacob J. Feldman

*Senior Study Director, National Opinion Research Center,
University of Chicago*

Research  *Series 15*

OVER A 12-MONTH SURVEY PERIOD IN 1957-58, the people of the United States received an estimated aggregate total of \$3.1 billion in benefits from their voluntary health insurance to help pay for personal health services.* The amount was just over double, 107 per cent, the comparable figure of \$1.5 billion reported in a 1952-53 survey (Table I). The increase in aggregate benefits from 1952-53 to 1957-58 was larger than the increase in the number of families covered by some form of voluntary health insurance, approximately 16 per cent between mid-1953 and mid-1958.**

These surveys were conducted by Health Information Foundation and the National Opinion Research Center, University of Chicago, during the summers of 1953 and 1958, to determine how much families and individuals spent for personal health services during the previous twelve months, the extent of enrollment in voluntary health insurance, and how insurance helped to pay for services. Area probability samples of the civilian noninstitutional population of the continental United States were interviewed.† The findings on expenditures were published prior to this report as Research Series #14, *Family Expenditure Patterns for Personal*

*Personal health services are here defined as: physicians' services, general hospital care, both prescribed and nonprescribed drugs and medicines, dental care, and all other goods and personal services for health, such as private-duty nursing, nonmedical health practitioners, eyeglasses, and orthopedic appliances. In computing the expenditures for this total category and for each of its major components, money paid as premiums for voluntary health insurance coverage is excluded, but amounts received as benefits are included.

**An insured family is here defined as having at least one individual member covered on the day of the interview by insurance specifically designed to cover the costs of medical care for illness.

†In the earlier survey, members of 2,809 families were interviewed in their homes during the summer of 1953. These families consisted of 8,898 persons, and one or more in each family was interviewed. For the survey of 1958, members of 2,941 families were interviewed during the summer. These families consisted of 9,546 individuals.

The final report of the 1953 survey was published as: Odin W. Anderson and Jacob J. Feldman, *Family Medical Costs and Voluntary Health Insurance*. New York: McGraw-Hill, 1956.

Data from both surveys have been published in abbreviated form in the Foundation's monthly bulletin, *Progress in Health Services* under the following titles: "Voluntary Health Insurance: 1953 and 1958" (a comparison of enrollment published in May 1959); "Our Increased Spending for Health," February 1960; and "The Trend of Health Insurance Benefits," April 1960.

Table 1

Estimated Nationwide Gross Expenditures and Insurance Benefits for Various Types of Personal Health Services, 12-Month Period, 1952-53 and 1957-58

Type of service	Aggregate gross expenditures (billions)		Per cent increase	Aggregate insurance benefits (billions)		Per cent increase
	1952-53	1957-58		1952-53	1957-58	
Total	10.2	16.2	59	1.5	3.1	107
Hospitals	2.0	3.7	85	1.0	2.2	120
Physicians	3.8	5.4	42	0.5	1.0	100
Surgery	0.8	1.1	37	0.3	0.5	67
Obstetrics	0.4	0.5	25	0.1	0.2	100
Other physicians	2.6	3.8	46	0.1	0.3	200
Prescriptions and other medicines	1.5	3.3	120	*	*	
Other medical goods and services	1.3	1.3	0	*	*	
Dentists	1.6	2.4	50	*	*	

* Less than \$50 million.

Table 2

Percentages of Aggregate Gross Expenditures for Personal Health Services Covered by Aggregate Health Insurance Benefits, 12-Month Period, 1952-53 and 1957-58

Type of service	Per Cent of expenditures covered by insurance benefits	
	1952-53	1957-58
Total	15	19
Hospitals	50	58
Physicians	13	18
Surgery	38	48
Obstetrics	25	30
Other physicians	4	7
Prescriptions and other medicines	0	1
Other medical goods and services	1	1
Dentists	0	0

Health Services: 1953 and 1958, Nationwide Surveys. The data presented here constitute findings on health insurance benefits, comparing patterns evident in both surveys where these are pertinent.

Data on the proportion of expenditures covered by insurance are shown in Table 2. In each service covered by present-day voluntary health insurance there was a gain of some degree from 1952-53 to 1957-58. The proportion of all expenditures for personal health services paid by insurance during the 5-year period rose from 15 to 19 per cent. These percentages are for total private expenditures for both insured and uninsured segments of the population.

Health insurance benefits and insured families

During the study period the average amount of benefits paid out annually per insured family rose from \$45 to \$80, or by 78 per cent. As evident in the survey of 1952-53, amount of benefits received differed widely among families; however, in both surveys the average amounts generally rose as the magnitude of annual family expenditures for health increased. But, more important than this similarity between the two surveys were the differences at the various expenditure levels in benefits received. Families which spent relatively small amounts in 1957-58 received less in average benefits than families with comparable expenditures in 1952-53. On the other hand, high-expenditure families in the later survey received much larger benefits than comparable families in the earlier study.

In 1952-53 insured families with annual expenditures* between \$1 and \$49** for all personal health services received an average benefit† of \$2 from their insurance. In 1957-58 the

*The term "charges" was used throughout the earlier Anderson-Feldman study to mean what is here designated as "expenditures." It includes bills as yet unpaid and incurred during the preceding twelve months.

**The class intervals of expenditures in 1952-53 as here presented have been altered slightly (without re-working the data) from those which appeared in the original study, in order to make them identical to the class intervals used in the 1957-58 survey. This difference between the surveys arose because expenditures in the earlier survey had been rounded during coding to the nearest \$10, while in the present survey, in the interests of greater precision, they were rounded to the nearest \$1. It is believed that this alteration in procedure cannot have affected the patterns of expenditure or benefit statistics to any significant extent.

†This average, an arithmetic mean, includes all insured families in the specific expenditure category, whether or not they actually received any benefits. Unless otherwise stated, all averages in this report are arithmetic means. Benefits have been rounded to the nearest dollar.

comparable figure was \$1. Similarly, families spending \$100-199 in 1952-53 averaged \$16 in benefits, while in 1957-58 the average amount of benefits received by such families had dropped to \$10 (Table 3).

At high-expenditure levels the situation was reversed. Families spending \$750-999 in 1952-53 received an average of \$204 in benefits, but in 1957-58 comparable families averaged \$257. Families with expenditures of \$1,000 and over in 1952-53 averaged \$362 in benefits; comparable benefits in 1957-58 came to \$572.

A possible explanation for this shift in pattern is that families with comparable expenditure levels were very likely not buying the same goods and services in 1957-58 as in 1952-53. A family spending less than \$100 in 1952-53 might have paid for a hospital

stay or an in-hospital surgical operation and received insurance benefits, but in 1957-58, with the rise in prices for goods and services, the same \$100 is more likely to have paid only for out-patient care or dental care or medicines, thus decreasing the likelihood of insurance reimbursement. In general, families at the lower levels of expenditures in 1957-58 were less likely to have utilized insured goods and services than families at the same expenditure level in 1952-53. Consequently, their benefits — in dollars, and as a percentage of expenditures — were less.

The rise in average benefits from \$45 to \$80 (or 78 per cent) was proportionately larger than the rise in average expenditures from \$237 to \$339 (or 43 per cent). Thus, the average proportion of expenditures covered by the average amount of benefits rose — from 19 per cent in 1952-53 to 24 per cent in 1957-58. Underlying this general improvement in the extent of coverage was a substantial shift in pattern, as in the case of benefits. High-expenditure families in 1957-58 had a larger proportion of their expenditures paid by insurance than their counterparts in the earlier survey, while coverage among low-expenditure families actually became, on the average, less comprehensive.

In 1952-53, average benefits to families spending between \$1 and \$49 annually for their health amounted to 8 per cent of their expenditures (Chart I). The figure dropped slightly to 6 per cent for families with expenditures ranging from \$50 to \$99; but thereafter—at higher levels of spending—average benefits increased. The peak of 25 per cent was reached at spending of \$500-749, after which benefits dropped to 23 per cent for families with expenditures of \$1,000 and over.*

In 1957-58 the benefits for families at low magnitudes of expenditure were much smaller, e.g., benefit payments averaged 2 per cent of family spending at magnitudes of \$1-49 and \$50-99, and 7 per cent at \$100-199. In this more recent survey, however, the proportion of benefits to expenditures no longer tapered off at the upper magnitudes of expenditures, but continued to rise. Thus the group of families with highest average annual expenditures,

Table 3

Average Benefits by Magnitude of Expenditures for Personal Health Services, Insured Families, 12-Month Period, 1952-53 and 1957-58

Magnitude of expenditures (dollars) ^b	Average benefits (dollars) ^a	
	1952-53	1957-58
All insured families	45	80
1-49	2	1
50-99	4	1
100-199	16	10
200-299	33	28
300-399	67	64
400-499	100	94
500-749	147	156
750-999	204	257
1,000 and over	362	572

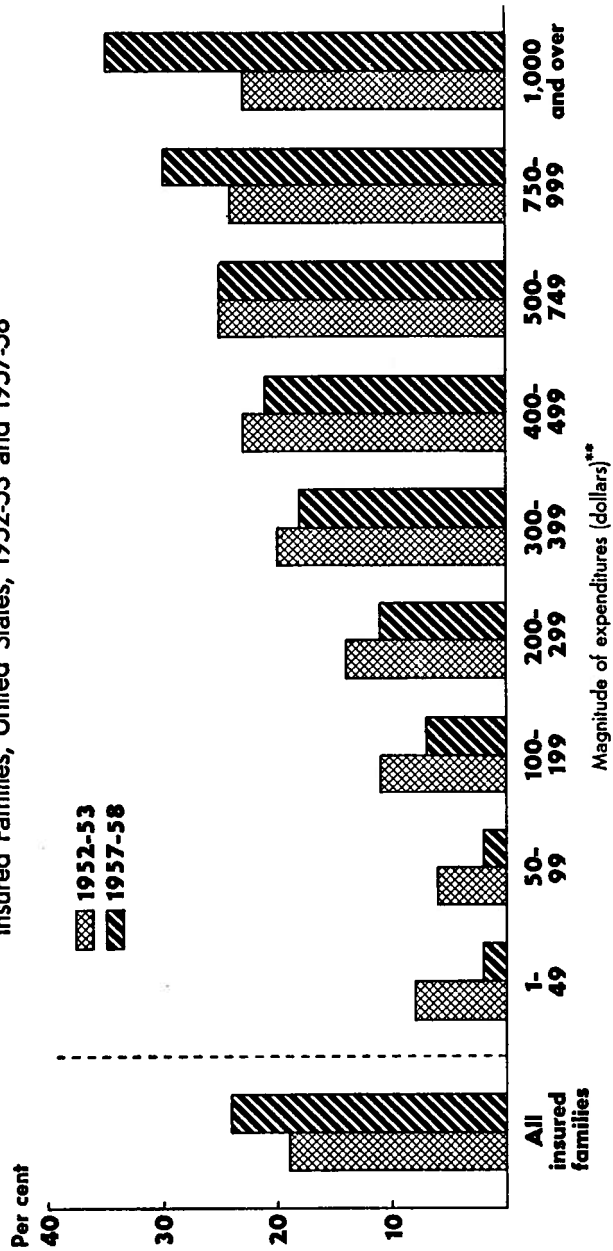
a) Average annual health insurance benefits per insured family.

b) Insured families grouped by magnitude of annual health expenditures.

Note: For methods and all qualifications to the data, see text.

*Because of the small number of cases in this sub-group, statistics based on it are subject to considerable sampling error.

Chart I
Average Coverage* by Magnitude of Expenditures
Insured Families, United States, 1952-53 and 1957-58



*Average annual health insurance benefits per insured family as a per cent of average annual health expenditures.

**Insured families grouped by magnitude of annual health expenditures.

Note: For methods and all qualifications to the data, see text.

Health Information Foundation

\$1,000 and over, received benefits that also averaged the highest proportion of total expenditures, i.e., 35 per cent.

Although the average benefits in 1957-58 for *all* insured families (whether or not they actually received such benefits) came to 24 per cent of average family expenditures, there was wide variation among families. Two-thirds (66 per cent) of those with insurance received no benefits, even though almost all insured families made at least some expenditures for health services in the course of the year.

Among the one-third who received some benefits, there was wide variation in the *degree* of coverage, i.e., in the extent to which insurance reimbursed them for their expenditures. Thus 24 per cent of all insured families had 20 per cent or more of their total expenditures paid by insurance (Table 4). Ten per cent had 50 per cent or more of their total expenditures paid, while 2 per cent of all insured families were covered for 80 per cent or more of their expenditures. The proportion of families at each of these levels of coverage were almost identical to those in the 1952-53 survey. Significant changes over the five-year period are apparent, however, in the proportions of families covered at low and high expenditure levels.

At low magnitudes of annual family expenditures for all personal health services, the per cents of families at each level of coverage in 1957-58 were less than in 1952-53. For example, 22 per cent of the insured families whose annual expenditures were \$100-199 received benefits in 1957-58, compared to 27 per cent in 1952-53. Only 13 per cent of these families in 1957-58 had 20 per cent or more of their expenditures paid by insurance, compared to 20 per cent of such families in 1952-53.

At high magnitudes of expenditure, however, the degree of coverage showed consistent improvement over the five-year period. In 1957-58, 56 per cent of the insured families with annual expenditures of \$500 and over had 20 per cent or more of these expenditures paid by insurance, compared to 49 per cent of comparable families in 1952-53. Likewise, in 1957-58, 24 per cent of families with expenditures at the \$500 and over level had 50

Table 4
Per Cent of All Insured Families at Specified Levels of Coverage According to Magnitude of Expenditures, 12-Month Period, 1957-58

Magnitude of expenditures (dollars) ^b	Level of coverage ^a				
	All Insured Families	Some	20 per cent or more	50 per cent or more	80 per cent or more
	Per cent of families				
All insured families	100	34	24	10	2
1-49	100	4	3	1	—
50-99	100	7	4	*	—
100-199	100	22	13	4	1
200-299	100	35	18	9	2
300-399	100	45	34	15	4
400-499	100	51	43	17	2
500-749	100	64	48	19	4
750-999	100	74	57	23	5
1,000-1,999	100	86	68	30	3
2,000 and over**	100	93	73	37	7

a) Annual health insurance benefits per insured family as a per cent of their annual health expenditures.

b) Insured families grouped by magnitude of annual health expenditures.

*) Less than one-half of one per cent.

***) Due to the small number of cases in this subgroup, statistics based on it are subject to considerable error.

per cent or more of their expenditures paid through insurance, compared to 19 per cent in 1952-53.*

Health insurance benefits by service

The foregoing data have shown the extent to which voluntary health insurance paid for private expenditures for personal health services as a whole and for various kinds of services, and have shown the extent to which voluntary health insurance helped reimburse insured families for their expenditures for the year.

Special attention is given here to hospital care and surgery, because these are the services which current voluntary health

*Corresponding data for 1952-53 are in: Anderson-Feldman, *op. cit.* Table A-69, p. 168.

insurance in the main is designed to cover. Major medical contracts to pay for expenditures outside the hospital as well as inside the hospital are increasing, and there are programs such as physician-sponsored plans in the State of Washington and group practice prepayment plans in several parts of the country covering a comprehensive range of physicians' services. But the nationwide samples of families in the surveys of 1952-53 and 1957-58 were not designed to permit analyses of families covered by such comprehensive plans, which to date have enrolled less than 5 per cent of the population. Special studies sponsored by Health Information Foundation have been made, however, of plans of this type, permitting some comparisons on a nationwide basis.*

Hospital care

Among families insured for hospital care, insurance benefits covered expenditures to about the same extent in 1957-58 as they had in 1952-53. Table 5 shows that in 1952-53, 59 per cent of the families receiving hospital insurance benefits had 80 per cent of their hospital bills paid by insurance; in 1957-58 62 per cent of such families had comparable benefits. In 1952-53 the median per cent of gross hospital expenditures covered by insurance was 89 per cent (that is, one-half of the families receiving benefits had 89 per cent or more of their bills covered, and one-half had 89 per cent or less of their bills covered). The parallel median in 1957-58 was 88 per cent. The percentage distributions in Table 5 are for all practical purposes the same in the two periods.

Another method of measuring the extent to which hospital insurance paid hospital bills is by considering individual admissions rather than family expenditures and coverage. Table 6 shows that in 1952-53, 54 per cent of the hospital admissions

*Odin W. Anderson and Paul B. Sheatsley. *Comprehensive Medical Insurance—A Study of Costs, Use, and Attitudes Under Two Plans*. Health Information Foundation. Research Series No. 9, 1959.

Health Information Foundation. "Comprehensive Insurance for Physicians' Services: A Study of Two Washington State Medical Plans," *Progress in Health Services*, June 1960. The full report will be published as *The Administration of Medical Service Corporations in the State of Washington*, by George A. Shipman, Robert J. Lampman, and Frank Miyamoto. A study of a comprehensive physicians' services plan was made in Windsor, Ontario, Canada. Benjamin J. Darasky, Nathan Sinai, and Solomon J. Axelrod. *Comprehensive Medical Services Under Voluntary Health Insurance: A Study of Windsor Medical Services*. Cambridge, Mass., Harvard University Press, 1958.

Table 5

Percentage Distribution of Families by Per Cent of Gross Hospital Expenditures Covered by Insurance for Families Receiving Some Hospital Benefits, 12-Month Period, 1952-53 and 1957-58

Some part of gross hospital expenditures covered by insurance	Per cent of families	
	1952-53	1957-58
	100%	100%
Under 20 per cent covered	2	2
20-39 per cent covered	6	7
40-59 per cent covered	10	10
60-79 per cent covered	21	19
80 per cent or more covered	59	62
Undetermined	2	—
Median per cent of gross expenditures covered	89	88

Table 6

Percentage Distribution of Admissions by per cent of Hospital Bill Covered by Insurance for Admissions in Which Some Hospital Benefits Were Received, 12-Month Period, 1952-53 and 1957-58

Per cent of hospital bill covered by hospital insurance	All hospital admissions in which insurance benefits were received	
	1952-53	1957-58
1%-49%	7%	9%
50%-69%	14	11
70%-89%	25	24
90%-99%	13	15
100% or more	41	41

had 90 per cent or more of the hospital bill covered by insurance. In 1957-58, 56 per cent were covered to the same extent. Again, the distributions are very similar, indicating little or no change.

A third way of measuring extent of insurance coverage for hospital care is to examine hospital admissions by enrollment in group or individual (non-group) contracts. (Usually, benefits from group contracts are more generous than benefits from individual contracts, and the data in Table 7 bear this out.) In 1952-53 group contracts in 58 per cent of the hospital admissions paid 90 per cent or more of the hospital bill. In 1957-58 they did so in 59 per cent of the admissions.

Individual or non-group contracts, however, paid less of the hospital bill in 1957-58 than in 1952-53. In 1952-53 individual contracts in 39 per cent of the admissions paid 90 per cent or more of the hospital bill, and in 1957-58 the comparable figure was 34 per cent. Moreover, in 1952-53 only 12 per cent of the admissions had less than 50 per cent of the hospital bill paid by

Table 7

Percentage Distribution of Admissions by Per cent of Hospital Bill Covered by Insurance for Admissions in Which Patient Was Covered by Only One Policy and Received Some Hospital Benefits, According To Type of Contract, 12-Month Period, 1952-53 and 1957-58

Per cent of hospital bill covered by hospital insurance	Hospital admissions in which patient was covered by one policy and received benefits from:			
	Group contract		Non-group contract	
	1952-53	1957-58	1952-53	1957-58
1%-49%	6%	6%	12%	23%
50%-69%	10	9	22	21
70%-89%	26	26	27	22
90%-99%	15	17	10	11
100% or more	43	42	29	23

Table 8

Percentage Distribution of Room Rates for Admissions by Daily Room Rates Charged According to Hospital Insurance Status of Admissions, 12-Month Period, 1957-58^a

Daily room rates ^b	All hospital admissions	Uninsured admissions	Some hospital insurance
\$5.00 or less	*%	*%	*%
\$5.01-7.49	2	3	2
\$7.50-9.49	11	21	9
\$9.50-10.49	10	14	8
\$10.50-12.49	19	22	18
\$12.50-14.99	17	16	18
\$15.00-19.99	29	16	32
\$20.00 or more	12	8	13

a) Admissions are classified as covered or uncovered on the basis of whether or not hospital insurance was in effect at the time of admission, not on the basis of whether or not benefits were received. In 8 per cent of the admissions classed here as covered no benefits were received.

b) If two different room rates were charged during a single admission, both are included.

c) Less than half of one per cent.

Table 9

Percentage Distribution of Families by Per Cent of Gross Surgical Expenditures Covered by Insurance for Families Receiving Some Surgical Benefits, 12-Month Period, 1952-53 and 1957-58

Some part of gross surgical expenditures covered by insurance	Per cent of families	
	1952-53	1957-58
	100%	100%
Under 20 per cent covered	3	1
20-39 per cent covered	13	9
40-59 per cent covered	18	21
60-79 per cent covered	16	16
80 per cent or more covered	45	53
Undetermined	4	—
Median per cent of gross expenditures covered	75	81

insurance; in 1957-58 this percentage had increased to 23.

On the face of it, the proportion of hospital bills paid by hospital insurance seems to have remained static from 1952-53 to 1957-58, but it must be remembered that, in general, expenditures per person for hospital care during the period increased 69 per cent. Further Table 8 shows that in 1957-58, 41 per cent of all hospital admissions were in rooms at rates of \$15 a day or more, whereas in 1952-53 the corresponding percentage was but 13.* For hospital admissions covered by insurance 45 per cent were in rooms with rates of \$15 a day or more in 1957-58 compared to 13 per cent in 1952-53. It is apparent that this type of insurance has kept pace with rising expenditures in spite of their magnitude.

Surgery

There is general agreement as to the desirability of insurance against the costs of surgical care. It is of interest, therefore, to compare the extent to which insurance covered expenditures for surgery in the 1952-53 and 1957-58 surveys (Table 9). There was some improvement in the extent to which insurance paid for surgery over the five-year period. In 1952-53, for example, 45 per cent of the families with surgical expenses who received benefits had 80 per cent or more of the expenditures paid by insurance. In the 1957-58 survey 53 per cent of families had this degree of reimbursement. In addition, the median increased from 75 per cent in 1952-53 to 81 per cent in 1957-58, the points at which one-half of the families were above or below the percentages given.

The improvement between 1952-53 and 1957-58 can be demonstrated also by comparing the *extent* to which individuals having surgical expenses and receiving benefits had such expenses covered by insurance. The mean percentages of surgical expenses paid by insurance show little change (Table 10), 76 and 77 per cent respectively between the two periods. Fifty-three per cent of insured individuals had 80 per cent or more of their surgical expenditures met by insurance in 1952-53; for 1957-58, 55 per cent so benefited. The differences, though small, show up in the expenditure distributions. For individuals with expenditures of \$100 or more for surgery, insurance tended to pay a larger

*Anderson-Feldman, *op. cit.*, Table A-93, p. 192.

Table 10

Mean Percentage of Gross Expenditures for Surgery Covered by Surgical Insurance and Per cent of Individuals With 80 Per cent or More of Gross Surgical Expenditures Covered by Insurance, According to Level of Gross Surgical Expenditures, 12-Month Period, 1952-53 and 1957-58

Level of gross surgical expenditures	Mean percentage of gross expenditures for surgery covered by insurance ^a		Percentage of individuals with 80% or more of gross expenditures for surgery covered by insurance	
	1952-53	1957-58	1952-53	1957-58
	Individuals having one procedure	76%	77%	53%
Under \$50	88	87	75	74
\$50-99	77	76	46	52
\$100-199	69	75	42	52
\$200-299	} 64	74	} 37	47
\$300 and over		63		27

a) Mean percentage of gross surgical expenditures covered by surgical insurance was computed as follows: surgical insurance benefit as a percentage of gross surgical charge was computed for each individual receiving surgical insurance benefits. These percentages were then summed for the specific groups and divided by the number of individuals in the group.

percentage of the surgical bills in 1957-58 than in 1952-53. In 1952-53 insurance paid an average of 64 per cent of expenditures for surgery of \$200 or more; in 1957-58 the percentage was 68.

The examination of another measure of insurance coverage, the percentage of individuals who had at least 80 per cent of their expenditures covered, reveals a slightly different pattern of change. The aforementioned improvement in coverage of surgical bills of \$200 or more in magnitude is not confirmed by this second measure. These seemingly contradictory findings probably mean that extremely low coverage of larger surgical bills became more rare but the relative frequency of medium degrees of coverage remain unchanged.

It can be said, therefore, that insurance against the costs of

Table 11

Percentage Distribution of Individuals by Level of Gross Surgical Expenditures, 12-Month Period, 1952-53 and 1957-58

Level of gross surgical expenditures	Percentage distribution of individuals with some gross surgical expenditures ^a	
	All individuals	
	1952-53	1957-58
	100%	100%
\$1-24	20	13
\$25-49	13	14
\$50-99	21	26
\$100-149	16	13
\$150-199	12	12
\$200-299	10	12
\$300-399	} 5	5
\$400-499		3
\$500 and over		2
Undetermined	3	—
Mean per individual with some gross surgical expenditures	\$101	\$128
Median per individual with some gross surgical expenditures	\$ 69	\$ 79

a) Surgical expenditures are physician's charges for all cutting procedures except Caesarian delivery, circumcision of the newborn, and the suturing of wounds but including the setting of dislocations and fractures. Surgical expenditures include charges for physicians assisting at the operation but exclude charges by an anesthesiologist and charges for oral surgery performed by a dentist.

Included only are persons with surgical procedures during the twelve-month survey year and who incurred surgical charges in connection with the procedure. Excluded are persons with a surgical procedure prior to the survey year and any surgical charges they incurred during the survey year for after-care in connection with that procedure.

surgery improved slightly between 1952-53 and 1957-58. This took place in the face of an increase of 27 per cent in average charges for all surgical procedures (Table 11).

Insurance agencies

The prevailing pattern of voluntary health insurance benefits, as described earlier, is to help families pay for general hospital services and physicians' services in the hospital. This is the pattern of coverage for over 90 per cent of the insured pop-

ulation, with minor variations among those with comprehensive insurance. Blue Cross and Blue Shield plans and the private insurance companies are the agencies that have developed it. At the present time private insurance companies have just over one-half of the hospital and surgical enrollment in the country.

Since Blue Cross-Blue Shield plans are in direct competition with private insurance companies for subscribers, there is much interest in comparisons between the two types of prepayment. Owing to the small number of interviews conducted for these surveys in each community, only gross comparisons are possible here. In interpreting these data it is necessary to consider that the Blue plans may differ as much within themselves as they do with the private insurance companies; and the same is true among the private companies. The comparisons made here are limited to hospital and surgical benefits and the extent to which various agencies paid for the total expenditures for these services. Administrative and promotion costs, quality of services, and other matters could not, of course, be studied in a family survey.

Hospital care

In 1957-58 Blue Cross plans as a whole paid a higher proportion of the hospital bill than in 1952-53. Table 12 shows that 60 per cent of the hospital admissions under Blue Cross in 1957-58 had 90 per cent or more of their hospital bill paid compared with 54 per cent in 1952-53. In 1957-58, 83 per cent of the hospital admissions had 70 per cent or more of the hospital bill paid compared with 80 in 1952-53. The proportions of the hospital bill paid by insurance companies in the same ranges remained constant from 1952-53 to 1957-58. In both measures, i.e., where 70 per cent or more, or 90 per cent or more of the hospital bill was met through the insurance agency—Blue Cross compared favorably with private insurance companies in either period.

Since the benefit provisions under group contracts are generally more liberal than those under non-group contracts, comparisons of benefit levels between Blue Cross and the private insurance companies are more meaningful when each type of contract is considered separately. Thus, for instance, group Blue Cross moved from 80 per cent of admissions being covered at the

Table 12

Percentage Distribution of Admissions by Per cent of Hospital Bill Covered by Insurance for Admissions in Which Patient Was Covered by Only One Policy and Received Some Hospital Insurance Benefits According to Type of Insurer, 12-Month Period, 1952-53 and 1957-58

Per cent of hospital bill covered by insurance	Hospital admissions in which patient was covered by only one policy and received benefits from:			
	Blue Cross		Private companies	
	1952-53	1957-58	1952-53	1957-58
1%-49%	7%	6%	8%	12%
50%-69%	13	11	16	13
70%-89%	26	23	29	27
90%-99%	15	18	14	14
100% or more	39	42	33	34
	} 54 } 80		} 47 } 76	
	} 60 } 83		} 48 } 75	

70 per cent level in 1952-53 to 85 per cent in 1957-58. Group private insurance moved from 89 to 84 per cent at the same level (Table 13). For this level of reimbursement then, Blue Cross plans and private insurance companies are close for 1957-58. The proportion of admissions insured under Blue Cross and reimbursed to this extent increased from 1952-53 to 1957-58 while the admissions under private insurance companies and with this degree of reimbursement decreased. At the level of 90 per cent or more of the hospital bill covered by insurance payments, we find 55 per cent of group Blue Cross admissions in 1952-53 compared to 63 per cent in 1957-58 and 59 per cent of the admissions insured under group contract by private companies in 1952-53 in contrast to the 1957-58 figure of 54 per cent.

In extent of coverage by non-group or individual contracts, bills for hospital admissions paid by non-group or individual contracts, under both Blue Cross and private insurance, were less fully reimbursed in 1957-58 than they had been in 1952-53. For both years Blue Cross non-group insurance paid for a larger proportion of admissions at a higher level of payment than did

Table 13

Percentage Distribution of Admissions by Per cent of Hospital Bill Covered by Insurance for Admissions in Which Patient Was Covered by Only One Policy and Received Some Hospital Insurance Benefits, According to Type of Insurer and Contract, 12-Month Period, 1952-53 and 1957-58

Per cent of hospital bill covered by insurance	Hospital admissions in which patient was covered by only one policy and received benefits from:											
	Blue Cross											
	Group		Non-group									
	1952-53	1957-58	1952-53	1957-58								
1%-49%	6%	6%	11%	7%								
50%-69%	14	9	9	20								
70%-89%	25	22	30	27								
90%-99%	15	20	14	11								
100% or more	40	43	36	35								
	} 55		} 80		} 85		} 80		} 46		} 73	

Per cent of hospital bill covered by insurance	Private Company											
	Group		Non-group									
	1952-53	1957-58	1952-53	1957-58								
	1%-49%	5%	5%	12%	40%							
50%-69%	6	11	32	23								
70%-89%	30	30	26	15								
90%-99%	19	15	8	9								
100% or more	40	39	22	13								
	} 59		} 89		} 84		} 56		} 22		} 37	

non-group private plans. In addition, the decrease from 1952-53 to 1957-58 in bills paid at higher levels was greater for private non-group contracts than was the decrease for admissions under Blue Cross non-group plans. In 1952-53, 80 per cent of the admissions paid by Blue Cross individual contracts were reimbursed to the extent of 70 per cent or more; in 1957-58 the figure was 73 per cent. Of the 1952-53 admissions paid by non-group private contracts 56 per cent had 70 per cent or more of the bill paid by insurance compared to 37 per cent in 1957-58. Both Blue Cross and private insurance companies lost ground between 1952-53 and 1957-58. But Blue Cross is at a higher level in both periods, and private insurance companies lost ground at a faster rate. Using the level of 70 per cent or more of the hospital bill being paid by insurance, in 1952-53 80 per cent of Blue Cross hospital admissions were in that category. In 1957-58 this figure had dropped to 73 per cent. Sixty-six per cent of the hospital admissions insured by private companies under non-group contracts had 70 per cent or more of their bills paid in 1952-53. In 1957-58 this percentage of admissions had dropped to 37.

Both types of insurance agencies, of course, faced great increases in hospital prices and expenditures. In 1952-53, for example, only 17 per cent of the hospital admissions under Blue Cross were in accommodations costing \$15 or more a day;* in 1957-58, 51 per cent of the Blue Cross admissions were occupying such accommodations (Table 14). The comparable figures for private insurance companies were 6 per cent in 1952-53 and 39 per cent in 1957-58. Among Blue Cross admissions there was about a three-fold increase in \$15-a-day-accommodations, and for private companies almost a seven-fold increase.

Surgery

The proportion of surgical bills reimbursed by Blue Shield plans and by private insurance companies has held steady for the five-year period. In 1957-58 as in 1952-53 Blue Shield paid a higher proportion of the surgical bill than did the private insurance companies. Comparison of Blue Shield non-group contracts for surgery with private insurance non-group contracts was impossible because of the small number of Blue Shield non-group surgical

*Anderson-Feldman, *op. cit.*, Table A-105, p. 205.

Table 14

Percentage Distribution of Admissions in Which Patient Was Covered by Only One Policy by Daily Room Rates Charged, According to Type of Insurer, 12-Month Period, 1957-58

Daily room rates charged	Hospital admission in which patient was covered by only one policy	
	Blue Cross	Private Company
\$5.00 or less	—%	1%
\$5.01-7.49	2	1
\$7.50-9.49	7	14
\$9.50-10.49	8	9
\$10.50-12.49	15	20
\$12.50-14.99	17	16
\$15.00-19.99 ...	36	28
\$20.00 or more	15	11

} 51 } 39

Table 15

Mean Percentage of Gross Expenditures for Surgery Covered by Surgical Insurance According to Type of Insurer, 12-Month Period, 1952-53 and 1957-58

Type of insurer	Mean percentage of gross expenditures for surgery covered by insurance ^a		Percentage of individuals with 80% or more of gross expenditures for surgery covered by insurance	
	1952-53	1957-58	1952-53	1957-58
Individuals receiving benefits from				
only one type of insurer	76%	76%	51%	52%
Blue Shield	78	81	54	61
Private Company	70	72	41	45
Group	72	73	43	48
Non-group	66	64	38	32

a) Mean percentage of gross surgical expenditures covered by surgical insurance was computed as follows: surgical insurance benefit as a percentage of gross surgical charge was computed for each individual receiving surgical insurance benefits. These percentages were then summed for the specific groups and divided by the number of individuals in the group.

cases. As in 1952-53 private non-group contracts paid a smaller proportion of the surgical bill than private group contracts. For both types of insurer there appears to have been a slight increase over the five-year period in proportion of individuals having 80 per cent or more of their surgical expenditures covered by insurance. In 1952-53 54 per cent of the individuals receiving benefits only from Blue Shield had 80 per cent or more of their charges paid; in 1957-58 the figure was 61 per cent. For individuals receiving surgical benefits only from private insurers 41 per cent in 1952-53 were reimbursed to the extent of 80 per cent or more compared to 45 per cent in 1957-58.

Observations and implications

In the face of rising expenditures by the insured and uninsured for all personal health services both health insurance enrollment and benefits expanded sufficiently so that insurance paid a larger share for hospital and physicians' care in 1957-58 than in 1952-53. Among insured families expenditures for hospital care were reimbursed by insurance to the same extent in 1957-58 as were insured families in 1952-53. Surgical benefits seem to have improved slightly over the five-year period.

Among insured families those who had relatively high magnitudes of expenditures for personal health services in 1957-58 had a higher proportion of their costs paid by insurance than did comparable families in 1952-53, and families with relatively low magnitudes of expenditures had less of their costs paid by insurance in 1957-58 than in 1952-53.

Although there were improvements in health insurance benefits in the five-year period it is obvious that families still need broader benefits to protect them from the high costs of services that can be incurred either in or out of the hospital. This observation has many implications and is the focal point of many discussions, debates and experiments in voluntary health insurance today.

Two interrelated issues that are under constant discussion and debate go to the heart of different philosophies of insuring against costs of personal health services and the various meth-

ods of providing services. One issue concerns the range of services that may feasibly be included by insurance—for example, drugs and medications, physicians' home and office calls, appliances, nursing homes, home care, and so on. The other issue is the extent to which the subscriber should be required to pay for a portion of initial charges and a portion of subsequent charges. Both issues raise the question: *What do people want from health insurance?* Voluntary health insurance now pays 24 per cent of expenditures for all personal health services among insured families. If 100 per cent were the goal, there are 76 percentage points to go. However, this is largely considered unrealistic, though there are groups that aim at virtually 100 per cent coverage for hospital and physicians' charges, and experimentation is under way to insure against the cost of drugs and medications and dental care.

In any case, even though there are philosophical differences, the risk of experiencing costs of personal health services assumes a dominant rationale for the principle of health insurance. This report is focused on the expenditure patterns for personal health services among insured families and the extent to which voluntary health insurance helped them pay for services. The merits or demerits of different types of health insurance plans were not considered in this survey and are left for discussion elsewhere. It is hoped that these data will clarify trends and demonstrate the results of prevailing forms of voluntary health insurance. ■

Appendix Table

Mean Total Insurance Benefits as a Percentage of Mean Gross Total Expenditures, According to Level of Family Gross Total Expenditures, 12-Month Period, 1952-53 and 1957-58

Family total gross expenditures	Total insurance benefits as per cent of mean gross total expenditures according to level of family gross total expenditures	
	1952-53	1957-58
All insured families	19%	24%
Under \$50	8	2
\$50-99	6	2
\$100-199	11	7
\$200-299	14	11
\$300-399	20	18
\$400-499	23	21
\$500-749	25	25
\$750-999	24	30
\$1,000 and over	23	35

HEALTH INFORMATION FOUNDATION

CITIZENS ADVISORY COMMITTEE

Chairman

THE HONORABLE HERBERT HOOVER

DETLEV W. BRONK, *President*
The Rockefeller Institute

FERDINAND EBERSTADT, *President*
F. Eberstadt & Co.

HAROLD W. DODDS, *President Emeritus*
Princeton University

HENRY T. HEALD, *President*
The Ford Foundation

DONALD W. DOUGLAS, *President*
Douglas Aircraft Company, Inc.

MRS. E. LEE OZBIRN, *Int'l President*
General Federation of Women's Clubs

L. A. DuBRIDGE, *President*
California Institute of Technology

LEWIS L. STRAUSS
New York City

OFFICERS

President

GEORGE BUGBEE

Chairman of the Board

GEORGE R. CAIN, *President*
Abbott Laboratories

Treasurer

S. BARKSDALE PENICK, JR., *President*
S. B. Penick & Company

Secretary

HENRY S. McNEIL, *President*
McNeil Laboratories, Inc.

Vice Presidents

EUGENE N. BEESLEY, *President*
Eli Lilly and Company

J. MARK HIEBERT, M.D.,
Chairman of the Board and President
Sterling Drug, Inc.

JOHN G. SEARLE, *President*
G. D. Searle & Co.

GEORGE F. SMITH, *President*
Johnson & Johnson

GEORGE VAN GORDER, *Chairman of Board*
McKesson & Robbins, Inc.

BOARD OF DIRECTORS

L. D. BARNEY, *President*
Hoffmann-LaRoche, Inc.
WALTER R. BEARDSLEY, *President*
Miles Laboratories, Inc.
EUGENE N. BEESLEY, *President*
Eli Lilly and Company
GEORGE W. BENGERT, *President*
The Norwich Pharmacal Company
FRANCIS BOYER, *Chairman of Board*
Smith Kline & French Labs.
LEE H. BRISTOL, *Chairman of Board*
Bristol-Myers Company
FRANCIS C. BROWN, *President*
Schering Corporation
ALVIN G. BRUSH
Chairman of Board
American Home Products Corp.
GEORGE R. CAIN
President
Abbott Laboratories
JOHN T. CONNOR, *President*
Merck & Co., Inc.
WILLIAM N. CREASY
President and Chairman of Board
Burroughs Wellcome & Co. (U.S.A.) Inc.
ROBERT K. CUTTER, M.D., *President*
Cutter Laboratories
JUSTIN DART, *President*
Rexall Drug Company
SID F. DAVIS, *Vice President*
and General Sales Manager
Glass Container Division, Owens-Illinois
W. L. DEMPSEY
Drexel & Company
FAIRLEIGH S. DICKINSON, JR.
President
Becton, Dickinson & Co.
LELAND I. DOAN, *President*
Dow Chemical Company
ALFRED E. DRISCOLL, *President*
Warner-Lambert Pharm. Co., Inc.
LYMAN DUNCAN, *General Manager*
Lederle Laboratories,
Div. American Cyanamid Co.
J. H. FITZGERALD DUNNING, *President*
Hynson, Westcott and Dunning, Inc.
JOSEPH FISTERE, *President*
Mallinckrodt Chemical Works
NELSON M. GAMPFER, *Chairman of Board*
Wm. S. Mertell Co.
WILLIAM B. GRAHAM, *President*
Baxter Laboratories, Inc.

LESLIE D. HARROP, ESQ.
Vice-President & General Counsel
The Upjohn Company
J. MARK HIEBERT, M.D.
Chairman of Board and President
Sterling Drug, Inc.
H. H. HOYT, *President*
Carter Products, Inc.
D. MEAD JOHNSON, *President*
Mead Johnson & Company
GEORGE W. KAUFFMAN
President
The Kauffman-Lattimer Co.
HARRY J. LOYND, *President*
Parke, Davis and Co.
FOSTER G. MCGAW, *Chairman of Board*
American Hospital Supply Corp.
HENRY S. McNEIL, *President*
McNeil Laboratories, Inc.
S. BARKSDALE PENICK, JR., *President*
S. B. Penick & Company
JOHN J. POWERS, JR., *President*
Pfizer International
EDGAR M. QUEENY
Chairman of Finance Committee
Monsanto Chemical Company
SCOTT C. REA
President & General Manager
Rea and Derick, Inc.
E. CLAIBORNE ROBINS, *President*
A. H. Robins Company
JOHN G. SEARLE, *President*
G. D. Searle & Co.
GEORGE F. SMITH, *President*
Johnson & Johnson
JOHN J. TOOHY, *General Manager*
E. R. Squibb & Sons, Division of
Olin Mathieson Chemical Corp.
E. GIFFORD UPJOHN, M.D., *President*
The Upjohn Company
K. F. VALENTINE, *President*
Pitman-Moore Company, Div. of
Allied Labs., Inc.
GEORGE VAN GORDER
Chairman of Board
McKesson & Robbins, Inc.
ERNEST H. VOLWILER
Chairman of the Board
Abbott Laboratories International Co.
EDWARD T. T. WILLIAMS
Chairman of Executive Committee
Warner-Lambert Pharm. Co., Inc.