# VITAL STATISTICS REPORT 

## Health Interview Survey-Provisional Data

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FROM THE

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## Personal Out-of-Pocket Medical Expenses, 1970


#### Abstract

The cost of medical care is one of the major concerns in the provision of medical services. In 1971 the Health Interview Survey undertook a special study to determine the out-of-pocket medical expenses of the United States population. The only other full scale study conducted by the Center was done in 1962 when data were collected on the total cost of hospital, doctor, dental, medicine, and other medical expenses. (See Vital and Health Statistics, Series 10, Nos. 22, 27 , and 41.) Since that time data have also been collected on the cost of prescribed and nonprescribed medicines (Series 10, No. 33) and the cost of individual physician visits (Series 10, No. 49). However, during the past 10 years an increasing proportion of medical expenses are being paid through insurance benefits, government programs, and other third party sources. As a result of this trend, it has become increasingly difficult to obtain data on the total cost of medical services through a household interview. Thus, the 1971 study was designed to measure that part of medical expenses best collected in a household survey, that is, the out-of-pocket expenses. In fact, the out-of-pocket cost of medical care is a better measure of direct financial impact on the individual than is the total cost of providing the services. To make the out-of-pocket expenses complete, data were also obtained on the family contribution to insurance premiums. For those who need data on total national health expenditures, not just out-of-pocket costs, estimates can be found in two issues of the Social Security Bulletin. ${ }^{1}$ These reports show aggregate


[^0]expenses and per capita costs by type of expenses and amount paid by the public and private sectors. However, these data are not available by demographic characteristics other than age.

Questionnaires were mailed to approximately 12,000 households (the last quarter of the 1970 Health Interview Survey sample) in early 1971 requesting information on out-of-pocket costs for hospital, doctor, dental, optical, prescribed medicine, and other medical services for each family member as well as the total amount of insurance premium paid directly by the family during 1970. The tables in this provisional report showing total individual out-of-pocket expenses include the insurance premiums equally allocated among all family members. Separate figures are shown for hospital, doctor, dental, optical, prescribed medicine, and other medical expenses (such as special nursing care, medical appliances, etc.). Later reports will contain more detailed analysis of these data as well as estimates of family expenses, including a separate category of family insurance premiums.

This report shows the proportion of the population by intervals of medical expenses as well as the proportion with no expenses. Data are also presented on the per capita expenses and the average expenses for persons with expenses. For example, the per capita out-of-pocket hospital expense during 1970 was $\$ 21$ but since 88.2 percent of the population reported no hospital expenses the average out-of-pocket cost for persons with hospital expenses (but not those hospitalized with no out-of-pocket costs) was $\$ 178$.

An estimated 87.6 percent of the population had out-of-pocket costs for medical services or health insurance during 1970 and the per capita expense was $\$ 18.3$, while the average medical cost for persons with
expenses was an estimated $\$ 209$ (table 1). Out-ofpocket medical costs in excess of $\$ 500$ were incurred by 7.5 percent of the population, although among persons 65 years and over 15.3 percent had medical costs over $\$ 500$. Average expenses ranged from $\$ 128$ for persons under 17 years of age to $\$ 320$ for persons 65 years and over.

The average out-of-pocket expenses for all medical services ranged from $\$ 188$ in the North Central Region to $\$ 253$ in the West Region (table 2). Over 20 percent of the persons in the West Region 65 years and over had expenses in excess of $\$ 500$ in 1970. However, persons in the West Region also had the highest proportion of persons with no expenses.

An estimated 12 percent of the population had no out-of-pocket medical costs, while about one-half had either no costs or costs of less than $\$ 100$. This latter figure ranged from 67 percent for the children under 17 years of age to 27 . percent for persons 65 years and over.

Table 3 shows out-of-pocket total medical expenses by color. The average cost for the white population is $\$ 212$ compared to $\$ 185$ for all others. However, only 10 percent of the white population report no out-of-pocket expenses while 28 percent of the other group have no out-of-pocket costs.

Table 4 shows information on total out-of-pocket expenses by family income and age. Both average and per capita expenses increase with advancing age in each income category. There is no clear pattern of relationship between family income and total average cost, except that the highest expenses are among persons with family incomes of $\$ 15,000$ or more. However, there is a pattern of the proportion with no expenses decreasing from 28 percent among persons in families with less than $\$ 3,000$ annual income to only 3 percent with no expenses among persons with family
incomes of $\$ 15,000$ or more. The low proportion of persons in higher income families who have no or only low expenses reflects to some extent the high level of health insurance coverage among this.group (over 90 percent for persons under 65 years of age).

Table 5 shows total out-of-pocket costs by family income and color. The major color differences are found among persons with family incomes of less than $\$ 5,000$, where the average out-of-pocket expense for whites is $\$ 238$ compared to $\$ 135$ for all others. However, in all income categories the proportion of whites with no expenses or only very low expenses was lower than that for all others.

Table 6 shows out-of-pocket medical costs by type of expense and age. The average out-of-pocket expense for persons with hospital experience during 1970 was $\$ 178$, ranging from $\$ 135$ for children under 17 years of age to $\$ 243$ for persons aged $45-64$ years.

An estimated 59 percent of the population had out-of-pocket doctor expenses with an average expense of $\$ 80$, and with the range from $\$ 52$ for children to $\$ 108$ for the elderly. For the 40 percent of the population with dental expenses, the average expense was $\$ 74$.

The average out-of-pocket cost of prescribed medicine was $\$ 52$, although the average cost for persons 65 years and over was $\$ 100$. The average expense among the less than one-quarter of the population with out-of-pocket optical expenses was \$47. This amount does not include examination or treatment by ophthalmologists (included under physician expenses). There were no differences by age in the amount of optical expenses. Only about 5 percent of the population had other types of direct medical expenses, including such items as medical appliances and special nursing care. However, their average expense was an estimated $\$ 100$.

Table 1. Percent distribution of persons by intervals of total annual out-of-pocket health expense (including insurance premiums), average expense for persons with expense, and per capita expense by sex and age: United States, 1970

| Sex and age | Total population in thousands | $\begin{aligned} & \text { No } \\ & \text { expense } \end{aligned}$ | Health expense |  |  |  |  |  | Average expense for persons with expense | Pex capita expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Less } \\ & \text { than } \\ & \$ 50 \end{aligned}$ | $\begin{aligned} & \$ 50- \\ & \$ 99 \end{aligned}$ | $\begin{aligned} & \$ 100- \\ & \$ 249 \end{aligned}$ | $\begin{aligned} & \$ 250- \\ & \$ 499 \end{aligned}$ | $\begin{aligned} & \$ 500- \\ & \$ 999 \end{aligned}$ | $\begin{gathered} \$ 1,000 \\ \text { or } \\ \text { more } \end{gathered}$ |  |  |
| Both sexes |  | Percent distribution |  |  |  |  |  |  |  |  |
| All ages | 200,856 | 12.4 | 18.1 | 19.2 | 28.7 | 14.1 | 5.6 | 2.0 | \$209 | \$183 |
| Under 17 years | 66,716 | 18.0 | 25.9 | 23.3 | 24.2 | 6.2 | 1.7 | 0.8 | \$128 | \$105 |
| 17-44 years--- | 73,526 | 11.1 | 18.0 | 19.4 | 31.1 | 13.5 | 5.2 | 1.6 | \$199 | \$177 |
| 45-64 years - | 41,477 | 8.1 | 10.3 | 14.6 | 30.2 | 23.0 | 10.1 | 3.6 | \$296 | \$272 |
| 65 years and over | 19,138 | 6.7 | 6.6 | 13.8 | 32.1 | 25.4 | 11.1 | 4.2 | \$320 | \$299 |
| Male |  |  |  |  |  |  |  |  |  |  |
| All ages ------------------------------------------- | 96,801 | 13.6 | 20.3 | 19.8 | 28.2 | 12.0 | 4.4 | 1.7 | \$190 | \$164 |
| Under 17 years | 33,955 | 18.0 | 26.3 | 22.3 | 24.4 | 6.2 | 1.8 | 1.0 | \$138 | \$114 |
| 17-44 years- | 35,000 | 12.8 | 22.4 | 20.2 | 29.2 | 11.0 | 3.3 | 1.0 | \$162 | \$141 |
| 45-64 years- | 19,715 | 10.1 | 11.4 | 16.6 | 31.0 | 19.3 | 8.7 | 2.9 | \$268 | \$241 |
| 65 years and over | 8,132 | 6.6 | 6.9 | 15.0 | 32.8 | 23.8 | 10.3 | 4.4 | \$311 | \$290 |
| Female |  |  |  |  |  |  |  |  |  |  |
| All ages ------------------------------------------- | 104,055 | 11.3 | 16.0 | 18.7 | 29.2 | 16.0 | 6.6 | 2.3 | \$227 | \$201 |
| Under 17 years. | 32,761 | 18.1 | 25.5 | 24.4 | 24.0 | 6.1 | 1.5 | * | \$117 | \$ 96 |
| 17-44 years - | 38,526 | 9.5 | 14.1 | 18.6 | 32.7 | 15.8 | 7.0 | 2.2 | \$232 | \$210 |
| 45-64 years- | 21,762 | 6.2 | 9.4 | 12.8 | 29.5 | 26.4 | 11.4 | 4.2 | \$320 | \$300 |
| 65 years and ove | 11,005 | 6.8 | 6.4 | 12.9 | 31.6 | 26.6 | 11.7 | 4.0 | \$327 | \$305 |

Table 2. Percent distribution of persons by intervals of total annual out-of-pocket health expense (including insurance premiums), average expense for persons with expense, and per capita expense by geographic region and age: United States, 1970


Table 3. Percent distribution of persons by intervals of total annual out-of-pocket health expense (including insurance premiums), average expense for persons with expense, and per capita expense by color and age: United States, 1970

| Color and age | Total population in thousands | $\begin{aligned} & \text { No } \\ & \text { expense } \end{aligned}$ | Health expense |  |  |  |  |  | Average expense for persons with expense | Percapitaexpense expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Less than \$50 | $\begin{aligned} & \$ 50- \\ & \$ 99 \end{aligned}$ | $\begin{aligned} & \$ 100- \\ & \$ 249 \end{aligned}$ | $\begin{aligned} & \$ 250- \\ & \$ 499 \end{aligned}$ | $\begin{aligned} & \$ 500- \\ & \$ 999 \end{aligned}$ | $\begin{aligned} & \$ 1,000 \\ & \text { or } \\ & \text { more } \end{aligned}$ |  |  |
| Total |  | Percent distribution |  |  |  |  |  |  |  |  |
| All ages | 200,856 | 12.4 | 18.1 | 19.2 | 28.7 | 14.1 | 5.6 | 2.0 | \$209 | \$183 |
| Under 17 years | 66,716 | 18.0 | 25.9 | 23.3 | 24.2 | 6.2 | 1.7 | 0.8 | \$128 | \$105 |
| 17-44 years. | 73,526 | 11.1 | 18.0 | 19.4 | 31.1 | 13.5 | 5.2 | 1.6 | \$199 | \$177 |
| 45-64 years - | 41,477 | 8.1 | 10.3 | 14.6 | 30.2 | 23.0 | 10.1 | 3.6 | \$296 | \$272 |
| 65 years and over | 19,138 | 6.7 | 6.6 | 13.8 | 32.1 | 25.4 | 11.1 | 4.2 | \$320 | \$299 |
| All ages | 175,899 | 10.3 | 17.5 | 19.7 | 30.1 | 14.7 | 5.8 | 2.0 | \$212 | \$190 |
| Under 17 years | 56.263 | 14.2 | 25.7 | 24.5 | 26.5 | 6.7 | 1.7 | 0.6 | \$126 | \$108 |
| 17-44 years | 64,562 | 9.7 | 17.6 | 19.9 | 31.9 | 13.8 | 5.4 | 1.6 | \$201 | \$181 |
| 45-64 years - | 37,491 | 7.3 | 9.7 | 14.5 | 31.1 | 23.5 | 10.3 | 3.7 | \$300 | \$279 |
| 65 years and over | 17,583 | 5.8 | 5.9 | 13.7 | 32.5 | 26.3 | 11.4 | 4.3 | \$327 | \$308 |
| All other |  |  |  |  |  |  |  |  |  |  |
| All ages | 24,958 | 28.1 | 22.6 | 15.9 | 18.5 | 9.4 | 3.7 | 1.8 | \$185 | \$133 |
| Under 17 years | 10,453 | 39.5 | 26.9 | 16.4 | 11.0 | 3.3 | * | * | \$146 | \$ 89 |
| 17-44 years | 8,964 | 21.3 | 21.2 | 15.3 | 24.6 | 11.7 | 4.0 | * | \$189 | \$148 |
| 45-64 years - | 3,986 | 15.8 | 16.5 | 16.2 | 22.0 | 18.8 | 7.8 | * | \$244 | \$205 |
| 65 years and over | 1,555 | 19.5 |  |  | 27.0 | * | * | * | \$219 | \$176 |

Table 4. Percent distribution of persons by intervals of total annual out-of-pocket health expense (including insurance premiums), average expense for persons with expense, and per capita expense by family income and age: United States, 1970


[^1]Table 5. Percent distribution of persons by intervals of total annual out-of-pocket health expense (including insurance premiums), average expense for persons with expense, and per capita expense by family income, color, and age: United States, ig70

${ }^{1}$ Includes persons with unknown income.

Table 5. Percent distribution of persons by intervals of total annual out-of-pocket health expense (including insurance premiums)


Table 6. Percent distribution of persons by intervals of annual out-of-pocket health expense, average expense for persons with expense, and per capita expense by type of expense and age: United States, 1970


## TechnicalNotes

SOURCE OF DATA. This report contains estimates of personal out-of-pocket health expenditures for the civilian, noninstitutional population of the United States for 1970.

During the early months of 1971 questionnaires were mailed to the 12,000 sample households included in the fourth quarter of the 1970 Health Interview Survey. Approximately 7,000 questionnaires were returned after several mail followups. Personal interviews were conducted at a subsample of one-quarter of the households that failed to respond to the mail questionnaires. This procedure resulted in an effective response rate of 94 percent.

Information on medical care expenses during 1970 was requested for each member of the sample population including data on hospital bills, doctor's bills, dental bills, payments for prescription medicine, health insurance premiums, payments for eyeglasses, contact lenses or optometrist's fees, and payments for other medical expenses.

The out-of-pocket expense included only the amount spent by individuals living alone or by family members for the above listed items. Excluded were any payments made by health insurance, or by some other person or agency. It was suggested that the respondent review available records for the best estimate of expenses for each person. Medical care costs relating to delivery during the year 1970 were reported for the mother. Other medical expenses relating to the infant were reported for the infant.

Since the estimates shown are based on a sample of the population rather than on the entire population, they are subject to sampling error. The standard errors appropriate for the estimates of the percent of persons with expenses or categories of expenses are shown in table I. Table II shows the standard errors. appropriate for the estimates of average and per capita expenses.

## DEFINITIONS

Out-of-pocket expense.-The amount paid directly by the individual or family member exclusive of any part paid by insurance, other person, or agency. The following definitions pertain only to out-of-pocket expenses.

Dental bills.-The amount spent for cleaning, filling, straightening, bridgework, dental laboratory fees, other services from a dentist or hygienist.

Doctor bills.-The amount spent for routine doctor visits, treatments, checkups, doctor fees while a patient in a hospital, operations, deliveries, preg-

Table I. STANDARD ERRORS, EXPRESSED IN PERCENTAGE POINTS, OF ESTTMATED PERCENTAGES FOR NARROW-RANGE STATISTICS

| Base of percentage in thousands | Estimated percentage |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} 2 \\ \text { or } \\ 98 \end{array}$ | $\begin{array}{r} 5 \\ \text { or } \\ 95 \end{array}$ | 10 or 90 | 25 or 75 | 50 |
| 500. | 2.6 | 4.1 | 5.7 | 8.1 | 9.5 |
| 1,000 | 1.9 | 2.9 | 4.1 | 6.0 | 6.7 |
| 2,000 | 1.3 | 2.0 | 2.8 | 4.2 | 4.8 |
| 5,000 | 0.8 | 1.3 | 1.8 | 2.6 | 3.1 |
| 10,000 | 0.7 | 0.9 | 1.3 | 1.8 | 2.0 |
| 20,000 | 0.4 | 0.7 | 0.9 | 1.3 | 1.4 |
| 30,000 | 0.3 | 0.5 | 0.7 | 1.0 | 1.1 |
| 50,000 | 0.3 | 0.4 | 0.6 | 0.8 | 0.9 |
| 100,000 | 0.2 | 0.3 | 0.4 | 0.6 | 0.7 |

nancy care, laboratory fees, shots, and other services by a medical doctor.

Hospital bills.-The amount spent tor room and board, operating and delivery rooms, anesthesia, tests, X-rays, special treatments, and any other hospital service.

Payments for prescription medicine.-Amounts spent for only those medicines prescribed by a doctor or dentist.

Payments for eyeglasses, contact lenses, or optometrist's fees.-Amounts spent for these items.

Payments for "other" medical bills.-Amounts spent for chiropractor's or podiatrist's fees, hearing aid, special brace, truss, wheelchair, artificial limbs; physical or speech therapy, special nursing care, and nursing home or convalescent home care.

|  | RELATIVE |  | STANDARD |  | ERROR | FOR SELECTED |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AMOUNTS OF PER CAPITA AVERAGE HEALTH EXPENSE PER YEAR |  |  |  |  |  |  |  |  |
| Size of population | Per capita health expense per year in dollars |  |  |  |  |  |  |  |
| thousands | 25 | 50 | 75 | 100 | 150 | 200 | 250 | 300 |
|  | Percent |  |  |  |  |  |  |  |
| 100- | 43 | 43 | 43 | 43 | 42 | 42 | 42 | 42 |
| 500---------- | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 1,000-----...- | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 2,500------.- | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 9 |
| 5,000-----.-- | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 |
| 10,000--...-- | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 25,000--..---- | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 50,000-----.- | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 100,000------ | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

## SYMBOLS USED IN TABLES





Figure does not meet standards of reliability or precision-- *
OFFICIAL BUSINESS
Penalty for Private Use
$\mathbf{~} 300$
U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Public Health Service
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION
5600 Fishers Lane
Rockville, Maryland 20852


[^0]:    ${ }^{1}$ Rice, Dorothy P. and Barbara S. Cooper, "National Health Expenditures, 1929-71," Social Security Bulletin, January 1972. Cooper, Barbara S. and Nancy L. Worthington, "Medical Care Spending for Three Age Groups," Social Security Bulletin, May 1972.

[^1]:    ${ }^{1}$ Includes persons with unknown incomes.

