*Voluntary Health Insurance and Medical Care Costs, 1948-56**

The survey of private medical care expenditures and voluntary health insurance, made annually by the Social Security Administration, has special interest this year because of the increased attention being given to mounting medical care costs. In the following article, trends in the relationship of medical care expenditures to disposable personal income and prices are examined, as well as the trends in aggregate expenditures and in per capita expenditures.

More than $12 billion was spent by consumers for medical care in the United States during 1956. This amount is nearly $1 billion higher than the amount spent in 1955 and is $4.8 billion more than private medical care expenditures in 1948. It is equivalent to $71.95 per capita, $7.43 more than the 1955 expenditures and $22.20 more than in 1948.

The mechanism of prepayment is being used more and more to finance medical care. About 116 million persons—70 percent of the population—were reported to have some kind of health insurance at the end of 1956. During the year the income received by insurance companies and prepayment plans amounted to $3.6 billion and accounted for 30 percent of all private expenditures relating to personal health services and supplies. The benefits paid by these carriers and plans represented 26.3 percent of the $11.5 billion received from private sources by the suppliers of personal health services and supplies.

Annual surveys by the Division of Program Research have covered the extent of health insurance protection against medical care costs during each of the past 9 years. The appraisal technique used has, until this year, not attempted to analyze the factors that influence the total volume of medical and hospital care received by the civilian population. This year, because of the mounting interest in the costs of medical care, the survey explores certain aspects of the relationships among changing medical care costs, increases in population, growth in the number of persons with some form of prepaid medical care, and the rise in personal incomes since 1948.

As in previous years, civilian expenditures for health and the insurance benefits received in connection with the expenditures are considered first, and the trends in the proportion of aggregate civilian expenditures met by insurance benefits examined. These percentage indexes of the Nation's private health bill met through insurance provide a valid comparison of growth in insurance protection, irrespective of population growth or upward trend in incomes and medical costs. Dollars of insurance benefits are measured against dollars of medical care expenditures of the same value.

Aggregate Private Expenditures for Medical Care

Table 1 shows the total annual private expenditure for medical care in the period 1948–56 by the type of service received. Of the $12.1 billion spent by consumers in 1956, a total of $8.5 billion represented direct payments to physicians, dentists, nurses, and other practitioners and to hospitals and nursing homes and for medicines and appliances. Health insurance benefits came to more than $3 billion. To provide these medical care payments through the mechanism of prepayment, individuals themselves and their employers, as a form of wage supplement, spent $3.6 billion, of which $600 million was the cost of operating the prepayment plans, adding to reserves, and the like.

There has been a decided shift during the past 9 years in the division of the medical care dollar among the items composing the private medical care bill. The largest item in 1956 was hospital care, which represented 34 percent of all private expenditures. Privately financed hospital care took only 25 percent of the Nation's private medical care dollar in 1948. Hospitalization insurance benefits have increased more than fourfold and cover somewhat more than twice as large a proportion of the private hospital bill as in 1948.

Much less expansion occurred in the total amount used to pay for physicians' services, which rose from $2.3 billion in 1948 to $3.6 billion in 1956 (table 1). As a proportion of the total medical care bill, physicians' services accounted for 30 percent in 1956, compared with 32 percent in 1948. Insurance benefits for physicians' services, however, have increased nearly sixfold.

Expenditures for the remaining items of the Nation's private medical care bill have also gone up during the 9 years but none of them by as much as $1 billion. Proportionately, smaller amounts of the medical care dollar were used for medicines and appliances, dentists' services, and so forth than in 1948; since insurance benefits for these items equaled less than $1 million they are not shown separately in the table.

Insurance Against Medical Care Costs

The growth from 1948 to 1956 in the volume of medical care insurance is shown in table 2. Premium income of all insurance carriers and prepayment plans has increased by more than $300 million each year since 1950, and in 1956 it rose by $473 million to a total of $3,623 million. Benefit payments increased correspondingly; the 1956 total of $3,015 million was $479 million higher than the total in 1955.

A word of explanation is needed about the 1956 figure for benefit payments as a percentage of premiums

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(the loss ratio), shown as 83.2 percent in table 2. For 1956 the Health Insurance Council revised the methodology in its computation of annual data for insurance companies but did not apply the new methodology to the earlier years. In 1956, for the first time, estimated dividends were subtracted from total premiums before earned premiums were determined. This reduction in the denominator caused an increase in the loss ratio determined for group insurance. Had the same adjustment been made for the earlier years, a less sharp change would have been evident in 1956 in the proportion of the premium dollar returned as benefits. Table 3 shows that the loss ratio for group insurance in 1956 was 89.0 percent. The figure in 1955, before the change in methodology, was 83.9 percent.

Table 3 lists the sources from which the population obtains its voluntary health insurance protection. Slightly more than half (50.8 percent) of the income received by all carriers for such protection was received by insurance companies, 41.2 percent by the Blue Cross and Blue Shield plans, and the remainder—8.0 percent—by a wide variety of other types of insurers.

Blue Cross continued to be the largest single form of hospitalization insurance, receiving 43.2 percent of income, compared with 31.0 percent for group policies issued by insurance companies and 18.6 percent for individual policies issued by insurance companies.

Of the premiums received for insurance against the cost of physicians' services, 52.8 percent went to insurance companies, 38.3 percent to group carriers, and 14.5 percent to writers of individual medical-surgical policies. Blue Shield plans accounted for 34.1 percent of the income for physicians' services received by all forms of insurers, and 13.2 percent represented Blue Cross plans and the various other types of carriers.

When expenditures for benefits are examined, the percentage distributions by type of carrier are substantially the same as the income distributions, with some minor variations. Insurance companies paid out 46.8 percent of all the benefits received, and the Blue Cross and Blue

Table 1.—*Private expenditures for medical care and for voluntary health insurance, 1948–56* [1]

Expenditure	1948	1949	1950	1951	1952	1953	1954	1955	1956
	Amount (in millions)								
Total	$7,300	$7,581	$8,209	$8,715	$9,336	$10,009	$10,491	$11,209	$12,091
Direct payments	6,438	6,565	6,918	7,055	7,343	7,590	7,735	8,059	8,467
Insurance benefits	606	767	992	1,353	1,604	1,921	2,179	2,536	3,015
Expenses for prepayment [2]	256	249	299	307	389	498	577	614	609
Hospital services [3]	1,859	1,947	2,289	2,477	2,768	3,105	3,378	3,715	4,098
Direct payments	1,212	1,240	1,420	1,392	1,462	1,549	1,611	1,697	1,730
Insurance benefits	455	539	680	897	1,074	1,273	1,442	1,679	2,022
Expenses for prepayment [2]	192	168	189	188	232	283	325	339	346
Physicians' services [4]	2,300	2,426	2,580	2,684	2,878	3,080	3,218	3,398	3,610
Direct payments	2,085	2,117	2,158	2,109	2,191	2,217	2,229	2,266	2,354
Insurance benefits [5]	151	228	312	456	530	648	737	857	993
Expenses for prepayment [2]	64	81	110	119	157	215	252	275	263
Medicines and appliances	1,785	1,798	1,885	2,048	2,130	2,192	2,197	2,319	2,497
Dentists	833	857	869	888	906	943	975	1,017	1,070
Other professional services [6]	423	448	476	498	529	559	583	610	646
Nursing homes [7]	100	105	110	120	125	130	140	150	170
	Percentage distribution								
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Direct payments	88.2	86.6	84.3	81.0	78.7	75.9	73.7	71.9	70.0
Insurance benefits	8.3	10.1	12.1	15.5	17.1	19.2	20.8	22.6	24.9
Expenses for prepayment	3.5	3.3	3.6	3.5	4.2	4.9	5.5	5.5	5.1
Hospital services	25.4	25.7	27.9	28.4	29.6	31.0	32.3	33.1	33.9
Direct payments	16.6	16.4	17.3	16.0	15.7	15.5	15.4	15.1	14.3
Insurance benefits	6.2	7.1	8.3	10.3	11.4	12.7	13.8	15.0	16.7
Expenses for prepayment	2.6	2.2	2.3	2.1	2.5	2.8	3.1	3.0	2.9
Physicians' services	31.5	32.0	31.4	30.8	30.9	30.8	30.6	30.3	29.9
Direct payments	28.5	27.9	26.3	24.2	23.5	22.2	21.2	20.2	19.5
Insurance benefits	2.1	3.0	3.8	5.2	5.7	6.5	7.0	7.6	8.2
Expenses for prepayment	.9	1.1	1.3	1.4	1.7	2.1	2.4	2.5	2.2
Medicines and appliances	24.5	23.7	23.0	23.5	22.8	21.9	20.9	20.7	20.7
Dentists	11.4	11.3	10.6	10.2	9.7	9.4	9.3	9.1	8.8
All other	7.2	7.3	7.1	7.1	7.0	6.9	6.9	6.8	6.7

[1] Except where otherwise noted, data are from the Department of Commerce, *1955 National Income Supplement to Survey of Current Business*, table 30, and *Survey of Current Business*, July 1957, table 30. Consumer expenditures include employer contributions to health insurance premiums. Excludes medical care expenditures for the Armed Forces and veterans, those made by public health and other government agencies and under workmen's compensation laws, and those of private philanthropic organizations directly to or by hospitals. No attempt has been made to identify and exclude expenditures made by individuals from payments received by them under the public assistance programs.

[2] Data from table 2. Represents the difference between expenditures for health insurance premiums (earned income) and amounts returned to consumers as benefits.

[3] Combines amounts received by hospitals from patients (equal to direct payments and insurance benefits) and the costs of providing the mechanism of prepaid hospital care. Amounts received by hospitals computed from data in *Hospitals*, June of each year 1949–54 and September 1955–57. Based on income from patients for each year ending September 30 in all types of general and special short-term hospitals. Data are projected to December 31 of each year, and additions have been made for (1) nonregistered hospitals and (2) estimated income received from patients by general and special long-term hospitals, mental and allied hospitals, and tuberculosis sanitariums. Amount of private expenditures is overstated by an unknown amount recorded by the hospital as patient income in some instances where a government or welfare agency or workmen's compensation carrier actually made payment or reimbursed the patient. Includes estimated annual expenditures for hospital care under student health services.

[4] Combines amounts received by physicians from patients (equal to direct payments and insurance benefits) and the costs of providing the mechanism of prepaid physicians' services. Amounts received by physicians from patients adjusted by an addition each year to figure reported in *Survey of Current Business* for salaries of physicians employed in prepayment medical service plans, and for physicians' services in student health services. Excludes amounts private practitioners received from nonconsumer sources (equal to about 10 percent of the amounts shown) such as those for workmen's compensation cases, and physical examinations connected with writing life insurance.

[5] Includes also prepaid dental benefits and other services provided through prepayment plans; amounts for these items are relatively insignificant.

[6] Services of osteopathic physicians, chiropractors, podiatrists, private-duty trained nurses, and miscellaneous curative and healing professions.

[7] Estimates for 1955 and 1956 by the Public Health Service were used as a basis for determining the level for earlier years; includes only nursing homes with skilled nursing care.

Table 2.—*Earned income, benefit payments, and loss ratios for voluntary insurance against the costs of medical care, 1948–56*

[Amounts in millions]

Year	Earned income [1]	Benefit payments	Loss ratio (percent)
1948	$862	$606	70.3
1949	1,016	767	75.5
1950	1,291	992	76.8
1951	1,660	1,353	81.5
1952	1,993	1,604	80.5
1953	2,420	1,921	79.4
1954	2,756	2,179	79.1
1955	3,150	2,536	80.5
1956	3,623	3,015	83.2

[1] Represents benefit payments plus expenditures for obtaining prepayment insurance; for detail, see table 1.

Table 3.—*Income and expenditures for medical care among voluntary health insurance plans, by type of carrier or plan, 1956*

Type of insurance carrier or plan	Income [1]			Expenditures for benefits [4]			Benefits as percent of income
	Total	For hospital services [2]	For physicians' services [3]	Total	For hospital services [2]	For physicians' services [3]	
	Amount (in millions)						
Total	[5] $3,623.0	$2,367.4	$1,255.6	[5] $3,014.7	$2,021.8	$992.9	83.2
Blue Cross plans [6]	1,046.6	1,021.7	24.9	968.1	946.9	21.2	92.5
Blue Shield plans [7]	446.9	19.3	427.6	385.6	18.9	366.7	86.3
Other medical-society-sponsored plans [8]	12.2	6.5	5.7	8.5	4.6	3.9	69.7
Other nonprofit plans	240.6	129.4	111.2	204.0	110.5	93.5	84.8
Community	75.4	40.4	35.0	64.3	35.1	29.2	85.3
Consumer-sponsored	10.2	5.8	4.4	8.1	4.4	3.7	79.4
Fraternal societies	2.1	1.2	0.9	2.1	1.2	.9	100.0
Employer and/or employee	63.7	37.9	25.8	59.1	35.2	23.9	92.8
Union health and welfare [9]	89.2	44.1	45.1	70.4	34.6	35.8	78.9
Student health services [10]	5.6	2.3	3.3	5.5	2.2	3.3	98.2
Private group clinics with prepayment	32.0	12.1	19.9	32.4	11.7	20.7	101.3
Insurance companies [11]	1,839.1	1,176.1	663.0	1,410.6	927.0	483.6	76.7
Group	1,216.3	734.8	481.5	1,082.5	688.5	394.0	89.0
Individual	622.8	441.3	181.5	328.1	238.5	89.6	52.8
	Percentage distribution						
Total	100.0	100.0	100.0	100.0	100.0	100.0	
Blue Cross plans	28.9	43.2	2.0	32.1	46.8	2.1	
Blue Shield plans	12.3	.8	34.1	12.8	.9	36.9	
Insurance companies	50.8	49.7	52.8	46.8	45.9	48.7	
Group	33.6	31.0	38.3	35.9	34.1	39.7	
Individual	17.2	18.6	14.5	10.9	11.8	9.0	
All other plans	8.0	6.3	11.2	8.3	6.4	12.2	

[1] Earned income for Blue Cross, Blue Shield, and similar plans and for insurance companies; total income for plans providing services rather than third-party or cash-indemnity benefits. Division of income between hospital services and physicians' services among service plans providing both types estimated on the basis of their expenditures.

[2] Includes some income or expenditures for outpatient services.

[3] Includes some income or expenditures for services other than those received from physicians (nurses, dentists, laboratories, etc.).

[4] Benefits paid, for nonprofit and other organizations; losses incurred, for insurance companies.

[5] Includes premiums or benefits for hospitalization and physicians' services among private plans under the State temporary disability insurance laws of California and New York (see table 4).

[6] For the 5 combined Blue Cross-Blue Shield plans, data for medical-surgical insurance shown under Blue Shield plans. Distribution between hospital and physicians' services for these combined plans and for the 8 Blue Cross plans that write both types of insurance furnished by the Blue Cross Commission. Addition made for Health Services, Inc.

[7] Addition made for Medical Indemnity of America. Excludes hospital insurance of the 5 Blue Cross-Blue Shield plans. Includes 8 Blue Shield plans that also furnish hospital insurance. Data supplied by Blue Cross Commission.

[8] Excludes plans underwritten by insurance companies.

[9] Covers only those funds or portions of funds used for the direct purchase of medical care without an intermediary insurance company or plan.

[10] Estimated.

[11] Estimated by Health Insurance Council and adjusted for plans shown as "other nonprofit plans."

Shield plans paid out 44.9 percent.

Blue Cross plans, with payments of $947 million to hospitals, accounted for 46.8 percent of the $2,022 million that all forms of prepayment made available as protection against hospital costs. Group insurance paid 34.1 percent and individual insurance, 11.8 percent; together they provided $927 million in hospitalization benefits. Only $148 million, 7.3 percent of the total, came from Blue Shield and other medical society plans and all the other forms of carriers.

In the field of insurance benefits for physicians' services, the two main sources were group insurance plans ($394 million) and Blue Shield plans ($367 million); these two sources accounted for 76.6 percent of the total of $993 million. All the other forms of plans provided 23.4 percent of the total provided as benefits for physicians' services. A little more than 12 percent of the aggregate came from the independent plans.

A comparison with the table published in last year's article on this subject,[1] corresponding to table 3, shows that expansion in benefit payments occurred among the Blue Cross plans (an increase of $136 million or 16 percent) and among group insurance plans (an increase of $225 million, or 26 percent). The growth of $71 million in Blue Shield benefits represented a 23-percent increase. Benefits from individual policies were only $7 million more than in 1955, a relatively small increase (2 percent). The increase of $40 million among all the other forms of insurance represented a 19-percent expansion in benefits in this small section of the prepayment field.

The data in tables 2 and 3 are not confined exclusively to nongovernmental programs but include a small amount of health insurance resulting from the compulsory temporary disability insurance laws of California and New York. Not included, however, are the expenditures of $7.0 million from the State fund for hospitalization in California. The extent of medical care benefits provided in 1956 under the two State laws is shown in table 4, separately for private carriers and for the public program in operation in California. Income under these programs amounted to an estimated $19.2 million, and expenditures for benefits amounted to $17.1 million.

The data shown in table 1 include the California hospitalization benefits of $7.0 million among the direct payments for hospital care; they also contain the $17.1 million in benefits from private plans under public auspices within the insurance benefits for hospital and physicians' services. An adjustment to confine table 1 to voluntary health insurance can be made by (1) reducing private expenditures by $24.1 million (the combined benefits under public auspices) plus an estimated $4–5 million for the cost of providing these benefits and (2) removing $17.1 million from

Table 4.—*Benefits from hospital and medical care insurance under California and New York State temporary disability insurance laws, 1950–56*

[In millions]

Year	Total	Under public plans [1]	Under private plans [2]
1950	$6.5	$2.7	$3.8
1951	11.0	2.6	8.4
1952	13.4	3.3	10.1
1953	16.2	3.7	12.5
1954	19.2	5.7	13.5
1955	21.3	6.3	15.0
1956	24.1	7.0	17.1

[1] Hospital benefits in California.

[2] Hospital benefits in California; hospital, surgical, and medical benefits in New York.

[1] See the *Bulletin*, December 1956, page 4.

the amounts shown as paid by insurance. An alternative adjustment—if the purpose is to measure the extent of prepayment, whether voluntary or not—calls for adding the $7 million paid in benefits under California's State-operated program to the $3,015 million of private health insurance benefits. The changes alter the original data only slightly.

Trends in Insurance Protection

The extent of protection provided through insurance in the aggregate each year from 1948 through 1956 is measured in table 5. The percentage of aggregate private expenditures for medical care that was met by insurance benefits is shown for the total and for five different groupings of services. The benchmarks representing expenditures have been calculated both to include and to omit the expenditures made necessary by the use of prepayment to purchase the insurance protection being measured.

Insurance was meeting 26.3 percent of the Nation's private medical bill in 1956, compared with 8.6 percent in 1948. In every 12-month period except that from 1950 to 1951, the percentage of the medical bill met by insurance has increased about 2 points; the increase was 2.4 points from 1955 to 1956. The year-to-year percentage increase is almost the same even when the expense to obtain insurance is included in the data.

In 1956 more than half (53.9 percent) of the amounts received by hospitals from patients paying privately was derived from prepayment plans. From 1955 to 1956 the proportion of the hospital bill covered by insurance benefits went up more than 4 percentage points, the greatest 1-year increase in 5 years. Nearly 30 percent of the payments made to physicians were from insurance sources in 1956, compared with 7 percent in 1948.

Most, though not all, of the health insurance purchased today applies to the costs of physicians' services and to hospitalization. All private expenditures for these two items totaled $7.1 billion in 1956, exclusive of the expenses ($609 million) of providing the insurance, and represented 62 percent of all private payments to the suppliers of medical care. All insurance benefits taken together ($3.0 billion) equaled 42.5 percent of private expenditures for hospital care and physicians' services. Since an unknown proportion of the insurance benefits was used to pay for the services of nurses and dentists and for drugs, appliances, and the like, in actuality the percentage of the combined bill for hospital care and physicians' services covered by insurance was less than 42.5.

A combination of some of these other types of expenditures with the total expenditures for hospitalization and physicians' services is used as the benchmark labeled "currently insurable expenditures." This total omits the costs of nursing homes, nursing care and the care of other nonphysician practitioners, and nine-tenths of the Nation's expenditures for drugs and appliances. It might be considered as "currently insurable under the prevailing forms of existing health insurance." Insurance benefits met about 36 percent of this benchmark in 1956 and 12 percent in 1948.

Some existing forms of health insurance are already providing benefits of broader scope than the items included in the data labeled "cur-

Table 5.—*Private expenditures for medical care and percent accounted for by voluntary insurance, 1948–56*

[Amounts in millions]

Year	Total medical care expenditures		Hospital services only		Physicians' services		Hospital and physicians' services		Currently insurable expenditures		Potentially insurable expenditures	
	Amount	Percent accounted for by insurance	Amount [1]	Percent accounted for by insurance	Amount	Percent accounted for by insurance [2]	Amount	Percent accounted for by insurance [2]	Amount [3]	Percent accounted for by insurance	Amount [4]	Percent accounted for by insurance
	With expense to obtain insurance excluded											
1948	$7,044	8.6	$1,667	27.3	$2,236	6.8	$3,903	15.5	$4,915	12.3	$5,473	11.1
1949	7,332	10.5	1,779	30.3	2,345	9.7	4,124	18.6	5,161	14.9	5,733	13.4
1950	7,910	12.5	2,100	32.4	2,470	12.6	4,570	21.7	5,628	17.6	6,231	15.9
1951	8,408	16.1	2,289	39.2	2,565	17.8	4,854	27.9	5,947	22.8	6,600	20.5
1952	8,977	17.9	2,566	41.9	2,721	19.5	5,287	30.3	6,406	25.0	7,090	22.6
1953	9,509	20.2	2,820	45.1	2,865	22.6	5,685	33.8	6,847	28.1	7,558	25.4
1954	9,914	22.0	3,053	47.2	2,966	24.8	6,019	36.2	7,214	30.2	7,936	27.5
1955	10,595	23.9	3,366	49.9	3,123	27.4	6,489	39.1	7,748	32.7	8,507	29.8
1956	11,482	26.3	3,752	53.9	3,347	29.7	7,099	42.5	8,419	35.8	9,226	32.7
	With expense to obtain insurance included											
1948	$7,300	8.3	$1,859	24.5	$2,300	6.6	$4,159	14.6	$5,171	11.7	$5,729	10.6
1949	7,581	10.1	1,947	27.7	2,426	9.4	4,373	17.5	5,410	14.2	5,982	12.8
1950	8,209	12.1	2,289	29.7	2,580	12.1	4,869	20.4	5,927	16.7	6,530	15.2
1951	8,715	15.5	2,477	36.2	2,684	17.0	5,161	26.2	6,254	21.6	6,907	19.6
1952	9,366	17.1	2,768	38.8	2,878	18.4	5,646	28.4	6,795	23.6	7,479	21.4
1953	10,007	19.2	3,105	41.0	3,080	21.0	6,185	31.1	7,345	26.2	8,056	23.8
1954	10,491	20.8	3,378	42.7	3,218	22.9	6,596	33.0	7,791	28.0	8,513	25.6
1955	11,209	22.6	3,715	45.2	3,398	25.2	7,113	35.7	8,362	30.3	9,121	27.8
1956	12,091	24.9	4,098	49.3	3,610	27.5	7,708	39.1	9,028	33.4	9,835	30.7

[1] Expenditures include outpatient services provided by hospitals. Insurance benefits are applicable to such services when service is given in an emergency.

[2] Slight overstatement because the data used for insurance benefits include some payments to nurses, dentists, and laboratories.

[3] Includes total expenditures for services of physicians, dentists, and hospitals and one-tenth of the expenditures for drugs and appliances.

[4] Includes total expenditures for services of physicians, hospitals, dentists, and nurses and one-third of the expenditures for drugs and appliances.

rently insurable." Certain comprehensive prepayment plans, major medical expense policies, and comprehensive insurance company policies include drugs, private-duty nursing, and, in some instances, dentistry. Such a benchmark for 1956 amounts to $9.2 billion. It includes about 80 percent of all private expenditures ($11.5 billion). Insurance benefits represented 33 percent of this benchmark.

The last two benchmarks shown are merely illustrative of a technique of measuring the potential areas as yet unmet by voluntary health insurance. The reader may establish the level of expenditures that he considers potentially insurable, using the data in table 1 for his selections, and then relate them to the insurance benefits of $3 billion to establish hypothetical goals for voluntary health insurance in the years ahead.

Per Capita Medical Expenditures, Prices, and Personal Income

The changes in the amounts and pattern of the national aggregates of private expenditures for medical care must be translated into somewhat different terms if their implications for the standard of living of the average American family are to be understood.

In the 9 years under review not only has population grown, but medical care prices have risen sharply and disposable personal income has increased in dollar as well as in real value.

The national aggregates of private medical care expenditures have increased substantially—from $7.3 billion in 1948 to $12.1 billion in 1956. Does this increase of $4.8 billion or 65.6 percent signify an increase in the quantity or improvement in the character of the medical services and goods secured by individuals and families? To what extent are the increases in aggregate medical care expenditures explained by the growth in the population and by the price rises occurring during these years? Is some of the increase the result of an expansion in the proportion of individual and family income devoted to the purchase of medical care?

Per Capita Medical Care Expenditures

The population increased by 21.5 million from 1948 to 1956. This 13-percent rise means that per capita private medical care expenditures did not increase as much as the total.

The upper portion of table 6 shows the changes in per capita private medical expenditures. To simplify the presentation, only the data for the even-numbered years from 1948 to 1956 are included. Thus population growth, in its gross aspects at least, is eliminated as a factor in the increase in medical expenditures. The amounts shown in table 6 are, like those in tables 1–5, in dollar terms at the prices current in each of the years.

Some interesting relationships may be noted from an examination of these per capita expenditures. For each year shown, combined private medical care expenditures increased, on a per capita basis and in dollar terms. Similarly, the amounts for each of the three components—direct payments, insurance benefits, and expenses for prepayment—have increased in every 2-year interval. Generally speaking, per capita expenditures for each category of medical care services and goods show a general upward trend, but a few items in some of the 2-year intervals do not.

To bring into focus the changes in the amounts and pattern of private per capita medical expenditures during the 9-year period, some direct comparisons of the expenditure data for 1948 and 1956 are given in the

Table 6.—*Private expenditures for medical care and for health insurance, amount per capita and as a percent of per capita disposable personal income, selected years 1948–56*

Item	1948	1950	1952	1954	1956	Change, 1956 from 1948	
						Amount	Percent of 1948 value
	Amount per capita						
Total medical expenditures [1]	$49.75	$54.09	$59.42	$64.52	$71.95	+$22.20	+44.6
Direct payments	43.87	45.67	46.72	47.45	50.30	+6.43	+14.7
Insurance benefits	4.09	6.52	10.13	13.47	17.90	+13.81	+337.6
Expenses for prepayment [2]	1.79	1.90	2.57	3.60	3.75	+1.96	+109.5
Hospital services	12.66	15.08	17.53	20.83	24.38	+11.72	+92.6
Direct payments	8.31	9.38	9.22	9.87	10.23	+1.92	+23.1
Insurance benefits	3.07	4.48	6.80	8.93	11.93	+8.86	+288.6
Expenses for prepayment	1.28	1.22	1.51	2.03	2.22	+.94	+73.4
Physicians' services	15.73	16.99	18.30	19.73	21.48	+5.75	+36.6
Direct payments	14.20	14.27	13.91	13.62	13.98	−.22	−1.5
Insurance benefits	1.02	2.04	3.33	4.54	5.97	+4.95	+485.3
Expenses for prepayment	.51	.68	1.06	1.57	1.53	+1.02	+200.0
Medicines and appliances	12.15	12.50	13.61	13.47	15.00	+2.85	+23.5
Dentists' services	5.63	5.71	5.75	5.95	6.31	+.68	+12.1
All other [3]	3.58	3.81	4.23	4.54	4.78	+1.20	+33.5
	Percent of per capita disposable personal income						
Total medical expenditures [1]	3.89	3.98	3.93	4.12	4.22	+0.33	+8.5
Direct payments	3.43	3.36	3.09	3.03	2.95	−.48	−14.0
Insurance benefits	.32	.48	.67	.86	1.05	+.73	+228.1
Expenses for prepayment [2]	.14	.14	.17	.23	.22	+.08	+57.1
Hospital services	.99	1.11	1.16	1.33	1.43	+.44	+44.4
Direct payments	.65	.69	.61	.63	.60	−.05	−7.7
Insurance benefits	.24	.33	.45	.57	.70	+.46	+191.6
Expenses for prepayment	.10	.09	.10	.13	.13	+.03	+30.0
Physicians' services	1.23	1.25	1.21	1.26	1.26	+.03	+2.4
Direct payments	1.11	1.05	.92	.87	.82	−.29	−26.1
Insurance benefits	.08	.15	.22	.29	.35	+.27	+337.5
Expenses for prepayment	.04	.05	.07	.10	.09	+.05	+125.0
Medicines and appliances	.95	.92	.90	.86	.88	−.07	−7.4
Dentists' services	.44	.42	.38	.38	.37	−.07	−15.7
All other [3]	.28	.28	.28	.29	.28	.00	.0
Per capita disposable personal income [4]	$1,279	$1,359	$1,512	$1,566	$1,705	+$426	+33.3

[1] Includes expenditures for health insurance premiums.

[2] Represents the difference between expenditures for health insurance premiums and amounts returned to consumers as benefits.

[3] Other professional services and nursing homes.

[4] Data from table E-14, page 137, *Economic Report of the President*, January 1957.

last two columns of table 6. On a per capita basis, total private medical care expenditures increased from 1948 to 1956 by 44.6 percent. This increase can be contrasted to the 65.6-percent increase in the national aggregate of private medical care expenditures during the period. The difference between the two percentages of increase indicates the degree to which population growth should be considered as a factor in the increase in private medical care expenditures.

Among the categories of medical care expenditures, every item except one increased in the per capita dollar amounts spent. The one decrease was in direct payments to physicians, which dropped 22 cents or 1.5 percent. The largest increase among the payment components was also found in payments for physicians' services; the amount received for this purpose from insurance sources went up 485.3 percent.

The largest increase from 1948 for any of the medical services, considering all payment components together, was in hospital care, which increased by $11.72 per capita or 92.6 percent. Within this hospital services item, the largest increase was in insurance benefits, which rose by $8.86 per capita or 288.6 percent. Expenses for prepayment plans and for direct payments rose much less sharply—73.4 percent and 23.1 percent, respectively.

Consumer Price Index for Medical Care

Generally speaking, the pattern of per capita private expenditures for medical care and the dollar increases in such expenditures from 1948 to 1956 do not, in themselves, reveal whether individuals were, on the average, actually receiving more or better medical care in the latter year. Price changes from 1948 to 1956 must also be considered in evaluating rises in medical care spending. The Consumer Price Index of the Bureau of Labor Statistics provides some measure of the influence of price changes upon the purchasing power of the private medical care dollar.

Table 7 indicates the changes that have occurred from 1948 to 1956 in certain items of the medical care component of the consumer price index. The index should not be used for precise evaluation of all private medical expenditures, however, since it is limited to specified goods and services, used to represent the medical care purchased by city wage-earner and clerical-worker families. An explanation of the nature of the limitations and of the changes over the years in the medical component indexes in the consumer price index has recently been published.[2] The study offers detailed data on the changes in the medical care price indexes from 1927 to 1956.

Table 7.—*Consumer price indexes for selected medical care items, 1948 and 1956* [1]

[1947–49 = 100]

Item	Annual averages		Change, 1956 from 1948
	1948	1956	
Medical care	100.9	132.6	+31.7
Hospital room rates	102.1	173.3	+71.2
General practitioners' fees	100.6	128.4	+27.8
Surgeons' fees	101.0	118.2	+17.2
Prescriptions and drugs	101.2	113.7	+12.5
Dentists' fees	100.3	124.4	+24.1

[1] Data from Elizabeth A. Langford, "Medical Care in the Consumer Price Index, 1936–1956," *Monthly Labor Review*, September 1957.

One of the observations made in the study is that two-thirds of the advance from 1936 to 1956 in the prices of medical services and goods occurred in the last 10 of those years. The services comprising the major portion of the medical care group, rather than the much smaller commodity portion of this expenditure group, accounted for most of the price increase after 1946. This finding was in accord with the nature of the price-movement pattern from 1946 to 1956, when larger price increases were registered for services generally than for commodities generally.

In contrast, in the earlier decade, from 1936 to 1946, commodities increased in price about twice as much as did services; this ratio of change is found among those services and commodities included in the medical care component as well as generally. Medical care prices, therefore, moved up less rapidly than prices for those groups in which commodities were a larger portion of the whole. Over the full 20-year period, the pattern of price movements was such that medical care prices displayed changes of roughly the same relative magnitude as prices for all services. By the end of 1956, medical care prices were very nearly back to the same relationship to all prices that had existed in the mid-thirties.

Thus, the 1948–56 period covered by the Social Security Administration's annual surveys of private medical care expenditures was characterized by a more rapid increase in the prices of the services used by consumers than in the prices of commodities. In common with services generally, the services making up a high proportion of medical care purchases increased rapidly in price in this period. It is possible that medical care prices have now caught up to the level of prices generally and may not continue to display the sharp rises of the past few years. It is evident, in any case, that for the period 1948–56 medical care prices showed rises greater than those for any other of the major pricing groups included in the consumer price index.

A comparison of the data in table 7 with that in the upper section of table 6 is given in table 8. The changes from 1948 to 1956 in the roughly comparable items of each listing are presented as percentages of their 1948 values. The items being compared are not, by definition, identical in all respects, and this limitation of the comparison should be borne in mind. In order to emphasize the medical service purchasing aspect of the expenditure changes, the portion devoted to expenses for prepayment arrangements has been excluded. Thus, the changes in per capita private medical expenditures shown in the table are in terms of the amounts expended for payments to the suppliers of the medical goods and services.

Per capita private expenditures for all medical care have increased since 1948 more than has the medical care index of the consumer price index. Similarly, for all the individual items included, except dentists' services, the amount of expenditures has increased more than the indexes. If these relationships between per

[2] Elizabeth A. Langford, "Medical Care in the Consumer Price Index, 1936-1956," *Monthly Labor Review*, September 1957 (Reprint No. 2251).

capita expenditures and the price indexes indicate the true relationship (despite the different definitions applying to the expenditure and price data), it would seem that, per capita, more medical goods and services, except dental services, were being purchased privately in 1956 than in 1948.

Of all the medical services, the per capita expenditure for hospital care appears, from this comparison, to have grown the most. Though a detailed examination of the nature of this increase cannot be attempted here, it may be observed that the increase from 1948 to 1956 in the annual number of days of hospital care per capita has been negligible. The explanation of the per capita increase in expenditures beyond that indicated by the hospital-room-rates portion of the consumer price index is to be found in the marked increase in annual hospital admissions per capita, which were accompanied by reduced lengths of stay. With the increased use of diagnostic and therapeutic procedures in the first few days of the hospital stay, it appears that average daily charges for items other than room rates must have increased more than the room rates alone. The index derived by pricing group hospitalization plans unfortunately began only in 1950; in any case, it does not seem to reflect any better than the hospital-room-rate index the fact that the consumer's patterns of spending for hospital care have undergone profound changes in the past decade.

These comparisons of per capita expenditure changes with the changes in the components of the consumer price index show the shifts in the medical care expenditures averaged for the population as a whole. A more extended analysis than is possible here would be necessary to show the variations in private medical care spending of families and limited groups of the population. The most recent available data on family medical care expenditures relate to 1953.[3]

Medical Care Expenditures and Personal Income

In the period under review, real personal incomes as well as dollar incomes have been advancing. The combination of rising medical costs and some increase in the amount (or real value) of medical services per capita resulted, however, in the use of a larger share of disposable personal income for medical care in 1956 than in 1948.

The lower portion of table 6 shows the percentages of per capita disposable personal income represented by the per capita expenditures for the medical care items shown in the upper portion of the table. Changes in the percentages between 1948 and 1956 show the relative utilization in each year of available income for medical care, compared with alternative items for buying or saving. They also show shifts within the medical component. Because medical costs increased so much more sharply during this period than other consumer prices, the percentage changes do not in themselves, without price adjustments, reveal the magnitude and direction of changes in the average quantity of medical services and goods that were purchased.

Private medical expenditures, it will be recalled, include employer contributions to employee medical benefit plans; by definition, disposable personal income also includes employer contributions to employee welfare benefits. Consequently, to an increasing extent, some expenditures for medical care are made from that portion of disposable personal income that never reaches the hands of the individuals concerned.

The percentage of per capita disposable personal income devoted to combined medical care expenditures generally increased during 1948–56 but decreased in the 2-year interval from 1950 to 1952. Among the payment components, only the portion of private expenditures reflected in insurance benefits increased consistently. Direct payments showed uninterrupted declines as a percentage of per capita disposable personal income, while the percentage reflected in expenses for prepayment generally rose but in an irregular pattern.

The changes in the percentages during the whole period 1948–56 are summarized in the last two columns of table 6. Total medical care expenditures rose from 3.89 percent of disposable personal income to 4.22 percent, an increase of 0.33 percentage points. The portion of expenditures represented by insurance benefits rose by 0.73 percentage points, and that represented by expenses for prepayment rose by 0.08 percentage points. On the other hand, direct payments dropped by 0.48 percentage points. The pattern of changes reflects the relative growth of prepayment plans and the corresponding relative decline in direct payment for medical care. In terms of per capita dollar amounts, all payment components including direct payments increased from 1948 to 1956 (table 6). The difference in trend between direct payment expenditures as a percentage of per capita disposable income and as dollars spent per capita is, of course, a result of the dollar rises in per capita disposable per-

[3] See Odin W. Anderson with Jacob J. Feldman, *Family Medical Costs and Voluntary Health Insurance: A Nationwide Survey*. McGraw Hill Book Company, the Blakiston Division, 1956.

Table 8.—*Comparison of changes in selected medical care items in the consumer price index and in per capita private expenditures for medical care, 1948–56*

Medical care items in consumer price index	Change, 1956 from 1948, as percent of 1948 annual average index	Items of private expenditures for medical care	Change in per capita expenditures, 1956 from 1948, as percent of 1948 expenditures
Medical care, all items	+31.4	Total medical expenditures [1]	+42.2
Hospital room rates	+69.7	Hospital services [1]	+94.7
General practitioners' fees	+27.6	Physicians' services [1]	+31.1
Surgeons' fees	+17.0		
Prescriptions and drugs	+12.4	Drugs, preparations, and sundries [2]	+21.1
Dentists' fees	+24.0	Dentists' services	+12.1

[1] Insurance benefits and direct payments; excludes expenses for prepayment.
[2] Excludes ophthalmic products and orthopedic appliances.

sonal income, which are given for each year in the bottom line of table 6.

The percentage of average disposable personal income devoted to hospital services again increased much more than did expenditures for any other of the medical services listed—by 44.4 percent. Expenditures for benefits received from insurance for hospital and physicians' care as a proportion of disposable personal income rose 228.1 percent, and expenditures for providing these prepayment arrangements rose 57.1 percent. The fact that the increase in expenditures to cover the operating costs of prepayment was so much less than the increase for benefit payments reflects the reduction in administrative costs as a percentage of premiums during this period.

The situation with respect to financing physicians' charges presents a sharp contrast. Here, in terms of percentages of disposable personal income, expenditures for physicians' services rose very little—only 0.03 percentage points—in contrast to the rise of 0.05 percentage points for expanding the insurance mechanism to cover these services. The proportion of disposable income represented by insurance benefits covering physicians' services increased by 0.27 percentage points, while that going for direct expenditures for physicians' services dropped slightly more.

The final three lines of the percentage listings are for expenditure items that remain almost entirely outside the areas of prepayment; they include dentists' services, drugs and prescriptions, appliances, care in nursing homes, and the like. There was a drop of 0.07 percentage points in the portion of disposable personal income spent for dentists' services and a 0.07-point drop for medicines and appliances. There was no net change in the remainder of the expenditure items.

In sum, the increase of 0.33 percentage points in the proportion of disposable personal income used for private medical expenditures in the period 1948–56 is the difference between a drop of 0.48 percentage points in all direct payments and the combined increase of 0.81 percentage points for insurance benefits and for the cost of prepayment arrangements.

Had medical costs increased more or less proportionately to the cost of all consumer goods and services, the rise in the percentage of disposable personal income used for medical care (including expenses for prepayment) from 3.89 percent in 1948 to 4.22 percent in 1956 would indicate a rather substantial increase in the volume or real value of the actual medical services and goods received. In spite of the very rough and approximate nature of any adjustment that can be made for the disproportionate price changes that actually occurred, it is worth noting what the direction and general magnitude of such an adjustment would be.

If 1956 disposable personal income is expressed in 1948 prices by applying to personal income data the implicit price deflator series, prepared by the Department of Commerce for its National Income and Products Accounts, and if 1956 medical care expenditures are similarly deflated by use of the medical care component of the consumer price index, a rough idea can be obtained of what portion of consumer incomes would have gone for medical care in 1956 had all prices remained at 1948 levels. With such adjustments, medical services represent 3.65 percent of 1956 disposable personal income rather than 4.22 percent—or less than the 3.89 percent used for medical services in 1948. It thus appears that a considerable part of the increase in the proportion of consumers' disposable income going for medical care was a result of the differential rise in medical costs between 1948 and 1956. On the other hand, personal income has increased in real as well as in dollar value, so that even 3.65 percent of deflated 1956 disposable personal incomes would represent more actual medical services than 3.89 percent of 1948 income. This finding is consistent with the observations made earlier that per capita private expenditures for medical care increased considerably more from 1948 to 1956 than did the prices for medical goods and services.

It is not possible to analyze here the nature of the changes underlying this increase in combined per capita medical services. The use of more expensive diagnostic and therapeutic techniques and procedures, referred to earlier, no doubt accounts for some of the increase. It is probable also that there has been some increase in the volume of services and in the relative number of persons receiving services.

IN SUMMARY, although aggregate private expenditures for medical care have increased by about 66 percent in the period 1948–56, the 13-percent growth in population accounted for a portion of this rise. On a per capita basis, private medical care expenditures rose only about 45 percent. Price changes accounted for a considerable portion of this increase in per capita spending for medical care, and also for the increase in the share of disposable personal income spent for medical care during 1956.

In several of the medical care categories, but notably in the area of hospital care, there is some indirect evidence to suggest that there was a per capita increase in the quantity or an improvement from 1948 to 1956 in the character of the medical services and goods purchased. Aggregate expenditures for hospital care rose 120 percent in the period under review, and per capita expenditures increased 93 percent. The proportion of per capita disposable personal income going for hospital care in 1956 was 44 percent higher than in 1948—an increase in marked contrast to the 8.5-percent rise in the proportion of income devoted to all private medical care expenditures combined. The expansion of prepaid hospital care and the rise in the prices of both the service and the commodity elements of hospital care all contributed to the observed 1948–56 change in private expenditure patterns for medical care.

Even more than in the past, continuous attention to the analysis of these constantly changing patterns of consumer spending for medical care appears to be essential for an understanding of the place of medical care in the total picture of individual and family spending.