Family Expenditure Patterns for Personal Health Services

1953 and 1958: Nationwide Surveys

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DURING THE SUMMERS OF 1953 and 1958 Health Information Foundation and the National Opinion Research Center, University of Chicago, jointly conducted surveys of area probability samples of the civilian noninstitutional population of the continental United States to determine how much families and individuals spent for personal health services during the previous 12 months, the extent of their enrollment in voluntary health insurance, and how insurance helped to pay for services. 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 second survey members of 2,941 families were interviewed during the summer of 1958 in a similar manner, and the families consisted of 9,546 individuals.**

The period since 1953 has been one of rapid changes in the medical care field. Markedly increased expenditures by both the private and governmental sectors have been reported periodically by agencies in the federal government. The very visibility of the increased expenditures from year to year inspired mounting concern among insurance agencies, providers of services, and consumer groups. All that was known, however, was that expenditures were going up and very little was known about the proportion of expenditures due to increased use and the proportion due to increased price. Further, the information on the extent to which the different components of service contributed to the total—hospitals, physicians, drugs, dentists, and other—was at most fragmentary. In addition, there was no information on

*Odin W. Anderson and Jacob J. Feldman, *Family Medical Costs and Voluntary Health Insurance*. New York: McGraw-Hill, 1956.

**The Foundation has already released data in very abbreviated form through its monthly bulletin, *Progress in Health Services*. The bulletins are: "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.

the extent of the contribution of various age groups to increased expenditures.

The two surveys conducted five years apart make it possible to present in detail what has happened to expenditures for personal health services during the five-year period under study because these surveys were designed to be comparable.

Two reports in the Health Information Foundation *Research Series* stem from the 1953 and 1958 surveys. This first report (RS #14) deals with expenditures for health services*; *Research Series* #15 will be a discussion of health insurance benefits. The focus of both reports is a comparison of the two surveys. This report, then, shows nationwide total expenditures for personal health services by type of service; and it shows average expenditures for families and individuals by type of service, as well as the distribution by magnitude for families and individuals. Comparisons between 1953 and 1958 are made where pertinent.

Nationwide totals by type of service

During a 12-month period overlapping 1957 and 1958 American families spent an estimated $16.2 billion on all personal health services outside of direct services provided by various levels of government.** The total expenditures from both private and public sources were in excess of $21 billion, which indicates that almost 38 per cent of expenditures during that period were made by various levels of government.

The figure of $16.2 billion represents an increase of $6 billion, or just under 60 per cent, over the comparable $10.2 billion in expenditures* made during 1952-53 (Table 1). Among components of all personal health services the largest part of the $16.2 billion spent in 1957-58, or $5.4 billion, was for physicians' services. This

*Strictly speaking, the term "charges" might be more accurate than "expenditures," for in this survey bills as yet unpaid and incurred during the preceding 12 months were included. Also, "charges" was used throughout the Anderson-Feldman study. Nevertheless, use of the word "expenditures" keeps the terminology comparable to that of other studies and avoids the possibility of confusion with "price."

**It is of interest that during the same period total expenditures for direct services in the governmental sector increased from $3.7 billion to $4.9 billion, or 32 per cent. Data are from correspondence with Ida C. Merriam, Social Security Administration.

Table 1

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

Services and goods	1952-1953[a]	1957-1958	
	Amount, billions	Amount, billions	Per cent increase
Total	$10.2	$16.2	59
Physicians	3.8	5.4	42
Hospitals	2.0	3.7	85
Medicines	1.5	3.3	120
Other medical goods and services	1.3	1.3	0
Dentists	1.6	2.4	50

Note: See Appendix Table 1 for detailed breakdown of expenditures by service and definitions of services.

[a] Odin W. Anderson and Jacob J. Feldman, *Family Medical Costs and Voluntary Health Insurance*. New York: McGraw-Hill, 1956, Table A-13, p. 109.

amount represented an increase of $1.6 billion, or 42 per cent, over the comparable 1952-53 figure.

Since this increase was not as rapid as that for all personal health services, however, the physicians' portion of the total dropped from 37 to 34 per cent of the medical dollar (Chart I).

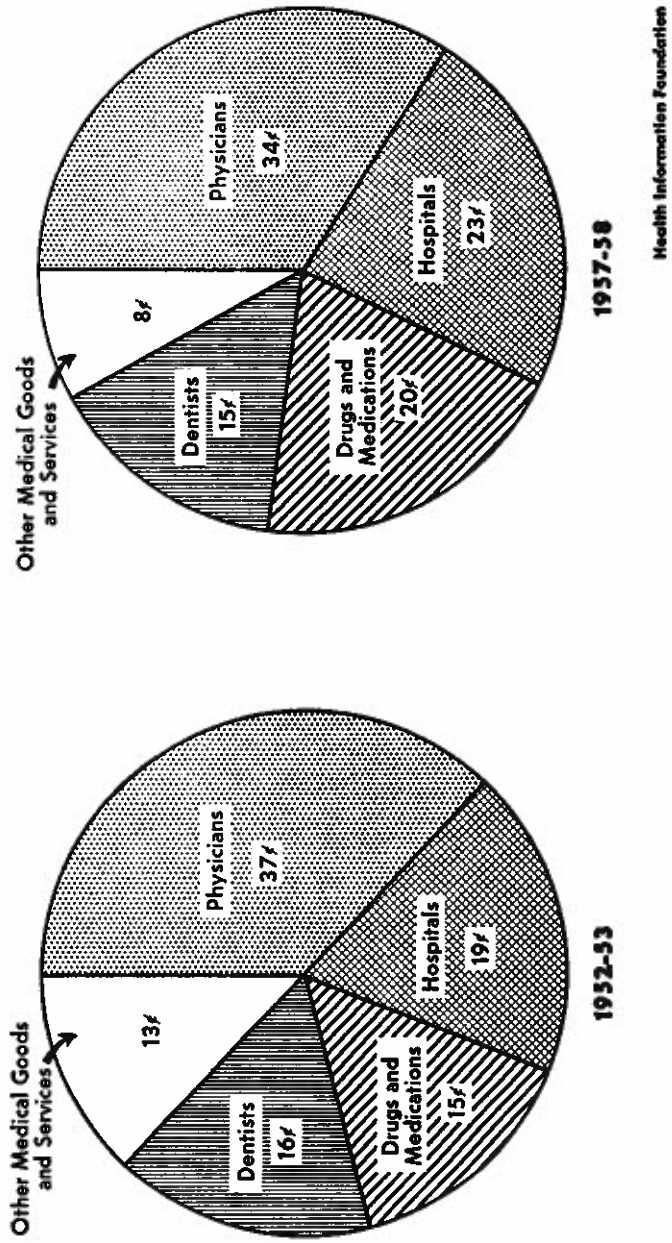
Within the amount of $5.4 billion in 1957-58, surgery accounted for $1.1 billion, or about 20 per cent of the total. Obstetrical services added up to $0.5 billion, or about 10 per cent, and the services of ophthalmologists accounted for another 2 per cent. The remainder, about 69 per cent,* represented "other" physicians' services. The comparable proportions repesented by these categories were virtually identical in 1952-53 (Table 2).

Most of these "other" physicians' services (all physicians' services except surgical, obstetrical, and those performed by

* All figures have been rounded to the nearest hundred million dollars. The per cents may not always add up to 100 because of rounding.

Chart I

Composition of the Medical Care Dollar
United States, 1952-53 and 1957-58



ophthalmologists), representing expenditures of $3.7 billion, were incurred during office visits. Office visits accounted for $2.8 billion in expenditures during the survey year, or 76 per cent of the total of these "other" physicians' services. Additional small proportions represented physicians' services in hospitals ($0.5 billion, 13 per cent of the total), and in patients' homes ($0.4 billion, or 11 per cent).

In contrast to payments for physicians' services, payments for the services of hospitals rose more rapidly than for all personal health services combined. From $2.0 billion in 1952-53, the hospital figure reached $3.7 billion in 1957-58, an increase of 85 per cent. Its share of the total medical dollar also rose, from 19 to 23 per cent. Similarly, expenditures for drugs and medicines increased from $1.5 to $3.3 billion, or by 120 per cent,* while their share of the total rose from 15 to 20 per cent. In the later study it was

* Some part of the rise in this category may have been due to improvements in the survey mechanism between the earlier and later surveys. These improvements were unlikely to have had any effect on the comparability over time of the volume of expenditures for services and goods other than drugs and medications.

Table 2

Estimated Nationwide Gross Expenditures by Families for Various Types of Physicians' Services, 12-Month Period, 1952-53 and 1957-58

	1952-53		1957-58	
	Amount, billions	Per cent	Amount, billions	Per cent
Total physicians	$3.8	100	$5.4	100
Surgery	0.8	21	1.1	20
Obstetrics	0.4	11	0.5	10
Other physicians	2.6	68	3.7*	69
Hospital	—	—	0.5	9
Home	—	—	0.4	8
Office	—	—	2.8	52
Ophthalmologist	—	—	0.1	2

* With expenditures for "other" physicians of $3.7 billion as 100 per cent, hospital calls account for 13 per cent of the total; home calls, 11 per cent; and office calls, 76 per cent.

possible to differentiate between drugs and medications prescribed by physicians and dentists and those bought directly over the counter by patients. Two-thirds of the expenditures for drugs and medications were prescribed by physicians and dentists. A detailed analysis begins on page 29 of this report.

Expenditures for the services of dentists also rose, from $1.6 to $2.4 billion, but as a percentage of the total remained quite stable, changing slightly from 16 to 15 per cent.

Finally, "other medical goods and services" including eyeglasses, orthopedic appliances, special-duty nursing, etc. remained unchanged at $1.3 billion; but its proportion of the total dropped from 13 to 8 per cent.

Nationwide totals

A. Family

The preceding data are useful in comprehending the total medical economy and its component parts. The data which follow show how the seemingly staggering total of $16.2 billion in expenditures in the 12-month period overlapping 1957 and 1958 are distributed among families and individuals and what changes have taken place during the five-year period from 1953 to 1958.

From 1952-53 to 1957-58 expenditures for all personal health services per family increased from $207 to $294, or 42 per cent (Table 3). There was considerable variation by components of service from a decrease of 4 per cent for "other" goods and services to an increase of 94 per cent for drugs and medications. Hospital care reflected the second largest rise with an average per family increase of 66 per cent; family expenditures for dentists' services rose 33 per cent, and finally, for physicians', 26 per cent. A more refined analysis becomes possible in the section (beginning on page 11) on expenditures per individual, because it can there be seen how individuals in the various age-sex categories contributed differentially to the overall increase in expenditures. Also, an attempt has been made to show the extent to which increased expenditures were due to increased use and to increased unit price.

There was considerable variation in increased family expen-

Table 3

Mean Gross Expenditures Per Family, by Type of Service, 12-Month Period 1952-1953 and 1957-1958

Type of service	Mean gross expenditures per family		Per cent increase
	1952-53	1957-58	
All services	$207	$294	42
Physicians	78	98	26
Hospitals	41	68	66
Medicines	31	60	94
Other	26	25	—4
Dentists	33	44	33

Table 4

Mean Gross Expenditures for All Personal Health Services Per Family, by Family Income, 12-Month Period, 1952-1953 and 1957-1958

Income group	Mean gross expenditures per family		Per cent increase
	1952-53	1957-58	
All groups	$207	$294	42
Under $2,000	130	165	27
$2,000-3,499	152	226	49
$3,500-4,999	207	287	39
$5,000-7,499	259	336	30
$7,500 and over	353	411	16

Note: The same pattern holds true when the expenditures per person by family income group are calculated. It is thus possible to avoid distortions that may be caused by changes in family size (see Table 4a).

Table 4a

Mean Gross Expenditures for All Personal Health Services Per Individual by Family Income, 12-Month Period, 1952-1953 and 1957-1958

Family income group	Mean gross expenditures per individual		Per cent increase
	1952-53	1957-58	
All groups	$66	$94	42
Under $2,000	54	75	39
$2,000-3,499	48	80	67
$3,500-4,999	61	88	44
$5,000-7,499	76	95	25
$7,500 and over	102	119	17

Table 5

Aggregate Family Total Outlay for Personal Health Services as a Percentage of Aggregate Family Income, by Income Group, 12-Month Period, 1952-1953 and 1957-1958

Income group	Aggregate outlay as percentage of aggregate income	
	1952-53	1957-58
All groups	4.8%	5.5%
Under $2,000	11.8	13.0
$2,000-3,499	6.1	8.4
$3,500-4,999	5.4	6.4
$5,000-7,499	4.7	5.4
$7,500 and over	3.0	3.9

Note: See Table 20 for definition of family total outlay.

ditures by family income during the five-year period. The five income groups shown in Table 4 are not precisely comparable for the two survey years because there was a decrease in the proportion of families in the lower brackets and a higher proportion of families in the higher brackets from 1952-53 to 1957-58. Accordingly, there was some change in the makeup of the families comprising the income groups. Even so, it is likely that for gross purposes comparisons can still be made. Table 4 shows that the group with incomes of $7,500 and over had the lowest per cent increase in expenditures for all personal health services (16 per cent), and the income group from $2,000-3,499, next to the bottom, experienced the greatest increase (49 per cent). Apparently by 1952-53 the top income group had reached a relatively stable level of demand compared to the other income groups which, despite increases in unit prices, used more services in the succeeding five years than they had previously. In view of this it is to be expected that expenditures for services were taking a larger portion of family income in 1957-58 compared to 1952-53, increasing from 4.8 per cent of family income to 5.5 per cent (Table 5). Further, the percentage increased for all income groups, although the order of magnitude remained the same, i.e., the lower the income the larger is the proportion of income spent for personal health services, although the absolute amount increases with increasing income. This is evident in Tables 4 and 5.

Regardless of residence (urban, rural non-farm, rural farm), expenditures per family increased during the five-year period under study (Table 6). There was a wide variation, however, in the percentage increase by residence, from 19 per cent for rural farm families to 51 per cent for rural non-farm families. There are no ready explanations for these differences.

One of the interesting results of the 1952-53 study was the finding that families with health insurance spent appreciably more for *all* components of personal health services than uninsured families, not only for insured services but even for services such as medicines and dental care which were not commonly covered by insurance. The same pattern is evident in the 1957-58 survey (Table 7) and, in fact, the relative difference between the insured and uninsured families is greater in the

Table 6

Mean Gross Expenditures for All Personal Health Services Per Family by Residence, 12-Month Period, 1952-1953 and 1957-1958

Residence	Mean gross expenditures per family 1952-53	Mean gross expenditures per family 1957-58	Per cent increase
All families	$207	$294	42
Urban families in metropolitan areas			
of 1 million or more	237	340	43
Other urban families	204	284	39
Rural non-farm families	197	297	51
Rural farm families	178	211	19

Table 7

Mean Gross Expenditures Per Family by Insurance Status and Type of Service, 12-Month Period, 1952-1953 and 1957-1958

Type of service	Mean gross expenditures per family 1952-53 Insured	1952-53 Uninsured	1957-58 Insured	1957-58 Uninsured	Per cent increase Insured	Per cent increase Uninsured
All services	$237	$154	$339	$194	43	26
Physicians	89	61	112	67	26	10
Hospitals	49	27	81	38	65	41
Medicines	33	26	65	48	97	85
Other	29	22	28	16	— 3	—27
Dentist	41	20	52	25	27	25

1957-58 survey than it was previously. The expenditures for all personal health services per insured family increased more than among uninsured families, 43 per cent as compared with 26 per cent, respectively.* There was a greater increase for four out of five components of service among insured families as well, and a smaller decline in "other" goods and services, the fifth component.

Individuals

Analyzing family expenditures for personal health services obscures the differences inherent in age and sex composition of the families. Chart II shows, however, that there was an average increase in expenditures per person of over 42 per cent during the five-year period under study, or from $66 to $94, and that there were very wide differences by age and sex. The greatest increases took place in the extremes of the life cycle. There was more than a 70 per cent increase in per capita expenditures in the age-group five and under and also the group 65 and over. In the intervening age-groups the increase was considerably less.

* At least part of the difference may be due to the fact that the uninsured are more likely to be recipients of government services.

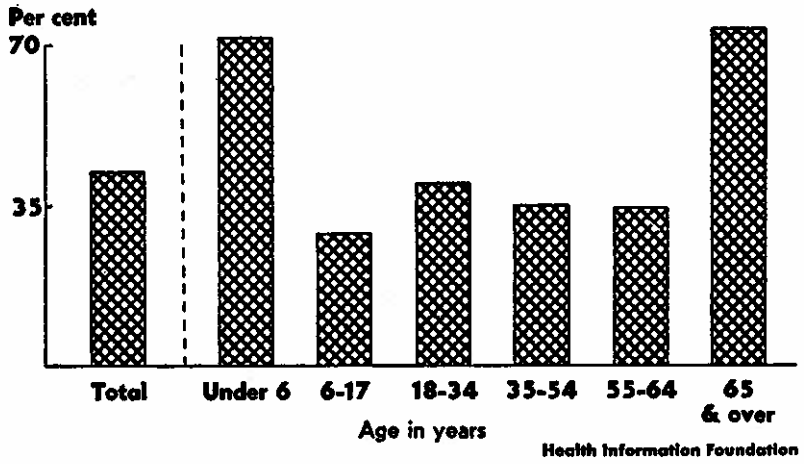
Table 8

Mean Gross Expenditures for All Personal Health Services Per Individual, by Age and by Sex, 12-Month Period, 1952-1953 and 1957-1958

Age and sex	Mean gross expenditures per individual 1952-53	Mean gross expenditures per individual 1957-58	Per cent increase
All individuals	$66	$94	42
0-5	28	48	71
6-17	38	49	29
18-34	70	98	40
35-54	80	108	35
55-64	96	129	34
65 and over	102	177	74
Male	51	77	51
Female	80	111	39

Chart II

Per Cent Increase in Expenditures Per Person for Personal Health Services, United States, from 1952-53 to 1957-58



There is no documented explanation for the relatively great increases in expenditures among the young and the old, but it is clear that they received more health services in 1957-58 than in 1952-53, despite the increases in unit prices. It can only be observed that more care is being received. Enrollment in health insurance among the aged increased at a faster rate than for the general population, (39 per cent and 14 per cent respectively) and this factor may be relevant since insured persons are more likely to use service than the uninsured. In the data which follow an attempt has been made to show the increases in expenditures by age and type of service to see if the age pattern persists.

There was an overall increase in expenditures of 24 per cent per person for physicians' services from 1952-53 to 1957-58 (Table 9), or from $25 to $31. Again, those five years and under, and those 65 and over show the greatest increases among all other age groups. Those five years of age and under show an increase in expenditures per person of 40 per cent; those 65 and over an increase of 53 per cent.

The increase in expenditures for hospital care per person was 69 per cent from 1952-53 to 1957-58 (Table 10), or from $13 to $22. There is no clear pattern in terms of age, but the increase was greatest for the age-group five and under, 120 per cent, and those 65 and over had the next largest increment.

Among all components of service, medicines showed the greatest increase in expenditures per person, from $10 to $19, or 90 per cent (Table 11). Among the age-groups the greatest increases in this category were experienced by those five and under and 55 to 64, 133 and 107 per cent, respectively. In the 1952-53 survey no differentiation was made between prescribed and non-prescribed drugs so trends in expenditures during the five years for those categories cannot be determined. Special attention is given in this report beginning on page 33 to expenditures for prescribed and non-prescribed drugs in the 1957-58 survey. Suffice it to say that approximately two-thirds of the expenditures per person are for drugs prescribed by physicians and dentists and one-third are bought "over the counter." These proportions vary, as might be expected, for the various age groups.

Table 9

Mean Gross Expenditures for All Physicians' Services Per Individual, by Age and by Sex, 12-Month Period, 1952-1953 and 1957-1958

Age and sex	Mean gross expenditures for all physicians' services per individual		Per cent increase
	1952-53	1957-58	
All individuals	$25	$31	24
0-5	15	21	40
6-17	13	16	23
18-34	29	35	21
35-54	29	35	21
55-64	35	40	14
65 and over	36	55	53
Male	19	24	26
Female	31	38	23

Table 10

Mean Gross Expenditures for Hospital Care Per Individual, by Age and by Sex, 12-Month Period, 1952-1953 and 1957-1958

Age and sex	Mean gross expenditures for hospital care per individual		Per cent increase
	1952-53	1957-58	
All individuals	$13	$22	69
0-5	5	11	120
6-17	6	7	17
18-34	15	27	73
35-54	15	22	47
55-64	20	29	45
65 and over	25	49	96
Male	9	18	100
Female	17	26	53

Table 11

Mean Gross Expenditures for Medicines Per Individual, by Age and by Sex, 12-Month Period, 1952-1953 and 1957-1958

Age and sex	Mean gross expenditures per person		Per cent increase
	1952-53	1957-58	
All individuals	$10	$19	90
0-5	6	14	133
6-17	5	9	80
18-34	8	13	63
35-54	11	22	100
55-64	15	31	107
65 and over	22	42	91
Male	7	16	129
Female	12	22	83

For "other" medical goods and services there was no change in the expenditures per capita from 1952-53 to 1957-58; these expenditures remained at $8 per person. In most age groups there was, in fact, a net decrease (Table 12) but for those 65 years of age and over there was an increase in expenditures per person of 24 per cent. It will be recalled that "other" medical goods and services comprise appliances such as eyeglasses and hearing aids, private nursing, and the services of practitioners who are not medical doctors.

Expenditures for dental services increased 40 per cent per person during the period from 1952-53 to 1957-58, or from $10 to $14 (Table 13). The greatest increase was experienced by the age group 65 years of age and over, a relatively high increase of 150 per cent. As can be seen, the per person expenditures for dental services in this age-group are lower than for any age-group except those five and under, but there was a sharp increase during the five-year period from $4 to $10 per person.

Table 12

Mean Gross Expenditures for Other Medical Services Per Individual, by Age and by Sex, 12-Month Period, 1952-1953 and 1957-1958

Age and sex	Mean gross expenditures for other medical services per individual		Per cent increase
	1952-53	1957-58	
All individuals	$ 8	$ 8	0
0-5	1	1	0
6-17	4	3	—25
18-34	7	5	—29
35-54	11	10	— 9
55-64	15	14	— 7
65 and over	17	21	24
Male	7	7	0
Female	9	9	0

Table 13

Mean Gross Expenditures for Dental Services Per Individual, by Age and by Sex, 12-Month Period, 1952-1953 and 1957-1958

Age and sex	Mean gross expenditures for dental service per individual		Per cent increase
	1952-53	1957-58	
All individuals	$10	$14	40
0-5	1	1	0
6-17	11	14	27
18-34	13	17	31
35-54	14	19	36
55-64	13	15	15
65 and over	4	10	150
Male	9	12	33
Female	12	16	33

Table 14

Mean Gross Expenditures for Physicians' Services Per Individual, 12-Month Period, 1957-58

Types of physicians' services	Mean gross expenditures for physicians' services per individual
All physicians	$31
Surgery	6
Obstetrics	3
Ophthalmologist	1
Other physician, in hospital	3
Other physician, in home call	2
Other physician, in office	16

Physicians' services by type

The 1957-58 survey permitted a breakdown of types of physicians' services which was not done in 1952-53. It is possible, therefore, to show for the first time in these studies the different expenditures for physicians' services by place of service as well as by procedures such as surgery and obstetrics. Total expenditures per person for all physicians' services in the 1957-58 survey were $31, and the various subdivisions of physicians' services are shown in Table 14.

Almost 70 per cent of the expenditures per person for physicians' services are for home, office, and hospital calls not associated with surgery or obstetrics. Expenditures per person in home, office, and hospital vary considerably by age and sex, however (Tables 15, 16, 17). For home calls among all persons, the expenditure comes to $2 per person per year; for those actually experiencing the home calls, the per person expenditure is $19. The per person expenditures for home calls are much higher for those 65 years of age and over than for the younger age-groups.

The per capita expenditure for physician calls in the hospital is $3; for those having such expenditures, $65 (Table 16). Again such medical expenditures (exclusive of surgery) for those 65 years of age and over are much higher than for those in the younger age-groups. It is evident, then, that hospitalized medical patients experience relatively high expenditures for physicians' care in the hospital.

The expenditure per person (if the total is divided among all individuals) for physicians' office calls is $16 in a year, and $31 for those who have such expenditures (Table 17). The differences by age persist but not as dramatically as for home and hospital calls by physicians.

One of the economic characteristics of those having surgery is the relatively high expenditures per person, although the expenditure is low if it is spread out over all people. Thus, the expenditure per person with surgery was $127, whereas the per-person figure overall is but $6. In general the expenditures go up with increasing

Table 15

Mean Gross Expenditures for Physician-in-Home Per Individual, and Per Individual with Expenditures by Age and by Sex, 12-Month Period, 1957-1958

Age and sex	Mean gross expenditures for physician-in-home per individual	Mean gross expenditures for physician-in-home per individual with expenditures
All individuals	$2	$19
0-5	3	15
6-17	2	12
18-34	1	11
35-54	2	18
55-64	3	21
65 and over	9	39
Male	2	18
Female	3	21

Table 16

Mean Gross Expenditures for Physician-in-Hospital Per Individual, and Per Individual with Expenditures by Age and by Sex, 12-Month Period, 1957-1958

Age and sex	Mean gross expenditures for physician-in-hospital per individual	Mean gross expenditures for physician-in-hospital per individual with expenditures
All individuals	$3	$65
0-5	2	40
6-17	1	30
18-34	2	57
35-54	3	69
55-64	4	78
65 and over	9	101
Male	3	67
Female	3	63

age, but not as dramatically as in the case of home and hospital calls for non-surgical, non-obstetrical care.

Nationwide distributions by magnitudes

A. Family

As in the survey of 1952-53, the magnitude of expenditures varied sharply among families in 1957-58. In the latter period a few families, less than 3 per cent, spent nothing for personal health services for their own family members during the year (Table 19). About one-third of all families, 31 per cent, spent $1-99 each. Approximately another third, 34 per cent, spent $100-299, and the remaining one-third spent $300 or over. Within this high group, 16.7 per cent of the families spent $500 or more during the year, while 4.6 per cent spent $1,000 or more.

Because of such wide variation, the proportions contributed by each group to the aggregate of expenditures by all groups were also unevenly distributed. Thus the low-spending group ($1-99) comprising about one-third of all families, spent only about 5 per cent of the aggregate amount. In contrast, the high-expenditure families ($300 and over), again about one-third of the total, accounted for 74 per cent of all expenditures.

Except that average expenditures for all families were higher in the survey of 1957-58, the pattern of uneven distribution paralleled that of 1952-53 very closely. Thus the 10 per cent of families with the highest expenditures in 1957-58 contributed 40.8 per cent of the total amount of expenditures by all families, against a comparable 41.8 per cent in 1952-53 (Chart III). Similarly, it is interesting that the Committee on the Costs of Medical Care, 1928-31, with much lower magnitudes of expenditures for that period, showed approximately the same distributions as the surveys of 1952-53 and 1957-58. In that survey of a nationwide sample of families, 10 per cent of the families incurred 41 per cent of the expenditures during a 12-month period.*

Another method to measure the variations in expenditures for personal health services by families is to determine the expen-

* I. S. Falk, Margaret C. Klem, and Nathan Sinai, *The Incidence of Illness and the Receipt and Costs of Medical Care among Representative Families: Experiences in Twelve Consecutive Months during 1928-31*. Chicago: University of Chicago Press, 1933. p. 211. (Publication of the CCMC No. 26.)

Table 17

Mean Gross Expenditures for Physician-in-Office Per Individual, and Per Individual with Expenditures by Age and by Sex, 12-Month Period, 1957-1958

Age and sex	Mean gross expenditures for physician-in-office per individual	Mean gross expenditures for physician-in-office per individual with expenditures
All individuals	$16	$31
0-5	14	22
6-17	8	17
18-34	13	27
35-54	20	38
55-64	24	42
65 and over	26	48
Male	13	26
Female	19	35

Table 18

Mean Gross Expenditures for Surgery Per Individual, and Per Individual with Expenditures, by Age and by Sex, 12-Month Period, 1957-1958

Age and sex	Mean gross expenditures for surgery per individual	Mean gross expenditures for surgery per individual with expenditures
All individuals	$6	$127
0-5	3	87
6-17	4	78
18-34	6	111
35-54	8	167
55-64	9	175
65 and over	10	160
Male	6	128
Female	7	126

ditures by proportion of family income. This method gives a gross idea of the impact of expenditures on families. Two per cent of the families had no outlay for personal health services; 52 per cent had an outlay of less than 5 per cent of their incomes. At the other extreme, 6 per cent of the families had an outlay of 20 per cent or more of their incomes, and one per cent had 50 per cent or more (Table 20). The median outlay for all personal health services by all families is approximately 4.5 per cent. As already cited, mean family expenditures constituted 5.5 per cent of mean family income.

The foregoing distribution of expenditures by magnitude

Table 19

Percentage Distribution of Families by Level of Total Gross Expenditures for Personal Health Services, 12-Month Period, 1952-1953 and 1957-1958

Family total gross expenditures[a]	Per cent of families with total gross expenditures 1952-53	1957-58
Total	100.0	100.0
None	8.2	2.9[b]
Under $50	21.6	17.3
$50-99	15.8	14.0
$100-199	20.1	20.7
$200-299	11.8	13.5
$300-399	7.0	9.2
$400-499	4.9	5.7
$500-749	6.3	8.3
$750-999	2.3	3.8
$1,000-1,999	1.6	3.9
$2,000 and over[c]	0.4	0.7

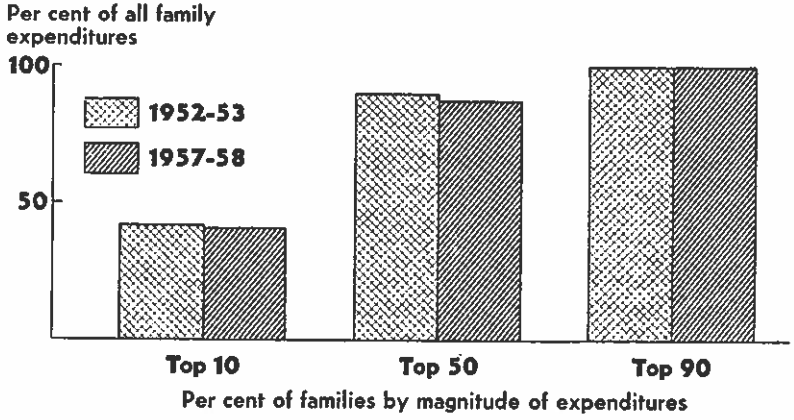
a) Total gross expenditures are all charges incurred by the family unit for its own members for hospital, medical, and dental services and goods. They do not include costs of voluntary health insurance and exclude also the "costs" of free care. The "costs" of services received under a hospital service plan or comprehensive medical care plan are, however, included.

b) Due to modifications in the reporting period covered by the questionnaire used in the 1958 study, this statistic from the 1958 study is not strictly comparable to that from the 1953 study. The 1958 study was based on a 12-month reporting period for *all* medical and dental goods and services while data relating to "minor medical expenses" in the 1953 study were obtained for the second half of the survey year only, with estimates of full-year charges made subsequently in the analytical stage of the survey. As a result of the method by which the data were gathered in the 1953 study there was an overestimate of the number of families incurring no gross charges whatsoever and an underestimate of the number incurring charges of less than $50.

c) Due to the small numbers of cases in this sub-group statistics in both studies based on them are subject to considerable sampling error.

Chart III

Per Cent of All Family Expenditures for Health Attributable to Families with Highest Expenditures United States, 1952-53 and 1957-58



includes all types of personal health services. Within each service there are variations more or less peculiar to the service itself in terms of magnitudes of expenditures for all families in a year. Previous studies have shown that every type of personal health service is potentially difficult for families to pay for because each falls unevenly on families over a year, unlike other expenditures of daily life such as food, clothing, and shelter. This is shown in Table 21 for both the 1952-53 and 1957-58 surveys. This table also shows, as was expected, that in 1957-58 a larger percentage of families spent $200 or more for all services and all types of services than in 1952-53. There are more families spending $200 and over for medicines, dentists', and physicians' services for non-surgical, non-obstetrical care than there are families spending comparable sums for surgery. Expenditures for hospital care stand out in the 1957-58 survey, and families with expenditures of $200 or more for medicines rose from 2 per cent to 6 per cent during the 5-year period between surveys. The medicines and drugs component are discussed in greater detail on page 40 of this report.

Table 20

Percentage Distribution of Families by the Per cent of Family Income Spent for Personal Health Services

Family total outlay[a] as a percent of family income[b]	Per cent of families
Total	100
No outlay for personal health services	2
Some outlay	98
Under 5% of family income	52
5- 9% of family income	26
10-19% of family income	14
20-49% of family income	5
50-99% of family income	1
100% or more of family income	*
Median per cent for family total outlay for health services as a percentage of family income = 4.5[c]	

a) Family Total Outlay for Personal Health Services is the family's actual cash outlay during the 12-month survey year for personal health services and the voluntary prepayment for such services. It is made up of the following:

Plus *Gross Total Charges* for health services received during the survey year

Minus *Health Insurance Benefits* covering personal health services received during the survey year

Minus *Amounts Still Owed* for personal health services received during the survey year

Minus *Accident or Liability Insurance Benefits* covering personal health services received during the survey year

Minus *Payments from Friends and Relatives outside the Family* toward charges for personal health services incurred by family members during the survey year

Plus *Prepayment and Insurance Premiums* for insurance designed specifically to cover charges for personal health services

Plus *Payments by the Family for Personal Health Services Received by Persons Not Family Members at the End of the Survey Year*

Plus *Payments during the Survey Year on Bills for Personal Health Services Received Prior to the Survey Year*

b) Family income is total gross family income (i.e., before deduction for taxes) from business, profession, or farm, from wages and salaries, and from all other sources such as interest, rents, and pensions. Excluded are income in goods and services, the value of free rent, and other non-cash benefits.

Information on exact income, regardless of magnitude, was collected for all families in the sample.

c) Half of the families in the sample laid out 4.5 per cent or more of total gross family income for personal health services and prepayment for such services and the other half laid out less.

*) Less than half of one per cent.

Table 21

Per cent of Families Making Gross Expenditures of $200 or More for Specified Types of Personal Health Services, 12-Month Period, 1952-1953 and 1957-1958

Type of service	Per cent of families making gross expenditures of $200 or more 1952-53	1957-58
All services	34	45
All physicians	11	14
Surgical	3	4
Obstetrical	*	1
Other physicians	6	8
Hospitals	6	10
Medicines	2	6
Other	2	2
Dental	4	6

*) Less than half of one per cent.

Table 22

Per cent of Families Making Gross Expenditures of $200 or More for Specified Types of Personal Health Services According to Family Income, 12-Month Period, 1957-58

Income group	Per cent of families making gross expenditures of $200 or more: All physicians	Surgical	Obstetrical	Other physicians	Hospitals	Medicines	Other medical	Dental
All families	14	4	1	8	10	6	2	6
Under $2,000	7	2	—	4	7	5	1	1
$2,000-3,499	11	3	*	7	9	5	1	2
$3,500-4,999	14	4	1	6	10	6	1	4
$5,000-7,499	18	4	2	8	13	5	1	7
$7,500 and over	19	4	1	12	10	11	3	14

*) Less than half of one per cent.

In general, the higher the family income group the greater is the proportion of families with relatively high expenditures for each type of personal health service (Table 22). This may be due to greater use of services and also to more expensive units of services, such as specialists, private rooms in the hospital, and so on.

As the magnitude of total expenditures per family increases there are important changes in the proportions spent for each type of service as a component of the total expenditure. As shown in Table 23, hospital and physicians' services comprise 31 per cent of the expenditures for all services on an average for families having expenses totaling less than $100 during the year, and 70

Table 23

Percentage Distribution of Gross Expenditures Among Families by Type of Service for Which Expenditures Were Made According to Level of Gross Total Expenditures

Type of service[a]	Per cent distribution of expenditures: All families making known gross expenditures	Families making total gross expenditures of these amounts: $1-99	$100-299	$300-499	$500-749	$750 and over
Mean gross total expenditures[b]	$294[c]	$46	$183	$384	$614	$1283[d]
Hospital	23	3	9	16	26	36
Surgery	7	*	2	4	8	11
Obstetrics	3	*	3	5	6	2
Other physicians'	24	28	28	25	21	21
Medicines	20	37	27	23	17	13
Other	8	13	11	8	6	8
Dental	15	19	20	19	16	9

a) For a description of the kinds of charges included in the various "Types of Service" see footnotes to Appendix Table 1.
b) Figures equal 100 per cent.
c) This figure includes three families with exceptionally high total gross charges of $7,154, $7,180, and $13,843. When the mean is computed excluding these families, it is $289.
d) This figure includes the three families with exceptionally high total gross charges. Excluding them the mean for the sub-group becomes $1,234 and the percentage distribution is as follows: Hospital, 35 per cent; Surgery, 11 per cent; Obstetrics, 2 per cent; Other physicians, 21 per cent; Medicines, 14 per cent; Other, 7 per cent; and dental, 10 per cent.
*) Less than half of one per cent.

per cent of total expenditures for families having an annual expense of $750 or more.

B. Individuals

Analyzed by age, individuals show considerable variation in their expenditures for personal health services in a year. The older the age-group the more likely it is to incur relatively high expenditures. In Table 24 it is evident that for all personal health services only 5 per cent of age-group 0-5 and 6-17 incur expenditures of $200 or more in a year. This proportion continues to rise through the age-group 65 years and over, among whom 22 per cent spend $200 or more. The same sequence of rising expenditures is seen for physicians' services, hospitals, and drugs.

Price and use

The increases in expenditures for health services shown in this study are ascribed to two factors: price rises and increases in "use." However, the relative contribution of each of these two factors to the total increase varied sharply by component of all personal health services and by age.

During the period between the surveys of 1952-53 and 1957-58, the medical care component of the U. S. Department of Labor's Consumer Price Index increased by 18.4 per cent.* Several limitations to the Consumer Price Index as it is used here should be kept in mind: Although basically a measure of changes in prices of goods and services bought by families of city wage earners and clerical workers with annual incomes under $10,000 (roughly 40 per cent of the total U. S. population), the Consumer Price Index is used in this report to adjust the expenditure data for all families in the surveys of 1952-53 and 1957-58. The Consumer Price Index makes no attempt to measure, along with changes in prices, changes in the *quality* or type of items purchased. For example, a day of hospital care changes continually with progress in medical care, with new equipment and the employment of more highly-trained technical personnel; likewise the nature of a physician's visit, be it in the hospital, in his office or the patient's home, does not remain constant. Yet of necessity in the Consumer Price Index these units of service are assumed to be uniform year to year.

Table 24

Per cent of Individuals Making Gross Total Expenditures of $200 or More for All Personal Health Services and for Physicians' Services, Hospital Services, and Medicines by Age, 12-Month Period, 1957-1958

Age	Per cent with expenditures of $200 or more			
	All services	Physicians	Hospitals	Medicines
All individuals	13	3	3	1
0-5	5	1	1	*
6-17	5	1	*	*
18-34	15	3	4	1
35-54	15	4	4	1
55-64	17	5	4	3
65 and over	22	7	7	5

*) Less than half of one per cent.

While the price index increased by 18.4 per cent, per capita health expenditures in constant dollars (for use of all personal health services) rose by 20.3 per cent, or somewhat more rapidly (Table 25). The increase in constant dollars spent is here taken to approximate an increase in use. Since these figures are at best

* Computed by averaging annual figures for 1952 and 1953 and for 1957 and 1958 as reported by the U. S. Department of Commerce for those years.

Table 25

Increases in Price and "Use" by Component of Services United States, 1952-53 to 1957-58

Component of services	Per cent increase	
	Price	"Use"
All services	18.4	20.3
Physicians	17.9	5.2
Hospitals	33.9	26.4
Dentists	12.3	24.7
Drugs and medications	9.5	73.5

an approximation, however, they should be used with caution.* Also, an increase in "use" in this context may not necessarily mean an increase in the quantity or volume of goods and services. It may mean a different type of service within the same general category, e.g., consultation with a specialist, a private room in a hospital, or a more complex form of medication. Despite these and similar qualifications, and the limitations discussed above, the measures applied here are the only ones presently available for this purpose; they are probably as valid as any which could be devised at present, given the statistical information available. They do portray accurately at least the general *direction* of trends, even if not their precise amounts.

In terms of age, the group 65 and over increased its use of health services 46.5 per cent, and for children under six the increase was 44.8 per cent (Table 26). In both instances use increased considerably more than price. In other age-groups the increases in use were: 8.9 per cent at ages 6-17, 18.2 per cent at 18-34, 14.0 per cent at 35-54, and 13.4 per cent at 55-64, in each instance less than the price increase. It should be noted here that

*For a fuller discussion, see: Harry I. Greenfield and Odin W. Anderson, *The Medical Price Index*. Health Information Foundation Research Series No. 7, New York, 1959.

Table 26

Per cent Increase in "Use" Per Individual by Age and by Sex 1952-53 to 1957-58

Age	Per cent increase in "use"
All individuals	20.3
Under 6	44.8
6-17	8.9
18-34	18.2
35-54	14.0
55-64	13.5
65 and over	46.5
Male	27.5
Female	17.4

the Consumer Price Index is applied uniformly to the increase in expenditures in each age group. However, price increases may not have been uniform throughout the varying proportions of differing kinds of services typically used by each age group. For example, those 65 years of age and over use more hospital services than those six and under. Since the costs of hospital care have risen faster than other components of service, it is clear that per capita expenditures for personal health services for those 65 years of age and over would show a greater increase than for the age-group six and under even if the percentage increase in use had been equal for the two groups.

The relative contributions of price and use to the increase in per capita expenditures also varied greatly by specific component of personal health services. Thus, for physicians' services most of the increase in expenditure was due to price rises, 17.9 per cent,* against only a 5.2 per cent increase in use (Table 25). For hospitals the rise in price also exceeded the rise in use, but by a narrower margin, 33.9 per cent price and 26.4 per cent use. This situation was reversed for dentists' services, where there was a 12.3 per cent increase in price but 24.7 per cent in use; it was also reversed for drugs and medications, only 9.5 per cent increase in price as against 73.5 per cent increase in use, respectively.

In current dollars, hospitals and drugs each accounted for about one-third of the total increase in expenditures for all services. Physicians' services accounted for roughly one-fifth of the increase and dentists' for somewhat less (Table 27). Measured in constant dollars, drugs accounted for one-half of the increase, hospitals for an additional one-fourth, and dentists' services for about an additional one-sixth. The increase in use of physicians' services accounted for only a small portion of the total increase.

Expenditures for drugs & medications

In the foregoing discussion changes in expenditures for

* The same procedure was applied to each component as for "all personal health services," to convert increased expenditures in current dollars to constant dollars, or "use." The specific sub-components used for this purpose within the larger medical care component of the Consumer Price Index were: physicians' fees; dentists' fees; hospital rates; and expenditures for prescriptions and drugs. There is no sub-component of the Consumer Price Index which corresponds to the expenditure category "other medical goods and services."

Table 27

Percentage Distribution of the Increase in Expenditures Per Individual, by Component of Services in Current and Constant Dollars, 1952-53 to 1957-58

Component of services	Per cent increase	
	Current dollars	Constant dollars[a]
All services	100.0	100.0
Physicians	21.0	9.0
Hospitals	32.0	24.0
Dentists	14.0	17.0
Drugs and medications	32.0	51.0

a) 1952-53 prices were used as the "standard" for this computation. Expenditures for 1957-58 were deflated to 1952-53 price levels.

Table 28

Mean Gross Expenditures for Prescribed and Non-Prescribed Medicines Per Family by Family Income and by Residence 1957-1958

Income group	Residence							
	Metropolitan areas of one million or more		Other Urban		Rural Non-farm		Rural farm	
	Pre-scribed	Non-pre-scribed	Pre-scribed	Non-pre-scribed	Pre-scribed	Non-pre-scribed	Pre-scribed	Non-pre-scribed
All families	$42	$22	$41	$17	$42	$21	$29	$18
Under $2,000	24	9	28	13	42	13	24	14
$2,000-3,499	40	16	32	15	38	20	29	16
$3,500-4,999	42	18	40	18	44	20	28	18
$5,000-7,499	40	25	44	18	39	18	36	22
$7,500 and over	52	29	58	22	50	31	34	28

various types of personal health services between 1952-53 and 1957-58 have been shown by age, sex, family income, and residence. There was an increase in expenditures for all services—physicians', hospitals, drugs and medications, dentists' services—with the exception of the category "other medical goods and services." The different services, however, were responsible for varying proportions of the total increases. Hospital care and medications accounted each for about one-third of the increase, followed by physicians' and dentists' services, in that order. These were the proportions when increases were measured in current dollars. Measured in constant dollars, expenditures for drugs and medications accounted for one-half of the increase, due largely, as was indicated, to increased use.

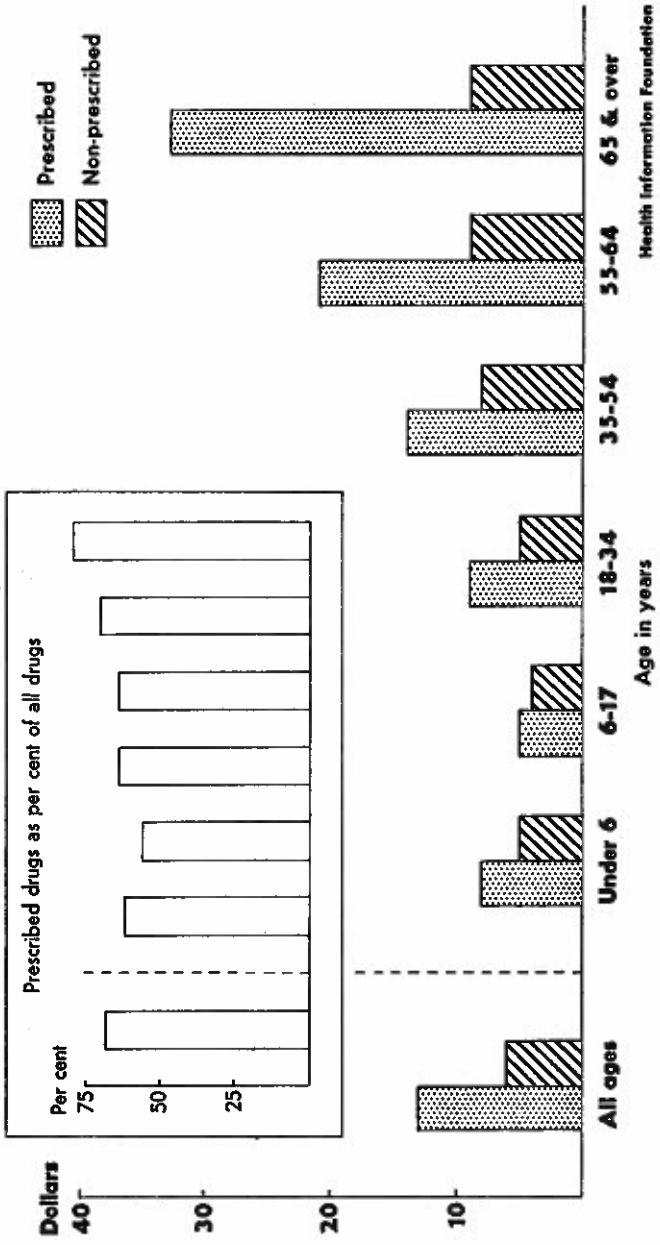
General concern over the increase in expenditures for all personal health services points to the need here to analyze the patterns of expenditures for drugs and medications to the extent that available data permit. Fortunately, the family survey of 1957-58 provides more refined data than the study of 1952-53 because it differentiates between prescribed and non-prescribed medicine. This is an important differentiation in comprehending expenditures among families and individuals and their implications for insurance and medical care.

In this survey the classification of prescribed medicine covers charges for drugs and medicines prescribed by the physician or other medical practitioner, or dentist, and purchased by the patient directly from the pharmacy or elsewhere. It excludes medicines administered by the physician or dentist and charged for on his bill as well as medicines received in a hospital and included in the hospital bill. A very minor portion of the total expenditures for prescribed medicine did not legally require a prescription from a physician or dentist, but was recommended in the course of treatment. Thus, if medicines requiring prescriptions could be isolated from "recommended" medicines not requiring prescriptions, the total expenditure would be reduced only slightly.

The classification of "non-prescribed" medicines covers all other medicines—tonics, vitamins, drops, and so on—not included

Chart IV

Mean Gross Expenditures for Prescribed and Non-prescribed Medicines Per Person by Age United States, 1957-58



in the classification of prescribed medicines. Items for personal hygiene and grooming such as toothpaste, hair dressing, deodorants and so on were not included.

A. Mean expenditures for families and individuals

If expenditures for medicines in 1957-58 had fallen evenly among all families in the U. S., each would have spent $60; in like manner, individuals would have spent $19. Approximately two-thirds of these totals of $60 and $19 were spent for prescribed medicines, as explained above. For families, the higher the income, the greater was the expenditure for both prescribed and non-prescribed medicines.

In terms of residence, amounts spent by families for prescribed medicines is quite uniform between large metropolitan areas, other urban areas, and rural non-farm areas, but less is spent by rural farm families (Table 28). For non-prescribed medicines the variations are small. By family income group, regardless of residence, the amount spent for medicines generally increases as family income rises.

An analysis of expenditures for medicines by individuals shows that there is a greater variation by age-group than by residence, income, or even size of family (as will be shown later). Individuals 65 and over not only spend more for medicines than any other age-group, but spend a higher proportion for prescribed drugs, i.e., 79 per cent compared with an average for all ages of 68 per cent. The age-group with the lowest expenditure per person for both prescribed and non-prescribed medicines is 6-17. For prescribed drugs, the age-group 65 and over has over six times the average expenditure of the age-group 6-17, and twice that for non-prescribed drugs (Chart IV). Females spend more for prescribed medicines than males, particularly after age 18 (Table 29).

Expenditures by individuals for prescribed medicines, when analyzed by income, show the usual progression of greater expenditures accompanying increasing income (Table 29). This generally holds true by age and sex as well, but it is evident for the age-groups 45 to 64, and 65 and over, that there are occasional breaks in the increase in expenditures per person by income, particularly for females. Individual expenditures for non-pre-

Table 29

Mean Gross Expenditures for Prescribed Medicines Per Individual by Age and Sex, and Per Capita Income, 1957-1958

Per capita income[a]	All ages			Age and sex: Under 18		18-44		45-64		65 and over	
	Both sexes	M	F	M	F	M	F	M	F	M	F
All incomes	$13	$10	$16	$ 6	$ 6	$ 6	$14	$16	$22	$26	$40
Less than $1,000	8	6	10	3	3	4	9	12	13	20	39
$1,000-1,499	11	9	13	6	6	7	13	15	18	28	32
$1,500-1,999	16	11	20	9	10	5	17	15	32	38	41
$2,000-3,499	17	13	21	14	11	7	17	18	29	21	36
$3,500 and over	19	16	22	8	17	7	20	17	13	37	63

a) Per capita income has been computed by dividing total family income by number of persons in the family, adjusted for proportion of year each person was in the sample population. Total family income includes income derived from persons who were part of the sample population for a fraction of the survey year only.

Table 30

Mean Gross Expenditures for Non-Prescribed Medicines Per Individual by Age and Sex, and Per Capita Income, 1957-1958

Per capita income[a]	All ages			Age and sex: Under 18		18-44		45-64		65 and over	
	Both sexes	M	F	M	F	M	F	M	F	M	F
All incomes	$ 6	$ 6	$ 7	$ 4	$ 5	$ 5	$ 6	$ 9	$ 9	$ 9	$ 9
Less than $1,000	4	4	5	3	3	4	4	7	8	6	9
$1,000-1,499	6	5	6	5	5	4	6	8	8	9	9
$1,500-1,999	6	6	7	5	7	5	6	7	9	9	8
$2,000-3,499	8	8	9	8	8	6	8	8	10	12	8
$3,500 and over	10	10	10	6	8	6	9	14	11	9	10

a) See footnote a, Table 29.

scribed medicines by per capita income seem to show less relationship than for prescribed medicines (Table 30).

B. Distribution of expenditures for families and individuals

It has been shown that the higher the family income the greater is the mean expenditure for both prescribed and non-prescribed medicines. The data in Table 31 further clarify this relationship and reveal that from 3 to 4 per cent of all families with incomes under $7,500 have annual mean expenditures for prescribed drugs as high as $200 and over. It is not until the income group of $7,500 and over is reached that there is an increase to 7 per cent in the $200-and-over category. Although there is relatively little variation in expenditures of this magnitude for families with incomes under $7,500, there is variation in the proportion of families with any expenditure and in the average expenditure made (Chart V).

One per cent of the families spent $200 or more for non-prescribed medicines and 4 per cent spent $100 or more. There was an increase in expenditures with increasing family income (Table 32), again particularly for the income group of $7,500 and over.

Table 31

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Prescribed Medicines According to Family Income, 1957-1958

Level of gross expenditures for prescribed medicines	Total	Income group: Under $2,000	$2,000-3,499	$3,500-4,999	$5,000-7,499	$7,500 and over
$0	33%	48%	41%	28%	28%	25%
$1-49	43	35	39	47	46	44
$50-99	12	10	11	11	14	15
$100-199	8	3	6	10	9	9
$200 and over	4	4	3	4	3	7
Mean expenditure	$40	$30	$35	$40	$41	$52

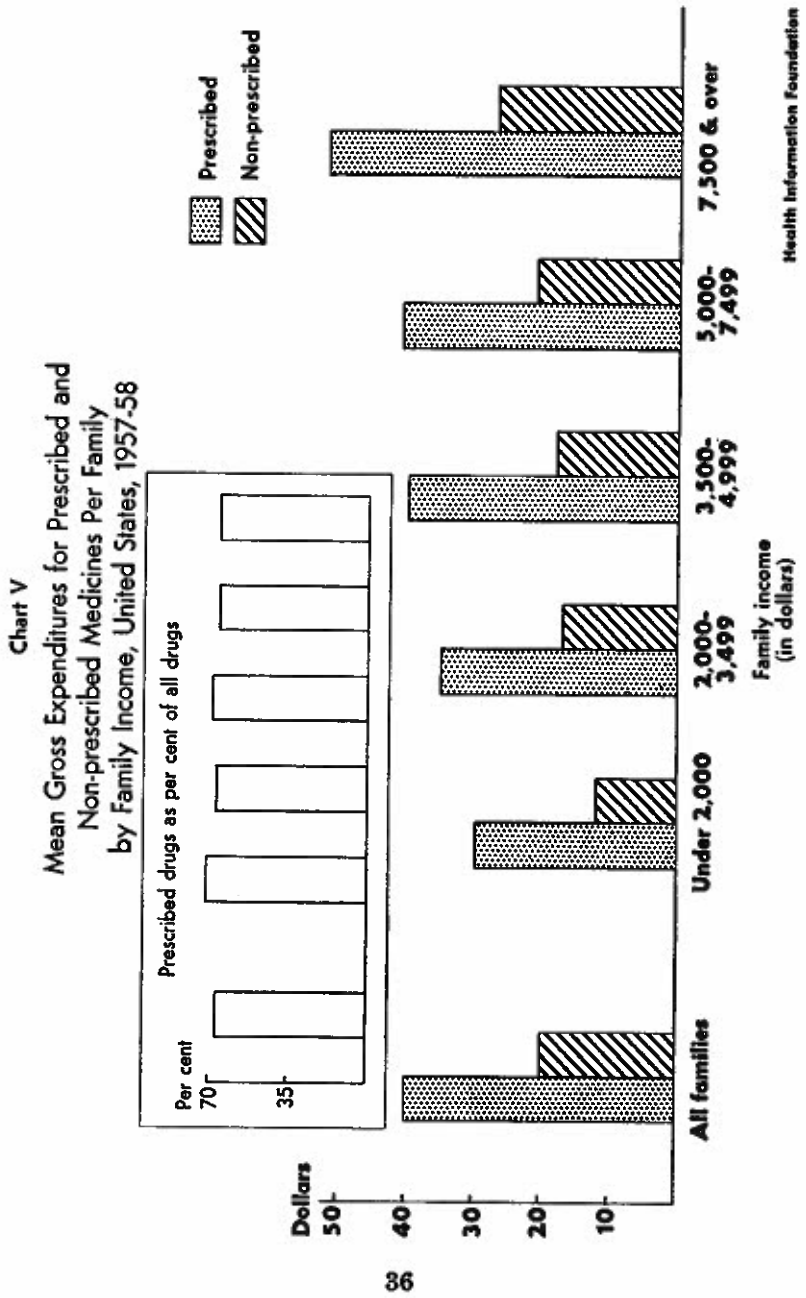


Table 32

Mean Gross Expenditures for Non-Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Non-Prescribed Medicines According to Family Income, 1957-1958

Level of gross expenditures for non-prescribed medicines	Total	Income group: Under $2,000	$2,000-3,499	$3,500-4,999	$5,000-7,499	$7,500 and over
$0	23%	30%	24%	22%	21%	21%
$1-49	65	64	66	68	68	61
$50-99	8	5	8	8	8	12
$100-199	3	1	2	2	3	4
$200 and over	1	—	*	*	*	2
Mean expenditure	$20	$12	$17	$18	$21	$27

*) Less than one-half of 1 per cent.

Expenditures for prescribed medicine by residence of families showed little variation in the magnitudes of $100 and over and $200 and over (Table 33). This consistency is significant. Again it would seem that in serious acute and chronic illnesses expenditures vary little among families living in various types of areas ranging from metropolitan to rural. Likewise, family expenditures for non-prescribed medicines by residence show little variation (Table 34). Regardless of residence about 3 per cent of the families spent $100 or more for non-prescribed medicines.

Expenditures for prescribed and non-prescribed medicines by size of family (Tables 35 and 36) do not necessarily increase as the number of members in the family increase. In fact, expenditures per person actually decrease as family size increases. This anomaly is very likely explained by the age composition of families. The mean age of one- and two-person households is higher than that of larger households. The larger the family the more young members there are. As has been shown in earlier tables, there is a very marked relationship between expenditures for medicines and age.

Table 33

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Non-Prescribed Medicines According to Residence, 1957-1958

Level of gross expenditures for prescribed medicines	Residence				
	Total	Metropolitan areas of 1 million or more	Other urban	Rural non-farm	Rural farm
$0	33%	33%	33%	30%	38%
$1-49	43	43	40	45	46
$50-99	12	12	15	12	7
$100-199	8	8	8	8	5
$200 or more	4	4	4	5	4
Mean expenditure	$40	$42	$41	$42	$29

Table 34

Mean Gross Expenditures for Non-Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Non-Prescribed Medicines According to Residence, 1957-1958

Level of gross expenditures for non-prescribed medicines	Residence				
	Total	Metropolitan areas of 1 million or more	Other urban	Rural non-farm	Rural farm
$0	23%	27%	24%	22%	16%
$1-49	65	60	66	65	74
$50-99	8	9	7	10	7
$100-199	3	3	3	3	3
$200 or more	1	1	*	*	*
Mean expenditure	$20	$22	$17	$21	$18

*) Less than half of one per cent.

Table 35

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Prescribed Medicines According to Number of Persons in Family[a] 1957-1958

Level of gross expenditures for prescribed medicines	Number of persons in family						
	Total	1	2	3	4	5	6 or more
$0	33%	56%	35%	27%	22%	22%	28%
$1-49	43	30	38	47	49	53	48
$50-99	12	8	12	13	15	16	14
$100-199	8	4	9	8	10	5	7
$200 and over	4	2	6	5	4	4	3
Mean expenditure	$40	$22	$44	$43	$48	$40	$37

a) Number of persons in family is the total number of family members on the date of interview.

Table 36

Mean Gross Expenditures for Non-Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Non-Prescribed Medicines According to Number of Persons in Family[a] 1957-1958

Level of gross expenditures for non-prescribed medicines	Number of persons in family						
	Total	1	2	3	4	5	6 or more
$0	23%	37%	26%	20%	18%	15%	16%
$1-49	65	60	62	68	68	71	67
$50-99	8	2	9	9	10	9	13
$100-199	3	1	3	3	3	4	4
$200 and over	1	*	*	*	1	1	*
Mean expenditure	$20	$ 9	$18	$21	$24	$23	$26

a) Number of persons in family is the total number of family members on the date of interview.
*) Less than half of one per cent.

When levels of expenditures are shown for individuals by per capita income (Table 37) it is seen that the per cent of individuals with magnitudes of $100 and over increased steadily from 2 per cent of individuals with per capita incomes of $1,000 and less to 6 per cent of those with $3,500 and over. Expenditures by individuals for non-prescribed medicines by per capita income, are shown in Table 38.

C. Family expenditures for medicines and level of expenditures for other services

Families which have expenditures for other personal health services singly or in combination are also likely to have expenditures for medicines. This relationship is documented, and the data are summarized in Tables 39 and 40; detailed tables are shown in the Appendix. With increasing expenditures for all services there is an accompanying rapid increase in mean expenditures per family both for prescribed and non-prescribed medicines, but particularly for prescribed medicines.

A more direct relationship exists between expenditures for

Table 37

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Individuals by Level of Gross Expenditures for Prescribed Medicines According to Sex and Age, and Per Capita Income

Level of gross expenditures for prescribed medicines	All Individuals					
		Per capita income				
	Total	Less than $1,000	$1,000-1,499	$1,500-1,999	$2,000-3,499	$3,500 and over
$0	61%	69%	60%	56%	53%	56%
$1-24	26	22	27	29	28	26
$25-49	6	4	6	7	9	7
$50-99	4	3	4	4	6	5
$100-199	2	1	2	3	3	4
$200 and over	1	1	1	1	1	2
Mean expenditure	$ 13	$ 8	$ 11	$ 16	$ 17	$ 19

(Table 37, Continued)

Level of gross expenditures for prescribed medicines	Total	Per capita income				
		Less than $1,000	$1,000-1,499	$1,500-1,999	$2,000-3,499	$3,500 and over
	Males, less than 18 years old					
$0	64%	75%	61%	57%	46%	50%
$1-24	29	22	33	35	36	41
$25-49	4	2	4	5	11	5
$50-99	2	1	2	2	5	4
$100-199	1	*	*	1	1	—
$200 and over	*	*	*	*	1	—
Mean expenditure	$ 6	$ 3	$ 6	$ 9	$ 14	$ 8
	Males, 18-44 years					
$0	72%	79%	71%	70%	68%	66%
$1-24	21	16	22	24	21	26
$25-49	5	3	4	4	8	4
$50-99	2	2	2	2	2	2
$100-199	*	*	1	*	1	1
$200 and over	*	*	*	*	*	1
Mean expenditure	$ 6	$ 4	$ 7	$ 5	$ 7	$ 7
	Males, 45-64 years					
$0	64%	66%	59%	70%	62%	63%
$1-24	21	21	23	17	21	24
$25-49	6	6	8	6	5	4
$50-99	5	5	7	2	7	5
$100-199	2	—	2	3	3	2
$200 and over	2	2	1	2	2	2
Mean expenditure	$ 16	$ 12	$ 15	$ 15	$ 18	$ 17
	Males, 65 years and over					
$0	55%	58%	52%	60%	54%	46%
$1-24	22	26	22	15	22	23
$25-49	8	4	11	11	10	9
$50-99	5	3	4	2	9	5
$100-199	7	7	9	8	4	10
$200 and over	3	2	2	4	1	7
Mean expenditure	$ 26	$ 20	$ 28	$ 38	$ 21	$ 37

*) Less than half of one per cent.

(Table 37, Continued)

Level of gross expenditures for prescribed medicines	Total	Per capita income: Less than $1,000	$1,000-1,499	$1,500-1,999	$2,000-3,499	$3,500 and over
Females, less than 18 years old						
$0	63%	74%	65%	50%	43%	59%
$1-24	29	22	28	40	43	25
$25-49	5	3	5	6	10	4
$50-99	2	1	2	2	3	4
$100-199	1	—	*	2	1	7
$200 and over	*	*	*	*	*	1
Mean expenditure	$ 6	$ 3	$ 6	$ 10	$ 11	$ 17
Females, 18-44 years						
$0	52%	60%	50%	49%	49%	52%
$1-24	31	29	33	32	32	28
$25-49	9	8	10	10	8	11
$50-99	5	2	5	5	7	4
$100-199	2	1	1	3	4	3
$200 and over	1	*	1	1	*	2
Mean expenditure	$ 14	$ 9	$ 13	$ 17	$ 17	$ 20
Females, 45-64 years						
$0	50%	62%	53%	46%	40%	55%
$1-24	27	23	25	23	31	29
$25-49	9	6	10	8	11	9
$50-99	7	6	8	9	9	4
$100-199	5	3	3	11	5	2
$200 and over	2	—	1	3	4	1
Mean expenditure	$ 22	$ 13	$ 18	$ 32	$ 29	$ 13
Females, 65 years and over						
$0	48%	51%	49%	41%	57%	31%
$1-24	18	16	19	26	15	18
$25-49	10	11	12	10	9	7
$50-99	11	11	10	10	8	20
$100-199	8	5	7	8	6	18
$200 and over	5	6	3	5	5	6
Mean expenditure	$ 40	$ 39	$ 32	$ 41	$ 36	$ 63

physicians' services and medicines, particularly prescribed medicines. This is seen in Table 40 which shows that expenditures for prescribed medicines increases with level of gross expenditures for physicians' services.

D. Expenditures for medicines and reasons for seeing physicians

Foregoing data showing that older people spend a great deal more for medicines than younger people indicate that high expenditures are due to illnesses that require a great deal of medication. The survey of families and individuals for 1957-58 was not designed to gather information on illnesses *per se,* but respondents were asked their reasons for seeing physicians, and why other members of the family, for whom the respondent was reporting, had physician visits. It was possible then, to obtain gross but still very suggestive estimates of individual expenditures for medicines in relation to disease conditions, as classified in Table 41.

Clearly, the brunt of expenditures for medicines was borne by individuals with both acute and chronic conditions (as defined), next in magnitude by individuals with chronic conditions only, followed by individuals with acute conditions only. A very clear age pattern is evident, showing that older individuals spend a great deal for medicines, relatively, because of chronic conditions. For example, among all individuals (including those 65 years of age and over), roughly 15 per cent saw physicians for chronic conditions; and 5 per cent of these spent $200 or more for prescribed medicines. Among those 65 years of age and over approximately one-third saw physicians for chronic conditions, and 10 per cent of these spent $200 or more for prescribed medicines (see Appendix Table 12). Individuals who saw physicians for chronic conditions only or in combination with acute illnesses spent more for non-prescribed medicines as well as prescribed than individuals who saw physicians for other reasons (Table 43).

Observations and implications

The most outstanding characteristic of the five-year period under study is, of course, the very rapid increase in private expenditures by the general population for personal health services. This rapid increase during the five-year period of 42 per cent,

Table 38

Mean Gross Expenditures for Non-Prescribed Medicines and Percentage Distribution of Individuals by Level of Gross Expenditures for Non-Prescribed Medicines According to Sex and Age, and Per Capita Income

Level of gross expenditures for non-prescribed medicines	Total	Per capita income: Less than $1,000	$1,000-1,499	$1,500-1,999	$2,000-3,499	$3,500 and over
All Individuals						
$0	46%	49%	44%	48%	43%	42%
$1-24	47	48	51	44	47	45
$25-49	5	3	4	6	7	8
$50-99	2	*	1	2	2	4
$100-199	*	*	*	*	1	1
$200 and over	*	*	—	*	*	*
Mean expenditure	$ 6	$ 4	$ 6	$ 6	$ 8	$ 10
Males, less than 18 years old						
$0	49%	54%	43%	51%	41%	54%
$1-24	47	44	52	44	50	39
$25-49	3	2	4	4	7	7
$50-99	1	*	1	1	2	—
$100-199	—	—	—	—	—	—
$200 and over	—	—	—	—	—	—
Mean expenditure	$ 4	$ 3	$ 5	$ 5	$ 8	$ 6
Males, 18-44 years						
$0	52%	53%	50%	56%	50%	51%
$1-24	44	45	47	39	44	41
$25-49	3	2	2	4	4	5
$50-99	1	*	1	1	1	3
$100-199	*	*	*	*	1	—
$200 and over	*	—	—	—	*	—
Mean expenditure	$ 5	$ 4	$ 4	$ 5	$ 6	$ 6

*) Less than half of one per cent.

(Table 38, Continued)

Level of gross expenditures for non-prescribed medicines	Total	Per capita income: Less than $1,000	$1,000-1,499	$1,500-1,999	$2,000-3,499	$3,500 and over
Males, 45-64 years						
$0	43%	43%	40%	52%	41%	42%
$1-24	46	49	48	41	51	40
$25-49	7	6	8	5	6	9
$50-99	3	1	3	2	2	5
$100-199	1	1	1	*	*	3
$200 and over	*	—	—	*	*	1
Mean expenditure	$ 9	$ 7	$ 8	$ 7	$ 8	$ 14
Males, 65 years and over						
$0	47%	45%	49%	49%	43%	50%
$1-24	42	48	41	38	41	35
$25-49	7	4	6	10	9	13
$50-99	3	3	1	2	7	2
$100-199	1	—	3	—	—	—
$200 and over	*	—	—	1	—	—
Mean expenditure	$ 9	$ 6	$ 9	$ 9	$ 12	$ 9
Females, less than 18 years old						
$0	46%	50%	45%	42%	41%	41%
$1-24	50	49	52	51	50	53
$25-49	3	1	2	4	8	4
$50-99	1	—	1	3	1	2
$100-199	—	—	—	—	—	—
$200 and over	—	—	—	—	—	—
Mean expenditure	$ 5	$ 3	$ 5	$ 7	$ 8	$ 8

*Less than half of one per cent.

(Table 38, Continued)

Level of gross expenditures for non-prescribed medicines	Total	Per capita income: Less than $1,000	$1,000-1,499	$1,500-1,999	$2,000-3,499	$3,500 and over
	Females, 18-44 years					
$0	45%	48%	43%	48%	46%	35%
$1-24	48	48	52	45	43	54
$25-49	5	4	4	5	8	4
$50-99	2	*	1	2	2	7
$100-199	*	—	*	*	1	—
$200 and over	*	*	—	—	—	—
Mean expenditure	$ 6	$ 4	$ 6	$ 6	$ 8	$ 9
	Females, 45-64 years					
$0	36%	37%	35%	38%	34%	38%
$1-24	51	53	55	45	53	46
$25-49	9	8	8	13	8	11
$50-99	3	1	2	4	4	4
$100-199	1	1	*	—	1	1
$200 and over	—	—	—	—	—	—
Mean expenditure	$ 9	$ 8	$ 8	$ 9	$ 10	$ 11
	Females, 65 years and over					
$0	44%	40%	43%	47%	50%	44%
$1-24	44	49	47	39	34	39
$25-49	10	8	9	11	14	13
$50-99	2	2	1	3	2	4
$100-199	*	1	—	—	—	—
$200 and over	—	—	—	—	—	—
Mean expenditure	$ 9	$ 9	$ 9	$ 8	$ 8	$ 10

*) Less than half of one per cent.

or about seven percentage* points per person per year is due to a combination of increased use of services and increased prices. It alarms the general public, insurance agencies, big buyers of services such as business and labor unions, and government officials concerned with insurance premium rates. Their attention has been focused most sharply on price increases, probably as a result of the monthly reports in recent years of the Consumer Price Index of the Bureau of Labor Statistics which show that the Medical Price Index is rising faster than the other components of the Consumer Price Index.

From 1927 to 1940** medical care prices relative to other items were very stable. The inflationary price rise brought about by the war was transmitted to medical care prices, which rose (with a lag of a year or so) along with other prices and at an

* Computed on the basis of the compound interest formula.
** Greenfield and Anderson, *op. cit.*

Table 39

Mean Gross Expenditures Per Family for Prescribed and Non-Prescribed Medicines by Level of Total Gross Expenditures for All Personal Health Services

Level of total gross expenditures for all personal health services	Mean expenditures per family: Prescribed medicines	Non-prescribed medicines
$1-49	$ 3	$ 7
$50-99	11	15
$100-199	23	18
$200-299	40	22
$300-399	55	26
$400-499	77	27
$500-749	81	28
$750-999	113	31
$1,000-1,999	146	41
$2,000 and over	226	47

Note: See Appendix for detailed tables.

accelerated pace in the post-war years. In these post-war years the medical care price index rose at a greater rate than the Consumer Price Index as a whole. On the other hand, medical care prices, in general, rose at about the same rate as the prices of the "All Services" component of the Consumer Price Index (e.g., rent, automobile and television repairs, haircuts, transit fares, automobile insurance, etc.). Medical care consists more of services than of goods, and therefore it can be expected to follow the "services" price-movement patterns.

This is neither to justify nor attack the increase in prices for personal health services in the last few years, but to restate a truism often overlooked: that the medical care economy is part and parcel of the total economy of the nation and cannot be understood independently of it. Further, it cannot be comprehended adequately unless a long-term retrospective view is taken. The choice of baseline is extremely important.

A second outstanding characteristic of this five-year period is that even though the prices of various units of personal health services rose 18 per cent, the increased expenditures due to increased use of services went up 20 per cent. Increased price obviously did not stifle use during the five-year period,

Table 40

Mean Gross Expenditures Per Family for Prescribed and Non-Prescribed Medicines by Total Gross Expenditures for Physicians' Services

Level of total gross expenditures for physicians' services	Mean expenditures per family	
	Prescribed medicines	Non-prescribed medicines
None	$ 7	$13
$1-49	22	16
$50-99	42	22
$100-199	56	22
$200-299	92	29
$300 and over	114	31

Note: See Appendix for detailed tables.

unless it is assumed that use would have increased even more if prices had remained constant.

A third outstanding characteristic of the period is that among components of service, hospital care and drugs accounted for almost two-thirds of the increase as measured in current dollars, indicating rather dramatic shifts—for so short a time—in the composition of the medical dollar.

A fourth outstanding characteristic of the period under study is that a great deal of the increase in expenditures may be ascribed to the age groups at both extremes—those under six years of age, and those 65 and over. This is a fascinating phenomenon which cannot be readily explained from data in this survey alone.

The overall patterns of expenditures described in this report result from a broad combination of forces flowing from the

Table 41

Mean Gross Expenditures for Prescribed Medicines Per Individual by Age and by Reason for Seeing Physician

Age	Total	Reason for seeing physician[a]					
		Both chronic and acute conditions	Chronic condition(s) only	Acute condition(s) only	Pregnancy, injury, physical exam, no acute or chronic condition	Condition indeterminate	Did not see M.D.
All individuals	$13	$52	$43	$12	$ 7	$14	$ 1
Under 18	6	42	23	11	4	6	1
18-44	10	51	27	12	8	12	1
45-64	19	55	49	15	8	26	3
65 and over	33	58	68	19	19	16	5

a) Detailed information concerning the conditions reported for individuals covered by the survey was not obtained, so the classification of individuals here is crude. The distinction between chronic and acute conditions is based on impression since no data as to the usual duration of various types of condition were available. Conditions which are *usually* persistent such as heart disease, hypertension, arthritis, diabetes, hemorrhoids, and asthma were classified as chronic conditions regardless of the details in a particular case. Similarly, conditions such as pneumonia, influenza, and measles which tend to be short-term are considered to be acute.

public's perception of its medical needs and its ability and willingness to take action in seeking service and care. Further, these expenditure patterns result—once the public seeks care—from the collective judgment of physicians who determine the nature and quantity of hospital care, prescribed drugs, and medical treatment, and from the collective judgment of dentists who determine the nature and quantity of dental care. Only about 15 per cent of the full range of personal health services (as measured in expenditures) is purchased by the public outside the auspices of the traditional "gatekeepers," the physicians and dentists.

Thus the preponderance of personal health services have been recommended and provided by persons entrusted with the duties and prerogatives of a profession and who are in fact among the best trained and educated people in this country. Their collective judgment and the public's perception of effective demand have

Table 42

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Individuals by Level of Gross Expenditures for Prescribed Medicines According to Reason for Seeing Physician

Level of gross expenditures for prescribed medicines	Total	Reason for seeing physician: Both chronic and acute conditions	Chronic condition(s) only	Acute condition(s) only	Pregnancy, injury, physical exam, no acute or chronic condition	Condition indeterminate	Did not see M.D.
$0	61%	15%	28%	35%	60%	54%	93%
$1-24	26	36	32	49	32	31	6
$25-49	6	16	14	11	5	7	1
$50-99	4	17	13	4	2	5	*
$100-199	2	11	8	1	1	2	*
$200 and over	1	5	5	*	*	1	*
Mean expenditure	$13	$52	$43	$12	$ 7	$14	$ 1

*) Less than half of one per cent.

resulted in the expenditure patterns described, certainly as they relate to increased use.

Further, a vital aspect of the relationship between the providers of service and the general public is the extent to which the public is willing to pay for services beyond a basic minimum of what may be regarded as adequate care. Undoubtedly there is an undetermined proportion of "luxury" care in personal health services today which may not be necessary in a strict sense but does contribute to the assurance and convenience of both physicians and patients.

Nevertheless there is increasing concern about how services are used and what trends are followed by their prices. Are services used "properly"?; are hospitals administered "efficiently"?; are physicians' charges "in line"?; are drug charges "reasonable"? And transcending all such questions is the basic problem: *"Can the public afford modern medical care at the level of today's use and prices?"*

Now and for some time to come there is need for judicious and bold assessment of use and price. With regard to these factors, the medical care establishment in this country has evolved with little hindrance and supervision from public or private authorities. The matter of quality has been approached through state licensure, board certification, hospital accreditation and other devices, but the intensity of concern with use and price is rela-

Table 43

Mean Gross Expenditures for Non-Prescribed Medicines Per Individual According to Reason for Seeing Physician

Reason for seeing physician	Mean gross expenditures per individual
All individuals	$ 6
Both chronic and acute conditions	11
Chronic condition(s) only	10
Acute condition(s) only	7
Pregnancy, injury, physical exam, no acute or chronic condition	6
Condition indeterminate	6
Did not see M.D.	4

tively new. Use and price have been allowed to reach their own levels in a prosperous economy. Today, however, they have come under public scrutiny, largely as a result of the dynamism of the medical care field. And the increasing extent to which personal health services are being paid for by sources other than the patient directly at time of service, has brought into the picture the manifold concerns of other interests such as insurance agencies, labor unions, industry, and insurance commissioners.

Such concern, by the public in general and on the part of specific groups, raises the question of whether or not use and price of health services should be subjected to a form of regulation or control. Diametrically opposite answers can be made: (1) Allow the private sector of the medical economy to follow its trends until an equilibrium is reached, without controls on use or price except in so far as they already exist, such as optimum limits on hospital beds, negotiated and contracted rates between hospitals and insurance agencies, negotiated and contracted fee schedules between physicians and insurance agencies and so forth; or (2) Establish use and price controls at all checkpoints in the provision of health services such as admission committees in hospitals, state regulation of hospital rates and physicians' fees, regulations and standardization of insurance agencies, etc.

The first alternative expresses faith that a relative looseness in the medical care establishment is conducive to a minimum of irritations and annoyances for providers of services and for patients as well. Under this relatively free system, expenditures have increased rapidly, as this report shows. The final judgment as to whether expenditures are too great must be based on the value placed on present medical care, on whether the medical establishment is operating with reasonable efficiency, and on the question of whether or not the public is spending too large a portion of its economic resources for these services.

The second alternative presupposes financial controls in the provision of health services through forcing the medical establishment to retrench and to develop the most equitable controls possible. This alternative implies that controls can be imposed when the gross expenditure for medical care is beyond that

which the country feels it can afford, and that such controls can be applied equitably.

That is the heart of the problem. Suffice it to say that so far there are hardly any scientifically established criteria for determining the proper level of utilization and quality of services. Consequently, standards have to be based on accepted practice as determined by the best available judgment *plus* the amount of money available. This is inherent in professional services. Even with the presence of scientifically established criteria there must be public faith and trust that the medical establishment on the whole is operating in the public interest. In actual practice, of course, the two alternatives posed do not exist in pure form, and the problem is in finding the vital center where quality, quantity, money and the satisfaction of providers of services and patients balance. Neither a relatively free flow of funds or a restricted flow of funds is necessarily associated with good quality. Quality considerations are a related but separate problem. There is a consensus, however, that high quality is not cheap.

In the face of mounting concern about increased price and use of health services and in subsequent discussions of financial and quality controls, it is tempting to consider cost as the sole criterion of proper level of utilization. This is true because other hard and fast criteria are lacking. Cost, however, must also be related to standards of care, accessibility to services, and the degree of assurance and convenience desired beyond a minimum standard of need.

It is, of course, entirely possible to withhold funds in one way or another, thereby forcing the medical establishment to operate within well-defined financial limits. Whether this can be done equitably, simultaneously promoting quality, meeting medical needs, and continuing the dynamism of medical care is the number one problem of our medical economy.

This report does not lend itself to simple and easy conclusions as to how freely or restrictively funds should continue to flow to the medical establishment. It does, however, provide a fairly detailed perspective for continued examination of the changes that are taking place and of general trends. ■

Appendix

Appendix Table 1

Estimated Nationwide Gross Expenditures by Families for Personal Health Services

Item	1957 to 1958 Amount (billions of dollars)
Total	16.2
All physicians	5.4
Surgery in hospital[a]	1.0
Surgery out of hospital[a]	.1
Obstetrics[b]	.5
Ophthalmologist[c]	.1
Other physician in hospital[d]	.5
Other physician, in home[d]	.4
Other physician, in office[d]	2.8
Hospital	3.7
Hospital in-patient charges[e]	3.6
Salaried staff physician in out-patient department[f]	.1
Out-patient department non-physician charges[g]	*
Prescriptions and other medicines	3.3
Prescribed drugs[h]	2.2
Non-prescribed medicines and drugs[i]	1.1
Other medical goods and services	1.3
Special-duty nursing in hospital[j]	.1
Optometrist, optician[k]	.2
Other health personnel[l]	.3
Appliances[m]	.7
Other charges[n]	.1
Dentists[o]	2.4

*) Less than $50,000,000.

a) Surgeon's charges are physician's charges for all cutting procedures except Caesarian delivery, circumcision of the newborn, and the suturing of wounds and include the setting of dislocations and fractures. In general, they consist of the charge for the operation only but in a few instances include also charges for pre-operative and post-operative care when these could not be distinguished from the charge for the operation itself. They include charges for physicians assisting at the operation but exclude charges by the anesthesiologist and charges for oral surgery when performed by a dentist.

b) Obstetric charges include physician's charges in connection with prenatal care and delivery for delivered pregnancies regardless of when in the survey year the child was born. Included are charges for a normal or Caesarian delivery, for circumcision when performed right after birth, for a D & C in connection with a miscarriage or the delivery, and for the anesthesiologist. When currently pregnant women had not been billed for any part of the ir prenatal care, these charges were treated as not yet incurred. When they had been billed, the charges were considered as incurred.

c) These include charges by the physician for refraction, diagnosis, and treatment of the eye, but exclude charges for surgery of the eye which is included under "Surgery" and for opthalmic appliances included under "Appliance."

d) Other physicians' charges include all charges for care other than surgery, obstetrics, or by an oculist or ophthalmologist. They include charges for care by the practitioner himself and for special tests and X-rays, treatments, drugs and medications when the physician himself bills the patient for them.

e) Hospital in-patient charges are medical charges incurred in connection with an in-patient admission. They include room-and-board charges, laboratory fees, drugs, X-rays, operating and delivery room fees and the usual "extras." They include charges for pathologist, radiologist, and anesthesiologist when these are included in the hospital bill but always exclude charges for special-duty nursing in the hospital, and exclude also charges by the pathologist, radiologist, and anesthesiologist when these latter practitioners bill the patient directly.

f) This includes charges for services given in a hospital outpatient clinic or emergency room by a salaried physician in the employ of a hospital. It excludes charges for services in the out-patient department or emergency room by a private physician and excludes also charges for tests given in the out-patient department and which involve a technician rather than a salaried staff physician.

g) Includes charges by a hospital laboratory or out-patient department for tests, X-rays, treatments, etc. when the services of a salaried staff physician are not used. This covers charges for out-patient care only and excludes charges for tests, treatments, etc. of hospital in-patients, as described in (e) above.

h) Prescribed drug charges cover charges for drugs and medicines prescribed at some time by the physician, other medical practitioner, or dentist, and purchased by the consumer directly from the pharmacy or elsewhere. It excludes medicines administered by the physician or dentist and charged for on his bill as well as medicines received in a hospital and included in the hospital bill.

i) Covers all other medicines, tonics, vitamins, drops, etc. not included in (h) above.

j) Charges for special-duty nursing in hospital are those for private-duty nursing care in addition to that provided by the hospital as part of its regular service and which is included in the regular hospital bill. This category excludes nursing in the home regardless of whether such care is furnished by a registered or practical nurse.

k) These include charges for service by the optometrist, optician, or optical company and exclude charges for eye glasses. The latter are grouped with appliances.

l) Other health personnel includes charges by practitioners other than physicians, the oculist or ophthalmologist, the special-duty nurse, the dentist or dental hygienist. Included here are physical therapists, practical nurses, midwives, the registered nurse in the home, chiropodist, Christian Science practitioner, chiropractor, etc.

m) This covers charges for appliances and prostheses such as eye glasses, hearing aids, crutch, wheelchair, brace, orthopedic shoes, elastic stockings, vaporizer, etc. It excludes charges for dental appliances.

n) Other charges include ambulance fees, charge for oxygen if not billed for by a hospital or doctor directly, dressings and bandages purchased for the use of a patient at home, charges for diagnostic tests and X-rays given by a non-hospital laboratory and for which the patient was billed directy, etc.

o) Dental charges cover charges by the dentist for his service and that of his auxiliary personnel, and for dental appliances. It includes also expenditures to cover charges made to him by dental laboratories and dental manufacturers for work done at his instance.

Appendix Table 2

Percentage Distribution of Families by Level of Gross Expenditures for All Physicians' Services According to Family Income

Family income	Number of families[b]	Percentage reporting gross expenditures for all physicians' services of these amounts[a]							
		$0	$1-49	$50-99	$100-199	$200-299	$300-399	$400-499	$500 and over
All Families Total	2,941	16	36	17	17	7	3	2	2
Under $2,000	451	30	42	11	10	4	1	1	1
$2,000-3,499	473	19	40	16	14	6	3	1	1
$3,500-4,999	584	17	32	18	19	7	4	1	2
$5,000-7,499	799	12	34	18	18	8	4	3	3
$7,500 and over	634	8	35	19	19	8	5	3	3

a) Gross expenditures for "all physicians' " services include charges for surgery, obstetrics, other physician-in-hospital, in-home, in-office, and opthalmologist care. They include expenditures for care by the practitioner himself and for special tests and X-rays, treatments, drugs and medications when the physician himself bills the patient for them.

b) The sampling procedure used for this survey required the weighting of certain cases to compensate for the differential sampling rates used in the two strata. All of these tables are based on the weighted distribution. But since the reliability of a given statistic is a function of the number of actual cases upon which it is based, the "N's" given in each table are unweighted. Consequently, the reader cannot combine sub-groups by weighting the relevant distributions by the given "N's" nor should he take the distribution of "N's" among the sub-groups as being equivalent to the weighted distribution for the particular variable involved.

Appendix Table 3

Percentage Distribution of Families by Level of Gross Expenditures for Surgery[a] According to Family Income

Family income	Number of families[b]	Percentage reporting gross expenditures for surgery of these amounts						
		$0	$1-49	$50-99	$100-199	$200-299	$300-399	$400 and over
All Families Total	2,941	87	3	3	3	2	1	1
Under $2,000	451	93	2	2	1	2	*	*
$2,000-3,499	473	89	4	2	2	2	1	*
$3,500-4,999	584	85	4	3	4	2	1	1
$5,000-7,499	799	83	4	4	5	2	1	1
$7,500 and over	634	85	3	4	4	2	1	1

a) Includes both in-hospital surgery and non-hospitalized surgery.
b) See footnote b, Appendix Table 2.
*) One-half per cent or less.

Appendix Table 4

Percentage Distribution of Families by Level of Gross Expenditures for "Other" Physicians' Services[a] According to Family Income

Family income	Number of families[b]	Percentage reporting gross expenditures for "other" physicians' services of these amounts						
		$0	$1-49	$50-99	$100-199	$200-299	$300-399	$400 and over
All Families Total	2,941	18	41	19	14	4	2	2
Under $2,000	451	31	45	10	10	3	1	*
$2,000-3,499	473	23	43	17	10	5	1	1
$3,500-4,999	584	18	39	22	15	3	2	1
$5,000-7,499	799	13	42	22	15	5	1	2
$7,500 and over	634	10	38	23	17	7	2	3

a) "Other" physicians' charges include all charges for care other than surgery and obstetrics.
b) See footnote b, Appendix Table 2.
*) One-half per cent or less.

Appendix Table 5

Percentage Distribution of Families by Level of Gross Hospital Expenditures[a] According to Family Income

Family income	Number of families[b]	Percentage reporting gross hospital expenditures of these amounts							
		$0	$1-49	$50-99	$100-199	$200-299	$300-399	$400-499	500 and over
All Families Total	2,941	68	8	5	9	3	3	1	3
Under $2,000	451	79	7	3	4	1	3	1	2
$2,000-3,499	473	70	8	6	7	2	3	2	2
$3,500-4,999	584	64	9	5	12	3	2	2	3
$5,000-7,499	799	63	9	6	9	6	3	1	3
$7,500 and over	634	68	9	3	10	3	3	1	3

a) "Hospital" expenditures include charges incurred in connection with an in-patient admission, charges for services given in a hospital out-patient clinic or emergency room by a salaried physician in the employ of a hospital, and charges by a hospital laboratory or out-patient department for tests, X-rays, etc., when the services of a salaried staff physician were not used. Also see footnotes e, f and g, Appendix Table 1.
b) See footnote b, Appendix Table 2.

Appendix Table 6

Percentage Distribution of Families by Level of Gross Expenditures[a] for Medicines According to Family Income

Family income	Number of families[b]	Percentage reporting gross expenditures for medicines of these amounts						
		$0	$1-49	$50-99	$100-199	$200-299	$300-399	$400 and over
All Families Total	2,941	11	52	19	12	4	1	1
Under $2,000	451	17	57	16	5	3	1	1
$2,000-3,499	473	13	54	18	10	3	1	1
$3,500-4,999	584	10	52	18	14	4	1	1
$5,000-7,499	799	8	51	21	15	3	1	1
$7,500 and over	634	7	43	24	15	7	2	2

a) Gross medicine charges include charges for prescribed and non-prescribed medicines and drugs. Also see footnotes h and i, Appendix Table 1.

b) See footnote b, Appendix Table 2.

Appendix Table 7

Percentage Distribution of Families by Level of Gross "Other" Medical Expenditures[a] According to Family Income

Family income	Number of families[b]	Percentage reporting gross "Other" medical expenditures of these amounts				
		$0	$1-49	$50-99	$100-199	$200 and over
All Families Total	2,941	55	30	10	3	2
Under $2,000	451	73	21	3	2	1
$2,000-3,499	473	57	35	6	1	1
$3,500-4,999	584	62	28	7	2	1
$5,000-7,499	799	50	33	13	3	1
$7,500 and over	634	41	34	17	5	3

a) Gross "Other" medical charges include the following: special-duty nursing in the hospital; service by an optometrist or optician; charges by other health care personnel such as physical therapists, practical nurses, registered nurse in the home, chiropodists, chiropractors, etc.; appliances and prostheses; and charges for ambulance fees, tests and X-rays at a non-hospital laboratory for which patient was billed directly. Also see footnotes j-n, Appendix Table 1.

b) See footnote b, Appendix Table 2.

Appendix Table 8

Percentage Distribution of Families by Level of Gross Dental Expenditures[a] According to Family Income

Family income	Number of families[b]	Percentage reporting gross dental expenditures of these amounts					
		$0	$1-49	$50-99	$100-199	$200-499	$500 and over
All Families Total	2,941	42	34	10	8	5	1
Under $2,000	451	76	18	2	3	1	*
$2,000-3,499	473	50	36	7	5	2	*
$3,500-4,999	584	38	41	10	7	4	*
$5,000-7,499	799	31	39	13	10	6	1
$7,500 and over	634	24	33	17	12	12	2

a) Dental charges include charges by the dentist for his service and that of his auxiliary personnel, and for dental appliances. They include also expenditures to cover charges made to him by dental laboratories and dental manufacturers for work done at his instance.

b) See footnote b, Appendix Table 2.

*) One-half per cent or less.

Appendix Table 9

Percentage Distribution of Individuals by Level of Gross Total Expenditures for All Personal Health Services According to Age

Age	Number of individuals[a]	Percentage reporting gross total expenditures of these amounts					
		$0	$1-49	$50-99	$100-199	$200-299	$300 and over
All individuals Total[b]	9,546	13	48	15	11	5	8
0-5	1,298	15	60	13	7	2	3
6-17	2,120	16	57	15	7	2	3
18-34	1,991	14	44	16	11	6	9
35-54	2,354	12	45	16	12	5	10
55-64	855	10	43	17	13	7	10
65 and over	904	12	34	15	17	7	15

a) See footnote b, Appendix Table 2.

b) The total includes persons of indeterminate age.

Appendix Table 10

Percentage Distribution of Individuals, by Level of Gross "All Physicians'" Expenditures,[a] According to Age

Gross "All physicians'" expenditures	Percentage distribution, by age						
	All individuals[b]	0-5	6-17	18-34	35-54	55-64	65 and over
Number of individuals[c] ..	9,546	1,298	2,120	1,991	2,354	855	904
No gross expenditures	45%	40%	49%	42%	45%	45%	50%
$1-49	38	48	42	38	37	36	22
$50-99	8	8	5	8	8	9	12
$100-199	6	3	3	9	6	5	9
$200-299	2	1	1	2	2	2	4
$300 and over	1	*	*	1	2	3	3

a) Gross "All Physicians'" expenditures include charges for surgery, obstetrics, other physician-in-hospital, in-home, in-office and opthalmologist care. They include charges for care by the practitioner himself and for special tests and X-rays, treatments, drugs and medications when the physician himself bills the patient for them.
b) Includes 24 persons of indeterminate age.
c) See footnote b, Appendix Table 2.
*) Less than half of one per cent.

Appendix Table 11

Percentage Distribution of Individuals, by Level of Gross Hospital Expenditures,[a] According to Age

Gross hospital expenditures	Percentage distribution, by age						
	All individuals[b]	0-5	6-17	18-34	35-54	55-64	65 and over
Number of individuals[c]	9,546	1,298	2,120	1,991	2,354	855	904
No gross expenditures	88%	89%	91%	80%	89%	91%	86%
$1-49	4	4	5	5	4	2	3
$50-99	2	3	2	4	1	2	2
$100-199	3	3	2	7	2	1	2
$200-299	1	*	*	2	1	1	2
$300 and over	2	1	*	2	3	3	5

a) "Hospital" charges include charges incurred in connection with an in-patient admission, charges for services given in a hospital out-patient clinic or emergency room by a salaried physician in the employ of a hospital, and charges by a hospital laboratory or out-patient department for tests, X-rays, etc., when the services of a salaried staff physician were not used. Also see footnotes e, f, and g, Appendix Table 1.
b) Includes 24 persons of indeterminate age.
c) See foonote b, Appendix Table 2.
*) Less than half of one per cent.

Appendix Table 12

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Individuals by Level of Gross Expenditures for Prescribed Medicines According to Age and Reason for Seeing Physician

Level of gross expenditures for prescribed medicines[a]	All Individuals						
		Reason for seeing a physician[c]					
	Total[b]	Both chronic and acute conditions	Chronic condition(s) only	Acute condition(s) only	Pregnancy, injury, physical exam, no acute or chronic condition	Condition indeterminate	Did not see M.D.
$0	61%	15%	28%	35%	60%	54%	93%
$1-24	26	36	32	49	32	31	6
$25-49	6	16	14	11	5	7	1
$50-99	4	17	13	4	2	5	*
$100-199	2	11	8	1	1	2	*
$200 and over	1	5	5	*	*	1	*
Mean expenditure	$ 13	$ 52	$ 43	$ 12	$ 7	$ 14	$ 1
Unweighted number of individuals[d]	9,546	326	1,507	1,736	2,632	417	2,904
	Less than 18 years old						
$0	64%	17%	35%	36%	64%	52%	94%
$1-24	29	45	39	51	32	40	6
$25-49	4	13	13	9	3	5	*
$50-99	2	15	8	3	1	3	*
$100-199	1	6	4	1	—	—	*
$200 and over	*	4	1	*	—	—	—
Mean expenditure	$ 6	$ 42	$ 23	$ 11	$ 4	$ 6	$ 1
Unweighted number of individuals[d]	3,418	76	208	851	1,137	123	1,023

(Table 12, Continued)

Level of gross expenditures for prescribed medicines[a]	All Individuals						
		Reason for seeing a physician[c]					
	Total[b]	Both chronic and acute conditions	Chronic condition(s) only	Acute condition(s) only	Pregnancy, injury, physical exam, no acute or chronic condition	Condition indeterminate	Did not see M.D.
18-44 years							
$0	62%	11%	30%	38%	57%	57%	94%
$1-24	26	43	38	46	32	28	5
$25-49	7	16	15	11	7	8	1
$50-99	3	15	10	4	3	5	*
$100-199	1	10	5	1	1	2	—
$200 and over	1	5	2	*	*	—	—
Mean expenditure	$ 10	$ 51	$ 27	$ 12	$ 8	$ 12	$ 1
Unweighted number of individuals[d]	3,236	106	470	538	978	148	996
45-64 years							
$0	57%	13%	26%	29%	59%	53%	92%
$1-24	24	34	27	53	30	26	5
$25-49	7	13	15	11	7	7	2
$50-99	6	21	16	5	3	6	1
$100-199	4	13	10	1	1	4	*
$200 and over	2	6	6	1	—	4	*
Mean expenditure	$ 19	$ 55	$ 49	$ 15	$ 8	$ 26	$ 3
Unweighted number of individuals[d]	1,964	86	488	279	375	95	641

(Table 12, Continued)

Level of gross expenditures for prescribed medicines[a]	All Individuals						
		Reason for seeing a physician[c]					
	Total[b]	Both chronic and acute conditions	Chronic condition(s) only	Acute condition(s) only	Pregnancy, injury, physical exam, no acute or chronic condition	Condition indeterminate	Did not see M.D.
65 years and over							
$0	51%	23%	24%	31%	53%	49%	90%
$1-24	20	17	25	36	30	30	5
$25-49	9	22	13	24	4	11	1
$50-99	8	14	16	6	4	5	1
$100-199	8	18	12	2	8	5	2
$200 and over	4	6	10	1	1	—	1
Mean expenditure	$ 33	$ 58	$ 68	$ 19	$ 19	$ 16	$ 5
Unweighted number of individuals	904	58	341	68	142	51	244

a) See footnote a, Appendix Table 12.

b) Includes 24 individuals of indeterminate age who are excluded from other portions of table.

c) Detailed information concerning the conditions reported for individuals covered by the survey was not obtained so the classification of individuals here is crude. The distinction between chronic and acute conditions is based on impression since no data as to the usual duration of various types of condition were available. Conditions which are *usually* persistent such as heart disease, hypertension, arthritis, diabetes, hemorrhoids, and asthma were classified as chronic conditions regardless of the details in a particular case. Similarly, conditions such as pneumonia, influenza, and measles which tend to be short-term are considered to be acute.

d) See footnote b, Appendix Table 2.

*) Less than half of one per cent.

Appendix Table 13

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Prescribed Medicines According to Level of Gross "All Physician" Expenditures

Level of gross expenditures for prescribed medicines[a]	Total	Gross "All physician" expenditures[b]					
		None	$1-49	$50-99	$100-199	$200-299	$300 and over
$0	33%	85%	34%	17%	15%	8%	11%
$1-49	43	12	54	54	47	36	27
$50-99	12	1	7	20	20	23	23
$100-199	8	1	3	6	12	23	22
$200 and over	4	1	2	3	6	10	17
Mean expenditure	$ 40	$ 7	$ 22	$ 42	$ 56	$ 92	$114
Unweighted number of families[c]	2,941	395	886	438	510	302	410

a) Includes medicines purchased by the consumer directly from the pharmacy or elsewhere and excludes medicines received in a hospital and covered by the hospital bill or administered by the doctor or dentist and charged for on his bill.

b) "All physician" expenditures include charges for surgery, obstetrics, other physician-in-hospital, in-home, in-office, and ophthalmologist.

c) See footnote b, Appendix Table 2.

Appendix Table 14

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Prescribed Medicines According to Level of Gross Hospital Expenditures

Level of gross expenditures for prescribed medicines[a]	Total	Gross Hospital Expenditures[b]						
		None	$1-49	$50-99	$100-199	$200-299	$300-399	$400 and over
$0	33%	40%	23%	21%	16%	9%	16%	16%
$1-49	43	40	49	54	51	51	45	28
$50-99	12	10	17	16	18	18	19	23
$100-199	8	6	7	7	11	16	12	21
$200 and over	4	4	4	2	4	6	8	12
Mean expenditure	$ 40	$ 34	$ 40	$ 37	$ 50	$ 66	$ 62	$ 92
Unweighted number of families[c]	2,941	1,762	223	141	293	147	134	241

a) Includes medicines purchased by the consumer directly from the pharmacy or elsewhere and excludes medicines received in a hospital and covered by the hospital bill or administered by the doctor or dentist and charged for on his bill.

b) Hospital charge includes hospital in-patient charges, charges for service by a salaried physician in the employ of a hospital, and charges by a hospital laboratory or outpatient department for tests, treatments, etc. when the services of a salaried staff physician are not used.

c) See footnote b, Appendix Table 2.

Appendix Table 15

Mean Gross Expenditures for Prescribed Medicines and Percentage Distribution of Families by Level of Gross Expenditures for Prescribed Medicines According to Level of Total Gross Expenditures

Level of gross expenditures for prescribed medicines[a]	Total, all families	Total gross expenditures[b]									
	with some gross expenditures	$1-49	$50-99	$100-199	$200-299	$300-399	$400-499	$500-749	$750-999	$1,000-1,999	$2,000 and over
$0	31%	70%	41%	26%	20%	16%	15%	10%	9%	10%	11%
$ 1 - 49	44	30	57	57	50	44	33	38	28	19	16
$ 50 - 99	13	—	2	14	17	23	22	23	23	18	20
$100 - 199	8	—	—	3	11	11	19	18	21	29	16
$200 and over	4	—	—	—	2	6	11	11	19	24	37
Mean expenditure	$ 41	$ 3	$ 11	$ 23	$ 40	$ 55	$ 77	$ 81	$113	$146	$226
Unweighted number of families[c]	2,871	414	337	505	334	239	174	377	219	228	44[d]

a) Includes medicines purchased by the consumer directly from the pharmacy or elsewhere and excludes medicines received in a hospital and covered by the hospital bill or administered by the doctor or dentist and charged for on his bill.

b) Total gross expenditures include all charges incurred by the family unit for its own members for hospital, medical, and dental services and goods. They do not include costs of voluntary health insurance and exclude also the "costs" of free care. The "costs" of services received under a hospital service plan or comprehensive medical care plan are included, however.

c) See footnote b, Appendix Table 2.

d) Due to the small number of cases in this sub-group statistics based on it are subject to considerable sampling error.

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