# National health expenditures, 1991

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*Spending for health care rose to $751.8 billion in 1991, an increase of 11.4 percent from the 1990 level. National health expenditures as a share of gross domestic product increased to 13.2 percent, up from 12.2 percent in 1990. The health care sector exhibited strong growth, despite slow growth in the overall economy. This combination resulted in the largest increase in the share of the Nation's output consumed by health care in the past three decades.*

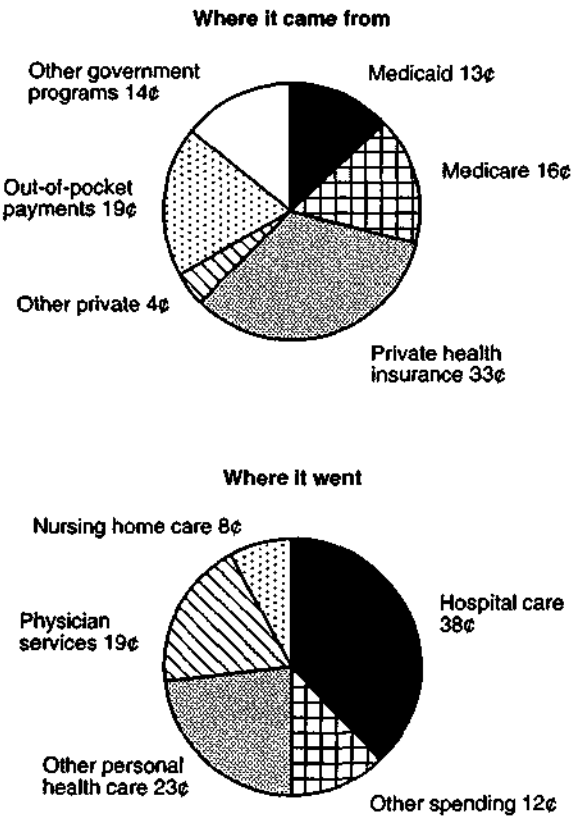
*In this article, the authors present estimates of health spending in the United States for 1991. The authors also examine reasons for the unusually large growth in Medicaid expenditures and highlight recent trends in the hospital sector.*

## Highlights

The Nation spent $751.8 billion, or $2,868 per person, for health care in 1991. Total health care expenditures exceeded the aggregate amount spent in 1990 by 11.4 percent, continuing to increase at a rapid rate, despite the slowdown in the general economy. Highlights from the 1991 update to the national health accounts (NHA) include:

- Americans spent 13.2 percent of the Nation's gross domestic product (GDP)[1] on health care, up from 12.2 percent 1 year earlier. Slow growth in GDP was largely responsible for the 1.0-percentage-point increase in the share of the Nation's resources going for health care.
- Almost 88 percent of all health care expenditures go for the purchase of medical care services or products (Figure 1). In 1991, these purchases of personal health care (PHC) amounted to $660.2 billion, 11.6 percent higher than in 1990.
- Expenditures for hospital services of $288.6 billion in 1991 are the largest single component of PHC expenditures, 43.7 percent. Consumers funded only 3.4 percent of these purchases from out-of-pocket sources, down from 4.0 percent in 1990.
- The Health Care Financing Administration's (HCFA) Medicare and Medicaid programs paid for 33.8 percent of all PHC benefits in 1991, up from 30.5 percent in 1990. Most of the increase came from Medicaid.
- In 1991, Federal and State and local expenditures for Medicaid benefits amounted to $96.5 billion, an increase of 34.4 percent from the 1990 level. Recent expansions in recipient eligibility, expanded outreach efforts by States to establish eligibility for qualified poor persons, and the recession caused increases in the number of persons with coverage under Medicaid.
- Of all benefits paid by Medicaid, hospital expenditures grew the most, up 49.9 percent from the 1990 level. Creative financing by State governments, using provider tax and donation (T & D) programs, and payments to hospitals serving a disproportionate share of Medicaid recipients and other poor persons contributed to these large increases in Medicaid spending for hospital services.

**Figure 1**
**The Nation's health dollar: 1991**




NOTES: Other private includes industrial inplant health services, non-patient revenues, and privately financed construction. Other personal health care includes dental, other professional services, home health care, drugs and other non-durable medical products, vision products and other durable medical products, and other miscellaneous health care services. Other spending covers program administration and the net cost of private health insurance, government public health, and research and construction.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

[1]See section on revisions for an explanation of the change from gross national product (GNP) to GDP.

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- Medicare spent $120.2 billion on health care benefits in 1991, an increase of 10.9 percent from the 1990 levels. Medicare funded 18.2 percent of all personal health care services in 1991.

In 1990 and 1991, the health care share of GDP grew 0.7 and 1.0 percentage points, respectively. On average, the share of GDP going for health care increased 0.2 percentage points each year between 1960 and 1989. The rapid growth experienced over the past 2 years signals the dramatic change in pressure health care costs are exerting on the Nation's resources, which have been growing at an abnormally slow rate for the past 2 years.

Changes in State financing over the past few years illustrate the reactions of health care financers who are being confronted with continually rising costs and limited resources. Faced with slower growth in tax revenue and increases in Medicaid responsibilities through rising prices, Federal mandates, and the recession, States have resorted to alternative financing methods to extend the purchasing power of their limited resources.

In this article, we present an overview of health spending in the United States for 1991. We also discuss the reasons for the explosive growth in Medicaid expenditures and explore various issues and trends in hospital expenditures. We conclude with detailed Tables 13-22 of health expenditures by type of service and source of funds. Data figures from the detailed tables are highlighted throughout this article.

Previously published articles explain the importance of the NHA for the formulation of public policy and for international comparisons. These articles also provide specific information on definitions, data sources, and methods used to create the system of NHA for the United States (Lazenby et al., 1992; Office of National Cost Estimates, 1990).

## National health expenditures

The NHA are a means for systematically describing the expenditures of health services and products purchased in the United States and the sources of payment for them. The NHA provide a comprehensive picture of health care spending and financing, consistently defined over time. They are coherent, in that the two-dimensional (source of funds and type of service) matrix design of NHA provides internal cross-checks of aggregate expenditure estimates with their sources of funding.

In 1991, national health expenditures (NHE) amounted to $751.8 billion, an increase of 11.4 percent since 1990. This is the fourth consecutive year in which nominal growth exceeded 10 percent. In 1991, GDP increased only 2.8 percent while health expenditures increased 11.4 percent, causing the share of GDP going for health care spending to jump from 12.2 percent in 1990 to 13.2 percent in 1991 (Figure 2).

The NHE contain two major components: health services and supplies (HSS) (those services and products that are currently consumed) and research and construction (those services and products the benefits from which accrue now and in the future). Expenditures for HSS amounted to $728.6 billion in 1991. Research and construction expenditures, representing investment in future health care resources, amounted to $23.1 billion, increasing only 2.1 percent from the 1990 level. This slow growth is attributable to absolute declines in expenditures for construction of health facilities; these expenditures were 2.2 percent lower in 1991 than in 1990. HSS is further disaggregated into personal health care, administration of public programs and the net cost of health insurance, and government public health activities.

### Personal health care expenditures

PHC expenditures grew to $660.2 billion in 1991, 11.6 percent higher than the 1990 level. Each American spent, on average, $2,518 for PHC services and products. PHC expenditures include all services and products purchased that are associated with individual health care, such as hospital services, physician services, drugs, and nursing home care.

Private funds paid for 57.1 percent of all PHC expenditures, mostly through out-of-pocket expenditures of individuals (21.9 percent) and private health insurance (31.7 percent). A small amount of PHC expenditures (3.6 percent) was funded through private non-patient sources, such as philanthropy and hospital revenues from cafeteria sales and educational programs.

Public funds picked up 42.9 percent of PHC expenditures in 1991, with most of those funds (76.5 percent) coming from the Medicare and Medicaid programs. Public funding grew 16.9 percent in 1991, significantly faster than overall PHC spending. The unusually fast growth was caused by Medicaid expenditures, which increased 34.4 percent in 1991.

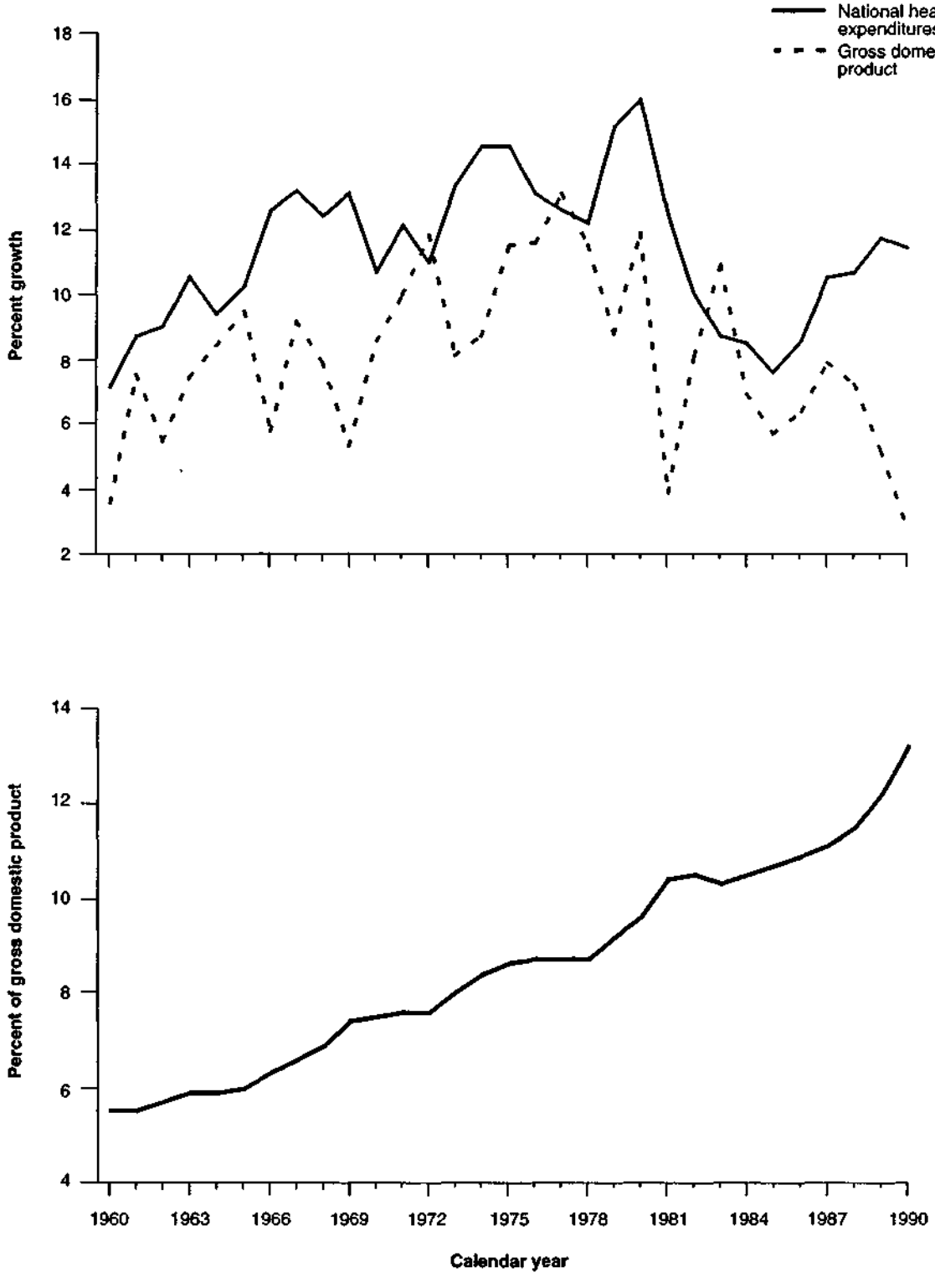
Spending for hospital care totalled $288.6 billion in 1991, accounting for 43.7 percent of PHC expenditures (Table 1). Hospital care includes expenditures for both inpatient and outpatient care. Spending for drugs and other services and supplies associated with hospital care, including services of hospital-salaried physicians, is also included in the hospital care category. Hospital output is valued as revenues received by the facility, discussed in more detail later in this article.

In 1991, hospital revenues grew 11.8 percent from the 1990 level, marking the fifth year of accelerated growth. Growth rates this high have not been experienced since 1982, just prior to the implementation of the Medicare prospective payment system (PPS). Unusually large growth in Medicaid payments to hospitals (a 49.9-percent increase in 1991) contributed to this rapid growth. The causes for the tremendous growth in Medicaid payments are addressed in a later section of this article.

Short-term, acute care community hospitals delivered 86 percent of all hospital care in 1991, a share that has remained relatively stable over the past decade. Although the majority of community hospital revenues come from inpatient services, this share has been falling over the past 8 years, as more care is being delivered on an outpatient basis. The remaining 14 percent of

**Figure 2**

**Percent growth in national health expenditures and gross domestic product and national health expenditures as a percent of gross domestic product: Calendar years 1960–91**




SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 1

### Hospital revenues, percent distribution, and annual percent growth: 1981-91

| Type of hospital | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Amount in millions | | | | | |
| Total | $119,563 | $135,866 | $147,161 | $157,486 | $168,264 | $179,789 | $194,237 | $212,030 | $232,377 | $258,073 | $288,627 |
| Non-Federal | 109,967 | 125,383 | 136,102 | 145,212 | 154,953 | 165,764 | 179,354 | 196,696 | 215,844 | 239,958 | 268,903 |
| Community | 100,929 | 115,532 | 125,903 | 134,362 | 143,293 | 153,189 | 165,685 | 181,733 | 199,344 | 222,587 | 249,447 |
| Inpatient | 87,477 | 99,916 | 108,247 | 114,082 | 119,104 | 125,133 | 133,335 | 143,613 | 155,236 | 169,972 | 186,485 |
| Outpatient | 13,452 | 15,616 | 17,656 | 20,280 | 24,189 | 28,056 | 32,350 | 38,120 | 44,108 | 52,615 | 62,962 |
| Non-community | 9,038 | 9,851 | 10,199 | 10,850 | 11,660 | 12,575 | 13,669 | 14,963 | 16,500 | 17,371 | 19,456 |
| Federal | 9,596 | 10,483 | 11,059 | 12,274 | 13,311 | 14,025 | 14,883 | 15,334 | 16,533 | 18,115 | 19,725 |
| | | | | | | Percent distribution | | | | | |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Non-Federal | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 93 | 93 | 93 | 93 |
| Community | 84 | 85 | 86 | 85 | 85 | 85 | 85 | 86 | 86 | 86 | 86 |
| Inpatient | 73 | 74 | 74 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 |
| Outpatient | 11 | 11 | 12 | 13 | 14 | 16 | 17 | 18 | 19 | 20 | 22 |
| Non-community | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Federal | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 |
| | | | | | | Annual percent growth | | | | | |
| Total | 16.8 | 13.6 | 8.3 | 7.0 | 6.8 | 6.8 | 8.0 | 9.2 | 9.6 | 11.1 | 11.8 |
| Non-Federal | 17.4 | 14.0 | 8.5 | 6.7 | 6.7 | 7.0 | 8.2 | 9.7 | 9.7 | 11.2 | 12.1 |
| Community | 17.9 | 14.5 | 9.0 | 6.7 | 6.6 | 6.9 | 8.2 | 9.7 | 9.7 | 11.7 | 12.1 |
| Inpatient | 17.6 | 14.2 | 8.3 | 5.4 | 4.4 | 5.1 | 6.6 | 7.7 | 8.1 | 9.5 | 9.7 |
| Outpatient | 20.1 | 16.1 | 13.1 | 14.9 | 19.3 | 16.0 | 15.3 | 17.8 | 15.7 | 19.3 | 19.7 |
| Non-community | 11.5 | 9.0 | 3.5 | 6.4 | 7.5 | 7.8 | 8.7 | 9.5 | 10.3 | 5.3 | 12.0 |
| Federal | 10.4 | 9.2 | 5.5 | 11.0 | 8.5 | 5.4 | 6.1 | 3.0 | 7.8 | 9.6 | 8.9 |

NOTE: Non-community non-Federal hospitals include long-term care hospitals (where the average length of stay is 30 days or longer), psychiatric hospitals, alcohol and chemical dependency hospitals, units of institutions such as prison hospitals or college infirmaries, chronic disease hospitals, and some institutions for the mentally retarded.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

hospital revenues is split almost evenly between non-Federal non-community hospitals ($19.5 billion) and Federal hospitals ($19.7 billion).

Nearly all hospital care is financed by third parties, with only 3.4 percent paid for by consumers directly out of pocket. Private health insurance financed 35.2 percent, more than any other single payer. Public funding, primarily the Medicare and Medicaid programs, financed 56.3 percent. The remaining 5.1 percent of hospital revenues came from philanthropic and non-patient sources, such as hospital gift shops, cafeterias, or parking facilities.

In 1991, expenditures for physician services reached $142.0 billion, a growth of 10.2 percent from the previous year. These expenditures included care provided in offices and clinics of physicians, independent medical laboratory costs, and salaries for physicians employed by staff-model health maintenance organizations (HMOs). Excluded from these expenditures are professional fees received by physicians from hospitals, because these fees are paid from hospital revenues and counted under the hospital sector in the NHA.

Physician services accounted for 21.5 percent of PHC expenditures and are funded primarily by private sources. Out-of-pocket payments accounted for $25.7 billion and private health insurance for $66.8 billion, a total of 65.1 percent of physician services expenditures. Public funds, paying for the remaining 34.8 percent of physician services, consisted primarily of payments from Medicare and Medicaid, and amounted to $39.7 billion in 1991.

Dental service expenditures grew 8.8 percent from 1990 to 1991, from $34.1 billion to $37.1 billion. The NHA definition of dental services includes the business receipts of private dental offices (including dental laboratory costs) and salaries of dentists in staff-model HMOs.

Spending for dental services is generally more sensitive to changes in the overall economic environment than are other health sectors. This sensitivity can be seen in the slower growth in dental expenditures during 1989 and 1990, when the economy was slowing down. However, in 1991, when the economy lapsed into a recession, a rise in dental prices (as measured by the consumer price index) caused dental expenditures to rise at a faster rate than before. One explanation for the rising prices may be the concern with acquired immunodeficiency syndrome and the cost of purchasing supplies to ensure that patients and dental office personnel are protected from the spread of this disease. These increased costs are reflected in higher dental fees.

Private funds paid for the majority of dental services, 97.1 percent in 1991, with out-of-pocket expenditures accounting for 53.7 percent and private health insurance for 43.4 percent.

Other professional services include expenditures for licensed health practitioners, such as chiropractors, podiatrists, and psychologists, services rendered in freestanding outpatient clinics, and ambulance services covered by Medicare. A total of $35.8 billion was spent for all of these services in 1991, an increase of 16.7 percent from 1990. Private funds financed

76.6 percent: 27.0 percent was paid by out-of-pocket expenditures, 37.2 percent was paid by private health insurance, and 12.4 percent was paid by non-patient revenues (primarily philanthropic funds). Public sources paid 23.4 percent of expenditures for other professional services.

Home health care includes spending for services and supplies furnished by non-facility-based home health agencies (HHAs). Home health care is the smallest but fastest growing component of PHC spending. In 1991, expenditures for home health care reached $9.8 billion, 29.0 percent higher than spending in 1990. Home health care furnished by facility-based HHAs is included with hospital care in this article. Including the hospital share of home health ($2.3 billion), $12.0 billion was spent for home health care in 1991.

Almost three-fourths of the expenditures for non-facility-based home health care was financed from public sources, predominately through Medicare and Medicaid. In 1991, Medicare funded 44.7 percent and Medicaid 27.1 percent. Out-of-pocket payments accounted for 12.7 percent, and the residual funding was from private health insurance (7.6 percent) and non-patient revenue (7.5 percent) sources.

Recently available data from the 1987 National Medical Expenditure Survey (NMES) provide an indication of spending for a much broader definition of home health care than that included in the NHA. According to a forthcoming report (Altman and Walden, to be published), 5.9 million non-institutionalized people received care furnished in the home in 1987, spending $11.6 billion, compared with NHA expenditures for facility- and non-facility-based home health are of $5.0 billion. NMES includes visits to the non-institutionalized population furnished by physicians, nurses, therapists, or other medical persons under the auspices of an HHA. In addition to care provided by medical professionals, the NMES data include services provided by paid homemakers associated with or independent of an HHA. Most homemaker services are currently beyond the scope of medical care in the NHA.

Retail purchases of drugs and other medical non-durables reached $60.7 billion in 1991, an increase of 9.0 percent from the previous year. Prescription drugs accounted for 60.0 percent of these purchases, amounting to $36.4 billion. The remaining $24.3 billion is mainly over-the-counter (OTC) drug purchases but also includes purchases of other drug sundries, such as contraceptive and first-aid products (Table 2).

For the past several years, expenditures for prescription drugs have been growing more rapidly than expenditures for non-prescription drugs and other medical non-durables. Since 1985, the prescription drug share of the total category has grown from 55.9 percent to 60.0 percent in 1991.

Typically, third parties pay for prescription drugs but not for most OTC medicines and sundries. For that reason, all third-party payments are assumed to be for prescription drugs. Therefore, the entire $24.3 billion

**Table 2**

**Expenditures for drugs and other medical non-durables,[1] by source of funds: Selected years, 1960-91**

| | 1960 | 1970 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Amount in billions | | | | | |
| Drugs and other non-durable medical products | $4.2 | $8.8 | $21.6 | $36.2 | $39.7 | $43.2 | $46.3 | $50.5 | $55.6 | $60.7 |
| Prescription drugs | 2.7 | 5.5 | 12.0 | 20.2 | 22.6 | 24.8 | 26.8 | 29.4 | 32.7 | 36.4 |
| Out-of-pocket payments | 2.6 | 4.7 | 7.9 | 12.0 | 13.5 | 14.8 | 15.8 | 17.5 | 18.8 | 20.0 |
| Third-party payers | 0.1 | 0.8 | 4.2 | 8.2 | 9.1 | 10.0 | 11.0 | 12.0 | 13.9 | 16.3 |
| Private health insurance | 0.0 | 0.3 | 2.5 | 5.2 | 5.5 | 6.0 | 6.5 | 6.9 | 7.9 | 9.0 |
| Medicaid | — | 0.4 | 1.4 | 2.5 | 2.9 | 3.3 | 3.6 | 4.1 | 4.9 | 6.2 |
| General assistance | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 |
| Other government | 0.1 | 0.0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 |
| Non-prescription drugs and other medical non-durables[2] | 1.6 | 3.3 | 9.6 | 16.0 | 17.2 | 18.4 | 19.5 | 21.0 | 22.9 | 24.3 |
| Out-of-pocket payments | 1.6 | 3.3 | 9.6 | 16.0 | 17.2 | 18.4 | 19.5 | 21.0 | 22.9 | 24.3 |
| | | | | | Distribution by source of funds within each category | | | | | |
| Prescription drugs | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Out-of pocket payments | 96 | 85 | 65 | 60 | 60 | 60 | 59 | 59 | 57 | 55 |
| Third-party payers | 4 | 15 | 35 | 40 | 40 | 40 | 41 | 41 | 43 | 45 |
| Private health insurance | 1 | 6 | 21 | 26 | 24 | 24 | 24 | 23 | 24 | 25 |
| Medicaid | — | 8 | 12 | 12 | 13 | 13 | 14 | 14 | 15 | 17 |
| General assistance | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Other government | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Non-prescription drugs and other medical non-durables[2] | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Out-of-pocket payments | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

[1]This class of expenditure is limited to spending for products purchased in retail outlets. The value of drugs and other products provided by hospitals, nursing homes, or other health professionals is implicit in estimates of spending for these providers' services.
[2]Assumes no third-party payments for non-prescription drugs and other medical non-durables.

NOTES: Numbers and percents may not add to totals because of rounding. 0.0 denotes amounts less than $50 million.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

spent on non-prescription items is attributed to out-of-pocket payments. An additional $20.0 billion in out-of-pocket payments went for prescription drug purchases. Third parties paid for 44.9 percent of prescription drugs, or $16.3 billion, a share that has been increasing over the past 30 years. Third-party payments were dominated by private health insurance and Medicaid, with other government programs financing only a small portion.

In 1991, expenditures for vision products and other medical durables amounted to $12.4 billion, a growth of 5.4 percent over 1990. This category includes purchases of eyeglasses and contact lenses, and the purchase or rental of other durable medical products such as wheelchairs, crutches, hearing aids, and artificial limbs. Third parties paid for less than one-half of these purchases. Private insurance paid for only 9.6 percent; government payments, mostly Medicare, accounted for 28.5 percent. The remaining 61.9 percent of purchases were funded by out-of-pocket payments.

Expenditures for nursing home care reached $59.9 billion in 1991, 12.4 percent higher than in 1990. The growth of these expenditures in 1991 would have been slower without the influence of the rapidly growing Medicaid expenditures. The reasons for Medicaid's accelerated spending are discussed later in this article. Public funding for nursing home care, mainly from Medicaid, accounted for $32.3 billion in 1991. Medicaid's share of total spending increased from 45.1 percent in 1990 to 47.4 percent in 1991, the highest this share has been since 1981. From 1990 to 1991, the out-of-pocket share declined from 45.3 percent to 43.1 percent, amounting to $25.8 billion in 1991.

Expenditures for nursing home care include three components: revenues of non-Federal facilities primarily providing some level of inpatient nursing care; Medicaid funding of intermediate care facilities for the mentally retarded; and funding for care in U.S. Department of Veterans Affairs nursing homes.

The remaining category, other PHC, includes a variety of services that cannot easily be classified into any of the preceding PHC service or product categories. A majority of these services, 82.7 percent in 1991, were financed through public programs. Included in this category are school health services ($1.3 billion in 1991) provided to students through local elementary and secondary schools, shipboard and field station medical services of the military, and miscellaneous services including home and community services under Medicaid. The remainder of other PHC expenditures came from private business through industrial inplant health care expenditures. In 1991, business paid $2.4 billion to provide health care services for its workers at or near the work site. Including both private and public spending, a total of $14.0 billion was spent on other PHC services in 1991.

## Administration and net cost of insurance

Third-party payers incur administrative costs in paying providers for health care. These expenditures exclude any costs incurred by providers in meeting billing requirements of payers or in meeting standards for public program participation. For example, the cost incurred in a physician's office in tracking patient charges and in billing third-party payers is included under physician services, rather than administration or net cost of insurance.

The administration of public programs that finance PHC services and products amounted to $8.1 billion in 1991, 9.8 percent higher than the 1990 level. In 1991, public administration accounted for 4.0 percent of Medicaid, and 2.1 percent of Medicare total program costs.

A small amount of private administration costs are recorded for the administrative activities of philanthropic health organizations. These funds are estimated at $0.6 billion in 1991.

The net cost of private health insurance amounted to $35.1 billion in 1991, up 13.4 percent since 1990. Net costs are benefits incurred subtracted from premiums earned, after adjustment for rate dividends or credits. These expenditures of private insurers include the administrative costs associated with processing and paying insurance claims, marketing and advertising costs, commissions paid to salespersons, State premium taxes, expenses associated with meeting licensing and reserve requirements, and profits or dividends paid to owners or stockholders. In 1991, the net cost of private health insurance accounted for 14.4 percent of all private health insurance expenditures.

## Government public health activities

Various levels of government spent $24.5 billion in public health activities in 1991. Almost nine-tenths of these expenditures, amounting to $21.8 billion, came through State and local health departments. Most of the Federal expenditures are concentrated in the U.S. Public Health Service's Centers for Disease Control and the monitoring activities of the Food and Drug Administration.

## Research and construction

The Nation spent $12.6 billion on non-commercial research activities in 1991, 6.1 percent more than in 1990. Only a small proportion of non-commercial research is financed through private philanthropic sources, 7.2 percent in 1991. The remainder came from Federal funds (80.8 percent), mostly through the National Institutes of Health, and from State and local governments (12.0 percent). These figures exclude spending by drug companies in the United States on research and development, estimated by the Pharmaceutical Manufacturers Association as $7.3 billion in 1991 (Pharmaceutical Manufacturers Association, 1991).

Expenditures for the construction of medical facilities declined from 1990 to 1991, from $10.8 billion to $10.6 billion. Private business expenditures, which declined 2.8 percent in 1991, financed 72.7 percent of all construction. The remaining funds came from

philanthropy (4.9 percent of construction expenditures), Federal Government (6.8 percent), and State and local governments (15.6 percent).

## Sources of funds

Medical care in the United States is funded through a variety of private payers and public programs. Since 1979, private funds—including private health insurance, out-of-pocket expenditures, and non-patient revenues such as philanthropy—paid for approximately 58 percent of all health care expenditures. In 1991, that share dropped to 56.1 percent. The change in funding share between public and private financing was primarily the result of dramatic growth in Medicaid expenditures that began in 1990 and accelerated in 1991. The causes of this acceleration are discussed later in this article.

### Out-of-pocket expenditures

In 1991, Americans spent $144.3 billion out of pocket for PHC services, increasing a modest 5.7 percent from 1990. Out-of-pocket purchases amounted to 21.9 percent of all PHC expenditures—the smallest share ever. Almost every service category in PHC experienced declines in share of out-of-pocket spending over the past three decades. These declines were fairly small in the beginning of the 1980s but have become more exaggerated in the past 4 years.

Direct out-of-pocket payments consist of copayment and deductible amounts required by many third-party payers and direct payments for services and medical products not covered by third parties. These payments are limited to those out-of-pocket expenditures that result from specific decisions to purchase health care services or products. They exclude periodic consumer out-of-pocket private and/or public insurance premium payments made, regardless of health care purchases.

### Third-party financing

Unlike most other markets, the health care market is dominated by funding from third-party sources. For the elderly, the primary third-party payer is Medicare; for the non-elderly population, the primary third-party source of health care financing is private health insurance; other public programs, such as Medicaid, provide primary third-party funding of health care for the poor. The prevalence of third-party payers diminishes the role price plays in determining the quantity of medical services and products demanded and/or supplied. Without the equilibrating effects of price in the marketplace, quantity (including intensity) of medical care grows faster than it would otherwise. Consumers are less likely to limit the quantity of medical purchases based on price because the total price is not paid by the consumer. Price inflation also increases, because providers and product producers are less likely to gain market share by lowering prices. This is because consumers, who ultimately make the decision to purchase services or products, pay such a small proportion of the total cost that lower prices do not influence the consumer's choice of provider or product to the same extent as in other markets. During the 1980s, medical-specific price inflation played a more significant role in health cost growth than it did in the 1960s and 1970s (Levit et al., 1991).

In the NHA, private third-party payers are grouped into two sectors: private health insurance, accounting for 32.5 percent of all NHE in 1991, and other private revenues, accounting for 4.4 percent. In 1991, private health insurance premiums of $244.4 billion increased at a rate of 10.0 percent from the 1990 level, only slightly slower than the overall growth in NHE. Private health insurance premiums include premiums paid by employers or unions, employee share of employer- or union-sponsored premiums, and premiums paid entirely by persons purchasing policies independently or through associations. Persons covered by private health insurance incurred $209.3 billion in benefits, 9.4 percent more than 1 year earlier. The difference between insurance premiums paid and benefits incurred is defined as the net cost of private health insurance, discussed in a previous section. The net cost includes expenses incurred in administering insurance, net additions to reserves, adjustments for rate credits and dividends, premium taxes, and profits or losses of commercial insurers. In 1991, net cost amounted to $35.1 billion, an increase of 13.4 percent above 1990 levels.

Other private revenues include philanthropic giving, industrial inplant health care services, and privately financed construction. These revenues also include other non-patient revenue sources of hospitals, nursing homes, and HHAs, such as revenues from educational programs, gift shops, parking lots, and other sources not associated with patient care. In 1991, the category of other private revenues ($33.2 billion) showed a marked deceleration in growth—up only 6.0 percent from 1990. Absolute declines in funding for privately funded construction were the biggest identifiable factor in deceleration of aggregate other private revenues, although growth in non-patient revenues funding health care benefits and in industrial inplant services also slowed.

All health care financing from the public sector is considered to be third-party payment. Broadly, public payers consist of two groups in the NHA: the Federal Government and State and local governments. In 1991, Federal expenditures of $222.9 billion financed 29.6 percent of all national health spending, and State and local expenditures of $107.1 billion paid for 14.2 percent. In both cases, growth in government expenditures exceeded that in the private sector by a wide margin, with Federal expenditures increasing 14.6 percent and State and local expenditures up 18.3 percent.

For both the Federal and State and local sectors, health spending jumped as a share of overall government spending in 1991. For the Federal sector, health spending rose to 16.7 percent of all Federal expenditures in 1991, up from 15.3 percent in 1990 (Table 3). This is the single-largest annual increase in

**Table 3**

**Government health expenditures as a percent of total government expenditures: Selected years 1960-91**

| Year | Federal Government | State and local government |
|---|---|---|
| | Percent | |
| 1960 | 3.1 | 7.8 |
| 1965 | 3.9 | 7.6 |
| 1966 | 5.2 | 7.5 |
| 1967 | 7.4 | 7.6 |
| 1970 | 8.5 | 7.8 |
| 1975 | 10.0 | 8.5 |
| 1980 | 11.7 | 9.9 |
| 1985 | 12.7 | 10.8 |
| 1986 | 12.9 | 11.1 |
| 1987 | 13.5 | 11.6 |
| 1988 | 14.1 | 11.9 |
| 1989 | 14.8 | 12.3 |
| 1990 | 15.3 | 12.9 |
| 1991 | 16.7 | 14.1 |

NOTE: The Bureau of Economic Analysis revised its estimates of Federal and State and local government expenditures in December 1991, resulting in changes in the percent of government expenditures going for health, especially for State and local governments.

SOURCES: Health Care Financing Administration, Office of the Actuary, Office of National Health Statistics; U.S. Department of Commerce, Bureau of Economic Analysis.

share since 1967, just following the introduction of Medicare and Medicaid. For State and local governments, health spending as a share of all expenditures rose to 14.1 percent, up from 12.9 percent in 1990.

Programs administered by the Health Care Financing Administration—Medicare and Medicaid—are responsible for funding two-thirds of all publicly financed health care in 1991. Together, these programs accounted for $216.7 billion in health care benefits for aged, disabled, and poor Americans, and another $6.6 billion for administration. In 1991, Medicaid paid for services to 28.3 million recipients, and Medicare covered 34.9 million enrollees (Table 4).

Medicare expenditures increased 11.4 percent, on average, each year from 1980 to 1991; for 1991 alone, spending increased 10.9 percent, only slightly slower than the average growth over the past 11 years. For Medicaid, spending increased 10.1 percent annually from 1980 through 1989. In 1990 and 1991, however, expenditures increased rapidly, growing 21.3 percent and 33.2 percent, respectively. Recent expansions in recipient eligibility, increased efforts to reach eligible persons who are not currently covered, and the recession caused additional persons to qualify for coverage under the program. Creative financing by State governments, using provider T & D programs and payments to hospitals serving a disproportionate share of Medicaid recipients and other poor persons, contributed to large increases in Medicaid spending, particularly for hospital services. This dramatic acceleration in total Medicaid expenditures dominated spending patterns in the public sector in 1991. The reasons for this acceleration, including the effects of T & D programs, are discussed later in this article.

Other public financing of NHE comes about through State and local public health activities conducted by public health departments within those jurisdictions; through the U.S. Department of Defense and U.S. Department of Veterans Affairs expenditures in their own medical facilities, in the Civilian Health and Medical Program for the Uniformed Services and the Civilian Health and Medical Programs of the Veterans Administration, and in direct payments to community providers; through federally funded research; through State and local subsidies of hospitals; and through State and local workers' compensation programs. Each of these programs accounts for 1-3 percent of all NHE in 1991. All remaining public funding sources account for less than 1 percent each of all health spending (Table 22).

## Revisions to national health accounts

Each year, historical estimates of national health spending are revised to incorporate the latest statistics available. Periodically, methodologies for producing estimates are also revised when new data sources are developed and used. Occasionally, the NHA are scrutinized in terms of definitions and revised if necessary to better meet the informational needs of users.

The 1991 revisions to the NHA include changes beginning in 1985 to cover annual revisions to the Medicare actuarial estimates. These changes are offset by revisions in other private and public payer sources. Most other revisions to the NHA occur in 1989 and 1990, where additional or revised information from public and private data sources have been incorporated.

For the first time, the NHA will measure U.S. economic resources as gross domestic product (GDP), rather than gross national product (GNP). This change coincides with the Bureau of Economic Analysis (BEA) comprehensive historical revisions of both series.

Statistics on GNP were revised in December of 1991, increasing the size of GNP in 1990 by 1 percent. The revised GNP produced only a negligible effect on the ratio of GNP devoted to health care from 1960 to 1990 (Table 5). Concurrent with these revisions, BEA, the Federal agency that prepares GNP estimates, shifted emphasis from GNP to GDP. GNP was higher than GDP by less than 0.3 percent in 1991.

Traditionally, NHE has been compared with GNP. There are several reasons for converting to the use of GDP in measuring the share of resources devoted to health care. First, GDP measures the U.S. economy as the value of output produced within the geographic boundaries of the United States by U.S. or foreign citizens or companies. GNP measures the output of U.S. citizens and companies, regardless of the geographic area in which that production occurred. The basis upon which NHE is calculated closely parallels that of GDP in that services are measured based on the location where the service is produced. Second, the use of a GDP measure is more closely comparable to other measures of domestic economic activity, such as prices, wages, employment, and productivity. These measures

## Table 4

**Personal health care expenditures under Medicare and Medicaid and sources of Medicare financing: Selected years 1966-91**

| Year | Personal health care expenditures | | | Population | | | Medicare financing | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Medicare and Medicaid[2] | Medicare | Medicaid | Medicare[1] Enrollees[3] | Medicare[1] Users[4] | Medicaid recipients[5] | Inpatient hospital deductible[6] | Supplementary medical insurance monthly premium[7] | Annual maximum taxable earnings | Contribution rate[8,9] |
| | Amount in billions | | | Number in millions | | | Amount in dollars | | | Percent |
| 1966 | $2.9 | $1.6 | $1.3 | 19.1 | 3.7 | — | $40 | $3.00 | $6,600 | 0.35 |
| 1967 | 7.9 | 4.9 | 3.0 | 19.5 | 7.2 | — | 40 | 3.00 | 6,600 | 0.50 |
| 1972 | 16.8 | 8.8 | 8.0 | 21.3 | 10.0 | 17.6 | 68 | 5.80 | 9,000 | 0.60 |
| 1973 | 19.2 | 10.2 | 9.1 | 23.5 | 10.2 | 19.6 | 72 | [10]6.30 | 10,800 | 1.00 |
| 1980 | 61.2 | 36.4 | 24.8 | 28.5 | 18.0 | 21.6 | 180 | 9.60 | 25,900 | 1.05 |
| 1985 | 109.9 | 70.2 | 39.7 | 31.1 | 22.3 | 21.8 | 400 | 15.50 | 39,600 | 1.35 |
| 1986 | 118.0 | 75.1 | 42.9 | 31.7 | 23.1 | 22.5 | 492 | 15.50 | 42,000 | 1.45 |
| 1987 | 129.5 | 81.3 | 48.2 | 32.4 | 24.3 | 23.1 | 520 | 17.90 | 43,800 | 1.45 |
| 1988 | 140.5 | 88.4 | 52.1 | 33.0 | 25.1 | 22.9 | 540 | 24.80 | 45,000 | 1.45 |
| 1989 | 159.5 | 100.4 | 59.1 | 33.6 | 26.2 | 23.5 | 560 | [11]31.90 | 48,000 | 1.45 |
| 1990 | 180.2 | 108.5 | 71.8 | 34.2 | 27.2 | 25.3 | 592 | 28.60 | 51,300 | 1.45 |
| 1991 | 216.7 | 120.2 | 96.5 | 34.9 | [12]27.6 | 28.3 | 628 | 29.90 | 125,000 | 1.45 |

[1]Hospital insurance (HI) and/or supplementary medical insurance (SMI).
[2]Excludes "buy-in" premiums paid by Medicaid for SMI coverage of aged and disabled Medicaid recipients eligible for coverage.
[3]Enrollees as of July 1 of specified year.
[4]Enrollees with some payment under Medicare during calendar year. Data through 1973 reflect aged users only. Data for 1974 and later include aged and disabled users.
[5]Unduplicated count of Medicaid recipients during fiscal year.
[6]As of January of specified year with the exception of 1966, for which July data are used.
[7]As of July for 1966-83 and as of January for 1984 and later.
[8]Employer and employee (each) and self-employed people through 1983.
[9]Effective in 1984, self-employed people pay double this rate, the equivalent of both the employer and the employee share.
[10]Monthly premium for July and August 1973 ws reduced to $5.80 and $6.10, respectively, by the Cost of Living Council.
[11]Includes $27.90 SMI monthly premium and $4 catastrophic coverage monthly premium.
[12]Estimated.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

are used in estimating and analyzing NHA components. Third, in many other countries, more significant differences exist between GNP and GDP levels than in the United States (Office of the President, 1992). Health spending as a share of GDP has been adopted internationally as a measure of domestic health care resource allocation. Calculating consistent measures across countries reduces the confusion that occurs in discussing resource allocation for health care among countries.

Table 5 compares the NHE calculated both as a share of GDP and GNP. In any single year from 1960 to 1991, use of GDP in the calculation changes the share of economic resources devoted to health care by 0.1 percent or less.

## Table 5

**National health expenditures as a percent of gross domestic product and gross national product: Selected years 1960-91**

| Year | Gross domestic product | Gross national product | |
|---|---|---|---|
| | | Revised[1] | Unrevised |
| | | Percent | |
| 1960 | 5.3 | 5.2 | 5.3 |
| 1965 | 5.9 | 5.9 | 5.9 |
| 1970 | 7.4 | 7.3 | 7.3 |
| 1975 | 8.4 | 8.3 | 8.3 |
| 1980 | 9.2 | 9.1 | 9.2 |
| 1985 | 10.5 | 10.4 | 10.5 |
| 1986 | 10.7 | 10.6 | 10.7 |
| 1987 | 10.9 | 10.9 | 10.9 |
| 1988 | 11.1 | 11.1 | 11.2 |
| 1989 | 11.5 | 11.5 | 11.6 |
| 1990 | 12.2 | 12.2 | 12.4 |
| 1991 | 13.2 | 13.2 | N/A |

[1]Revised in December, 1991.

NOTE: NA is not available.

SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis: Survey of Current Business, Washington, U.S. Government Printing Office, and U.S. Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics, 1991-92.

# Hospital sector highlights

Historically, major changes have occurred in the delivery and financing of hospital care as public and private third-party payers have sought ways to contain continually increasing health care costs. Because expenditures for hospital care are larger than any other type of health sector spending, most cost-containment efforts have been directed toward care in this setting. It is commonly believed that the burden of uncompensated care on hospitals has been increasing. However, evidence presented in this section shows that

this is not the case. This section concludes with a discussion of methods used to estimate hospital care costs in the NHA.

## Responses to rising hospital costs

In the mid-1970s, growth in health care spending substantially exceeded growth in the overall economy. This led to the first cost-containment effort focused on health care costs. In the fourth quarter of 1977, the government asked hospitals to voluntarily control rising costs. Voluntary cost-control efforts were thought to be preferable to explicit price controls. This effort, called the Voluntary Effort (VE), met with initial success in controlling hospital costs, as growth rates in 1977 through 1979 were lower than in the mid-1970s. However, by 1980, hospital costs had resumed growth rates as high as they had been before and exhaustion of Medicare's Hospital Insurance trust fund was projected by the early 1990s.

In response to concerns over the financial future of Medicare, Congress included several provisions in the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 that were intended to reduce the rate of increase per case that Medicare paid to hospitals. Hospitals were to be paid on a per case rather than per diem basis, and the annual rate of increase in payment per discharge was to be limited in 1983-86. Another provision of TEFRA required that the U.S. Department of Health and Human Services, together with Congress, develop a legislative proposal for Medicare payments to hospitals on a prospective basis.

As a result of the latter provision, Congress passed the Social Security Amendments of 1983, which enacted PPS. PPS was designed to control Medicare payments for inpatient hospital services, replacing the retrospective cost-based reimbursement system. The primary objective of PPS was to encourage the efficient and effective provision of hospital care by changing the economic incentives of the payment system. PPS, based on an average cost per case for each of 487 diagnosis-related groups (DRGs), currently determines Medicare payment per discharge in about 83 percent of U.S. hospitals.

In addition to Medicare, other third-party payers have made changes to control costs. Utilization controls, such as pre-admission review and mandatory second opinions, have been implemented.

## Uncompensated care

Rising costs have forced some people to forgo insurance coverage. People who are uninsured frequently rely on hospitals for their primary care or do not seek care until illness requires hospitalization. In many cases, these persons cannot afford to pay their hospital bills, resulting in hospitals delivering care for which they are not compensated. Uncompensated care has been a concern for hospitals because revenues must cover expenses incurred so that facilities can maintain operations.

Although rising amounts of uncompensated care have frequently been cited as a growing problem for hospitals, industry data indicate aggregate uncompensated care, valued as net revenues, has remained a relatively constant share of aggregate hospital net revenues since the implementation of PPS (1984-90). The revenue concept has been chosen for this analysis because hospital care in the NHA is valued as the amount of revenue hospitals expect to receive from all sources during a calendar year. Based on their gross revenues (charges to patients), community hospitals billed patients $297.4 billion in 1990 (Table 6). Providers set charges, such as room rates and operating room fees, anticipating that a certain portion of billed amounts will not be paid. That is, charge levels are set so that anticipated received revenues will cover expected expenses with a margin for surplus. In 1990, deductions from billed charges included $84.1 billion in contractual adjustments, which are agreed-upon discounts in third-party payers, $17.8 billion in uncompensated care, and other unrecovered charges.

Gross revenues less deductions from revenue equals net patient revenues of $195.5 billion. Other non-patient sources of revenue include $3.9 billion in tax appropriations (subsidies from State and local governments), $7.8 in other operating revenue (from parking lots, gift shops, cafeterias, educational programs, etc.), and $4.5 billion in non-operating revenue (grants, philanthropic giving, and investment income). Total net revenues from all sources amounted to $211.8 billion in 1990.

In this analysis, uncompensated care is the sum of reported deductions for bad debt (actual or anticipated) and charity care (care for which payment is never expected). (The distinction between bad debt and charity care can be blurred because inconsistencies in reporting among hospitals are known to exist [Ashby, 1991].) These amounts are reported at a level equivalent to charges. Uncompensated care charges valued as gross revenues have increased as a share of net revenues from all sources for all community hospitals from 1984 to 1990 (Table 6).

Because charges are set artificially high to compensate for expected unpaid or not fully paid bills, the true net equivalent amount of uncompensated care is more accurately measured by reducing bad debt and charity (valued at full charges) to a level equivalent to the revenues hospitals actually receive. This adjustment is made by multiplying uncompensated care by the ratio of net patient revenues to gross revenues. After adjustments, uncompensated care revenues remained relatively constant as a share of net patient revenues during the period following the implementation of PPS (Table 7). These data represent aggregate trends for all community hospitals; individual hospital experiences may present a very different picture.

State and local community hospitals have traditionally provided more uncompensated care as a proportion of their total revenues than have other types of hospitals. After adjusting to a net revenue basis, the amount of uncompensated care provided by state and local hospitals from 1984 to 1990 decreased as a percent of net patient revenues, with cumulative growth rates of 33.3 percent and 51.6 percent, respectively (calculated

## Table 6

## Revenues of registered community hospitals in the United States: Selected financial years 1980-90

| Hospital financial year | Gross revenues (charges to patients) | Reported deductions from revenue | | | Net revenue from patients | Other operating revenue | | | Non-operating revenue[4] | Total net revenue from all sources |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Contractual adjustments | Uncompensated care[1] | Other[2] | | Total | Tax appropriations | Other[3] | | |
| **All community** | | | | | Amount in billions | | | | | |
| 1980 | 89.5 | 10.5 | 4.6 | 0.5 | 73.8 | 4.2 | 1.6 | 2.5 | 1.8 | 79.7 |
| 1982 | 126.0 | 16.6 | 6.5 | 1.1 | 101.8 | 5.1 | 1.9 | 3.1 | 2.6 | 109.5 |
| 1984 | 155.8 | 23.4 | 9.5 | 1.6 | 121.3 | 5.6 | 2.3 | 3.2 | 3.1 | 130.0 |
| 1986 | 178.4 | 27.3 | 11.7 | 1.5 | 137.9 | 7.0 | 2.4 | 4.6 | 3.7 | 148.5 |
| 1988 | 224.8 | 46.9 | 14.2 | 2.6 | 161.1 | 9.2 | 3.5 | 5.7 | 4.3 | 174.6 |
| 1990 | 297.4 | 84.1 | 17.8 | NA | 195.5 | 11.8 | 3.9 | 7.8 | 4.5 | 211.8 |
| **State and local** | | | | | | | | | | |
| 1980 | 16.3 | 1.3 | 1.9 | 0.2 | 12.9 | 2.1 | 1.6 | 0.5 | 0.5 | 15.5 |
| 1982 | 22.2 | 2.2 | 2.4 | 0.4 | 17.2 | 2.3 | 1.8 | 0.5 | 0.7 | 20.2 |
| 1984 | 27.0 | 3.2 | 3.7 | 0.7 | 19.4 | 2.8 | 2.3 | 0.5 | 0.6 | 22.8 |
| 1986 | 29.2 | 3.7 | 4.3 | 0.1 | 21.0 | 2.9 | 2.2 | 0.7 | 0.7 | 24.7 |
| 1988 | 35.4 | 6.2 | 4.7 | 0.4 | 24.1 | 4.1 | 3.2 | 0.8 | 1.0 | 29.1 |
| 1990 | 45.8 | 10.8 | 5.5 | NA | 29.4 | 4.9 | 3.7 | 1.2 | 0.9 | 35.2 |
| **All community** | | | | | Revenue as a percent of total net revenues from all sources | | | | | |
| 1980 | 112.2 | 13.2 | 5.8 | 0.7 | 92.6 | 5.2 | 2.1 | 3.1 | 2.2 | 100.0 |
| 1982 | 115.1 | 15.2 | 6.0 | 1.0 | 93.0 | 4.6 | 1.7 | 2.9 | 2.4 | 100.0 |
| 1984 | 119.9 | 18.0 | 7.3 | 1.3 | 93.3 | 4.3 | 1.8 | 2.5 | 2.4 | 100.0 |
| 1986 | 120.1 | 18.4 | 7.9 | 1.0 | 92.9 | 4.7 | 1.6 | 3.1 | 2.5 | 100.0 |
| 1988 | 128.8 | 26.9 | 8.1 | 1.5 | 92.3 | 5.3 | 2.0 | 3.3 | 2.5 | 100.0 |
| 1990 | 140.4 | 39.7 | 8.4 | NA | 92.3 | 5.5 | 1.8 | 3.7 | 2.1 | 100.0 |
| **State and local** | | | | | | | | | | |
| 1980 | 105.2 | 8.6 | 12.0 | 1.0 | 83.6 | 13.3 | 10.3 | 3.1 | 3.1 | 100.0 |
| 1982 | 109.5 | 10.7 | 11.9 | 1.9 | 85.1 | 11.5 | 9.1 | 2.4 | 3.4 | 100.0 |
| 1984 | 118.7 | 14.0 | 16.3 | 3.2 | 85.2 | 12.1 | 10.0 | 2.1 | 2.7 | 100.0 |
| 1986 | 118.3 | 15.1 | 17.6 | 0.5 | 85.1 | 11.9 | 8.9 | 3.0 | 3.0 | 100.0 |
| 1988 | 121.7 | 21.3 | 16.2 | 1.4 | 82.8 | 13.9 | 11.0 | 2.9 | 3.3 | 100.0 |
| 1990 | 129.9 | 30.6 | 15.7 | NA | 83.5 | 13.9 | 10.6 | 3.3 | 2.6 | 100.0 |

[1]Sum of bad debt and charity care.
[2]Includes services rendered as professional courtesy.
[3]Includes revenues generated from gift shops, parking facilities, educational programs, rental of hospital space, etc.
[4]Includes contributions, interest income, and grants.

NOTES: Revenues differ from those presented in the national health accounts tables. Data in this table cover a mixture of financial years reported by hospitals; also Federal and non-community hospitals are not included. Numbers and percents may not add to totals because of rounding. NA is not applicable.

SOURCE: American Hospital Association, Hospital Data Center: Data from the Annual Survey of Hospitals for 1980-90.

from Tables 6 and 7). Historically, State and local governments have provided tax appropriations to these hospitals to offset costs incurred for uncompensated care. From 1984 to 1990, the amount of tax appropriations increased more rapidly (60.9 percent) than did both the amount of uncompensated care (33.3 percent) and net patient revenues (51.6 percent).

An alternative measure of uncompensated care costs is used by many analysts. Reported uncompensated care is multiplied by a ratio of total expenses to charges (gross revenues and other operating revenues). Comparing this expense equivalent measure of uncompensated care costs to total expenses yields the same conclusions. That is, uncompensated care costs (adjusted to an expense basis) as a percent of total expenses remained fairly constant in the period following the implementation of PPS.

Although uncompensated care has been an issue for hospitals since PPS was enacted, the proportion of uncompensated care provided as a share of net patient revenues has remained relatively constant, after adjusting to a revenue basis. Furthermore, the funding mechanisms hospitals use to offset uncompensated care costs have also remained virtually unchanged. Since PPS began, patient revenues as a share of revenues from all sources remained relatively constant (Table 7) for all community hospitals. That is, the amount of non-patient revenues (which include tax appropriations) as a share of all revenues remained constant.

## Delivery of care

The cost-containment efforts of government (mostly through PPS) and business have affected the health care delivery system in many ways, most visibly in the hospital setting. The most significant change in the

**Table 7**

**Uncompensated care as a percent of community hospital revenues: Selected financial years 1980-90**

| Hospital financial year | Uncompensated care[1] | | Uncompensated care as a percent of net patient revenue | |
|---|---|---|---|---|
| | Unadjusted | Adjusted[2] | Unadjusted | Adjusted |
| **All community** | Amount in billions | | Percentages | |
| 1980 | $4.6 | $3.8 | 6.2 | 5.1 |
| 1982 | 6.5 | 5.3 | 6.4 | 5.2 |
| 1984 | 9.5 | 7.4 | 7.9 | 6.1 |
| 1986 | 11.7 | 9.0 | 8.5 | 6.5 |
| 1988 | 14.2 | 10.2 | 8.8 | 6.3 |
| 1990 | 17.8 | 11.7 | 9.1 | 6.0 |
| **State and local** | | | | |
| 1980 | 1.9 | 1.5 | 14.3 | 11.4 |
| 1982 | 2.4 | 1.9 | 14.0 | 10.9 |
| 1984 | 3.7 | 2.7 | 19.2 | 13.8 |
| 1986 | 4.3 | 3.1 | 20.7 | 14.9 |
| 1988 | 4.7 | 3.2 | 19.6 | 13.3 |
| 1990 | 5.5 | 3.6 | 18.8 | 12.1 |

[1]Sum of bad debt and charity care (deductions from revenue).
[2]Adjusted uncompensated care is the sum of bad debt and charity reduced by the discount rate of net to gross patient revenues.

NOTES: Revenues differ from those presented in the national health accounts tables. Data in this table cover a mixture of financial years reported by hospitals; also Federal and non-community hospitals are not included. Numbers and percents may not add to totals because of rounding.

SOURCE: American Hospital Association, Hospital Data Center: Data from the Annual Survey of Hospitals for 1980-90.

delivery of hospital care has been a shift toward more care delivered in less costly outpatient settings. Pre-admission testing in outpatient departments and physician offices has replaced early admission to the hospital. Procedures that had been performed on an inpatient basis have been moved to outpatient and office settings. In 1980, industry statistics showed only 16 percent of surgeries in community hospitals were done on an outpatient basis. By 1990, this share had risen to just over 59 percent. From 1980 to 1990, the number of inpatient days in community hospitals decreased by 17 percent, while outpatient visits in these facilities increased 49 percent (American Hospital Association, 1980-90).

Technological advances allowed some of this transition to take place. Since 1980, much progress has occurred in medical and scientific technology, which has allowed more patients to be treated on an outpatient basis. Innovative, less invasive techniques have brought about diagnosis and treatment methods that are less traumatic for patients, allowing them to return home sooner. One example of this technology is extracorporeal shock wave lithotripsy, in which kidney stones are pulverized, eliminating the need for surgery. Magnetic resonance imaging machines and computerized tomographic scanners facilitate diagnosis without the invasive diagnostic procedures necessary before.

Technology has led to progress in prevention and treatment, but it has also contributed to higher medical costs. Although PPS has affected only Medicare Part A inpatient payments, payments for outpatient services under Part B have also come under scrutiny, particularly since October 1, 1987, when changes in the payment methodology for outpatient surgery became effective. Instead of paying hospitals on a reasonable-cost basis, payment for certain surgical procedures was set as a blend of outpatient department costs and the ambulatory surgical center (ASC) prospective payment rates. Other outpatient services continue to be paid on the traditional reasonable-cost basis. Additional cost controls have been implemented since then, and work is currently under way to establish a prospective payment system for all types of outpatient care (Helbing, Latta, and Keene, 1990).

For these dramatic changes to take place, hospitals have had to make modifications to the traditional care delivery system. Hospitals have reduced the number of inpatient beds to accommodate the lower volume of admissions and shorter lengths of stay. From 1980 to 1990, the number of beds set up and staffed for use in community hospitals fell from 988,000 to 933,000, or 6.2 percent (American Hospital Association, 1980-90). However, these reductions have not kept up with reduced inpatient utilization, evidenced by falling occupancy rates in the past 10 years. In 1980, an average of 75.6 percent of beds were filled; in 1990, this share had dropped to 66.8 percent.

To offset changes in the inpatient sector, hospitals have developed other types of services. Facilities have been modified to meet the new demands for outpatient clinics and home health care services. In 1980, 12 percent of HHAs were hospital-based, and by 1991, this share had more than doubled, to 26 percent (Health Care Financing Administration, 1980-91).

Hospitals have been forced to run their operations in a more businesslike manner to remain competitive. Increased competition for patients has forced hospitals to specialize in certain services. Administration has become more dominant, requiring productivity monitoring systems and other innovative control measures, which have led to cost savings. Marketing and advertising have become commonplace, as hospitals seek to compete for patients by differentiating themselves from their competitors.

This transformation has driven the least competitive hospitals out of business, and others have merged to form health care systems that work together to provide specialized non-overlapping services. In 1990, industry figures showed there were 7.7 percent, or 446, fewer community hospitals in operation than in 1980. This decline included hospitals that have closed, merged, or been acquired by other hospitals.

## Methods and concepts

Except for Federal hospitals, the American Hospital Association (AHA) annual survey is the basic data source used to prepare the hospital estimates shown in this article. Federal hospital estimates are based on data

from the Federal agencies that administer them. Since 1946, AHA has conducted its Annual Survey of Hospitals, which elicits information from each hospital in the United States and its outlying territories. The survey collects data on finances, utilization, facilities, services, and personnel for each hospital and has a response rate of about 90 percent (American Hospital Association, 1980-90).

To be used in the NHA, the AHA data must be modified to meet NHA definitional requirements. These modifications are described in four parts. First, individual survey year data are combined to create a longitudinal file. During this process, editing is performed on classification codes to ensure consistent reporting across time by individual hospitals.

Second, revenues are imputed for each hospital using reported (or estimated) expenses. This step is necessary, as revenues for individual hospitals collected by AHA are not released because of confidentiality restrictions. Expenses are inflated to revenues using aggregate revenue-to-expense ratios calculated from published and special tabulations provided by AHA. Community hospitals are differentiated by State and broad control category (non-profit or other). Non-community hospitals are differentiated by type of service and control.

The third part of the process creates calendar year revenue estimates from individual hospitals' imputed accounting year revenues. Although AHA requests that data be reported for a full year, preferably ending in September, less than 40 percent of hospitals are able to report in this manner. About 28 percent of hospitals report with a period ending in June, and the remaining hospitals report with periods ending in some other month. Expenditure patterns from AHA's monthly National Hospital Panel Survey are used to convert from reported financial years to calendar years for community hospitals. For non-community hospitals, one-twelfth of revenues are apportioned to each month. During this step, imputations are made for hospitals with missing or overlapping reporting periods.

The last step extends annual survey data to the most recent year. For the 1991 update to the NHA, 1990 survey data were the most currently available. The 1990 survey data were extrapolated through the most recent year (1991) using patterns of acceleration and deceleration observed in the monthly panel survey data previously mentioned.

# Growth in Medicaid

Over the past 2 years, Medicaid spending has grown two to three times faster than total health care spending. From 1989 to 1990, Medicaid expenditures increased 21.3 percent. In 1991, expenditures grew 33.2 percent, the fastest annual growth in the program's history. Combined Federal and State and local Medicaid expenditures exceeded $100 billion in 1991.

Medicaid program and other non-Medicaid changes have contributed to the accelerated growth in Medicaid expenditures. These changes include expansions to Medicaid eligibility and a slowdown in the economy, both of which caused additional people to qualify for coverage; provider T & D programs; clarification of laws requiring reasonable and adequate payment rates for nursing homes and hospitals; increased payments to hospitals serving a disproportionate share of Medicaid recipients or other low-income people; and passage of regulations requiring nursing homes to adhere to higher standards to be eligible to receive payment from Medicaid.

## Background

There are 52 separate Medicaid programs[2] operating under the general guidelines of the Federal Government, each jointly funded by Federal and State and local governments. To qualify for Federal matching funds, the Federal Government mandates coverage of certain groups of low-income people and provision of certain basic medical services to those people (Ruther et al., 1991). States have the option of covering additional groups of people and offering additional services. Any change in the Federal mandates, either to expand or reduce coverage or services, is reflected in total Medicaid expenditures. In addition, changes in any States' optional eligibility requirements or services or in their program payment rates or funding mechanisms affects total expenditures.

## Recipients and recipient expenditures

From 1974 through 1989, the annual number of Medicaid recipients fluctuated between 22 and 23 million people (Table 4). The number of recipients increased from 25.3 million people in fiscal year 1990 to 28.3 million in fiscal 1991, a growth of 12.0 percent (Table 8). Over the past 2 years, the number of recipients has increased by 4.8 million. A significant portion of the increase was the result of Federal mandates.

About one-half of the 3 million additional recipients qualifying for Medicaid between fiscal years 1990 and 1991 were eligible because of mandated program expansions. The other one-half, 1.6 million recipients, were classified as categorically or medically needy.

The major beneficiaries of the mandated expansions were children. More than 13 million children received Medicaid benefits in fiscal year 1991, 16.2 percent more than in fiscal 1990 (Table 9). Children comprise the largest and fastest growing component of recipients. However, children are the least costly type of recipient covered by the program. The average payment per child is only one-third the average payment for all recipients.

In the traditional needy categories, the groups of children and adults in families with dependent children exhibited 9-percent growth rates, indicating a growing

[2]There are Medicaid programs in each of the 50 States and the District of Columbia. The Commonwealth of Massachusetts also operates a separate program for the blind. In addition to these 52 programs, there are Medicaid programs in American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and the Virgin Islands. Programs in these five outlying jurisdictions are subject to limitations on Federal spending.

**Table 8**

**Number and growth in Medicaid recipients and per recipient personal health care expenditure: 1988-91**

| Year | Recipients[1] Number in millions | Recipients[1] Percent growth | Average annual personal health care expenditure per recipient[2] Amount | Average annual personal health care expenditure per recipient[2] Percent growth |
|---|---|---|---|---|
| 1988 | 22.9 | — | $2,274 | — |
| 1989 | 23.5 | 2.6 | 2,516 | 10.6 |
| 1990 | 25.3 | 7.4 | 2,837 | 12.8 |
| 1991 | 28.3 | 12.0 | 3,412 | 20.3 |

[1]Fiscal year recipients reported on Health Care Financing Administration Form 2082.
[2]Calendar year expenditures.

SOURCE: Health Care Financing Administration, Office of the Actuary: Office of National Health Statistics.

number of families living at or below the poverty level. This is partially the result of the recession but may also reflect the success of public awareness programs designed to reach newly eligible people (Long, 1992).

In addition to the growth in the number of recipients, the growth in payment per recipient has accelerated in each year since 1986. In 1991 alone, spending per recipient increased 20.3 percent. The average Medicaid payment for all PHC was $3,412 in 1991, compared with $2,516 just 2 years earlier.

## Voluntary donations and provider-specific taxes

A variety of factors affected Medicaid payments in 1991. In addition to increases resulting from higher prices paid for health care in general, some States are using non-traditional mechanisms to finance hospital, nursing home, and other care; these mechanisms also increase Medicaid payments.

Since 1986, States have been permitted, under certain conditions, to use donated funds (from both public and private organizations) to help finance benefits paid by their Medicaid programs. Contributions received were then used as part of the State share of Medicaid spending for covered services and were matched by Federal funds. This financing effort was viewed as a means of easing the burden that Medicaid expansions imposed on State's general revenues without curtailing coverage of optional services or optional eligibility groups. It also made it possible for providers to be paid at more favorable rates, in the hope of ensuring recipients equal access to needed health care. Providers will sometimes accept patients with more generous payment sources before accepting Medicaid patients.

About the same time that donated funds were first allowed, some States began imposing provider-specific taxes to help finance their Medicaid programs.[3] These

[3]See Congressional Budget Office Staff Memorandum dated May 1992 and Congressional Research Service Report to Congress dated March 27, 1992 for legislative history and more detailed description of Medicaid voluntary donation and provider-specific tax programs (Congressional Budget Office, 1992; King et al., 1992).

**Table 9**

**Number of Medicaid recipients, by eligibility category and relative average payment per recipient: Fiscal years 1990-91**

| Type of recipient | Recipients Fiscal 1990 | Recipients Fiscal 1991 | Growth 1990-91 |
|---|---|---|---|
| | Number in thousands | | Percent |
| All eligibility categories[1] | 25,255 | 28,277 | 12.0 |
| Aged, blind, and disabled | 6,920 | 7,428 | 7.3 |
| Children | 11,220 | 13,037 | 16.2 |
| Adults[2] | 6,010 | 6,778 | 12.8 |
| Expanded eligibility categories[1] | 2,079 | 3,560 | 71.2 |
| Aged, blind, and disabled | 574 | 873 | 52.0 |
| Children | 810 | 1,708 | 110.9 |
| Adults[3] | 609 | 888 | 45.9 |
| Categorically and medically needy[1] | 23,061 | 24,621 | 6.8 |
| Aged, blind, and disabled | 6,346 | 6,555 | 3.3 |
| Children | 10,410 | 11,328 | 8.8 |
| Adults[2] | 5,402 | 5,890 | 9.0 |

[1]Includes children and aged and non-aged adults categorized as "other" or unknown.
[2]Adults in families with dependent children.
[3]Pregnant women and other caretakers of dependent children.

NOTE: Data reported on Health Care Financing Administration Form 2082. See Congressional Budget Office (1992) Staff Memorandum dated May 1992 for limitations of Form 2082 data.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy, 1990 and 1991.

taxes were imposed on providers in a variety of ways. For example, States could tax each admission, day of care, or hospital or nursing home bed (Merlis, 1991). In some States, provider-specific taxes were also imposed on physician visits, outpatient prescriptions, and services of other health care providers.

These T & D programs increased the Federal share of spending for Medicaid and raised the effective Federal matching rate. Examples of the mechanics of T & D are presented in Table 10. In each example, after T & D programs are implemented, State general revenue expenditures for Medicaid recipients are reduced and Federal general revenue expenditures are increased. The effective matching rate, Federal expenditures divided by the difference between total Medicaid payments to the provider and the amount of State income generated from T & D programs, is greater than the official Federal Medical Assistance Percentage (FMAP).[4] Because less of the State's share is from general revenues, the State can use the difference to fund other medical or non-medical services or to reduce taxes (Holahan et al., 1992). Financially, providers may or may not show a net gain (examples 1-3 in Table 10).

[4]The FMAP for each State is determined from a statutory formula based on the relationship between the average per capita income of residents of a State and the national per capita income. The formula sets higher rates of Federal funding for States with relatively low per capita incomes and lower rates for States with relatively high per capita incomes. FMAP values range from a maximum of 83 percent to a minimum of 50 percent (Ruther et al., 1991).

## Table 10

**Examples of changes in Medicaid financing of hospital care for a sample hospital in a State with a 50-percent Federal matching rate, before and after implementing a provider-specific tax or donation (T & D) program**

| Item | Before T & D | | After T & D (Example 1) | | After T & D (Example 2) | | After T & D (Example 3) Disproportionate-share hospital[1] | |
|---|---|---|---|---|---|---|---|---|
| | Revenue from Medicaid | Expenses/ expenditures associated with Medicaid | Revenue from Medicaid | Expenses/ expenditures associated with Medicaid | Revenue from Medicaid | Expenses/ expenditures associated with Medicaid | Revenue from Medicaid | Expenses/ expenditures associated with Medicaid |
| **Hospital financing** | | | | | | | | |
| Average daily payment | $500 | — | [2]$700 | — | [2]$750 | — | $500 | — |
| Medicaid inpatient days | 1,000 | — | 1,000 | — | 1,000 | — | 1,000 | — |
| Total | $500,000 | Cost of care | $700,000 | Cost + $200,000 | $750,000 | Cost + $200,000 | $625,000 | Cost + $100,000 |
| Medicaid payment | 500,000 | Cost of care | 700,000 | Cost of care | 750,000 | Cost of care | 500,000 | Cost of care |
| Tax or donation | — | — | — | $200,000 | — | $200,000 | — | $100,000 |
| DSH payment | — | — | — | — | — | — | 125,000 | — |
| Net gain to hospital after T & D compared with before T & D | — | — | 0 | — | 50,000 | — | 25,000 | — |
| **Public financing sources** | | | | | | | | |
| State: | | | | | | | | |
| Total | — | $250,000 | — | $350,000 | — | $375,000 | — | $312,500 |
| General revenue | — | 250,000 | — | [3]150,000 | — | [3]175,000 | — | [3]212,500 |
| Tax or donation | — | — | — | 200,000 | — | 200,000 | — | 100,000 |
| Federal: | | | | | | | | |
| General revenue | — | 250,000 | — | [4]350,000 | — | [4]375,000 | — | [4]312,500 |
| Ratio to State general revenue expense | — | 1.00 | — | 2.33 | — | 2.14 | — | 1.47 |
| Effective matching rate[5] | — | 50.0 | — | 70.0 | — | 68.2 | — | 59.5 |
| **Expenditure included in NHA** | | | | | | | | |
| Hospital care | 500,000 | — | 700,000 | — | 750,000 | — | 625,000 | — |

[1]State determines that hospital provides services to a disproportionate share (DSH) of that State's poor either through Medicaid or as uncompensated care. The hospital becomes eligible for special payments, which are matched by Medicaid according to the State's matching rate.
[2]In some but not all States, State T & D funds were returned to the specific donating or taxed provider in the form of increased payment rates.
[3]General revenue expenditures reflect residual of payment to hospital minus Federal share minus amount received through provider-specific tax or donation programs.
[4]Federal Government matches not only State general revenue but also "donated" or provider-specific tax revenue.
[5]Effective Federal matching rate equals the Federal expenditure ($350,000) divided by the difference between the hospital's total Medicaid payment and the tax or donation amount ($700,000 minus $200,000 in example 1).

NOTE: NHA is national health accounts.

SOURCE: Health Care Financing Administration, Office of the Actuary: Office of National Health Statistics.

Each example in the table shows a different funding option for identical caseloads. Payments to the provider in these "after T & D" examples are higher than the "before T & D," without an accompanying difference in utilization. Similarly, because the NHA measure total hospital revenues, expenditures for hospital care in the NHA are higher to some extent without any associated change in utilization.

As more and more States opted for various versions of T & D to help finance their expanding Medicaid programs, growth in Federal spending for all Medicaid services, particularly hospital services, accelerated steadily. Growth rates of Federal Medicaid expenditures for hospital care climbed from 8.6 percent in calendar year 1986 to 46.7 percent in 1991 (Table 17). Data on T & D-related spending are not available prior to fiscal year 1991 because States were not required to report these amounts separately. By fiscal year 1991, the Federal share associated with T & D amounted to $2.4 billion and was projected to grow more than 200 percent to over $7 billion in fiscal 1992. Total expenditures for T & D programs (Federal and State) in fiscal 1992 are projected to reach almost $12 billion (Table 11).

With the rise in Federal Medicaid spending, attempts were made to slow this flow of funds. T & D programs proposed by some States were challenged. Finally, after a number of regulatory and legislative changes were implemented (Merlis, 1991), the Medicaid Voluntary Contribution and Provider-Specific Tax Amendments of 1991 was enacted. This Federal legislation prohibits the use of most voluntary contributions and limits the use of provider-specific taxes to obtain Federal matching funds (Health Care Financing

**Table 11**

**Medicaid financing from provider tax and donation programs (total computable, Federal matching, and State share): Fiscal years 1991-92**

| Year | Total computable | | Federal matching | | State share | |
|---|---|---|---|---|---|---|
| | Amount in billions | Percent growth | Amount in billions | Percent growth | Amount in billions | Percent growth |
| 1991 | $4.1 | — | $2.4 | — | $1.8 | — |
| 1992[1] | 11.9 | 187.0 | 7.2 | 201.7 | 4.7 | 167.0 |

[1]Projected by States.

NOTE: Unpublished data from unaudited survey forms received from States as part of their Health Care Financing Administration Form 25 budget submissions.

SOURCE: Health Care Financing Administration, Medicaid Bureau.

Administration, 1992; U.S. Congressional Budget Office, 1992).

## Boren Amendment; disproportionate-share hospitals

Prior to 1980, Medicaid reimbursement to institutional facilities was based on the provider's actual cost of furnishing care to Medicaid recipients. However, cost-based reimbursement systems have little incentive for providers to perform efficiently. Therefore, in 1980, the Boren Amendment was enacted to free States from cost-based reimbursement, allowing them the flexibility to establish payment systems that would control costs. The Boren Amendment required States to establish payment rates that were "reasonable and adequate to meet the costs that must be incurred by efficiently and economically operated facilities" (Omnibus Reconciliation Act of 1980). The amendment was broadened to include hospitals in the Omnibus Budget Reconciliation Act of 1981 (OBRA 1981). In response, nearly all States eliminated cost-based reimbursement, established alternative payment systems designed to encourage efficiency and control costs, and initially, payment rates were reduced (King, Rimkunas, and Nuschler, 1992). Subsequent events caused payment rates to increase in some States.

OBRA 1981 also required States to give special consideration to hospitals that serve a disproportionately high number of low-income patients. Some States responded by paying additional compensation to providers with a disproportionate-share hospital (DSH) designation (King, Rimkunas, and Nuschler, 1992).

Despite DSH payments, hospitals (and nursing facilities) in some States were still concerned that Medicaid payments provided inadequate compensation for services furnished (U.S. Congressional Budget Office, 1992). Over time, this concern prompted litigation based on the Boren Amendment requirement of "reasonable and adequate" payment. In 1990, the U.S. Supreme Court confirmed providers' right to seek judicial review under the Boren Amendment. Law suits have been filed by hospitals and nursing homes in many States. Resolution to suits in some States have favored providers and payment rates have increased (King, Rimkunas, and Nuschler, 1992).

The number of hospitals qualifying for DSH payments and the amounts paid to these hospitals are increasing. Payments by the State to DSHs are matched with Federal funds. In some States with T & D programs, the States may be repaying providers for their T & D through the State's determination that the facility serves a disproportionate share of the State's poor (Table 10, example 3). In fiscal year 1991, the first year for which data on DSH payments are available, Federal matching payments amounted to $4.7 billion out of total Federal and State expenditures of $8.5 billion. Total expenditures for hospitals with the DSH designation are projected to increase to $19.7 billion in fiscal 1992 (Table 12).

However, the Medicaid Voluntary Contribution and Provider-Specific Tax Amendments of 1991 placed definitive restrictions on aggregate payments for DSH but prohibited Federal restrictions on the State's authority to grant DSH status (Congressional Budget Office, 1992). Effective January 1, 1992, Federal matching funds for DSH payments were limited. Adjustments to conditions applicable for receiving Federal matching payments and adjustments to the payment limits are being phased in.

## Nursing facility costs and utilization

In addition to growth in the total population eligible for Medicaid, including those needing institutional care, mandated program enhancements have affected Medicaid payments for nursing facility care. Legislation in 1988 required States to provide a minimum level of asset and income protection for spouses living in the community when determining the amount that nursing home residents must contribute to the cost of their care. In effect, this expanded Medicaid eligibility for married elderly and disabled people, increasing program payments for nursing home care (U.S. Congressional Budget Office, 1992).

In October 1990, regulations were implemented requiring nursing homes to improve quality of care to be eligible to receive payment from Medicaid. Nursing homes were required to meet Medicare's higher level of licensed nursing staff, ensure that nursing aides complete a training or competency evaluation program, and provide and regularly update assessments of patients' physical and mental abilities (King, Rimkunas, and Nuschler, 1992). Increased operating costs attributed to these regulations may have resulted in higher charges for all patients, including Medicaid patients.

However, Medicaid payments are based on policies employed by State Medicaid agencies (Swan,

**Table 12**

**Medicaid payments to disproportionate share hospitals (DSHs) (total computable, Federal matching, and State share): Fiscal years 1991-92**

| Year | Total computable | | Federal matching | | State share | |
|---|---|---|---|---|---|---|
| | Amount in billions | Percent growth | Amount in billions | Percent growth | Amount in billions | Percent growth |
| 1991 | $8.5 | — | $4.7 | — | $3.8 | — |
| 1992[1] | 19.7 | 133.3 | 11.2 | 140.1 | 8.5 | 124.8 |

[1]Projected by States. However, Public Law 102-234 imposes national aggregate expenditure limits on DSH payments beginning in fiscal year 1993. Includes payments in prior years that were reported to the Health Care Financing Administration (HCFA) in fiscal year 1992.

NOTE: Unpublished data from unaudited survey forms received from States as part of their HCFA Form 25 budget submissions.

SOURCE: Health Care Financing Administration, Medicaid Bureau.

Harrington, and Grant, 1988). Increased costs may or may not have resulted in increased program payments. Litigation seeking rate increases based on "reasonable and adequate" payment as specified by the Boren Amendment has been initiated in numerous States (King, Rimkunas, and Nuschler, 1992).

## Summary

Continued double-digit growth in health costs, combined with a sluggish economy, led to a substantial increase in health spending as a share of GDP in 1991. The hospital sector, the largest component of health spending, has undergone changes in the past decade because hospitals were the focus of most efforts to contain costs. Although these efforts initially succeeded in slowing growth in hospital costs, growth in 1991 approached the high rates experienced in the early 1980s. Abnormally large growth in Medicaid program expenditures in 1991 had an impact on overall health spending, particularly hospital care expenditures. A large increase in the Medicaid population and alternative financing mechanisms used by State and local governments caused much of the large growth in Medicaid spending.

The ability of the Nation to contain health care costs faces uncertainty. A number of major health care reform policies are currently under debate. The effectiveness of Medicare physician payment reform efforts is unknown. Additional litigation under the Boren Amendment is expected, which may contribute to growth in Medicaid spending. The dynamics of these and other factors will influence future health care costs.

## Acknowledgments

Estimates of national health expenditures are prepared in the Office of National Health Statistics within the Health Care Financing Administration's Office of the Actuary. In addition to the authors, Madie Stewart and Sue Donham also prepared selected source-of-funds estimates. Sally Burner and Patricia McDonnell provided estimates of the net cost of private health insurance. Madie Stewart prepared the majority of tables in this article. The authors are grateful for the helpful comments provided by Ross Arnett, Mark Freeland, Charlie Fisher, Dan Waldo, Sally Burner, John Klemm, Dirk Hoffman, and staff of the Medicaid Bureau.

## Table 13

**National health expenditures aggregate and per capita amounts, percent distribution, and average annual percent growth, by source of funds: Selected years 1960-91**

| Item | 1960 | 1970 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Amount in billions | | | | | |
| National health expenditures | $27.1 | $74.4 | $250.1 | $422.6 | $454.9 | $494.2 | $546.1 | $604.3 | $675.0 | $751.8 |
| Private | 20.5 | 46.7 | 145.0 | 248.0 | 265.2 | 286.2 | 319.0 | 351.0 | 390.0 | 421.8 |
| Public | 6.7 | 27.7 | 105.2 | 174.6 | 189.6 | 208.0 | 227.1 | 253.3 | 285.1 | 330.0 |
| Federal | 2.9 | 17.7 | 72.0 | 123.5 | 132.5 | 143.6 | 156.6 | 175.0 | 194.5 | 222.9 |
| State and local | 3.7 | 9.9 | 33.2 | 51.2 | 57.2 | 64.4 | 70.5 | 78.3 | 90.5 | 107.1 |
| | | | | | Number in millions | | | | | |
| U.S. population[1] | 190.1 | 214.8 | 235.1 | 247.0 | 249.5 | 251.9 | 254.4 | 257.0 | 259.6 | 262.2 |
| | | | | | Amount in billions | | | | | |
| Gross domestic product | $513 | $1,011 | $2,708 | $4,039 | $4,269 | $4,540 | $4,900 | $5,251 | $5,522 | $5,677 |
| | | | | | Per capita amount | | | | | |
| National health expenditures | $143 | $346 | $1,064 | $1,711 | $1,824 | $1,962 | $2,146 | $2,352 | $2,601 | $2,868 |
| Private | 108 | 217 | 617 | 1,004 | 1,063 | 1,136 | 1,254 | 1,366 | 1,502 | 1,609 |
| Public | 35 | 129 | 447 | 707 | 760 | 826 | 893 | 986 | 1,098 | 1,259 |
| Federal | 15 | 83 | 306 | 500 | 531 | 570 | 616 | 681 | 749 | 850 |
| State and local | 20 | 46 | 141 | 207 | 229 | 256 | 277 | 305 | 349 | 408 |
| | | | | | Percent distribution | | | | | |
| National health expenditures | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Private | 75.5 | 62.8 | 58.0 | 58.7 | 58.3 | 57.9 | 58.4 | 58.1 | 57.8 | 56.1 |
| Public | 24.5 | 37.2 | 42.0 | 41.3 | 41.7 | 42.1 | 41.6 | 41.9 | 42.2 | 43.9 |
| Federal | 10.7 | 23.9 | 28.8 | 29.2 | 29.1 | 29.1 | 28.7 | 29.0 | 28.8 | 29.6 |
| State and local | 13.8 | 13.3 | 13.3 | 12.1 | 12.6 | 13.0 | 12.9 | 13.0 | 13.4 | 14.2 |
| | | | | | Percent of gross domestic product | | | | | |
| National health expenditures | 5.3 | 7.4 | 9.2 | 10.5 | 10.7 | 10.9 | 11.1 | 11.5 | 12.2 | 13.2 |
| | | | | | Average annual percent growth from previous year shown | | | | | |
| National health expenditures | — | 10.6 | 12.9 | 11.1 | 7.6 | 8.6 | 10.5 | 10.7 | 11.7 | 11.4 |
| Private | — | 8.6 | 12.0 | 11.3 | 7.0 | 7.9 | 11.5 | 10.0 | 11.1 | 8.2 |
| Public | — | 15.3 | 14.3 | 10.7 | 8.6 | 9.7 | 9.2 | 11.5 | 12.5 | 15.7 |
| Federal | — | 19.8 | 15.0 | 11.4 | 7.3 | 8.4 | 9.1 | 11.7 | 11.1 | 14.6 |
| State and local | — | 10.2 | 12.8 | 9.0 | 11.8 | 12.6 | 9.5 | 11.1 | 15.6 | 18.3 |
| U.S. population | — | 1.2 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Gross domestic product | — | 7.0 | 10.4 | 8.3 | 5.7 | 6.4 | 7.9 | 7.2 | 5.2 | 2.8 |

[1]July 1 Social Security area population estimates.

NOTE: Numbers and percents may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 14

### National health expenditures aggregate amounts and average annual percent change, by type of expenditure: Selected years 1960-91

| Type of expenditure | 1960 | 1970 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Amount in billions | | | | | |
| National health expenditures | $27.1 | $74.4 | $250.1 | $422.6 | $454.9 | $494.2 | $546.1 | $604.3 | $675.0 | $751.8 |
| Health services and supplies | 25.4 | 69.1 | 238.9 | 407.2 | 438.9 | 476.9 | 526.2 | 583.6 | 652.4 | 726.6 |
| Personal health care | 23.9 | 64.9 | 219.4 | 369.7 | 400.8 | 439.3 | 482.8 | 530.9 | 591.5 | 660.2 |
| Hospital care | 9.3 | 27.9 | 102.4 | 168.3 | 179.8 | 194.2 | 212.0 | 232.4 | 258.1 | 288.6 |
| Physician services | 5.3 | 13.6 | 41.9 | 74.0 | 82.1 | 93.0 | 105.1 | 116.1 | 128.8 | 142.0 |
| Dental services | 2.0 | 4.7 | 14.4 | 23.3 | 24.7 | 27.1 | 29.4 | 31.6 | 34.1 | 37.1 |
| Other professional services | 0.6 | 1.5 | 8.7 | 16.6 | 18.6 | 21.1 | 23.8 | 27.1 | 30.7 | 35.8 |
| Home health care | 0.0 | 0.1 | 1.3 | 3.8 | 4.0 | 4.1 | 4.5 | 5.6 | 7.6 | 9.8 |
| Drugs and other medical non-durables | 4.2 | 8.8 | 21.6 | 36.2 | 39.7 | 43.2 | 46.3 | 50.5 | 55.6 | 60.7 |
| Vision products and other medical durables | 0.8 | 2.0 | 4.6 | 7.1 | 8.1 | 9.1 | 10.1 | 10.4 | 11.7 | 12.4 |
| Nursing home care | 1.0 | 4.9 | 20.0 | 34.1 | 36.7 | 39.7 | 42.8 | 47.5 | 53.3 | 59.9 |
| Other personal health care | 0.7 | 1.4 | 4.6 | 6.4 | 7.1 | 7.8 | 8.7 | 9.8 | 11.5 | 14.0 |
| Program administration and net cost of private health insurance | 1.2 | 2.8 | 12.2 | 25.2 | 24.6 | 23.0 | 26.9 | 33.8 | 38.9 | 43.9 |
| Government public health activities | 0.4 | 1.4 | 7.2 | 12.3 | 13.5 | 14.6 | 16.6 | 18.9 | 22.0 | 24.5 |
| Research and construction | 1.7 | 5.3 | 11.3 | 15.4 | 16.0 | 17.3 | 19.8 | 20.7 | 22.7 | 23.1 |
| Research[1] | 0.7 | 2.0 | 5.4 | 7.8 | 8.5 | 9.0 | 10.3 | 11.0 | 11.9 | 12.6 |
| Construction | 1.0 | 3.4 | 5.8 | 7.6 | 7.4 | 8.2 | 9.5 | 9.7 | 10.8 | 10.6 |
| | | | | | Average annual percent change from previous year shown | | | | | |
| National health expenditures | — | 10.6 | 12.9 | 11.1 | 7.6 | 8.6 | 10.5 | 10.7 | 11.7 | 11.4 |
| Health services and supplies | — | 10.5 | 13.2 | 11.3 | 7.8 | 8.6 | 10.3 | 10.9 | 11.8 | 11.7 |
| Personal health care | — | 10.5 | 13.0 | 11.0 | 8.4 | 9.6 | 9.9 | 10.0 | 11.4 | 11.6 |
| Hospital care | — | 11.7 | 13.9 | 10.4 | 6.8 | 8.0 | 9.2 | 9.6 | 11.1 | 11.8 |
| Physician services | — | 9.9 | 11.9 | 12.1 | 10.9 | 13.3 | 13.1 | 10.4 | 11.0 | 10.2 |
| Dental services | — | 9.1 | 11.9 | 10.1 | 6.4 | 9.6 | 8.5 | 7.5 | 7.7 | 8.8 |
| Other professional services | — | 9.6 | 19.1 | 13.8 | 12.0 | 13.6 | 12.4 | 13.8 | 13.5 | 16.7 |
| Home health care | — | 14.5 | 25.2 | 23.3 | 3.7 | 3.4 | 9.9 | 24.4 | 34.4 | 29.0 |
| Drugs and other medical non-durables | — | 7.6 | 9.4 | 10.8 | 9.9 | 8.6 | 7.2 | 9.1 | 10.3 | 9.0 |
| Vision products and other medical durables | — | 9.6 | 8.5 | 9.4 | 13.0 | 12.3 | 11.8 | 2.8 | 12.6 | 5.4 |
| Nursing home care | — | 17.4 | 15.2 | 11.3 | 7.6 | 8.0 | 7.8 | 11.1 | 12.3 | 12.4 |
| Other personal health care | — | 7.1 | 12.8 | 6.9 | 11.1 | 10.0 | 12.1 | 11.8 | 17.4 | 21.9 |
| Program administration and net cost of private health insurance | — | 9.0 | 16.0 | 15.5 | -2.2 | -6.6 | 16.8 | 25.7 | 15.3 | 12.7 |
| Government public health activities | — | 13.9 | 18.0 | 11.3 | 9.6 | 8.3 | 13.5 | 14.3 | 16.0 | 11.6 |
| Research and construction | — | 12.1 | 7.8 | 6.4 | 3.7 | 8.2 | 14.9 | 4.2 | 9.6 | 2.1 |
| Research[1] | — | 10.9 | 10.8 | 7.4 | 9.5 | 5.7 | 14.5 | 6.2 | 8.0 | 6.1 |
| Construction | — | 12.8 | 5.6 | 5.4 | -2.4 | 11.1 | 15.3 | 1.9 | 11.5 | -2.2 |

[1]Research and development expenditures of drug companies and other manufacturers and providers of medical equipment and supplies are excluded from "research expenditures" but are included in the expenditure class in which the product falls.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 15

## National health expenditures, by source of funds and type of expenditure: Selected years 1980-91

| Year and type of expenditure | Total | Private | | | | | Government | | |
|---|---|---|---|---|---|---|---|---|---|
| | | All private funds | Consumer | | | Other | Total | Federal | State and local |
| | | | Total | Out-of-pocket | Private insurance | | | | |
| **1980** | Amount in billions | | | | | | | | |
| National health expenditures | $250.1 | $145.0 | $132.9 | $59.5 | $73.4 | $12.1 | $105.2 | $72.0 | $33.2 |
| Health services and supplies | 238.9 | 140.7 | 132.9 | 59.5 | 73.4 | 7.8 | 98.1 | 66.8 | 31.4 |
| Personal health care | 219.4 | 132.3 | 124.8 | 59.5 | 65.3 | 7.6 | 87.1 | 63.5 | 23.6 |
| Hospital care | 102.4 | 47.8 | 42.8 | 5.3 | 37.5 | 5.0 | 54.6 | 41.3 | 13.3 |
| Physician services | 41.9 | 29.2 | 29.2 | 11.3 | 18.0 | 0.0 | 12.6 | 9.7 | 3.0 |
| Dental services | 14.4 | 13.7 | 13.7 | 9.4 | 4.4 | — | 0.6 | 0.4 | 0.3 |
| Other professional services | 8.7 | 6.9 | 6.0 | 3.8 | 2.2 | 0.9 | 1.7 | 1.3 | 0.4 |
| Home health care | 1.3 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 1.0 | 0.8 | 0.1 |
| Drugs and other medical non-durables | 21.6 | 20.0 | 20.0 | 17.5 | 2.5 | — | 1.7 | 0.8 | 0.8 |
| Vision products and other medical durables | 4.6 | 4.0 | 4.0 | 3.5 | 0.4 | — | 0.6 | 0.5 | 0.1 |
| Nursing home care | 20.0 | 9.5 | 8.8 | 8.7 | 0.2 | 0.6 | 10.5 | 6.1 | 4.4 |
| Other personal health care | 4.6 | 0.9 | — | — | — | 0.9 | 3.7 | 2.5 | 1.2 |
| Program administration and net cost of private health insurance | 12.2 | 8.4 | 8.1 | — | 8.1 | 0.2 | 3.8 | 2.1 | 1.8 |
| Government public health activities | 7.2 | — | — | — | — | — | 7.2 | 1.2 | 6.0 |
| Research and construction | 11.3 | 4.2 | — | — | — | 4.2 | 7.0 | 5.2 | 1.8 |
| Research | 5.4 | 0.3 | — | — | — | 0.3 | 5.2 | 4.7 | 0.5 |
| Construction | 5.8 | 4.0 | — | — | — | 4.0 | 1.9 | 0.6 | 1.3 |
| **1989** | | | | | | | | | |
| National health expenditures | 604.3 | 351.0 | 323.3 | 126.2 | 197.1 | 27.7 | 253.3 | 175.0 | 78.3 |
| Health services and supplies | 583.6 | 342.8 | 323.3 | 126.2 | 197.1 | 19.5 | 240.9 | 165.3 | 75.5 |
| Personal health care | 530.9 | 315.8 | 296.8 | 126.2 | 170.6 | 19.0 | 215.2 | 158.8 | 56.3 |
| Hospital care | 232.4 | 107.7 | 95.1 | 10.8 | 84.3 | 12.6 | 124.7 | 94.0 | 30.7 |
| Physician services | 116.1 | 76.5 | 76.4 | 22.5 | 53.9 | 0.0 | 39.6 | 31.7 | 7.9 |
| Dental services | 31.6 | 30.9 | 30.9 | 17.4 | 13.5 | — | 0.7 | 0.4 | 0.3 |
| Other professional services | 27.1 | 21.5 | 18.5 | 8.4 | 10.1 | 3.0 | 5.6 | 4.2 | 1.3 |
| Home health care | 5.6 | 1.4 | 1.0 | 0.7 | 0.4 | 0.4 | 4.2 | 3.3 | 0.9 |
| Drugs and other medical non-durables | 50.5 | 45.4 | 45.4 | 38.5 | 6.9 | — | 5.1 | 2.5 | 2.6 |
| Vision products and other medical durables | 10.4 | 7.9 | 7.9 | 6.9 | 1.1 | — | 2.5 | 2.2 | 0.3 |
| Nursing home care | 47.5 | 22.5 | 21.5 | 21.0 | 0.5 | 0.9 | 25.0 | 16.1 | 9.0 |
| Other personal health care | 9.8 | 2.1 | — | — | — | 2.1 | 7.7 | 4.5 | 3.2 |
| Program administration and net cost of private health insurance | 33.8 | 27.0 | 26.5 | — | 26.5 | 0.5 | 6.8 | 4.3 | 2.4 |
| Government public health activities | 18.9 | — | — | — | — | — | 18.9 | 2.1 | 16.8 |
| Research and construction | 20.7 | 8.2 | — | — | — | 8.2 | 12.5 | 9.7 | 2.8 |
| Research | 11.0 | 0.8 | — | — | — | 0.8 | 10.2 | 8.8 | 1.3 |
| Construction | 9.7 | 7.4 | — | — | — | 7.4 | 2.3 | 0.8 | 1.4 |

See footnotes at end of table.

## Table 15—Continued

## National health expenditures, by source of funds and type of expenditure: Selected years 1980-91

| Year and type of expenditure | Total | Private | | | | | Government | | |
|---|---|---|---|---|---|---|---|---|---|
| | | All private funds | Consumer | | | Other | Total | Federal | State and local |
| | | | Total | Out-of-pocket | Private insurance | | | | |
| **1990** | | | | | | | | | |
| National health expenditures | $675.0 | $390.0 | $358.7 | $136.5 | $222.2 | $31.3 | $285.1 | $194.5 | $90.5 |
| Health services and supplies | 652.4 | 380.7 | 358.7 | 136.5 | 222.2 | 22.0 | 271.7 | 184.1 | 87.6 |
| Personal health care | 591.5 | 349.2 | 327.7 | 136.5 | 191.2 | 21.5 | 242.3 | 177.0 | 65.3 |
| Hospital care | 258.1 | 118.6 | 104.7 | 10.3 | 94.3 | 13.9 | 139.5 | 104.0 | 35.5 |
| Physician services | 128.8 | 84.8 | 84.8 | 24.1 | 60.7 | 0.0 | 44.0 | 34.9 | 9.1 |
| Dental services | 34.1 | 33.2 | 33.2 | 18.6 | 14.6 | — | 0.8 | 0.5 | 0.4 |
| Other professional services | 30.7 | 24.0 | 20.4 | 9.0 | 11.4 | 3.6 | 6.7 | 5.1 | 1.6 |
| Home health care | 7.6 | 2.1 | 1.5 | 1.0 | 0.6 | 0.6 | 5.5 | 4.4 | 1.0 |
| Drugs and other medical non-durables | 55.6 | 49.6 | 49.6 | 41.7 | 7.9 | — | 6.1 | 3.0 | 3.1 |
| Vision products and other medical durables | 11.7 | 8.8 | 8.8 | 7.7 | 1.2 | — | 2.9 | 2.5 | 0.4 |
| Nursing home care | 53.3 | 25.8 | 24.8 | 24.2 | 0.6 | 1.0 | 27.6 | 17.0 | 10.6 |
| Other personal health care | 11.5 | 2.2 | — | — | — | 2.2 | 9.2 | 5.6 | 3.6 |
| Program administration and net cost of private health insurance | 38.9 | 31.5 | 30.9 | — | 30.9 | 0.6 | 7.4 | 4.7 | 2.7 |
| Government public health activities | 22.0 | — | — | — | — | — | 22.0 | 2.4 | 19.6 |
| Research and construction | 22.7 | 9.3 | — | — | — | 9.3 | 13.4 | 10.4 | 3.0 |
| Research | 11.9 | 0.8 | — | — | — | 0.8 | 11.0 | 9.6 | 1.4 |
| Construction | 10.8 | 8.4 | — | — | — | 8.4 | 2.4 | 0.8 | 1.5 |
| **1991** | | | | | | | | | |
| National health expenditures | 751.8 | 421.8 | 388.6 | 144.3 | 244.4 | 33.2 | 330.0 | 222.9 | 107.1 |
| Health services and supplies | 728.6 | 412.7 | 388.6 | 144.3 | 244.4 | 24.1 | 315.9 | 212.0 | 103.9 |
| Personal health care | 660.2 | 377.0 | 353.5 | 144.3 | 209.3 | 23.4 | 283.3 | 204.1 | 79.1 |
| Hospital care | 288.6 | 126.0 | 111.4 | 9.9 | 101.5 | 14.7 | 162.6 | 119.1 | 43.5 |
| Physician services | 142.0 | 92.5 | 92.5 | 25.7 | 66.8 | 0.1 | 49.4 | 39.0 | 10.4 |
| Dental services | 37.1 | 36.0 | 36.0 | 19.9 | 16.1 | — | 1.1 | 0.6 | 0.5 |
| Other professional services | 35.8 | 27.5 | 23.0 | 9.7 | 13.3 | 4.4 | 8.4 | 6.4 | 2.0 |
| Home health care | 9.8 | 2.7 | 2.0 | 1.2 | 0.7 | 0.7 | 7.1 | 5.7 | 1.3 |
| Drugs and other medical non-durables | 60.7 | 53.3 | 53.3 | 44.3 | 9.0 | — | 7.3 | 3.6 | 3.7 |
| Vision products and other medical durables | 12.4 | 8.8 | 8.8 | 7.7 | 1.2 | — | 3.5 | 3.1 | 0.4 |
| Nursing home care | 59.9 | 27.6 | 26.5 | 25.8 | 0.6 | 1.1 | 32.3 | 19.5 | 12.8 |
| Other personal health care | 14.0 | 2.4 | — | — | — | 2.4 | 11.6 | 7.0 | 4.6 |
| Program administration and net cost of private health insurance | 43.9 | 35.7 | 35.1 | — | 35.1 | 0.6 | 8.1 | 5.2 | 3.0 |
| Government public health activities | 24.5 | — | — | — | — | — | 24.5 | 2.7 | 21.8 |
| Research and construction | 23.1 | 9.1 | — | — | — | 9.1 | 14.0 | 10.9 | 3.2 |
| Research | 12.6 | 0.9 | — | — | — | 0.9 | 11.7 | 10.2 | 1.5 |
| Construction | 10.6 | 8.2 | — | — | — | 8.2 | 2.4 | 0.7 | 1.6 |

NOTES: 0.0 denotes amounts less than $50 million. Research and development expenditures of drug companies and other manufacturers and providers of medical equipment and supplies are excluded from "research expenditures" but are included in the expenditure class in which the product falls. Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 16

**Personal health care expenditures aggregate and per capita amounts and percent distribution, by source of funds: Selected years 1960–91**

| Year | Total | Out-of-pocket payments | Third-party payments | | | | | | Medicare[1] | Medicaid[2] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Private health insurance | Other private funds | Government | | | | |
| | | | | | | Total | Federal | State and local | | |
| | | | | | Amount in billions | | | | | |
| 1960 | $23.9 | $13.3 | $10.5 | $5.0 | $0.4 | $5.1 | $2.1 | $3.0 | — | — |
| 1970 | 64.9 | 25.6 | 39.3 | 15.2 | 1.7 | 22.4 | 14.6 | 7.8 | $7.2 | $5.1 |
| 1980 | 219.4 | 59.5 | 159.9 | 65.3 | 7.6 | 87.1 | 63.5 | 23.6 | 36.4 | 24.8 |
| 1985 | 369.7 | 94.4 | 275.3 | 114.2 | 12.9 | 148.2 | 111.7 | 36.6 | 70.2 | 39.7 |
| 1986 | 400.8 | 100.9 | 299.9 | 124.4 | 14.0 | 161.5 | 120.1 | 41.4 | 75.1 | 42.9 |
| 1987 | 439.3 | 108.8 | 330.5 | 138.1 | 15.0 | 177.4 | 130.4 | 46.9 | 81.3 | 48.2 |
| 1988 | 482.8 | 118.5 | 364.3 | 155.0 | 16.8 | 192.5 | 141.7 | 50.9 | 88.4 | 52.1 |
| 1989 | 530.9 | 126.2 | 404.7 | 170.6 | 19.0 | 215.2 | 158.8 | 56.3 | 100.4 | 59.1 |
| 1990 | 591.5 | 136.5 | 455.0 | 191.2 | 21.5 | 242.3 | 177.0 | 65.3 | 108.5 | 71.8 |
| 1991 | 660.2 | 144.3 | 516.0 | 209.3 | 23.4 | 283.3 | 204.1 | 79.1 | 120.2 | 96.5 |
| | | | | | Per capita amount | | | | | |
| 1960 | $126 | $70 | $55 | $26 | $2 | $27 | $11 | $16 | — | — |
| 1970 | 302 | 119 | 183 | 71 | 8 | 105 | 68 | 36 | [3] | [3] |
| 1980 | 933 | 253 | 680 | 278 | 32 | 370 | 270 | 100 | [3] | [3] |
| 1985 | 1,497 | 382 | 1,115 | 462 | 52 | 600 | 452 | 148 | [3] | [3] |
| 1986 | 1,607 | 405 | 1,202 | 499 | 56 | 648 | 482 | 166 | [3] | [3] |
| 1987 | 1,744 | 432 | 1,312 | 548 | 60 | 704 | 518 | 186 | [3] | [3] |
| 1988 | 1,898 | 466 | 1,432 | 609 | 66 | 757 | 557 | 200 | [3] | [3] |
| 1989 | 2,066 | 491 | 1,575 | 664 | 74 | 837 | 618 | 219 | [3] | [3] |
| 1990 | 2,279 | 526 | 1,753 | 737 | 83 | 933 | 682 | 251 | [3] | [3] |
| 1991 | 2,518 | 550 | 1,968 | 798 | 89 | 1,080 | 779 | 302 | [3] | [3] |
| | | | | | Percent distribution | | | | | |
| 1960 | 100.0 | 55.9 | 44.1 | 21.0 | 1.7 | 21.4 | 8.9 | 12.5 | — | — |
| 1970 | 100.0 | 39.5 | 60.5 | 23.4 | 2.6 | 34.6 | 22.6 | 12.0 | 11.1 | 7.8 |
| 1980 | 100.0 | 27.1 | 72.9 | 29.7 | 3.5 | 39.7 | 28.9 | 10.8 | 16.6 | 11.3 |
| 1985 | 100.0 | 25.5 | 74.5 | 30.9 | 3.5 | 40.1 | 30.2 | 9.9 | 19.0 | 10.7 |
| 1986 | 100.0 | 25.2 | 74.8 | 31.0 | 3.5 | 40.3 | 30.0 | 10.3 | 18.7 | 10.7 |
| 1987 | 100.0 | 24.8 | 75.2 | 31.4 | 3.4 | 40.4 | 29.7 | 10.7 | 18.5 | 11.0 |
| 1988 | 100.0 | 24.5 | 75.5 | 32.1 | 3.5 | 39.9 | 29.3 | 10.5 | 18.3 | 10.8 |
| 1989 | 100.0 | 23.8 | 76.2 | 32.1 | 3.6 | 40.5 | 29.9 | 10.6 | 18.9 | 11.1 |
| 1990 | 100.0 | 23.1 | 76.9 | 32.3 | 3.6 | 41.0 | 29.9 | 11.0 | 18.3 | 12.1 |
| 1991 | 100.0 | 21.9 | 78.1 | 31.7 | 3.6 | 42.9 | 30.9 | 12.0 | 18.2 | 14.6 |

[1]Subset of Federal funds.
[2]Subset of Federal and State and local funds.
[3]Calculation of per capita estimates is inappropriate.

NOTES: Per capita amounts based on July 1 Social Security area population estimates. Numbers and percents may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 17

**Hospital care expenditures aggregate and per capita amounts and percent distribution, by source of funds: Selected years 1960–91**

| Year | Total | Out-of-pocket payments | Third-party payments | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Private health insurance | Other private funds | Government | | | | |
| | | | | | | Total | Federal | State and local | Medicare[1] | Medicaid[2] |
| | | | | | Amount in billions | | | | | |
| 1960 | $9.3 | $1.9 | $7.4 | $3.3 | $0.1 | $3.9 | $1.6 | $2.3 | — | — |
| 1970 | 27.9 | 2.5 | 25.4 | 9.6 | 0.9 | 14.9 | 9.8 | 5.1 | $5.3 | $2.2 |
| 1980 | 102.4 | 5.3 | 97.1 | 37.5 | 5.0 | 54.6 | 41.3 | 13.3 | 26.4 | 9.7 |
| 1985 | 168.3 | 8.8 | 159.5 | 59.6 | 8.3 | 91.6 | 71.8 | 19.7 | 48.6 | 15.5 |
| 1986 | 179.8 | 8.5 | 171.2 | 63.8 | 9.1 | 98.4 | 75.6 | 22.8 | 50.7 | 16.5 |
| 1987 | 194.2 | 8.7 | 185.5 | 69.4 | 9.8 | 106.4 | 80.7 | 25.7 | 53.7 | 18.5 |
| 1988 | 212.0 | 10.4 | 201.6 | 76.2 | 11.1 | 114.3 | 86.2 | 28.1 | 57.5 | 20.0 |
| 1989 | 232.4 | 10.8 | 221.6 | 84.3 | 12.6 | 124.7 | 94.0 | 30.7 | 62.5 | 22.9 |
| 1990 | 258.1 | 10.3 | 247.7 | 94.3 | 13.9 | 139.5 | 104.0 | 35.5 | 67.4 | 28.9 |
| 1991 | 288.6 | 9.9 | 278.7 | 101.5 | 14.7 | 162.6 | 119.1 | 43.5 | 73.3 | 43.4 |
| | | | | | Per capita amount | | | | | |
| 1960 | $49 | $10 | $39 | $17 | $1 | $21 | $8 | $12 | — | — |
| 1970 | 130 | 12 | 118 | 45 | 4 | 69 | 46 | 24 | [3] | [3] |
| 1980 | 436 | 23 | 413 | 159 | 21 | 232 | 176 | 56 | [3] | [3] |
| 1985 | 681 | 36 | 645 | 241 | 33 | 371 | 291 | 80 | [3] | [3] |
| 1986 | 721 | 34 | 686 | 256 | 36 | 394 | 303 | 91 | [3] | [3] |
| 1987 | 771 | 35 | 737 | 276 | 39 | 422 | 320 | 102 | [3] | [3] |
| 1988 | 833 | 41 | 793 | 300 | 44 | 449 | 339 | 110 | [3] | [3] |
| 1989 | 904 | 42 | 862 | 328 | 49 | 485 | 366 | 119 | [3] | [3] |
| 1990 | 994 | 40 | 954 | 363 | 54 | 537 | 401 | 137 | [3] | [3] |
| 1991 | 1,101 | 38 | 1,063 | 387 | 56 | 620 | 455 | 166 | [3] | [3] |
| | | | | | Percent distribution | | | | | |
| 1960 | 100.0 | 20.7 | 79.3 | 35.6 | 1.2 | 42.5 | 17.3 | 25.2 | — | — |
| 1970 | 100.0 | 9.0 | 91.0 | 34.4 | 3.2 | 53.4 | 35.1 | 18.3 | 18.8 | 8.1 |
| 1980 | 100.0 | 5.2 | 94.8 | 36.6 | 4.9 | 53.3 | 40.4 | 12.9 | 25.8 | 9.4 |
| 1985 | 100.0 | 5.2 | 94.8 | 35.4 | 4.9 | 54.4 | 42.7 | 11.7 | 28.9 | 9.2 |
| 1986 | 100.0 | 4.8 | 95.2 | 35.5 | 5.0 | 54.7 | 42.0 | 12.7 | 28.2 | 9.2 |
| 1987 | 100.0 | 4.5 | 95.5 | 35.7 | 5.0 | 54.8 | 41.5 | 13.2 | 27.7 | 9.5 |
| 1988 | 100.0 | 4.9 | 95.1 | 36.0 | 5.3 | 53.9 | 40.6 | 13.2 | 27.1 | 9.4 |
| 1989 | 100.0 | 4.7 | 95.3 | 36.3 | 5.4 | 53.7 | 40.4 | 13.2 | 26.9 | 9.8 |
| 1990 | 100.0 | 4.0 | 96.0 | 36.6 | 5.4 | 54.0 | 40.3 | 13.7 | 26.1 | 11.2 |
| 1991 | 100.0 | 3.4 | 96.6 | 35.2 | 5.1 | 56.3 | 41.3 | 15.1 | 25.4 | 15.0 |

[1]Subset of Federal funds.
[2]Subset of Federal and State and local funds.
[3]Calculation of per capita estimates is inappropriate.

NOTES: Per capita amounts based on July 1 social security area population estimates. Numbers and percents may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 18

**Physician care expenditures aggregate and per capita amounts and percent distribution, by source of funds: Selected years 1960–91**

| Year | Total | Out-of-pocket payments | Third-party payments | | | | | | Medicare[1] | Medicaid[2] |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Private health insurance | Other private funds | Government | | | | |
| | | | | | | Total | Federal | State and local | | |
| | | | | | Amount in billions | | | | | |
| 1960 | $5.3 | $3.3 | $2.0 | $1.6 | $0.0 | $0.4 | $0.1 | $0.3 | — | — |
| 1970 | 13.6 | 5.8 | 7.8 | 4.8 | 0.0 | 3.0 | 2.1 | 0.8 | $1.6 | $0.6 |
| 1980 | 41.9 | 11.3 | 30.6 | 18.0 | 0.0 | 12.6 | 9.7 | 3.0 | 7.9 | 2.1 |
| 1985 | 74.0 | 16.1 | 57.8 | 33.7 | 0.0 | 24.1 | 19.2 | 4.9 | 16.7 | 2.8 |
| 1986 | 82.1 | 17.0 | 65.0 | 37.5 | 0.0 | 27.5 | 22.0 | 5.5 | 19.0 | 3.2 |
| 1987 | 93.0 | 19.0 | 74.0 | 42.6 | 0.0 | 31.4 | 25.1 | 6.3 | 21.7 | 3.5 |
| 1988 | 105.1 | 20.9 | 84.3 | 49.1 | 0.0 | 35.1 | 28.1 | 7.0 | 24.2 | 3.7 |
| 1989 | 116.1 | 22.5 | 93.6 | 53.9 | 0.0 | 39.6 | 31.7 | 7.9 | 27.4 | 4.3 |
| 1990 | 128.8 | 24.1 | 104.8 | 60.7 | 0.0 | 44.0 | 34.9 | 9.1 | 29.7 | 5.3 |
| 1991 | 142.0 | 25.7 | 116.3 | 66.8 | 0.1 | 49.4 | 39.0 | 10.4 | 32.8 | 6.9 |
| | | | | | Per capita amount | | | | | |
| 1960 | $28 | $17 | $10 | $8 | $0 | $2 | $0 | $2 | — | — |
| 1970 | 63 | 27 | 36 | 22 | 0 | 14 | 10 | 4 | [3] | [3] |
| 1980 | 178 | 48 | 130 | 76 | 0 | 54 | 41 | 13 | [3] | [3] |
| 1985 | 299 | 65 | 234 | 136 | 0 | 98 | 78 | 20 | [3] | [3] |
| 1986 | 329 | 68 | 261 | 150 | 0 | 110 | 88 | 22 | [3] | [3] |
| 1987 | 369 | 75 | 294 | 169 | 0 | 125 | 100 | 25 | [3] | [3] |
| 1988 | 413 | 82 | 331 | 193 | 0 | 138 | 110 | 28 | [3] | [3] |
| 1989 | 452 | 88 | 364 | 210 | 0 | 154 | 123 | 31 | [3] | [3] |
| 1990 | 496 | 93 | 404 | 234 | 0 | 170 | 134 | 35 | [3] | [3] |
| 1991 | 542 | 98 | 443 | 255 | 0 | 189 | 149 | 40 | [3] | [3] |
| | | | | | Percent distribution | | | | | |
| 1960 | 100.0 | 62.7 | 37.3 | 30.2 | 0.1 | 7.1 | 1.4 | 5.7 | — | — |
| 1970 | 100.0 | 42.8 | 57.2 | 35.2 | 0.1 | 21.9 | 15.8 | 6.1 | 11.8 | 4.6 |
| 1980 | 100.0 | 26.9 | 73.1 | 42.9 | 0.1 | 30.2 | 23.1 | 7.1 | 19.0 | 5.1 |
| 1985 | 100.0 | 21.8 | 78.2 | 45.6 | 0.0 | 32.6 | 26.0 | 6.6 | 22.5 | 3.9 |
| 1986 | 100.0 | 20.8 | 79.2 | 45.7 | 0.0 | 33.5 | 26.8 | 6.7 | 23.1 | 3.9 |
| 1987 | 100.0 | 20.4 | 79.6 | 45.8 | 0.0 | 33.8 | 27.0 | 6.8 | 23.3 | 3.8 |
| 1988 | 100.0 | 19.9 | 80.1 | 46.7 | 0.0 | 33.4 | 26.7 | 6.7 | 23.0 | 3.6 |
| 1989 | 100.0 | 19.4 | 80.6 | 46.4 | 0.0 | 34.1 | 27.3 | 6.8 | 23.6 | 3.7 |
| 1990 | 100.0 | 18.7 | 81.3 | 47.1 | 0.0 | 34.2 | 27.1 | 7.1 | 23.1 | 4.1 |
| 1991 | 100.0 | 18.1 | 81.9 | 47.0 | 0.0 | 34.8 | 27.5 | 7.3 | 23.1 | 4.9 |

[1]Subset of Federal funds.
[2]Subset of Federal and State and local funds.
[3]Calculation of per capita estimates is inappropriate.

NOTES: 0.0 denotes less than $50 million for aggregate amounts, and 0 denotes less than $0.50 for per capita amounts. Per capita amounts based on July 1 Social Security area population estimates. Numbers and percents may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 19

**Nursing home care expenditures aggregate and per capita amounts and percent distribution, by source of funds: Selected years 1960–91**

| Year | Total | Out-of-pocket payments | Third-party payments | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Private health insurance | Other private funds | Government | | | | |
| | | | | | | Total | Federal | State and local | Medicare[1] | Medicaid[2] |
| | | | | | Amount in billions | | | | | |
| 1960 | $1.0 | $0.8 | $0.2 | $0.0 | $0.1 | $0.1 | $0.1 | $0.1 | — | — |
| 1970 | 4.9 | 2.3 | 2.5 | 0.0 | 0.2 | 2.3 | 1.4 | 0.9 | $0.2 | $1.4 |
| 1980 | 20.0 | 8.7 | 11.3 | 0.2 | 0.6 | 10.5 | 6.1 | 4.4 | 0.4 | 9.7 |
| 1985 | 34.1 | 16.6 | 17.6 | 0.3 | 0.7 | 16.5 | 9.7 | 6.8 | 0.6 | 15.2 |
| 1986 | 36.7 | 18.0 | 18.7 | 0.4 | 0.7 | 17.6 | 10.5 | 7.2 | 0.6 | 16.2 |
| 1987 | 39.7 | 19.0 | 20.7 | 0.4 | 0.8 | 19.5 | 11.4 | 8.1 | 0.6 | 17.9 |
| 1988 | 42.8 | 20.6 | 22.2 | 0.5 | 0.8 | 20.9 | 12.6 | 8.3 | 1.0 | 19.0 |
| 1989 | 47.5 | 21.0 | 26.5 | 0.5 | 0.9 | 25.0 | 16.1 | 9.0 | 3.4 | 20.6 |
| 1990 | 53.3 | 24.2 | 29.2 | 0.6 | 1.0 | 27.6 | 17.0 | 10.6 | 2.4 | 24.0 |
| 1991 | 59.9 | 25.8 | 34.1 | 0.6 | 1.1 | 32.3 | 19.5 | 12.8 | 2.7 | 28.4 |
| | | | | | Per capita amount | | | | | |
| 1960 | $5 | $4 | $1 | $0 | $0 | $1 | $0 | $0 | — | — |
| 1970 | 23 | 11 | 12 | 0 | 1 | 11 | 6 | 4 | [3] | [3] |
| 1980 | 85 | 37 | 48 | 1 | 3 | 45 | 26 | 19 | [3] | [3] |
| 1985 | 138 | 67 | 71 | 1 | 3 | 67 | 39 | 28 | [3] | [3] |
| 1986 | 147 | 72 | 75 | 1 | 3 | 71 | 42 | 29 | [3] | [3] |
| 1987 | 157 | 75 | 82 | 2 | 3 | 77 | 45 | 32 | [3] | [3] |
| 1988 | 168 | 81 | 87 | 2 | 3 | 82 | 50 | 33 | [3] | [3] |
| 1989 | 185 | 82 | 103 | 2 | 4 | 97 | 63 | 35 | [3] | [3] |
| 1990 | 205 | 93 | 112 | 2 | 4 | 106 | 65 | 41 | [3] | [3] |
| 1991 | 229 | 99 | 130 | 2 | 4 | 123 | 74 | 49 | [3] | [3] |
| | | | | | Percent distribution | | | | | |
| 1960 | 100.0 | 80.0 | 20.0 | 0.0 | 6.4 | 13.6 | 6.9 | 6.7 | — | — |
| 1970 | 100.0 | 48.2 | 51.8 | 0.3 | 4.9 | 46.6 | 28.2 | 18.4 | 5.0 | 28.0 |
| 1980 | 100.0 | 43.3 | 56.7 | 0.9 | 3.1 | 52.7 | 30.7 | 21.9 | 2.1 | 48.6 |
| 1985 | 100.0 | 48.6 | 51.4 | 1.0 | 1.9 | 48.5 | 28.5 | 20.0 | 1.7 | 44.6 |
| 1986 | 100.0 | 49.1 | 50.9 | 1.0 | 1.9 | 48.0 | 28.5 | 19.5 | 1.6 | 44.1 |
| 1987 | 100.0 | 47.9 | 52.1 | 1.0 | 1.9 | 49.2 | 28.6 | 20.5 | 1.6 | 45.2 |
| 1988 | 100.0 | 48.1 | 51.9 | 1.1 | 1.9 | 48.9 | 29.5 | 19.4 | 2.2 | 44.4 |
| 1989 | 100.0 | 44.2 | 55.8 | 1.1 | 1.9 | 52.7 | 33.8 | 18.9 | 7.2 | 43.4 |
| 1990 | 100.0 | 45.3 | 54.7 | 1.1 | 1.9 | 51.7 | 31.9 | 19.8 | 4.5 | 45.1 |
| 1991 | 100.0 | 43.1 | 56.9 | 1.1 | 1.9 | 53.9 | 32.5 | 21.4 | 4.4 | 47.4 |

[1]Subset of Federal funds.
[2]Subset of Federal and State and local funds.
[3]Calculation of per capita estimates is inappropriate.

NOTES: 0.0 denotes less than $50 million for aggregate amounts, and 0 denotes less than $0.50 for per capita amounts. Per capita amounts based on July 1 Social Security area population estimates. Numbers and percents may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 20

### Other personal health care expenditures[1] aggregate and per capita amounts and percent distribution, by source of funds: Selected years 1960–91

| Year | Total | Out-of-pocket payments | Third-party payments | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Private health insurance | Other private funds | Government | | | Medicare[1] | Medicaid[2] |
| | | | | | | Total | Federal | State and local | | |
| | | | Amount in billions | | | | | | | |
| 1960 | $8.4 | $7.3 | $1.0 | $0.1 | $0.2 | $0.7 | $0.4 | $0.3 | — | — |
| 1970 | 18.5 | 14.9 | 3.6 | 0.8 | 0.5 | 2.3 | 1.3 | 1.0 | $0.1 | $0.8 |
| 1980 | 55.1 | 34.3 | 20.9 | 9.7 | 1.9 | 9.3 | 6.3 | 3.0 | 1.7 | 3.3 |
| 1985 | 93.4 | 52.9 | 40.5 | 20.5 | 4.0 | 16.0 | 10.9 | 5.2 | 4.4 | 6.1 |
| 1986 | 102.2 | 57.3 | 44.9 | 22.7 | 4.2 | 18.0 | 12.1 | 5.9 | 4.9 | 7.0 |
| 1987 | 112.4 | 62.1 | 50.3 | 25.7 | 4.4 | 20.1 | 13.3 | 6.8 | 5.2 | 8.2 |
| 1988 | 122.9 | 66.7 | 56.2 | 29.1 | 4.8 | 22.3 | 14.8 | 7.4 | 5.8 | 9.3 |
| 1989 | 135.0 | 71.8 | 63.1 | 31.9 | 5.4 | 25.8 | 17.1 | 8.7 | 7.0 | 11.4 |
| 1990 | 151.2 | 77.9 | 73.3 | 35.6 | 6.4 | 31.2 | 21.1 | 10.1 | 8.9 | 13.6 |
| 1991 | 169.7 | 82.8 | 86.9 | 40.4 | 7.6 | 38.9 | 26.5 | 12.5 | 11.5 | 17.8 |
| | | | Per capita amount | | | | | | | |
| 1960 | $44 | $39 | $5 | $1 | $1 | $4 | $2 | $1 | — | — |
| 1970 | 86 | 70 | 17 | 4 | 2 | 11 | 6 | 5 | [4] | [4] |
| 1980 | 235 | 146 | 89 | 41 | 8 | 40 | 27 | 13 | [4] | [4] |
| 1985 | 378 | 214 | 164 | 83 | 16 | 65 | 44 | 21 | [4] | [4] |
| 1986 | 410 | 230 | 180 | 91 | 17 | 72 | 49 | 24 | [4] | [4] |
| 1987 | 446 | 247 | 200 | 102 | 18 | 80 | 53 | 27 | [4] | [4] |
| 1988 | 483 | 262 | 221 | 114 | 19 | 88 | 58 | 29 | [4] | [4] |
| 1989 | 525 | 280 | 246 | 124 | 21 | 100 | 66 | 34 | [4] | [4] |
| 1990 | 582 | 300 | 282 | 137 | 25 | 120 | 81 | 39 | [4] | [4] |
| 1991 | 647 | 316 | 331 | 154 | 29 | 148 | 101 | 48 | [4] | [4] |
| | | | Percent distribution | | | | | | | |
| 1960 | 100.0 | 87.8 | 12.2 | 1.4 | 2.7 | 8.0 | 4.7 | 3.3 | — | — |
| 1970 | 100.0 | 80.6 | 19.4 | 4.3 | 2.7 | 12.4 | 7.2 | 5.2 | 0.7 | 4.4 |
| 1980 | 100.0 | 62.1 | 37.9 | 17.5 | 3.5 | 16.9 | 11.4 | 5.4 | 3.1 | 6.0 |
| 1985 | 100.0 | 56.6 | 43.4 | 21.9 | 4.3 | 17.2 | 11.6 | 5.5 | 4.8 | 6.5 |
| 1986 | 100.0 | 56.1 | 43.9 | 22.2 | 4.1 | 17.7 | 11.9 | 5.8 | 4.8 | 6.9 |
| 1987 | 100.0 | 55.3 | 44.7 | 22.9 | 3.9 | 17.9 | 11.8 | 6.1 | 4.7 | 7.3 |
| 1988 | 100.0 | 54.3 | 45.7 | 23.7 | 3.9 | 18.1 | 12.1 | 6.1 | 4.7 | 7.6 |
| 1989 | 100.0 | 53.2 | 46.8 | 23.6 | 4.0 | 19.1 | 12.7 | 6.5 | 5.2 | 8.4 |
| 1990 | 100.0 | 51.5 | 48.5 | 23.6 | 4.3 | 20.7 | 14.0 | 6.7 | 5.9 | 9.0 |
| 1991 | 100.0 | 48.8 | 51.2 | 23.8 | 4.5 | 22.9 | 15.6 | 7.3 | 6.8 | 10.5 |

[1]Personal health care expenditures other than those for hospital care, physician services, and nursing home care.
[2]Subset of Federal funds.
[3]Subset of Federal and State and local funds.
[4]Calculation of per capita estimates is inappropriate.

NOTES: Per capita amounts based on July 1 Social Security area population estimates. Numbers and percents may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 21

## Personal health care expenditures, by type of expenditure and selected sources of payment: Selected years 1980–91

| Source of payment | Total | Hospital care | Physician services | Dental services | Other professional services | Home health care | Drugs and other medical non-durables | Vision products and other medical durables | Nursing home care | Other personal care |
|---|---|---|---|---|---|---|---|---|---|---|
| **1980** | | | | | Amount in billions | | | | | |
| Personal health care expenditures | $219.4 | $102.4 | $41.9 | $14.4 | $8.7 | $1.3 | $21.6 | $4.6 | $20.0 | $4.6 |
| Out-of-pocket payments | 59.5 | 5.3 | 11.3 | 9.4 | 3.8 | 0.1 | 17.5 | 3.5 | 8.7 | — |
| Third-party payments | 159.9 | 97.1 | 30.6 | 5.0 | 4.9 | 1.2 | 4.2 | 1.0 | 11.3 | 4.6 |
| Private health insurance | 65.3 | 37.5 | 18.0 | 4.4 | 2.2 | 0.1 | 2.5 | 0.4 | 0.2 | — |
| Other private | 7.6 | 5.0 | 0.0 | — | 0.9 | 0.1 | — | — | 0.6 | 0.9 |
| Government | 87.1 | 54.6 | 12.6 | 0.6 | 1.7 | 1.0 | 1.7 | 0.6 | 10.5 | 3.7 |
| Federal | 63.5 | 41.3 | 9.7 | 0.4 | 1.3 | 0.8 | 0.8 | 0.5 | 6.1 | 2.5 |
| Medicare | 36.4 | 26.4 | 7.9 | — | 0.6 | 0.7 | — | 0.4 | 0.4 | — |
| Medicaid | 13.7 | 5.3 | 1.2 | 0.3 | 0.3 | 0.2 | 0.8 | — | 5.4 | 0.3 |
| Other | 13.4 | 9.7 | 0.5 | 0.1 | 0.4 | — | 0.0 | 0.1 | 0.4 | 2.2 |
| State and local | 23.6 | 13.3 | 3.0 | 0.3 | 0.4 | 0.1 | 0.8 | 0.1 | 4.4 | 1.2 |
| Medicaid | 11.1 | 4.4 | 1.0 | 0.2 | 0.2 | 0.1 | 0.6 | — | 4.4 | 0.3 |
| Other | 12.5 | 8.9 | 2.0 | 0.1 | 0.2 | 0.0 | 0.2 | 0.1 | 0.0 | 0.9 |
| Total Medicaid | 24.8 | 9.7 | 2.1 | 0.5 | 0.5 | 0.3 | 1.4 | — | 9.7 | 0.6 |
| **1985** | | | | | | | | | | |
| Personal health care expenditures | 369.7 | 168.3 | 74.0 | 23.3 | 16.6 | 3.8 | 36.2 | 7.1 | 34.1 | 6.4 |
| Out-of-pocket payments | 94.4 | 8.8 | 16.1 | 13.5 | 6.1 | 0.5 | 28.0 | 4.8 | 16.6 | — |
| Third-party payments | 275.3 | 159.5 | 57.8 | 9.7 | 10.5 | 3.4 | 8.2 | 2.3 | 17.6 | 6.4 |
| Private health insurance | 114.2 | 59.6 | 33.7 | 9.1 | 5.2 | 0.3 | 5.2 | 0.7 | 0.3 | — |
| Other private | 12.9 | 8.3 | 0.0 | — | 2.2 | 0.4 | — | — | 0.7 | 1.4 |
| Government | 148.2 | 91.6 | 24.1 | 0.6 | 3.2 | 2.7 | 3.0 | 1.6 | 16.5 | 4.9 |
| Federal | 111.7 | 71.8 | 19.2 | 0.3 | 2.4 | 2.3 | 1.5 | 1.4 | 9.7 | 3.0 |
| Medicare | 70.2 | 48.6 | 16.7 | — | 1.4 | 1.8 | — | 1.3 | 0.6 | — |
| Medicaid | 21.9 | 8.4 | 1.6 | 0.3 | 0.5 | 0.5 | 1.4 | — | 8.4 | 0.7 |
| Other | 19.6 | 14.8 | 1.0 | 0.0 | 0.5 | (0.0) | 0.1 | 0.1 | 0.7 | 2.3 |
| State and local | 36.6 | 19.7 | 4.9 | 0.3 | 0.8 | 0.5 | 1.5 | 0.2 | 6.8 | 1.9 |
| Medicaid | 17.8 | 7.1 | 1.2 | 0.2 | 0.4 | 0.5 | 1.1 | — | 6.8 | 0.6 |
| Other | 18.8 | 12.7 | 3.6 | 0.1 | 0.3 | 0.0 | 0.5 | 0.2 | 0.0 | 1.4 |
| Total Medicaid | 39.7 | 15.5 | 2.8 | 0.5 | 0.9 | 0.9 | 2.5 | — | 15.2 | 1.3 |
| **1989** | | | | | | | | | | |
| Personal health care expenditures | 530.9 | 232.4 | 116.1 | 31.6 | 27.1 | 5.6 | 50.5 | 10.4 | 47.5 | 9.8 |
| Out-of-pocket payments | 126.2 | 10.8 | 22.5 | 17.4 | 8.4 | 0.7 | 38.5 | 6.9 | 21.0 | — |
| Third-party payments | 404.7 | 221.6 | 93.6 | 14.2 | 18.7 | 5.0 | 12.0 | 3.5 | 26.5 | 9.8 |
| Private health insurance | 170.6 | 84.3 | 53.9 | 13.5 | 10.1 | 0.4 | 6.9 | 1.1 | 0.5 | — |
| Other private | 19.0 | 12.6 | 0.0 | — | 3.0 | 0.4 | — | — | 0.9 | 2.1 |
| Government | 215.2 | 124.7 | 39.6 | 0.7 | 5.6 | 4.2 | 5.1 | 2.5 | 25.0 | 7.7 |
| Federal | 158.8 | 94.0 | 31.7 | 0.4 | 4.2 | 3.3 | 2.5 | 2.2 | 16.1 | 4.5 |
| Medicare | 100.4 | 62.5 | 27.4 | — | 2.7 | 2.3 | — | 2.0 | 3.4 | — |
| Medicaid | 33.6 | 13.0 | 2.5 | 0.4 | 1.0 | 1.0 | 2.4 | — | 11.7 | 1.7 |
| Other | 24.9 | 18.5 | 1.8 | 0.1 | 0.6 | — | 0.1 | 0.2 | 0.9 | 2.7 |
| State and local | 56.3 | 30.7 | 7.9 | 0.3 | 1.3 | 0.9 | 2.6 | 0.3 | 9.0 | 3.2 |
| Medicaid | 25.5 | 9.9 | 1.7 | 0.3 | 0.7 | 0.9 | 1.7 | — | 8.9 | 1.3 |
| Other | 30.8 | 20.8 | 6.2 | 0.1 | 0.6 | 0.0 | 0.9 | 0.3 | 0.1 | 1.9 |
| Total Medicaid | 59.1 | 22.9 | 4.3 | 0.6 | 1.7 | 1.9 | 4.1 | — | 20.6 | 3.1 |

See footnotes at end of table.

## Table 21—Continued

## Personal health care expenditures, by type of expenditure and selected sources of payment: Selected years 1980–91

| Source of payment | Total | Hospital care | Physician services | Dental services | Other professional services | Home health care | Drugs and other medical non-durables | Vision products and other medical durables | Nursing home casre | Other personal care |
|---|---|---|---|---|---|---|---|---|---|---|
| **1990** | | | | | Amount in billions | | | | | |
| Personal health care expenditures | $591.5 | $258.1 | $128.8 | $34.1 | $30.7 | $7.6 | $55.6 | $11.7 | $53.3 | $11.5 |
| Out-of-pocket payments | 136.5 | 10.3 | 24.1 | 18.6 | 9.0 | 1.0 | 41.7 | 7.7 | 24.2 | — |
| Third-party payments | 455.0 | 247.7 | 104.8 | 15.5 | 21.8 | 6.6 | 13.9 | 4.0 | 29.2 | 11.5 |
| Private health insurance | 191.2 | 94.3 | 60.7 | 14.6 | 11.4 | 0.6 | 7.9 | 1.2 | 0.6 | — |
| Other private | 21.5 | 13.9 | 0.0 | — | 3.6 | 0.6 | — | — | 1.0 | 2.2 |
| Government | 242.3 | 139.5 | 44.0 | 0.8 | 6.7 | 5.5 | 6.1 | 2.9 | 27.6 | 9.2 |
| Federal | 177.0 | 104.0 | 34.9 | 0.5 | 5.1 | 4.4 | 3.0 | 2.5 | 17.0 | 5.6 |
| Medicare | 108.5 | 67.4 | 29.7 | — | 3.3 | 3.3 | — | 2.3 | 2.4 | — |
| Medicaid | 40.7 | 16.3 | 3.1 | 0.4 | 1.2 | 1.2 | 2.9 | — | 13.5 | 2.1 |
| Other | 27.9 | 20.3 | 2.0 | 0.1 | 0.7 | — | 0.1 | 0.2 | 1.0 | 3.5 |
| State and local | 65.3 | 35.5 | 9.1 | 0.4 | 1.6 | 1.0 | 3.1 | 0.4 | 10.6 | 3.6 |
| Medicaid | 31.1 | 12.6 | 2.1 | 0.3 | 0.9 | 1.0 | 2.1 | — | 10.5 | 1.6 |
| Other | 34.1 | 22.9 | 7.0 | 0.1 | 0.7 | 0.0 | 1.0 | 0.4 | 0.1 | 2.0 |
| Total Medicaid | 71.8 | 28.9 | 5.3 | 0.7 | 2.1 | 2.2 | 4.9 | — | 24.0 | 3.7 |
| **1991** | | | | | | | | | | |
| Personal health care expenditures | 660.2 | 288.6 | 142.0 | 37.1 | 35.8 | 9.8 | 60.7 | 12.4 | 59.9 | 14.0 |
| Out-of-pocket payments | 144.3 | 9.9 | 25.7 | 19.9 | 9.7 | 1.2 | 44.3 | 7.7 | 25.8 | — |
| Third-party payments | 516.0 | 278.7 | 116.3 | 17.2 | 26.2 | 8.5 | 16.3 | 4.7 | 34.1 | 14.0 |
| Private health insurance | 209.3 | 101.5 | 66.8 | 16.1 | 13.3 | 0.7 | 9.0 | 1.2 | 0.6 | — |
| Other private | 23.4 | 14.7 | 0.1 | — | 4.4 | 0.7 | — | — | 1.1 | 2.4 |
| Government | 283.3 | 162.6 | 49.4 | 1.1 | 8.4 | 7.1 | 7.3 | 3.5 | 32.3 | 11.6 |
| Federal | 204.1 | 119.1 | 39.0 | 0.6 | 6.4 | 5.7 | 3.6 | 3.1 | 19.5 | 7.0 |
| Medicare | 120.2 | 73.3 | 32.8 | — | 4.2 | 4.4 | — | 2.9 | 2.7 | — |
| Medicaid | 53.5 | 23.9 | 4.0 | 0.5 | 1.5 | 1.4 | 3.5 | — | 15.7 | 3.0 |
| Other | 30.4 | 21.9 | 2.2 | 0.1 | 0.7 | — | 0.1 | 0.2 | 1.1 | 4.0 |
| State and local | 79.1 | 43.5 | 10.4 | 0.5 | 2.0 | 1.3 | 3.7 | 0.4 | 12.8 | 4.6 |
| Medicaid | 42.9 | 19.4 | 2.9 | 0.4 | 1.2 | 1.3 | 2.7 | — | 12.7 | 2.4 |
| Other | 36.2 | 24.0 | 7.5 | 0.1 | 0.8 | 0.0 | 1.1 | 0.4 | 0.1 | 2.2 |
| Total Medicaid | 96.5 | 43.4 | 6.9 | 0.9 | 2.7 | 2.6 | 6.2 | — | 28.4 | 5.4 |

NOTES: 0.0 denotes amounts less than $50 million. Medicaid expenditures exclude Part B premium payments to Medicare by States under "buy-in" agreements to cover premiums for eligible Medicaid recipients. Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## Table 22

## Expenditures for health services and supplies under public programs, by type of expenditure and program: Calendar year 1991

| Program area | All expenditures | Personal health care | | | | | | | | | | Administration | Public health activities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Hospital care | Physician services | Dental services | Other professional services | Home health care | Drugs and other medical nondurables | Vision products and other medical durables | Nursing home care | Other | | |
| | Amount in billions | | | | | | | | | | | | |
| Public and private spending | $728.6 | $660.2 | $288.6 | $142.0 | $37.1 | $35.8 | $9.8 | $60.7 | $12.4 | $59.9 | $14.0 | $43.9 | $24.5 |
| All public programs | 315.9 | 283.3 | 162.6 | 49.4 | 1.1 | 8.4 | 7.1 | 7.3 | 3.5 | 32.3 | 11.6 | 8.1 | 24.5 |
| Federal funds | 212.0 | 204.1 | 119.1 | 39.0 | 0.6 | 6.4 | 5.7 | 3.6 | 3.1 | 19.5 | 7.0 | 5.2 | 2.7 |
| State and local funds | 103.9 | 79.1 | 43.5 | 10.4 | 0.5 | 2.0 | 1.3 | 3.7 | 0.4 | 12.8 | 4.6 | 3.0 | 21.8 |
| Medicare | 122.8 | 120.2 | 73.3 | 32.8 | — | 4.2 | 4.4 | — | 2.9 | 2.7 | — | 2.6 | — |
| Medicaid[1] | 100.5 | 96.5 | 43.4 | 6.9 | 0.9 | 2.7 | 2.6 | 6.2 | — | 28.4 | 5.4 | 4.0 | — |
| Federal | 55.9 | 53.5 | 23.9 | 4.0 | 0.5 | 1.5 | 1.4 | 3.5 | — | 15.7 | 3.0 | 2.3 | — |
| State and local | 44.6 | 42.9 | 19.4 | 2.9 | 0.4 | 1.2 | 1.3 | 2.7 | — | 12.7 | 2.4 | 1.7 | — |
| Other State and local public assistance programs | 4.4 | 4.4 | 2.9 | 0.4 | 0.1 | 0.2 | 0.0 | 0.7 | 0.0 | 0.1 | 0.1 | — | — |
| Department of Veterans Affairs | 12.2 | 12.1 | 10.1 | 0.1 | 0.0 | — | — | 0.0 | 0.2 | 1.1 | 0.5 | 0.0 | — |
| Department of Defense[2] | 12.8 | 12.6 | 10.1 | 1.6 | 0.0 | — | — | 0.1 | — | — | 0.8 | 0.2 | — |
| Workers' compensation | 17.8 | 16.6 | 8.4 | 7.1 | — | 0.5 | — | 0.3 | 0.3 | — | — | 1.2 | — |
| Federal | 0.4 | 0.4 | 0.2 | 0.1 | — | 0.0 | — | 0.0 | 0.0 | — | — | 0.0 | — |
| State and local | 17.4 | 16.3 | 8.2 | 7.0 | — | 0.5 | — | 0.3 | 0.3 | — | — | 1.1 | — |
| State and local hospitals[3] | 12.7 | 12.7 | 12.7 | — | — | — | — | — | — | — | — | — | — |
| Other public programs for personal health care[4] | 8.2 | 8.0 | 1.7 | 0.5 | 0.0 | 0.8 | — | 0.0 | 0.1 | — | 4.8 | 0.2 | — |
| Federal | 5.2 | 5.2 | 1.4 | 0.4 | 0.0 | 0.7 | — | 0.0 | 0.1 | — | 2.7 | 0.1 | — |
| State and local | 2.9 | 2.8 | 0.3 | 0.2 | 0.0 | 0.2 | — | 0.0 | 0.0 | — | 2.1 | 0.1 | — |
| Government public health activities | 24.5 | — | — | — | — | — | — | — | — | — | — | — | 24.5 |
| Federal | 2.7 | — | — | — | — | — | — | — | — | — | — | — | 2.7 |
| State and local | 21.8 | — | — | — | — | — | — | — | — | — | — | — | 21.8 |
| Medicare and Medicaid | 223.3 | 216.7 | 116.7 | 39.7 | 0.9 | 6.9 | 7.0 | 6.2 | 2.9 | 31.1 | 5.4 | 6.6 | — |

[1]Excludes funds paid into the Medicare trust funds by States under "buy-in" agreements to cover premiums for public assistance recipients and for people who are medically indigent.
[2]Includes care for retirees and military dependents.
[3]Expenditures not offset by revenues.
[4]Includes program spending for maternal and child health; vocational rehabilitation medical payments; temporary disability insurance medical payments; Public Health Service and other Federal hospitals; Indian health services; alcoholism, drug abuse, and mental health; and school health.

NOTES: 0.0 denotes less than $50 million. Numbers may not add to total because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Health Statistics.

## References


Altman, B., and Walden, D.: Home Health Care: Use, Expenditures, and Sources of Payment. NMES Research Findings 15. Agency for Health Care Policy and Research, Public Health Service. Rockville, MD. To be published.

American Hospital Association: *Hospital Statistics*. Chicago. 1980-90.

Ashby, J.: The trend and distribution of hospital uncompensated care costs, 1980-89. Technical Report 1-91-04. Washington, DC. Prospective Payment Commission, Oct. 1991.

Health Care Financing Administration: Unpublished data from the Health Standards and Quality Bureau. Baltimore, MD. 1980-91.

Health Care Financing Administration: Medicaid Voluntary Contribution and Provider-Specific Tax Amendments of 1991 (Public Law 102-234). *Health Care Financing Review*. HCFA Pub. No. 03329. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, June 1992.

Helbing, C., Latta, V. B., and Keene, R. E.: Hospital outpatient services under Medicare, 1987. *Health Care Financing Review* 11(4):147-158. HCFA Pub. No. 03298. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1990.

Holahan, J., Coughlin, T., Ku, L., et al.: *Understanding The Recent Growth in Medicaid Spending*. Working Paper No. 6272-01. Washington, DC. The Urban Institute, July 1992.

King, K., Rimkunas, R., and Nuschler, D.: *Medicaid: Recent Trends in Beneficiaries and Spending*. CRS Report for Congress. Congressional Research Service, The Library ofCongress. Washington. Mar. 1992.

Lazenby, H. C., Levit, K. R., Waldo, D. R., et al.: National health accounts: Lessons from the U.S. experience. *Health Care Financing Review* 13(4):89-104. HCFA Pub. No. 03331. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1992.

Levit, K. R., Lazenby, H. C., Cowan, C. A., and Letsch, S. W.: National health expenditures, 1990. *Health Care Financing Review* 13(1):29-54. HCFA Pub. No. 03321. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Fall 1991.

Long, S. H.: *The Causes of Soaring Medicaid Spending, 1988-1991*. Working Paper. Washington, DC. RAND, Sept. 1992.

Merlis, M.: *Medicaid: Provider Donations and Provider-Specific Taxes*. CRS Report for Congress. Congressional Research Service, The Library of Congress. Washington. Oct. 1991.

Office of National Cost Estimates: Revisions to the National Health Accounts and methodology. *Health Care Financing Review* 11(4):42-54. HCFA Pub. No. 03298. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1990.

Office of the President: GNP and GDP. *Economic Report of the President*. Office of the President. Washington. U.S. Government Printing Office, Feb. 1992.

Pharmaceutical Manufacturers Association: Annual Survey Report. Washington, DC. Oct. 1991.

Ruther, M., Reilly, T. W., Silverman, H. A., and Abbott, D. B.: *Medicare and Medicaid Data Book, 1990*. Health Care Financing Program Statistics. HCFA Pub. No. 03314. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Mar. 1991.

Swan, J. H., Harrington, C., and Grant, L. A.: State Medicaid reimbursement for nursing homes, 1976-86. *Health Care Financing Review* 9(3):33-50. HCFA Pub. No. 03263. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Apr. 1988.

U.S. Congressional Budget Office: Staff Memorandum: Factors Contributing to the Growth of the Medicaid Program. Washington, DC. Congressional Budget Office, 1992.