- Consumers continued paying for a little more than one-half of all health care expenditures through private health insurance and out-of-pocket payments, a share that has changed very little during the past 16 years. The private health insurance share remained relatively constant for the last 2 years, after steadily increasing since 1960. Out-of-pocket payments dropped slightly as a percent of total expenditures in 1989 and 1990.

Health care costs continue to rise faster than GNP, a measure of total output of the United States. Despite an increasing share of GNP devoted to health care, a large and increasing number of people (33.4 million in 1989) remain uninsured by private health insurance or by public programs; additional persons are underinsured. Without sufficient insurance coverage, many Americans find access to the health care system limited for many services.

Extensive debate on various proposals that attempt to address the questions of access and rising health care costs is under way. The NHE estimates provide a backdrop for understanding health care financing issues and the factors that account for cost increases during the past three decades.

Detailed Tables 8-13 at the end of this article show expenditures for health care for selected years 1960 through 1990, both by type of service and by source of funds. Data figures from the detailed tables are highlighted throughout this article.

National health expenditures

NHE reached a level of $666.2 billion in 1990. Spending grew 10.5 percent, the third consecutive year of similar growth. In 1990, health expenditures absorbed 12.2 percent of GNP, compared with 11.6 percent of GNP in 1989. The 0.6-percentage-point change in the ratio from 1989 to 1990 was the largest increase since 1982 and the second largest increase since 1960. The increase in the proportion of the Nation's output going for health care can be attributed to rising health care costs and, more importantly, to the recession that began at the end of 1990. As GNP growth slowed in 1990 and health care cost growth remained strong, health care consumed an even greater incremental share of GNP than in the recent past.

In the United States, the average expenditure per person for health care reached $2,566 during 1990, an increase of 9.4 percent from 1989. Public expenditures accounted for $1,089 per capita (42.4 percent of the total expenditures for health care), and private funds paid for the remaining $1,478 (57.6 percent).

NHE is divided into two broad categories. The first category, health services and supplies (expenditures related to current health care), increased 10.5 percent to $643.4 billion in 1990, accounting for 96.6 percent of health expenditures. Health services and supplies, in turn, consists of personal health care (the direct provision of care), program administration and the net cost of private health insurance, and government public health activities.

The second category, research and construction of medical facilities (expenditures related to future health care), accounted for 3.4 percent of total expenditures, or $22.8 billion.

Personal health care expenditures

Personal health care expenditures (PHCE) reached $585.3 billion in 1990, accounting for 87.9 percent of all NHE. PHCE includes all spending for health services received by individuals and health products purchased in retail outlets. The proportion of NHE that is PHCE has been fairly constant since 1960. The amount spent per person averaged $2,255 in 1990. Spending for personal health care increased 10.5 percent from 1989 to 1990. This rate of growth is equal to growth in NHE for the same period and about the same as the average growth in PHCE for the 1980s.

The factors that cause growth in PHCE have changed during the past three decades. Factors affecting growth are economywide inflation, medical price inflation in excess of economywide inflation, population, and all other factors. Other factors include any increases in use and intensity of health care services delivered per capita. The average annual growth in PHCE from 1960 to 1970 was 10.5 percent. One-half of this growth was caused by increases in use and intensity of health care services (Figure 2), primarily as a result of the implementation of the Medicare and Medicaid programs that increased access to health care by the elderly and poor beginning in 1966. Increases in population caused a larger portion (12 percent) of this increase than in later decades as the last spurt in the post-war baby boom occurred in the early 1960s.

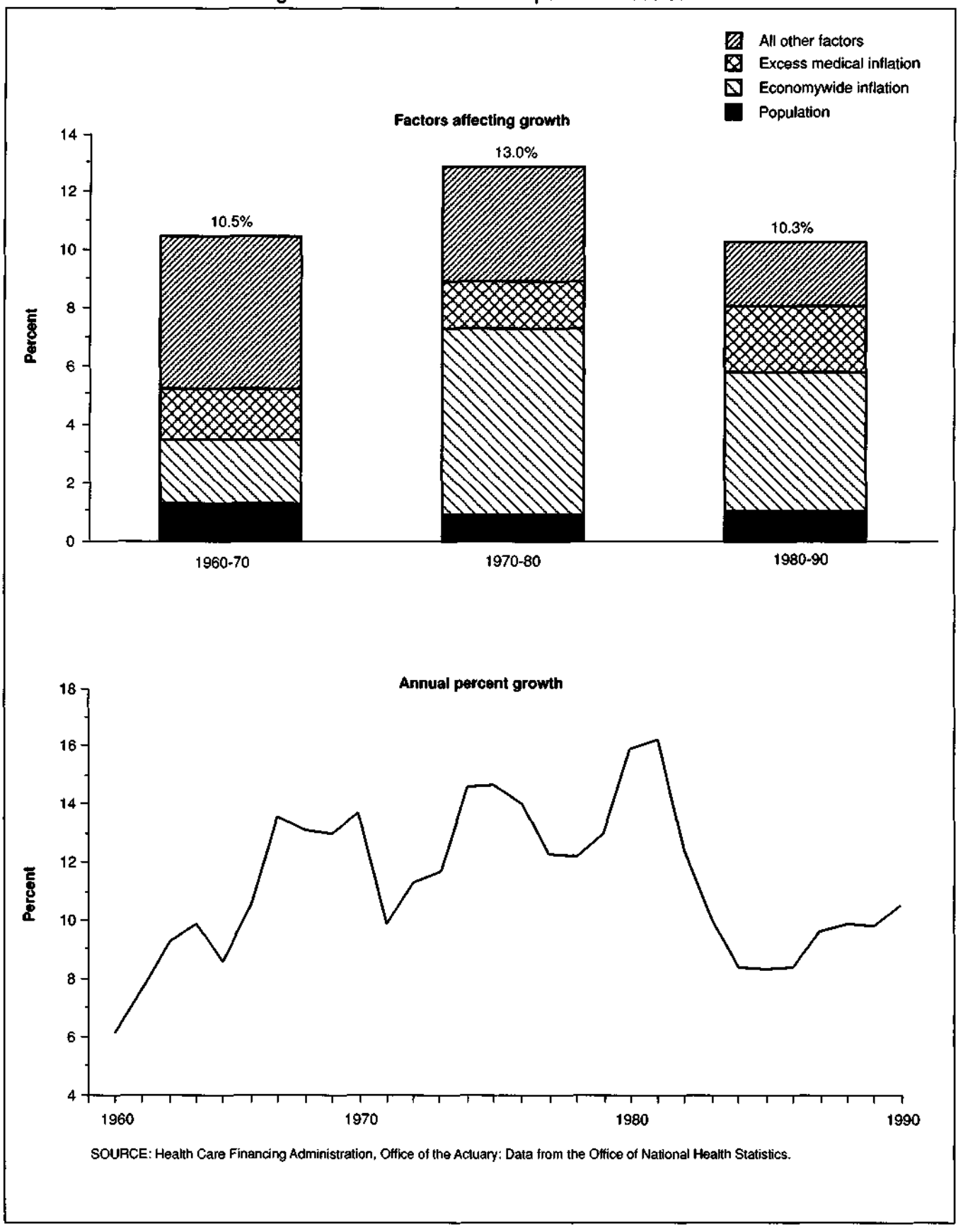
During the period 1970-80, growth in PHCE was the highest, averaging 13.0 percent per year. The entire economy experienced high inflation causing one-half of this growth. Although population growth during this period was stable, the share of growth attributable to population increases was the lowest in three decades because population growth was small relative to the large growth in PHCE.

During the 1980s, economywide inflation remained a major factor, responsible for nearly one-half of the growth in PHCE. PHCE grew at an average annual rate of 10.3 percent, somewhat lower than it had in the 1970s. Increases in medical-specific prices affected health expenditures more during the 1980s than in the previous two decades. Medical price inflation in excess of economywide inflation caused 22 percent of the growth. Excess medical inflation caused 16 percent of the growth in the 1960s and only 12 percent in the 1970s.

During the last three decades, the components of personal health care have grown at different rates, changing the distribution among the different types of spending. In the 1960s and 1970s, spending for hospital care grew more rapidly than spending for other types of care. As a result, hospital care as a share of total PHCE increased. During the 1980s, cost-containment efforts of public and private insurers were focused on hospital care spending. These efforts were effective in slowing the growth of hospital spending and, as a result, its share of PHCE decreased (Figure 3). At the same time, expenditures for physician services were growing more rapidly than other types of spending. In 1980, 19.1 percent of PHCE was for physician services. By 1990, this share rose to 21.5 percent. In the past 30 years, expenditures for drugs and other medical non-durables have not grown as rapidly as other types of

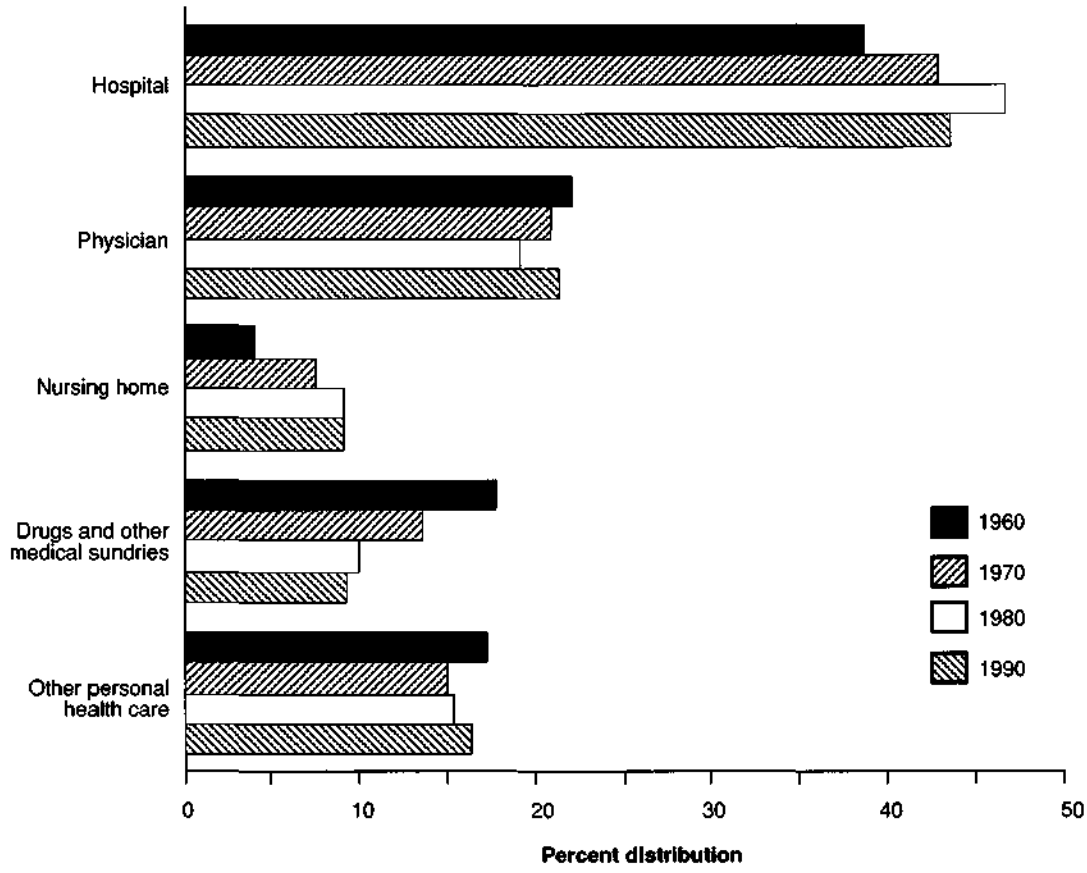
Figure 2

Annual percent growth in personal health care expenditures (PHCE) and factors affecting average annual growth in PHCE for selected periods: 1960-90



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

Figure 3
Distribution of personal health care expenditures: Selected years 1960-90



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

health care spending, causing drugs and medical non-durables' share of PHCE to decrease by one-half from 17.8 percent in 1960 to 9.3 percent in 1990.

Hospital care

The largest category of health care spending is hospital care, amounting to 43.7 percent of PHCE. In 1990, $256.0 billion was spent for hospital care. Hospital care in NHE includes spending for services delivered to inpatients and outpatients, for physician services billed through hospitals (mainly for the services of anesthesiologists, radiologists, and pathologists, but also medical residents), for drugs dispensed during hospitalization, and for services rendered through hospital-based home health agencies. Nursing home-type care provided in a hospital facility is also included in this category. Hospital care is measured by net revenues received from all sources. These net revenues are the sum of net revenue from patients (charges to patients less bad debt, charity, contractual and other adjustments), other operating revenue (tax appropriations and philanthropy), and non-operating revenue (from cafeterias, parking lots, gift shops).

During the 17-year period that followed the implementation of Medicare and Medicaid, hospitals experienced a period of tremendous revenue growth. From 1966 to 1983, the average annual rate of growth in hospital revenues was 14.0 percent. By about 1983, both private and public payers were straining to pay these spiraling costs and had initiated efforts to contain them. By 1984, the annual rate of growth for hospital care was cut in half to 7.0 percent—a result, in part, of the implementation of Medicare's PPS. After several years of steady low growth, hospital costs began to rise once again in 1987. Accelerating growth in hospital revenues continued through 1990. From 1989 to 1990, hospital revenues increased 10.1 percent, marking the fourth year of accelerated growth.

Throughout the 1960s and 1970s, public funding played an increasing role in funding of hospital care, the most expensive of all types of health care. Public funding rose from 42.5 percent in 1960 to 53.3 percent in 1980. The government's share of hospital financing increased slightly during the 1980s, to 54.7 percent in 1990. This increase offsets a falling share of hospital expenditures paid by private health insurance. The share of hospital care paid for out of pocket fell during the last 30 years, from 20.7 percent in 1960 to 5.2 percent in 1980, where it has remained since.

Short-term acute care community hospitals delivered 86 percent of all hospital care (Table 1). The cost-containment efforts of the 1980s caused a shift to

Table 1

Hospital revenues, percent distribution, and annual percent growth: 1980-90

Type of hospital	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
						Amount in millions					
Total	$102,399	$119,563	$135,866	$147,161	$157,486	$168,264	$179,789	$194,237	$212,030	$232,557	$256,009
Non-Federal	93,707	109,967	125,383	136,102	145,212	154,953	165,764	179,354	196,696	215,965	238,097
Community	85,601	100,929	115,532	125,903	134,362	143,293	153,189	165,685	181,733	199,866	220,452
Inpatient	74,404	87,477	99,916	108,247	114,082	119,104	125,133	133,335	143,613	155,642	168,341
Outpatient	11,197	13,452	15,616	17,656	20,280	24,189	28,056	32,350	38,120	44,224	52,111
Non-community	8,106	9,038	9,851	10,199	10,850	11,660	12,575	13,669	14,963	16,099	17,644
Federal	8,692	9,596	10,483	11,059	12,274	13,311	14,025	14,883	15,334	16,592	17,913
						Percent distribution					
Total	100	100	100	100	100	100	100	100	100	100	100
Non-Federal	92	92	92	92	92	92	92	92	93	93	93
Community	84	84	85	86	85	85	85	85	86	86	86
Inpatient	73	73	74	74	72	71	70	69	68	67	66
Outpatient	11	11	11	12	13	14	16	17	18	19	20
Non-community	8	8	7	7	7	7	7	7	7	7	7
Federal	8	8	8	8	8	8	8	8	7	7	7
						Annual percent growth					
Total	—	16.8	13.6	8.3	7.0	6.8	6.8	8.0	9.2	9.7	10.1
Non-Federal	—	17.4	14.0	8.5	6.7	6.7	7.0	8.2	9.7	9.8	10.2
Community	—	17.9	14.5	9.0	6.7	6.6	6.9	8.2	9.7	10.0	10.3
Inpatient	—	17.6	14.2	8.3	5.4	4.4	5.1	6.6	7.7	8.4	8.2
Outpatient	—	20.1	16.1	13.1	14.9	19.3	16.0	15.3	17.8	16.0	17.8
Non-community	—	11.5	9.0	3.5	6.4	7.5	7.8	8.7	9.5	7.6	9.6
Federal	—	10.4	9.2	5.5	11.0	8.5	5.4	6.1	3.0	8.2	8.0

NOTE: Non-community non-Federal hospitals include long-term care hospitals (where the average length of stay is 30 days or longer), psychiatric hospitals, alcoholism 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.

more care being delivered in less costly outpatient settings. In 1980, 13 percent of care in community hospitals was delivered in outpatient settings, and by 1990, this share increased to 24 percent. Non-community non-Federal hospitals accounted for 7 percent of all hospital revenues in 1990. These 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. This share remained unchanged during the 1980s. Federal hospitals received the remaining 7 percent of hospital revenues in 1990, most of which came from the Federal Government.

Physician services

Expenditures for physician services reached $125.7 billion in 1990, up 10.7 percent from 1989. Physician services account for 21.5 percent of PHCE, but physicians direct or prescribe the provision of services that account for more than 70 percent of PHCE.

Physician services are funded predominantly by consumer payments (private health insurance and out-of-pocket payments), although this share has dropped considerably during the past three decades. In 1960, consumers paid for 92.8 percent of physician services; by 1990, that share fell to 65.0 percent. Out-of-pocket payments account fully for the falling off of financing by consumer payments over the last 30 years, from 62.7 percent in 1960 to 18.7 percent in 1990. That decrease is somewhat offset by private health insurance coverage, the share of which has increased from 30.2 percent in 1960 to 46.3 percent in 1990.

The share of physician services funded by public programs has also been increasing during the past 30 years. In 1990, public funding accounted for $43.9 billion or 35.0 percent of physician service expenditures, compared with 7.1 percent in 1960. The majority of the increase in public funding comes from the Medicare program that began in 1966. Medicaid and Medicare comprised the bulk of public funding in 1990, with $35.2 billion or 80 percent of public expenditures for physician services.

The 1989 estimates for physician services have been revised downward by 3.5 percent. This revision is the result of additional information from the U.S. Bureau of the Census that was not available when the previous estimates were completed. The U.S. Bureau of the Census (1990) estimated the 1989 growth for business receipts from physician offices at a lower rate than did estimates developed from the American Medical Association's (AMA) Socioeconomic Monitoring System Survey (American Medical Association, 1991). Other information from Medicare and from the U.S. Bureau of Labor Statistics measures of employment and average weekly hours (Letsch et al., 1991) are consistent with a higher growth rate derived from AMA statistics. As 1990 data become available from the U.S. Bureau of the Census and from other data sources, the estimates for physician expenditures for 1989 will be re-examined.

Dental services

Expenditures for dental services rose by 7.6 percent in 1990 to $34.0 billion. This category of NHE includes expenditures for visits to dental offices, dental laboratory costs, and salaries for dentists in staff-model health maintenance organizations (HMOs). In 1990, dental service expenditures accounted for 5.8 percent of PHCE, down from 8.2 percent in 1960. This decline in share reflects the fact that dental expenditures typically grow at a slower rate than NHE.

In 1990, dental visits continued to be funded primarily (97.5 percent) by out-of-pocket payments and private health insurance. Out-of-pocket payments experienced a deceleration in growth rate from 6.1 percent in 1989 to 3.8 percent in 1990. One reason for this deceleration is that the purchase of dental services by consumers tends to be more sensitive to changes in overall economic conditions than are many other types of health care services. As the United States entered into a recession in 1990, individuals may have become more concerned about the general economic outlook and delayed discretionary purchases. Generally, non-emergency dental visits are considered discretionary on the part of the dental care consumer because the services delivered are frequently for prevention or maintenance, rather than to treat a life-threatening problem. Because out-of-pocket payments account for more than one-half of all dental expenditures, a slowdown in economic activity and associated concerns about job retention and future income are likely to have an effect on dental expenditures not covered by third-party payments.

Other professional services

The category of other professional services includes spending for services of licensed health practitioners other than physicians and dentists and expenditures for services rendered in outpatient clinics. In 1990, spending for other professional services reached $31.6 billion, 5.4 percent of PHCE. These services grew 16.6 percent from 1989 and are one of the fastest growing segments of NHE.

Funding for other professional care is provided primarily through consumer payments, which account for 68.1 percent of expenditures. However, within this source of funds, there has been a switch from out-of-pocket to private health insurance payments. More and more health insurance plans are providing coverage for additional services such as those provided by optometrists and by drug and alcohol rehabilitation outpatient clinics (Levit and Cowan, 1990).

Public funds pay for 20.4 percent or $6.4 billion of other professional services, with Medicaid and Medicare providing the bulk of the funding. Expenditures for these two programs grew 18.3 percent, from $4.3 billion to $5.1 billion from 1989 to 1990.

Home health care

The NHE category of home health care includes expenditures for services and supplies furnished by non-facility-based home health agencies (HHAs). Spending for home health care included in NHE reached $6.9 billion in 1990. An additional $1.6 billion, not included in the NHE home health care category, was spent for care furnished by facility-based (primarily hospital-based) HHAs (included with hospital care in this article). Including the hospital share, $8.5 billion was spent for home health care services in 1990 (Figure 4).

Spending for home health care grew faster than spending for any other category of personal health care in 1989 and in 1990. Growth in spending for home health care increased 22.5 percent in 1990, almost as fast as the 24.9 percent growth in 1989. After 4 years of slower growth, spending for home health care accelerated in 1989 primarily because of increased funding by the Medicare and Medicaid programs. Medicare clarified its home health care coverage criteria in 1988 and fewer of these claims are being denied.

Public sources financed three-fourths of the home health care services described here. More than one-half of public spending was paid by Medicare and almost all of the residual by Medicaid. Out-of-pocket payments accounted for 12.1 percent of home health care spending and the residual private share, 14.4 percent, was split between private health insurance and non-patient revenue.

The home health care segment of NHE measures a portion of the Nation's annual expenditures for medical care services delivered in the home. These estimates are constructed from information reported to the Health Care Financing Administration (HCFA) by HHAs participating in the Medicare and Medicaid programs. A broader definition of home health care would include services delivered by facility-based agencies (counted in the NHE hospital category) and by non-Medicare providers, unpaid caregivers, and services currently beyond the scope of NHE.

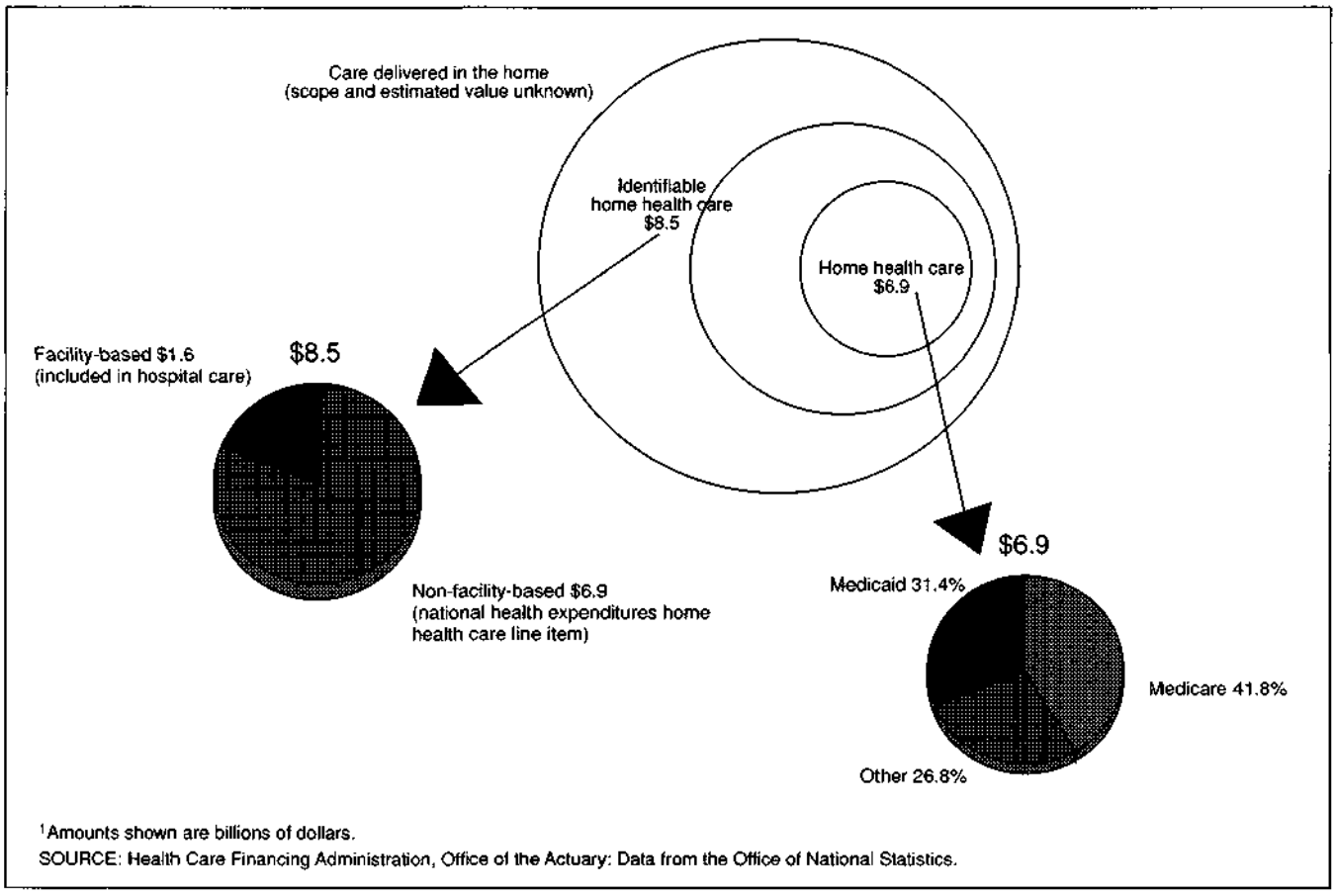
Drugs and other medical non-durables

In NHE, this class of expenditure is limited to spending for drugs and over-the-counter (OTC) products purchased from retail outlets. The value of drugs dispensed in hospitals, nursing homes, or in offices of health professionals is included implicitly in the estimates of spending for those providers' services. Retail purchases of drugs and other non-durable medical products reached $54.6 billion in 1990, an increase of 7.9 percent from the previous year.

Estimates of spending for prescription drugs includes retail sales of human-use dosage-form drugs. Transactions may occur in locations such as community or HMO pharmacies, grocery store pharmacies and mail-order establishments. Retail sales of prescription drugs amounted to $32.3 billion in 1990, up 8.0 percent from 1989. This represents 59.2 percent of the non-durable medical product category.

Non-prescription drugs and other medical non-durables are estimated separately from prescription drugs and include a long list of products. The estimate is based on personal consumption expenditures (PCE) for drug preparations and sundries, which is a component of GNP. That portion of the PCE category that matches the NHE definition was established in each of several GNP benchmark years, using detailed PCE tables for 1963, 1967, 1972, 1977, and 1982. Published PCE estimates,

Figure 4
Scope and source of funds for home health care spending[1]: 1990



[1]Amounts shown are billions of dollars.
SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Statistics.

based on annual and periodic surveys of retail trade, were used to develop estimates between and beyond benchmark years. The PCE detail for 1982 recently became available. A higher portion of the PCE category matched the NHE definition in 1982 than it did in 1977. Therefore, current estimates for non-prescription drugs and other medical non-durables differ from previously published NHE estimates, with those changes beginning in 1978. In 1990, $22.3 billion was spent by consumers for non-prescription drugs and other medical non-durables, an increase of 7.7 percent from 1989.

Typically, third parties cover prescription drug purchases but not OTC medicines and sundries. For that reason, all third-party financing is assumed to be for prescription drugs only. Under that assumption, consumers paid the entire $22.3 billion spent on non-prescription items from out-of-pocket sources. In addition to this amount, consumers paid another $17.9 billion out of pocket for prescription drugs. This includes amounts spent by people without third-party coverage or for copayments and deductibles for persons with third-party coverage. Out-of-pocket spending accounts for 55.4 percent of prescription drug purchases. Private health insurance, the second most common source of payment, covered 25.8 percent of all prescription drug purchases. Public programs, mostly Medicaid, covered the remaining 18.8 percent.

During the past 10 years, expenditures for drugs and other medical non-durables grew less rapidly than did other types of health spending. After removing the effects of price and population increases, there is almost no real growth in these expenditures.

Vision products and other medical durables

This category includes retail purchases of eyeglasses and contact lenses and the purchase or rental of other durable medical equipment such as hearing aids, crutches, wheelchairs, and artificial limbs. Spending for these items reached $12.1 billion in 1990, an increase of 6.1 percent from 1989. Estimates are calculated based on PCE in the same way as for non-prescription drugs. The PCE category of ophthalmic and orthopedic appliances is adjusted to match the NHE definition in the GNP benchmark years mentioned earlier. Published PCE estimates, based on annual and periodic surveys of retail trade, are used to move the adjusted levels between and beyond benchmark years. As a result of the recent availability of the 1982 benchmark detail, revisions to durable medical equipment, as with non-prescription drugs, begin in 1978.

Vision products, including eyeglasses and contact lenses, are the largest component of durable medical equipment. GNP benchmark years provide the only

detailed breakdown of this category. Data from the latest year available, 1982, indicate that nearly two-thirds of the $5.1 billion spent in that year was for vision products.

Third-party coverage of durable medical products is limited. Private insurance paid for only 10.4 percent of all spending in 1990. Government payments, mostly through the Medicare program, financed another 22.3 percent. The remainder, 67.3 percent, was paid by consumers out of pocket.

Nursing home care

In 1990, spending for nursing home care reached $53.1 billion, an increase of 11.4 percent from 1989. Expenditures for nursing home care grew faster than expenditures for aggregate personal health care, hospital care, or physician services for the second consecutive year. From 1960 to 1970, spending for nursing home care as a share of PHCE grew from 4.1 percent to 7.5 percent. By 1980, nursing home care accounted for 9.1 percent of PHCE, a share maintained through 1990.

Nursing home expenditures are estimated in three parts: revenues of non-Federal facilities primarily providing some level of inpatient nursing care; Medicaid funding of intermediate care facilities for the mentally retarded (ICFs/MR); and funding for nursing care in U.S. Department of Veteran Affairs nursing homes.

Growth in spending for nursing home care other than in ICFs/MR (91 percent of total estimated spending for nursing home care) slowed from 11.4 percent in 1989 to 10.9 percent in 1990. Data from the U.S. Bureau of Labor Statistics show that growth in aggregate hours worked by non-supervisory personnel in nursing and related care facilities accelerated from 4.6 percent in 1989 to 4.9 percent in 1990, consistent with the continued strong growth in nursing home expenditures. Growth in nursing home employment showed a similar trend (Letsch et al., 1991).

These nursing home estimates imply that the average charge per day for care in nursing home facilities reached $86 in 1990, more than double the charge per day in 1980.

The relative importance of factors contributing to the growth in spending for nursing home care other than for ICFs/MR has changed in the decades since 1960. From 1960 to 1970, only 13.1 percent of the increase in expenditures for nursing home care was attributable to general price inflation, with 15.8 percent resulting from nursing home-specific inflation, 11.7 percent from growth in the aged population, and 59.5 percent from changes in the amount and mix of nursing home goods and services per capita. From 1970 to 1980 and from 1980 to 1990, general price inflation accounted for 45.2 percent of the growth in nursing home expenditures. During these two decades, the share attributable to nursing home price inflation rose from 10.8 percent to 11.4 percent; the population share rose from 16.5 percent to 21.2 percent; and the residual share declined in importance from 27.6 percent to 19.5 percent.

ICF/MR care is a Medicaid benefit first offered in 1973. In 1990, $4.9 billion (60 percent of all ICF/MR expenditures) was spent for ICF/MR services in nursing homes; the remaining 40 percent was spent in facilities classified as hospitals in NHE. The average annual rate of growth in ICF/MR spending for nursing home care was 11.4 percent during the 8-year period from 1982 to 90, slightly higher than the 9.3-percent rate of growth in total nursing home spending. This compares with the 44.5-percent annual growth from 1973 to 1981 when, despite the relatively small size of ICF/MR spending, these payments raised the growth rate for total nursing home spending in almost every year. During this period of high growth in spending for ICF/MR services, States made efforts to discharge mentally retarded patients from institutions not qualifying for Federal financial participation (FFP) to smaller, more expensive nursing homes that were in compliance with Medicaid FFP standards. Both the number of recipients and cost per recipient contributed to program growth during this period (Lakin et al., 1990).

In 1990, public programs, mainly Medicaid, financed 52.1 percent of nursing home care. In 1970, prior to Medicaid's coverage of ICFs/MR, Medicaid accounted for 60.1 percent of the public share. Since the early 1970s, Medicaid has funded about 90 percent of public spending for nursing home care.

Most nursing home care financed from private sources is paid directly by patients or their families. These out-of-pocket expenditures totaled $23.9 billion in 1990.

Other personal health care

In 1990, expenditures of $11.3 billion for other personal health care came from a variety of public programs (80.1 percent) and from industrial inplant health care services (19.9 percent) offered by employers at the work site. These expenditures account for less than 2 percent of all PHCE.

Responsibility for approximately one-third of these expenditures fell to Medicaid for health screening services, certain home and community waivered services, case management, and other unspecified services. Other public expenditures came through State and local school health and maternal and child health programs, and through Federal agency programs targeting veterans, military personnel, native Americans, and persons with drug abuse, alcoholism, and mental health-related problems.

Administration and net cost of insurance

The administrative costs borne by public financers of health care, the administrative costs of philanthropic organizations, and the net cost of private health insurance amounted to $38.7 billion or 5.8 percent of NHE in 1990. Excluded from this category are health care providers' administrative costs that are associated with the filing of insurance claims and maintenance of information to support those claims. These costs are included with the provider expenditure estimate.

In 1990, the net cost of private health insurance accounted for 79.2 percent of expenditures for this category. Of the remainder, 1.4 percent represented the fund-raising costs of philanthropic health organizations and 19.3 percent the administrative costs of public programs.

The net cost of private health insurance amounted to 14.2 percent of private health insurance premiums earned

in 1990. In contrast, the Medicare program spent 2.1 percent of total expenditures to administer the program, and Medicaid spent 5.1 percent. Private health insurance's net cost share of total premiums exceeded the administrative cost share of government programs by a wide margin. Part of the reason for this difference is the clientele served by each third party. For Medicare, beneficiaries establish their eligibility once to participate in this entitlement program. The remaining costs for Medicare are primarily in the processing and paying of health care claims. In addition to these costs, Medicaid incurs additional costs of establishing eligibility because of income limitations for coverage. Private health insurers have more diverse expenses in addition to claims processing. They have extensive costs associated with advertising and marketing of their product to companies as well as individuals. These insurers must pay commissions to salespersons and premium taxes to States as well as incur expenses in meeting licensing and reserve requirements for each State in which they operate. Because many private health insurers are for-profit, they must allocate funds for profits and dividends to shareholders.

Public health activity

Governments spent $19.3 billion for public health activities in 1990, up 5.6 percent from 1989. The Federal Government, funding 12.1 percent of all public health activity, provided substantial increases in funding for the Centers for Disease Control for measles immunizations and acquired immunodeficiency syndrome (AIDS) in fiscal year 1990. State and local public health activities conducted through State and local health departments accounted for 87.9 percent of all public health activity.

Research

Non-commercial research and development consumed 1.9 percent of NHE in 1990. Funded mostly through Federal Government expenditures, spending amounted to $12.4 billion, increasing 11.9 percent from 1989 levels. This category excludes commercial research expenditures of drug and medical supply companies, because the value of this expenditure is recaptured through the sale of goods and services counted elsewhere in NHE. Philanthropy's role in funding research has dropped considerably during the past three decades, falling from 20.1 percent of all research funding in 1960 to 6.7 percent in 1990. During the same period, the Federal Government share of spending rose from 72.7 percent in 1960 to 81.1 percent in 1990, mostly through the National Institutes of Health; the share funded by State and local governments almost doubled, up from 7.2 percent in 1960 to 12.2 percent in 1990.

Construction

Medical facility construction put in place in 1990—including new construction and renovation of existing hospitals, nursing homes, medical clinics, and medical research facilities—was valued at $10.4 billion in 1990. Construction spending experienced a surge in growth in 1987 and 1988, as construction of hospital facilities that had been held in abeyance during the initial implementation of PPS in the mid-1980s was undertaken. In 1990, construction expenditure increases of 8.3 percent indicate a return to moderate growth in health care facility construction.

Construction growth for inpatient hospital beds will likely remain moderate at best until hospital occupancy rates begin to stabilize or increase. Contractions in the number of available non-Federal hospital beds, down 9.1 percent from 1983 to 1989, did not keep pace with the decline in the number of inpatient days of care provided at these facilities, resulting in a decline in occupancy rate from 76.1 percent in 1983 to 69.6 percent in 1989 for all hospitals (American Hospital Association, 1990).

Sources of funds

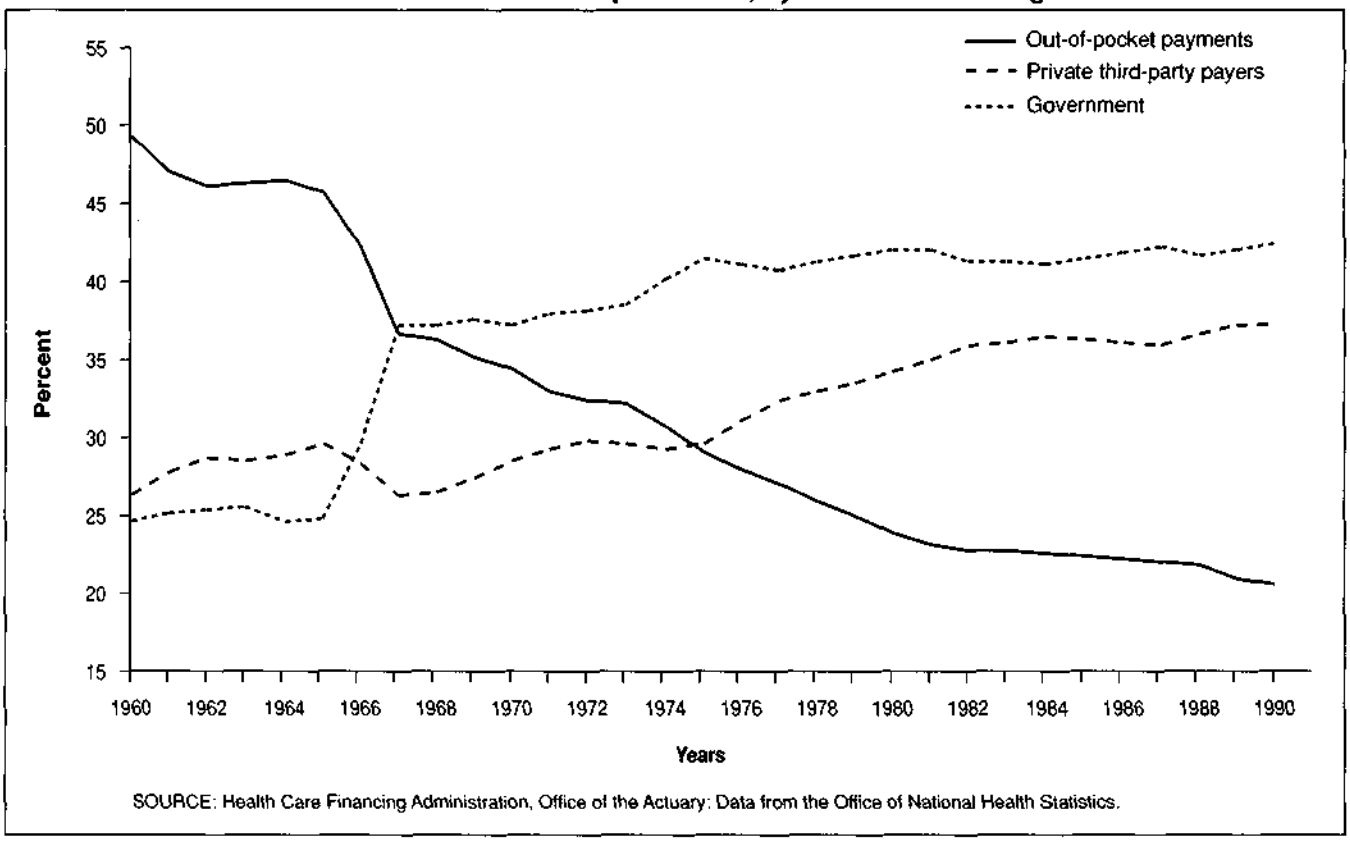
During the past three decades, the system for funding of health care services was transformed from one mostly relying on private sources to one relying heavily on government programs (Figure 5). In 1960, 75.5 percent of health care financing came from private payers, including out-of-pocket payments directly by individuals, private health insurance, and other private funds. By 1990, 57.6 percent was privately financed. This transition occurred in two phases: First, the introduction of Medicaid and Medicare in 1965 caused the private share to fall from 75.3 percent in 1965 to 62.9 percent in 1967; second, a more gradual decline in the share of privately funded health expenditures occurred between 1970 and 1974 (62.8 percent to 59.8 percent), as Medicare expanded to cover the disabled, and Medicaid picked up coverage for institutionalization of the mentally retarded population. During the next 15 years, the share of privately funded health expenditures dropped slowly, only 2 percentage points during the entire 1975-90 period.

Out-of-pocket expenditures

More dramatic, however, has been the change in the share of health care costs funded by one private-payer source—out-of-pocket expenditures. The rapid rise in health care costs has increased Americans' concern about large out-of-pocket payments at the time services are purchased. Employers, who sponsor a significant portion of private health insurance coverage, address this concern by offering policies with low out-of-pocket costs. At the urging of employees, employers also increase the breadth of health insurance coverage, including services formerly paid directly by the employee. Employers can do so with pre-tax dollars. In this manner, they pass along to employees a richer post-tax compensation package than they could if an equivalent wage increase were offered.

From 1960 to 1990, out-of-pocket expenditures fell from 49.2 percent of all health expenditures to 20.4 percent. Out-of-pocket spending rose to $136.1 billion in 1990, 7.9 percent higher than the 1989 level. These expenditures, amounting to $524 per person, include co-payments and deductibles, fees for non-covered services and goods, and the portion of

Figure 5
Distribution of national health expenditures, by source of financing: 1960-90



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

payments that insurers determine exceeds the usual, customary, and reasonable charges for these services. Out-of-pocket spending does not include individual's expenditures for private or public health insurance premiums. These amounts are counted as part of third-party payments, because the third party (private health insurance or Medicare) is responsible for paying the benefit. Given this definition, Americans, on average, spent approximately the same proportion of disposable income on out-of-pocket health care in 1990 (3.4 percent) as they did in 1960 (3.7 percent). The amount of out-of-pocket expenditures (including premiums) that is the responsibility of individuals amounted to 5.1 percent of adjusted personal income in 1989 (Levit and Cowan, 1990). These estimates will be updated for 1990 in a forthcoming issue.

Private health insurance

Private health insurance, the largest source-of-financing category in NHE, paid for almost one-third of all health care costs in 1990. Americans paid $216.8 billion in private health insurance premiums and received $186.1 billion in benefits. The difference of $30.7 billion, the net cost of private health insurance, covers administrative costs of insurers, net additions to reserves, rate credits and dividends, premium taxes, and profits or losses of insurance companies.

The role of private health insurance in financing health care has steadily increased during the past three decades. Private health insurance funded 21.7 percent of all health care in 1960, 22.5 percent in 1970, 29.3 percent in 1980, and 32.5 percent in 1990.

According to the 1990 Current Population Survey (CPS), 183.5 million Americans, 74.5 percent of the total non-institutionalized population, are covered by private health insurance. Almost 39 percent of these people, 70.9 million, obtain health insurance coverage as an employment benefit. These workers cover an additional 69.0 million persons as dependents under their employer-sponsored policies. The remaining 43.6 million people acquire coverage through individually purchased policies, including Medicare supplemental policies purchased by the elderly. (CPS tabulations are by Fu Associates of Arlington, Va., under HCFA Basic Ordering Agreement No. 500-90-0010.)

Other private funds

In 1990, other private funds financed 4.6 percent of all health care costs, the same share as it did in 1960. Of the $30.6 billion in other private funds expended in 1990, $2.3 billion came from businesses for work-site health services provided directly to employees, $7.5 billion funded medical facility construction projects, and $20.9 billion came from philanthropic sources and from non-patient revenue sources (revenues from gift shops, parking lots, cafeteria sales, etc.) of hospitals, nursing homes, and HHAs.

Table 2

Government health expenditures as a percent of total government expenditures: Selected years 1960-90

Year	Federal	State and local
	Percent	
1960	3.1	7.4
1970	8.5	7.4
1980	11.7	9.1
1981	11.9	9.7
1982	11.9	10.0
1983	12.3	10.1
1984	12.6	9.9
1985	12.5	9.9
1986	12.9	10.2
1987	13.4	10.7
1988	14.1	10.8
1989	14.7	11.0
1990	15.3	11.4

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

Government spending

Government spending for health care accounted for 42.4 percent of NHE in 1990. In 1960, only 24.5 percent of NHE was funded by public programs. With the enactment of the Medicare and Medicaid programs, this share increased to 37.2 percent by 1970. From 1970 to 1980, coverage was expanded by Medicare to include disabled people and by Medicaid to include the mentally retarded. As a result, by 1980, 42.0 percent of NHE was funded by public programs.

More than four-fifths of all public spending for health care is for personal health care. The remainder is spent on public health activities, research and construction, and administrative expenses of public programs.

Although government's share of total health expenditures has remained relatively constant since the mid-1970s, public spending for health care is consuming an increasing share of both Federal and State and local government expenditures (Table 2). In 1960, only 3.1 percent of Federal expenditures and 7.4 percent of State and local spending were allocated to health care. In 1990, spending for health care accounted for 15.3 percent of total Federal expenditures and 11.4 percent of State and local government expenditures.

The government share of expenditures for personal health care varies by type of care. For example, public programs financed more than one-half of all hospital and nursing home care in 1990, but only 2.5 percent of dental services.

Medicare and Medicaid are the two largest government programs financing health care. Between them, they funded 30.8 percent of all spending for personal health care in 1990 and accounted for 74.5 percent of the public share. From 1970 to 1980, their share increased from 18.9 percent to 27.9 percent of total PHCE and from 54.8 percent to 70.3 percent of the public share of PHCE.

Medicare

Medicare, a Federal insurance program created by title XVIII of the Social Security Act of 1965, was originally designed to protect people 65 years of age or over from the high cost of health care. In 1972, the program was expanded to cover permanently disabled workers eligible for old age, survivors, and disability insurance benefits and their dependents, as well as people with end stage renal disease.

Medicare has two parts, each with its own trust fund. The hospital insurance (HI) program pays for inpatient hospital services, post-hospital skilled nursing services, home heath care services, and hospice care. The supplementary medical insurance (SMI) program covers physician services, outpatient hospital services and therapy, and a few other services.

Unlike other Federal health programs, Medicare is not financed solely by general revenue (appropriations from general tax receipts). In 1990, 89 percent of the income for the HI program (Figure 6) came from a 1.45-percent payroll tax levied on employers and on employees for the first $51,300 of wages. (Self-employed people were required to contribute 2.9 percent, the equivalent of both the employer's and the employee's share of the HI tax.)

The SMI program was financed by monthly premium payments of $28.60 per enrollee in 1990 and by general revenue. The general revenue share of SMI receipts grew from about 50 percent in the early 1970s to approximately 70 percent in 1980 and later. In 1990, the general revenue share accounted for 72 percent of SMI program income.

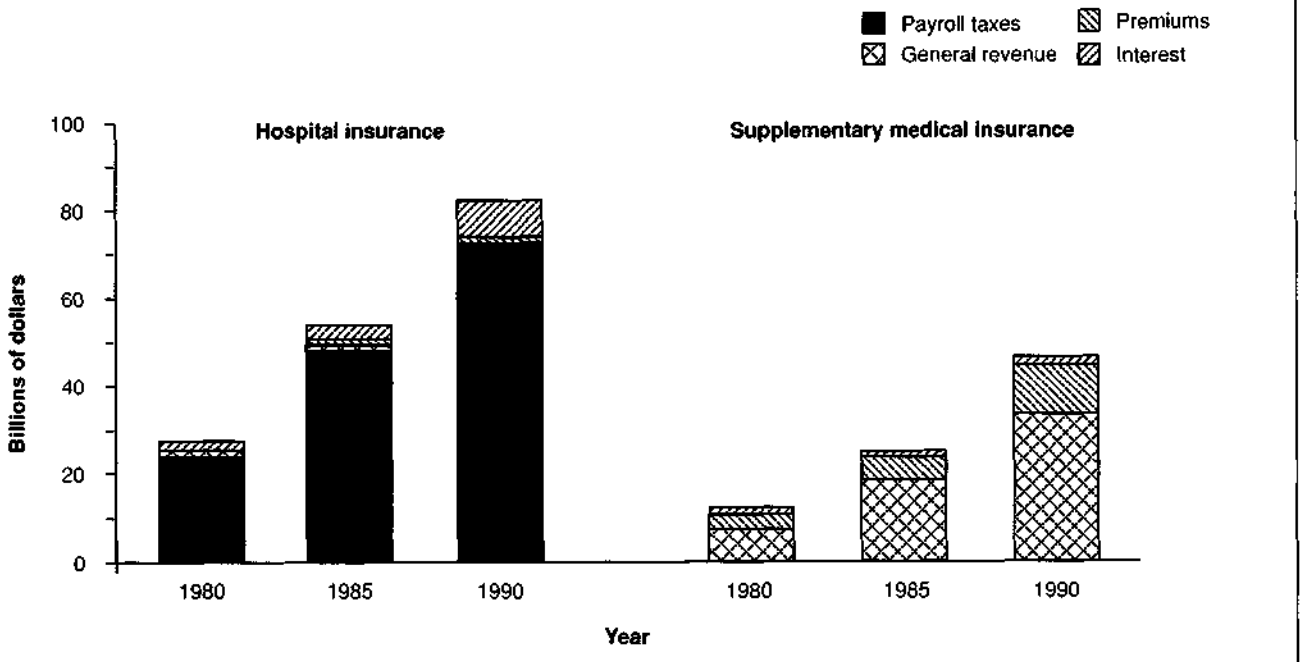
More than 34 million aged and disabled people were enrolled in Medicare on July 1, 1990. The program spent $108.9 billion in personal health care (benefit) payments for expenses incurred in 1990 by the 26.6 million enrollees who received benefits (Table 3). Growth in Medicare spending for personal health care slowed to 8.6 percent in 1990 from the 13.4 percent growth experienced in 1989.

During the past two decades, Medicare has accounted for increasing shares of spending for personal health care. In 1990, Medicare financed 45.0 percent of the public share of PHCE and 18.6 percent of total spending for personal health care. From 1970 to 1980, these shares grew from 32.2 percent to 41.8 percent of the public share and 11.1 percent to 16.6 percent of total spending for personal health care.

Almost 63 percent of Medicare benefits were for hospital care and another 27.5 percent for physician services in 1990. Prior to implementation of various hospital cost-containment measures starting in 1983, the distribution of Medicare spending was relatively stable at approximately 72 percent for hospital care and 22 percent for physician services.

Medicare expenditures for hospital care reached $68.3 billion in 1990, an increase of 9.9 percent from 1989. Medicare's PPS, other cost-containment measures, and a slowdown in growth of general and medical prices caused growth in Medicare spending for hospital care to decelerate from a high of 21.4 percent in 1980 to a low of 5.1 percent in 1986. Since then, growth in Medicare spending for hospital care services including inpatient,

Figure 6
Payments into Medicare trust funds: 1980, 1985, and 1990



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

outpatient, and hospital-based HHA services has accelerated, almost returning to the double digits observed through the early-1980s. Current efforts to control the growth in Medicare spending for hospital care include reductions in payments for outpatient hospital services.

Medicare spending for physician services increased 9.5 percent from 1989, reaching $30.0 billion in 1990. Medicare's share of total spending for physician services grew from 11.8 percent in 1970 to 19.0 percent in 1980 and 23.9 percent in 1990. Efforts to restrain the growth in spending for physician services included incentives to encourage physician participation in the Medicare program, a temporary freeze on physician fees for Medicare services, reductions in payments to certain physicians, and reductions in payments for diagnostic laboratory tests and some overpriced surgical procedures.

The Federal Government is currently attempting to control the growth in Medicare spending for physician services through reductions in Medicare payments for additional overpriced procedures, volume performance standards, and other restrictions that limit the growth of Medicare payments to physicians, and increased beneficiary cost-sharing through higher Part B deductibles. Fee schedules based on resource-based relative value scales are scheduled to be phased in over a 3-year period starting in 1992.

Medicare paid $2.5 billion for skilled nursing facility care in 1990, 35 percent less than in 1989. Provisions of the Medicare Catastrophic Coverage Act of 1988 that affected the Medicare nursing home benefit became effective in 1989. In December 1989, the Act was repealed, but Medicare beneficiaries who were entitled to nursing home benefits under the less restrictive provisions of the Act continued to receive benefits. Effects of the Act lingered but are now diminishing. As a result, Medicare's share of total spending for nursing home care declined from 8.0 percent in 1989 to 4.7 percent in 1990. This compares with Medicare's share of total spending for nursing home care of 5.0 percent in 1970 and 2.1 percent in 1980.

Because Medicare clarified its conditions for payment in 1988, it seems likely that Medicare will maintain its current share of total spending for nursing home care at 4-5 percent.

Medicaid

Medicaid spent $71.3 billion of combined Federal and State funds for personal health care in 1990. Growth in program spending for personal health care accelerated from 13.6 percent in 1989 to 20.6 percent in 1990, the fastest annual rate of growth in Medicaid spending since 1975. As a result, Medicaid's share of PHCE grew from 11.2 percent in 1989 to 12.2 percent in 1990.

Medicaid expenditures are largely institutional, with 39.9 percent spent on hospital care and 33.8 percent spent on nursing home care in 1990. Medicaid continues to be the largest third-party payer of long-term care expenditures, financing 45.4 percent of nursing home care in 1990. Growth in Medicaid benefit expenditures accelerated in 1990 for almost all categories of service. In 1990, growth in Medicaid spending accelerated from

Table 3

Personal health care expenditures under Medicare and Medicaid and sources of Medicare financing: 1966-90

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
1968	9.3	5.9	3.4	19.8	7.9	—	40	4.00	7,800	0.60
1969	10.8	6.8	4.0	20.1	8.6	—	44	4.00	7,800	0.60
1970	12.3	7.2	5.1	20.5	—	—	52	5.30	7,800	0.60
1971	14.5	8.1	6.4	20.9	9.4	—	60	5.60	7,800	0.60
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
1974	23.4	12.8	10.6	24.2	11.8	21.5	84	6.70	13,200	0.90
1975	28.6	15.7	12.9	25.0	13.0	22.0	92	6.70	14,100	0.90
1976	33.4	18.9	14.5	25.7	14.1	22.8	104	7.20	15,300	0.90
1977	38.6	22.1	16.6	26.5	14.9	22.8	124	7.70	16,500	0.90
1978	44.3	25.8	18.5	27.2	15.9	22.0	144	8.20	17,700	1.00
1979	51.3	30.1	21.2	27.9	16.9	21.5	160	8.70	22,900	1.05
1980	61.2	36.4	24.8	28.5	18.0	21.6	180	9.60	25,900	1.05
1981	72.7	43.9	28.9	29.0	18.9	22.0	204	11.00	29,700	1.30
1982	81.9	51.4	30.6	29.5	18.8	21.6	260	12.20	32,400	1.30
1983	92.1	58.5	33.6	30.0	19.7	21.6	304	12.20	35,700	1.30
1984	100.4	64.4	36.0	30.5	20.7	21.6	356	14.60	37,800	1.30
1985	110.1	70.4	39.7	31.1	22.3	21.8	400	15.50	39,600	1.35
1986	118.6	75.7	42.9	31.7	23.1	22.5	492	15.50	42,000	1.45
1987	129.9	81.7	48.2	32.4	24.3	23.1	520	17.90	43,800	1.45
1988	140.5	88.5	52.1	33.0	25.1	22.9	540	24.80	45,000	1.45
1989	159.5	100.3	59.2	33.6	26.2	23.5	560	[11]31.90	48,000	1.45
1990	180.2	108.9	71.3	34.2	[12]26.6	25.3	592	28.60	51,300	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 reimbursement 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 was reduced to $5.80 and $6.10, respectively, by the Cost of Living Council.
[11]Includes $27.90 SMI monthly premium and $4.00 catastrophic coverage monthly premium.
[12]Estimated.

SOURCE: Health Care Financing Administration, Office of the Actuary and the Bureau of Data Management and Strategy.

14.5 percent in 1989 to 24.1 percent for hospitals, and from 8.6 percent to 17.0 percent for nursing homes.

Medicaid is funded jointly by Federal and State and local governments. The Federal Government sets minimum requirements for eligibility and services, allowing State governments considerable flexibility in designing the total scope of the program within the constraints of the State budgetary process. The Federal Government requires that all people receiving income benefits under the Supplementary Security Income (SSI) program (covering aged, blind, and disabled individuals) and families qualifying for Aid to Families with Dependent Children (AFDC) automatically qualify for Medicaid benefits. Certain individuals (pregnant women, children under age 6, Medicare enrollees, and Social Security Title IV-E recipients of foster care and adoption assistance) with income too high to qualify for SSI or AFDC cash benefits are also mandatorily eligible for Medicaid. Mandatory coverage of certain children ages 7-18 will be phased in as children born after September 30, 1983, attain age 7. State governments may, at their option, extend the program to cover "medically indigent" individuals or families, recipients of State supplementary payments, and other people with income or resources below specified levels.

Aged and disabled Medicare enrollees with incomes below certain levels were mandatorily covered by Medicaid under the Medicare Catastrophic Coverage Act of 1988. These Medicaid recipients are not eligible for full Medicaid benefits; Medicaid is required to pay only the Medicare premiums, deductibles, and coinsurance amounts. Legislation in 1989 required Medicaid to pay a portion of the Medicare HI premium for certain low-income disabled people. These are Medicare enrollees who qualified for Medicare because they were disabled but who, through rehabilitation and retraining, were able to return to work. Previously, after a specified

number of months, these enrollees would have lost their eligibility for Medicare coverage. So that these working disabled people are not penalized for returning to work, they are allowed to retain Medicare coverage by paying the monthly HI and SMI premiums. (Medicaid is not required to pay the SMI premium.)

The Federal Government also defines minimum services that must be provided to all or specified groups of Medicaid recipients. These services include inpatient and outpatient hospital services; physician care; rural health clinic services; laboratory and X-ray services; nursing home and home health care; and services of selected other health professionals. States may elect to provide additional services such as prescribed drugs, eyeglasses, dental care, and ICFs/MR.

Through State "buy-in" agreements, Medicaid purchases Medicare supplementary medical insurance (Part B) coverage for people who are eligible for both programs. For these "dual-eligibles," Medicare is the primary payer for Medicare-covered services, and Medicaid pays deductibles and coinsurance amounts and provides additional Medicaid-covered health care services. To avoid double counting, the Medicaid estimates presented here do not include the $1.1 billion paid to Medicare by Medicaid in 1990 for buy-in premiums. Therefore, actual Medicaid program expenditures were $72.5 billion in 1990.

Although more than two-thirds of Medicaid recipients in fiscal year 1990 qualified because they were members of an AFDC family, they consumed only one-fourth of program benefits. Conversely, the aged, blind, and disabled, who represent less than one-third of Medicaid recipients, consumed nearly three-fourths of Medicaid benefits.

In fiscal year 1990, there were 25.3 million people who received some type of Medicaid benefit. The number of Medicaid recipients has increased rapidly in recent years. In fiscal year 1990, an additional 1.7 million people received Medicaid benefits. With recent legislation phasing in various expansions to the Medicaid program and limited revenues available to finance the program, States are being pressured to control program costs (*The Nation's Health*, 1991). Tactics in use or proposed by some States include reallocation of available funds from high-cost services provided to selected recipients to lower cost services furnished to broader groups of recipients (Mayer and Kimball, 1991), creative techniques to generate additional financing such as provider-specific taxes and "voluntary donations" from hospitals and physicians (Kimball, 1991) and overall spending cuts.

Methodology and revisions

Revisions introduced in this article begin in 1978, incorporating the best and most current data available at this time. In the past, efforts have been made to consolidate revisions and to introduce them periodically. With the growing intensity of the health care policy debate, the decision was made to incorporate new information as soon as it becomes available. In this manner, the health care policy debate will include the best historical background information on NHE.

In aggregate, the 1989 estimates presented in this article are 0.2 percent lower than those reported earlier (Lazenby and Letsch, 1990). Revisions began in 1978 for two types of services—non-durable and durable medical products—and for the private sources of funding that finance the purchases of these goods. The remaining changes to the national health accounts began in 1982 or later, with the largest changes concentrated in the most recent years.

These revisions to estimates for 1989 and earlier result primarily from the availability of additional years of data from sources traditionally used to estimate NHE (Office of National Health Statistics, 1990). Other revisions originate from methodological changes.

The largest revision to the 1989 estimates of health care expenditures occurs in non-durable medical products, up $6.0 billion from estimates previously reported. Almost all of this revision ($5.1 billion) is concentrated in the non-prescription drug and sundry portion of this estimate and is paid from out-of-pocket resources; the remaining $0.9 billion is a revision to the prescription drug portion of the non-durable medical product estimates.

Estimates for non-durable medical products and their companion category, durable medical products, are benchmarked periodically, coinciding with GNP benchmark years. These estimates are based on PCE, a component of the GNP. Detailed information on the composition of each component of PCE is available only periodically, at benchmarks occurring every 5 years. Using this detail, PCE levels are adjusted to match NHE definitions for durable and non-durable medical products. Recently, the 1982 PCE information became available, updating the detail from 1963, 1967, 1972, and 1977 benchmark years. As a result, revisions were made to the two categories of health spending beginning in 1978.

The second largest change occurred in physician services estimates for 1989, revised downward by $4.1 billion from previously reported 1989 estimates. Since the late 1970s, estimates for all professional service categories (physician services, dental services, and other professional services) that were based solely on Internal Revenue Service (IRS) business receipts were modified to incorporate information from both the U.S. Bureau of the Census' Services Annual Survey (SAS) and the IRS. For 1989, all professional service category estimates rely solely upon expenditure growth reported by the SAS (U.S. Bureau of the Census, 1990). This change closely aligns methodology used in NHE with methods used by the U.S. Department of Commerce's national income and product accounts to produce similar estimates. The reason for this switch is the gradual deterioration in size of the IRS Statistics of Income samples, and the use by IRS of a different establishment coding scheme than the Standard Industrial Classification (SIC) codes used by most other Federal Government statistical agencies. The use of a different coding scheme by IRS may be the cause of increasing divergence between the IRS and SAS of estimates of business receipts for physicians. Classification of physician services has become obscured, as the difference between offices and clinics of physicians (SIC 801 and 803) and outpatient care facilities (SIC 808) become less distinct. IRS coding is less able to distinguish subtle differences in establishment type.

Despite the modification in data source used for physician expenditure estimates beginning in 1989, we

Table 4

Personal health care expenditures (PHCE) per capita: Selected years 1960-90

Item	1960	1970	1980	1982	1990
Current (nominal) PHCE per capita	$126	$302	$933	$1,193	$2,255
PHCE per capita deflated by gross national product fixed-weight price index (GNP-FWPI)	330	640	1,083	1,193	1,665
PHCE per capita deflated by PHCE fixed-weight price index (PHCE-FWPI)	474	779	1,132	1,193	1,402
Addenda			Prices indexes		
GNP-FWPI	38.1	47.2	86.1	100.0	135.4
PHCE-FWPI	26.5	38.8	82.4	100.0	160.9

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

remain concerned about the level of physician services expenditures for 1989 reported in this article. Estimates of physician business receipts from the AMA imply stronger growth for 1989 than that reported by SAS. Stronger growth is more consistent with separately estimated Medicare physician revenues and would produce a more moderate increase in Medicare's share of total physician revenues for 1989 than that reported here. Analysts will re-examine this issue when the 1990 estimates of physician business receipts and net income become available from the U.S. Bureau of the Census and the AMA.

A comprehensive description of sources and methods can be found in a previously published article (Office of National Health Statistics, 1990).

Deflating personal health care expenditures

Health care spending has grown more rapidly than other sectors of the economy. This is not necessarily a problem, if the value obtained for the expenditure meets societal priorities in terms of additional quantity and quality of services purchased. In health care, price inflation plays a major role in rapidly increasing costs. Deflating health care spending separates the effects of price growth from growth attributable to all other factors. However, the index used to deflate health expenditures determines the growth attributable to all other factors and its meaning.

One approach to removing the effects of price growth from health spending is to deflate health care expenditures by a measure of medical-specific price inflation (Table 4).[1] The resulting measure of "real" growth gauges growth in quantity of health services delivered per capita devoid of medical care price changes. Quantity changes are generated by technological developments, changes in the age and sex composition of the population, or changes in the intensity and quantity of health care services delivered per person. Also, this residual would include the net effect of any error in the measurement of medical prices or medical expenditures. The Office of the Actuary in HCFA develops a personal health care expenditure fixed-weight price index

[1]Growth in population has remained fairly constant at about 1 percent per year since 1960. Therefore, per capita spending has been used to simplify this discussion.

Table 5

Average annual percent change in personal health care expenditures (PHCE) per capita: Selected years 1960-90

Item	1960-70	1970-80	1980-90
		Percent	
Current (nominal) PHCE per capita	9.2	11.9	9.2
PHCE per capita deflated by gross national product fixed-weight price index (GNP-FWPI)	6.9	5.4	4.4
PHCE per capita deflated by PHCE fixed-weight price index (PHCE-FWPI)	5.1	3.8	2.2
Addenda			
GNP-FWPI	2.2	6.2	4.6
PHCE-FWPI	3.9	7.8	6.9
Difference between PHCE-FWPI and GNP-FWPI	1.7	1.6	2.3

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

(PHCE-FWPI) as a tool to deflate personal health care expenditures per capita (construction of PHCE-FWPI is discussed in a later section).

An alternate approach to deflating health spending is to remove the effects of economywide inflation alone. The most appropriate deflator for economywide prices for our purposes is the gross national product fixed-weight price index (GNP-FWPI). The GNP-FWPI is the most comprehensive measure of pure price inflation for the economy as a whole. Personal health care expenditures per capita deflated by the GNP-FWPI can be interpreted as the opportunity cost of health care. These constant-dollar health care costs per capita measure the value of the other goods and services that society could have purchased instead of health care. This measure eliminates the cause of growth over which the health sector has little control—economywide inflation. The remainder measures change in medical-specific price inflation in excess of economywide inflation, and intensity and use per capita of health care services. These are factors over which the health sector has at least some control.

The decision made in choosing an index to deflate health care costs determines the size of real health spending growth as well as its interpretation. From 1980 to 1990, nominal (current-dollar) personal health spending

per capita increased at an average rate of 9.2 percent per year (Table 5). Economywide prices grew at an average annual rate of 4.6 percent during this period. Deflating personal health care expenditures per capita by the GNP-FWPI removes the effects of economywide inflation and indicates growth in real output and real price change (medical price inflation in excess of economywide inflation) of 4.4 percent per year. This means that about one-half of the growth in per capita health spending from 1980 to 1990 can be attributed to economywide inflation.[2]

From 1980 to 1990, medical prices grew at an average annual rate of 6.9 percent. Deflating personal health care expenditures per capita by PHCE-FWPI removes the effects of medical-specific inflation (which includes economywide inflation), resulting in an average annual growth in real health care output of 2.2 percent. This measure of deflated personal health spending per capita identifies the change in quantity of health care services per capita. During the 1980s, three-quarters of the growth in per capita health spending was attributable to medical-specific price increases.[3] During the past three decades, increases in overall medical prices have become a progressively more important factor in the growth of per capita health care spending.

During the past two decades, the gap between medical care prices and economywide prices has widened. One cause of the widening gap is imperfections within the health care marketplace that interfere with competition. Most of this interference comes from private and public insurance. These third-party payers insulate consumers from the full price of health care goods and services at the time of purchase. Additional interference comes from the lack of consumer knowledge about the appropriateness of quality and quantity of health services and about competing provider prices for the same service. Medical care procedures and services have become increasingly complex, and it becomes more difficult for consumers to assess the reasonableness of practitioners' recommendations and of prices charged. Beyond marketplace imperfections, health care is a service industry. Service industries typically are less able to take advantage of labor-saving and cost-cutting efficiencies than are non-service industries.

Personal health care price index

The PHCE-FWPI is a Laspeyres index with 1982 as a base year. Table 6 lists price proxies assigned to each component of PHCE, along with a weight that is equal to the proportion of PHCE that component represented in the base year 1982. For each year, PHCE-FWPI is the summation of each index multiplied by its 1982 weight.

In our judgment, this PHCE-FWPI is a more appropriate measure of medical price inflation associated with PHCE than two other available indexes—the Consumer Price Index (CPI) or the personal consumption expenditure fixed-weight price index. First, the medical care component of the CPI is weighted based on consumer out-of-pocket expenditures. Because a large proportion of health care is paid for by third parties, certain health care services are assigned weights that under- or over-represent their shares if all payers were considered. For example, out-of-pocket expenditures for hospital care, representing only 9 percent of all out-of-pocket expenditures, are undervalued in the CPI, because hospital spending comprises 39 percent of PHCE. Second, the medical care component of the personal consumption expenditure fixed-weight price index, estimated and published as part of the national income and product accounts, excludes portions of public expenditures when its weights are determined. Expenses of government-owned and -operated facilities are not included in the personal consumption expenditures portion of the GNP, but rather in government purchases of goods and services.

Each component of PHCE can be deflated by its assigned price index to produce a constant-dollar estimate of that component. Summing all of the deflated components yields a constant-dollar estimate of PHCE. This estimate differs from PHCE deflated by PHCE-FWPI in that it reflects any change in quantity purchased of each of the components. From 1980 to 1990, constant-dollar PHCE grew at an average annual rate of 3.2 percent (Table 7). From 1960 to 1970, constant-dollar PHCE grew at twice that rate (6.4 percent), and from 1970 to 1980, 1.5 times (4.8 percent).

Table 6

Derivation of the personal health care expenditure fixed-weight price index

Commodity or service	Price proxy	1982 weight
All personal health care	—	100.0
Hospital care	Hospital Input Price Index[1]	47.4
Physician services	CPI[2], physician services	18.8
Dental services	CPI[2], dental services	6.4
Other professional services and home health care[3]	CPI[2], professional services	4.9
Drugs and other medical non-durables	CPI[2], medical care commodities	9.6
Vision products and other medical durables	CPI[2], eye care	1.8
Nursing home care	National Nursing Home Input Price Index	9.1
Other personal care	CPI[2], medical care	1.9

[1]The specific hospital input price index is All Hospitals with Capital and Medical Fees (Wages = AHE806NS, Fringes = PanelFB).
[2]Consumer Price Index for all urban consumers, U.S. Bureau of Labor Statistics, U.S. Department of Labor. Indexes are scaled so that the 1982 value is 100.0.
[3]Two categories combined because no price proxy is available for home health care for the entire time period.

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

[2]Calculated by dividing growth in economywide prices by growth in the sum of growth in prices and in real output per capita. In this case, 4.6 / (4.6 + 4.4) = .51.
[3]Calculated as 6.9 / (6.9 + 2.2) = .76.

Table 7

Personal health care expenditures in current and constant dollars and associated price indexes, by type of spending: Selected years 1960-90

Type of spending	1960	1970	1980	1982	1990
			Current dollars in billions		
Personal health care	$23.9	$64.9	$219.4	$286.4	$585.3
Hospital care	9.3	27.9	102.4	135.9	256.0
Physician services	5.3	13.6	41.9	53.8	125.7
Dental services	2.0	4.7	14.4	18.4	34.0
Other professional services and home health care	0.6	1.7	10.0	14.0	38.5
Drugs and other medical non-durables	4.2	8.8	21.6	27.6	54.6
Vision products and other medical durables	0.8	2.0	4.6	5.1	12.1
Nursing home care	1.0	4.9	20.0	26.1	53.1
Other personal health care	0.7	1.4	4.6	5.6	11.3
			Price indexes		
Hospital care	22.7	36.2	81.7	100.0	153.8
Physician services	23.5	37.1	82.3	100.0	173.2
Dental services	29.0	42.1	84.7	100.0	167.2
Other professional services and home health care	25.5	39.7	83.6	100.0	167.4
Drugs and other medical non-durables	50.8	50.3	81.7	100.0	177.2
Vision products and other medical durables	34.8	46.4	86.7	100.0	143.6
Nursing home care	24.8	39.7	83.9	100.0	147.3
Other personal health care	24.1	36.7	80.9	100.0	176.0
			Constant 1982 dollars in billions		
Personal health care	90.1	166.9	266.3	286.4	364.1
Hospital care	40.8	77.2	125.3	135.9	166.5
Physician services	22.4	36.6	50.9	53.8	72.6
Dental services	6.8	11.1	17.0	18.4	20.3
Other professional services and home health care	2.5	4.2	12.0	14.0	23.0
Drugs and other medical non-durables	8.4	17.5	26.5	27.6	30.8
Vision products and other medical durables	2.3	4.4	5.3	5.1	8.5
Nursing home care	4.0	12.3	23.8	26.1	36.1
Other personal health care	2.9	3.7	5.6	5.6	6.4

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

Table 8

National health expenditures aggregate and per capita amounts, percent distribution, and average annual percent growth, by source of funds: Selected years 1960-90

Item	1960	1970	1980	1985	1986	1987	1988	1989	1990
				Amount in billions					
National health expenditures	$27.1	$74.4	$250.1	$422.6	$454.8	$494.1	$546.0	$602.8	$666.2
Private	20.5	46.7	145.0	247.9	264.6	285.7	318.9	350.2	383.6
Public	6.7	27.7	105.2	174.8	190.2	208.4	227.1	252.6	282.6
Federal	2.9	17.7	72.0	123.6	133.1	144.0	156.7	175.0	195.4
State and local	3.7	9.9	33.2	51.2	57.2	64.4	70.5	77.6	87.3
				Number in millions					
U.S. population[1]	190.1	214.9	235.3	247.2	249.6	252.0	254.5	257.0	259.6
				Amount in billions					
Gross national product	$515	$1,015	$2,732	$4,015	$4,232	$4,516	$4,874	$5,201	$5,465
				Per capita amount					
National health expenditures	$143	$346	$1,063	$1,710	$1,822	$1,961	$2,146	$2,346	$2,566
Private	108	217	616	1,003	1,060	1,134	1,253	1,363	1,478
Public	35	129	447	707	762	827	893	983	1,089
Federal	15	83	306	500	533	571	616	681	753
State and local	20	46	141	207	229	255	277	302	336
				Percent distribution					
National health expenditures	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	58.6	58.2	57.8	58.4	58.1	57.6
Public	24.5	37.2	42.0	41.4	41.8	42.2	41.6	41.9	42.4
Federal	10.7	23.9	28.8	29.2	29.3	29.1	28.7	29.0	29.3
State and local	13.8	13.3	13.3	12.1	12.6	13.0	12.9	12.9	13.1
				Percent of gross national product					
National health expenditures	5.3	7.3	9.2	10.5	10.7	10.9	11.2	11.6	12.2
				Average annual percent growth from previous year shown					
National health expenditures	—	10.6	12.9	11.1	7.6	8.6	10.5	10.4	10.5
Private	—	8.6	12.0	11.3	6.8	8.0	11.6	9.8	9.5
Public	—	15.3	14.3	10.7	8.8	9.5	9.0	11.2	11.9
Federal	—	19.8	15.0	11.4	7.6	8.2	8.8	11.7	11.7
State and local	—	10.2	12.8	9.0	11.8	12.6	9.5	10.1	12.5
U.S. population	—	1.2	0.9	1.0	1.0	1.0	1.0	1.0	1.0
Gross national product	—	7.0	10.4	8.0	5.4	6.7	7.9	6.7	5.1

[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 9

National health expenditures aggregate amounts and average annual percent change, by type of expenditure: Selected years 1960-90

Type of expenditure	1960	1970	1980	1985	1986	1987	1988	1989	1990
					Amount in billions				
National health expenditures	$27.1	$74.4	$250.1	$422.6	$454.8	$494.1	$546.0	$602.8	$666.2
Health services and supplies	25.4	69.1	238.9	407.2	438.9	476.8	526.2	582.1	643.4
Personal health care	23.9	64.9	219.4	369.7	400.8	439.3	482.8	529.9	585.3
Hospital care	9.3	27.9	102.4	168.3	179.8	194.2	212.0	232.6	256.0
Physician services	5.3	13.6	41.9	74.0	82.1	93.0	105.1	113.6	125.7
Dental services	2.0	4.7	14.4	23.3	24.7	27.1	29.4	31.6	34.0
Other professional services	0.6	1.5	8.7	16.6	18.6	21.1	23.8	27.1	31.6
Home health care	0.0	0.1	1.3	3.8	4.0	4.1	4.5	5.6	6.9
Drugs and other medical non-durables	4.2	8.8	21.6	36.2	39.7	43.2	46.3	50.6	54.6
Vision products and other medical durables	0.8	2.0	4.6	7.1	8.1	9.1	10.1	11.4	12.1
Nursing home care	1.0	4.9	20.0	34.1	36.7	39.7	42.8	47.7	53.1
Other personal health care	0.7	1.4	4.6	6.4	7.1	7.8	8.7	9.7	11.3
Program administration and net cost of private health insurance	1.2	2.8	12.2	25.2	24.6	22.9	26.8	33.9	38.7
Government public health activities	0.4	1.4	7.2	12.3	13.5	14.6	16.6	18.3	19.3
Research and construction	1.7	5.3	11.3	15.4	16.0	17.3	19.8	20.7	22.8
Research[1]	0.7	2.0	5.4	7.8	8.5	9.0	10.3	11.0	12.4
Construction	1.0	3.4	5.8	7.6	7.4	8.2	9.5	9.6	10.4
					Average annual percent change from previous year shown				
National health expenditures	—	10.6	12.9	11.1	7.6	8.6	10.5	10.4	10.5
Health services and supplies	—	10.5	13.2	11.3	7.8	8.7	10.3	10.6	10.5
Personal health care	—	10.5	13.0	11.0	8.4	9.6	9.9	9.8	10.5
Hospital care	—	11.7	13.9	10.4	6.8	8.0	9.2	9.7	10.1
Physician services	—	9.9	11.9	12.1	10.9	13.3	13.1	8.0	10.7
Dental services	—	9.1	11.9	10.1	6.4	9.6	8.5	7.3	7.6
Other professional services	—	9.6	19.1	13.8	12.0	13.6	12.4	14.0	16.6
Home health care	—	14.5	25.2	23.3	3.6	3.6	9.6	24.9	22.5
Drugs and other medical non-durables	—	7.6	9.4	10.8	9.9	8.6	7.2	9.3	7.9
Vision products and other medical durables	—	9.6	8.5	9.4	13.0	12.3	11.8	12.9	6.1
Nursing home care	—	17.4	15.2	11.3	7.6	8.0	7.8	11.5	11.4
Other personal health care	—	7.1	12.8	6.9	11.1	10.0	12.1	11.2	16.4
Program administration and net cost of private health insurance	—	9.0	16.0	15.5	−2.5	−6.6	16.9	26.6	14.1
Government public health activities	—	13.9	18.0	11.3	9.6	8.3	13.5	10.4	5.6
Research and construction	—	12.1	7.8	6.4	3.7	8.2	14.9	4.3	10.2
Research[1]	—	10.9	10.8	7.4	9.5	5.7	14.5	6.8	11.9
Construction	—	12.8	5.6	5.4	−2.4	11.1	15.3	1.5	8.3

[1] Research and development expenditures of drug companies and other manufacturers and providers of medical equipment and supplies are excluded from "research expenditures," but they 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 10

National health expenditures, by source of funds and type of expenditure: Selected years 1980-90

Year and type of expenditure	Total	Private					Government		
		All private funds	Consumer			Other			
			Total	Out-of-pocket	Private insurance		Total	Federal	State and local
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
1985									
National health expenditures	422.6	247.9	228.5	94.4	134.1	19.4	174.8	123.6	51.2
Health services and supplies	407.2	241.9	228.5	94.4	134.1	13.4	165.4	116.4	48.9
Personal health care	369.7	221.3	208.4	94.4	114.0	12.9	148.4	111.8	36.6
Hospital care	168.3	76.5	68.3	8.8	59.5	8.3	91.7	72.0	19.7
Physician services	74.0	49.8	49.8	16.1	33.7	0.0	24.1	19.2	4.9
Dental services	23.3	22.7	22.7	13.5	9.1	—	0.6	0.3	0.3
Other professional services	16.6	13.5	11.3	6.1	5.2	2.2	3.2	2.4	0.8
Home health care	3.8	1.1	0.7	0.5	0.3	0.4	2.7	2.3	0.5
Drugs and other medical non-durables	36.2	33.1	33.1	28.0	5.2	—	3.0	1.5	1.5
Vision products and other medical durables	7.1	5.6	5.6	4.8	0.7	—	1.6	1.4	0.2
Nursing home care	34.1	17.6	16.9	16.6	0.3	0.7	16.5	9.7	6.8
Other personal health care	6.4	1.4	—	—	—	1.4	4.9	3.0	1.9
Program administration and net cost of private health insurance	25.2	20.5	20.0	—	20.0	0.5	4.7	3.2	1.4
Government public health activities	12.3	—	—	—	—	—	12.3	1.4	10.9
Research and construction	15.4	6.0	—	—	—	6.0	9.4	7.2	2.2
Research	7.8	0.5	—	—	—	0.5	7.3	6.4	0.9
Construction	7.6	5.5	—	—	—	5.5	2.1	0.8	1.3
1988									
National health expenditures	546.0	318.9	293.7	119.3	174.4	25.2	227.1	156.7	70.5
Health services and supplies	526.2	311.0	293.7	119.3	174.4	17.3	215.1	147.5	67.6
Personal health care	482.8	290.2	273.4	119.3	154.1	16.8	192.6	141.7	50.9
Hospital care	212.0	97.7	86.6	11.2	75.4	11.1	114.3	86.2	28.1
Physician services	105.1	70.0	70.0	20.9	49.1	0.0	35.1	28.1	7.0
Dental services	29.4	28.7	28.7	16.3	12.4	—	0.7	0.4	0.3
Other professional services	23.8	19.2	16.6	7.6	8.9	2.6	4.6	3.5	1.1
Home health care	4.5	1.2	0.8	0.5	0.3	0.3	3.4	2.6	0.7
Drugs and other medical non-durables	46.3	41.8	41.8	35.3	6.5	—	4.5	2.2	2.3
Vision products and other medical durables	10.1	7.9	7.9	6.8	1.0	—	2.2	2.0	0.3
Nursing home care	42.8	21.9	21.0	20.6	0.5	0.8	20.9	12.6	8.3
Other personal health care	8.7	1.9	—	—	—	1.9	6.9	4.2	2.7
Program administration and net cost of private health insurance	26.8	20.8	20.3	—	20.3	0.5	6.0	3.9	2.1
Government public health activities	16.6	—	—	—	—	—	16.6	1.9	14.7
Research and construction	19.8	7.8	—	—	—	7.8	12.0	9.2	2.8
Research	10.3	0.7	—	—	—	0.7	9.6	8.3	1.3
Construction	9.5	7.1	—	—	—	7.1	2.4	0.9	1.5

See footnotes at end of table.

Table 10—Continued

National health expenditures, by source of funds and type of expenditure: Selected years 1980-90

Year and type of expenditure	Total	Private					Government		
		All private funds	Consumer			Other	Total	Federal	State and local
			Total	Out-of-pocket	Private insurance				
1989									
National health expenditures	$602.8	$350.2	$322.5	$126.1	$196.4	$27.7	$252.6	$175.0	$77.6
Health services and supplies	582.1	342.1	322.5	126.1	196.4	19.6	240.0	165.2	74.8
Personal health care	529.9	314.7	295.7	126.1	169.6	19.0	215.2	158.8	56.3
Hospital care	232.6	107.9	95.3	12.1	83.2	12.6	124.6	93.7	30.9
Physician services	113.6	74.2	74.1	21.3	52.8	0.0	39.4	31.6	7.8
Dental services	31.6	30.8	30.8	17.3	13.5	—	0.7	0.4	0.3
Other professional services	27.1	21.5	18.6	7.9	10.6	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	50.6	45.5	45.5	38.1	7.3	—	5.1	2.5	2.6
Vision products and other medical durables	11.4	9.0	9.0	7.8	1.2	—	2.4	2.1	0.3
Nursing home care	47.7	22.3	21.4	20.8	0.5	0.9	25.4	16.4	9.0
Other personal health care	9.7	2.1	—	—	—	2.1	7.7	4.5	3.2
Program administration and net cost of private health insurance	33.9	27.3	26.8	—	26.8	0.5	6.6	4.3	2.3
Government public health activities	18.3	—	—	—	—	—	18.3	2.1	16.2
Research and construction	20.7	8.2	—	—	—	8.2	12.5	9.7	2.8
Research	11.0	0.8	—	—	—	0.8	10.3	8.9	1.4
Construction	9.6	7.4	—	—	—	7.4	2.2	0.8	1.4
1990									
National health expenditures	666.2	383.6	352.9	136.1	216.8	30.6	282.6	195.4	87.3
Health services and supplies	643.4	374.8	352.9	136.1	216.8	21.8	268.6	184.3	84.3
Personal health care	585.3	343.5	322.2	136.1	186.1	21.3	241.8	177.2	64.6
Hospital care	256.0	116.0	102.2	12.8	89.4	13.8	140.0	104.6	35.3
Physician services	125.7	81.7	81.7	23.5	58.2	0.0	43.9	35.1	8.8
Dental services	34.0	33.1	33.1	18.0	15.1	—	0.9	0.5	0.4
Other professional services	31.6	25.2	21.5	8.8	12.8	3.6	6.4	4.9	1.6
Home health care	6.9	1.8	1.3	0.8	0.5	0.5	5.1	4.1	1.0
Drugs and other medical non-durables	54.6	48.5	48.5	40.2	8.3	—	6.1	3.0	3.1
Vision products and other medical durables	12.1	9.4	9.4	8.2	1.3	—	2.7	2.4	0.3
Nursing home care	53.1	25.5	24.4	23.9	0.6	1.0	27.7	17.2	10.5
Other personal health care	11.3	2.2	—	—	—	2.2	9.1	5.5	3.5
Program administration and net cost of private health insurance	38.7	31.2	30.7	—	30.7	0.6	7.5	4.8	2.7
Government public health activities	19.3	—	—	—	—	—	19.3	2.3	17.0
Research and construction	22.8	8.8	—	—	—	8.8	14.0	11.0	3.0
Research	12.4	0.8	—	—	—	0.8	11.5	10.0	1.5
Construction	10.4	8.0	—	—	—	8.0	2.5	1.0	1.5

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 11

Personal health care expenditures aggregate and per capita amounts and percent distribution, by source of funds: Selected years 1960-90

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	$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
1981	254.8	67.2	187.7	77.1	8.9	101.6	74.9	26.7	43.9	28.9
1982	286.4	74.2	212.2	88.5	10.2	113.5	84.0	29.5	51.4	30.6
1983	314.9	81.4	233.5	97.3	11.0	125.3	93.4	31.8	58.5	33.6
1984	341.2	87.7	253.5	106.3	11.4	135.7	101.8	33.9	64.4	36.0
1985	369.7	94.4	275.3	114.0	12.9	148.4	111.8	36.6	70.4	39.7
1986	400.8	100.9	299.9	123.8	14.0	162.1	120.7	41.4	75.7	42.9
1987	439.3	108.8	330.5	137.7	15.0	177.8	130.8	46.9	81.7	48.2
1988	482.8	119.3	363.5	154.1	16.8	192.6	141.7	50.9	88.5	52.1
1989	529.9	126.1	403.8	169.6	19.0	215.2	158.8	56.3	100.3	59.2
1990	585.3	136.1	449.2	186.1	21.3	241.8	177.2	64.6	108.9	71.3
					Per capita amount					
1960	$126	$70	$55	$26	$2	$27	$11	$16	—	—
1970	302	119	183	71	8	104	68	36	(3)	(3)
1980	933	253	680	277	32	370	270	100	(3)	(3)
1981	1,073	283	790	325	38	428	315	112	(3)	(3)
1982	1,193	309	884	368	43	473	350	123	(3)	(3)
1983	1,299	336	963	401	45	517	385	131	(3)	(3)
1984	1,394	358	1,036	434	47	555	416	139	(3)	(3)
1985	1,496	382	1,114	461	52	600	452	148	(3)	(3)
1986	1,606	404	1,202	496	56	650	484	166	(3)	(3)
1987	1,743	432	1,311	546	60	705	519	186	(3)	(3)
1988	1,897	469	1,428	606	66	757	557	200	(3)	(3)
1989	2,062	491	1,571	660	74	837	618	219	(3)	(3)
1990	2,255	524	1,731	717	82	932	683	249	(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
1981	100.0	26.4	73.6	30.3	3.5	39.9	29.4	10.5	17.2	11.3
1982	100.0	25.9	74.1	30.9	3.6	39.6	29.3	10.3	17.9	10.7
1983	100.0	25.8	74.2	30.9	3.5	39.8	29.7	10.1	18.6	10.7
1984	100.0	25.7	74.3	31.2	3.4	39.8	29.8	9.9	18.9	10.6
1985	100.0	25.5	74.5	30.8	3.5	40.1	30.2	9.9	19.0	10.7
1986	100.0	25.2	74.8	30.9	3.5	40.5	30.1	10.3	18.9	10.7
1987	100.0	24.8	75.2	31.3	3.4	40.5	29.8	10.7	18.6	11.0
1988	100.0	24.7	75.3	31.9	3.5	39.9	29.4	10.5	18.3	10.8
1989	100.0	23.8	76.2	32.0	3.6	40.6	30.0	10.6	18.9	11.2
1990	100.0	23.3	76.7	31.8	3.6	41.3	30.3	11.0	18.6	12.2

[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 12

Personal health care expenditures, by type of expenditure and selected sources of payment: Selected years 1960-90

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
1960					Amount in billions					
Personal health care expenditures	$23.9	$9.3	$5.3	$2.0	$0.6	$0.0	$4.2	$0.8	$1.0	$0.7
Out-of-pocket payments	13.3	1.9	3.3	1.9	0.5	0.0	4.1	0.8	0.8	—
Third-party payments	10.5	7.4	2.0	0.1	0.1	0.0	0.1	0.1	0.2	0.7
Private health insurance	5.0	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	—
Other private	0.4	0.1	0.0	—	0.0	0.0	—	—	0.1	0.2
Government	5.1	3.9	0.4	0.0	0.0	0.0	0.1	0.0	0.1	0.5
Federal	2.1	1.6	0.1	0.0	0.0	—	0.0	0.0	0.1	0.3
Medicare	—	—	—	—	—	—	—	—	—	—
Medicaid	—	—	—	—	—	—	—	—	—	—
Other	2.1	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3
State and local	3.0	2.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Medicaid	—	—	—	—	—	—	—	—	—	—
Other	3.0	2.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Medicaid	—	—	—	—	—	—	—	—	—	—
1970										
Personal health care expenditures	64.9	27.9	13.6	4.7	1.5	0.1	8.8	2.0	4.9	1.4
Out-of-pocket payments	25.6	2.5	5.8	4.2	0.9	0.0	8.0	1.8	2.3	—
Third-party payments	39.3	25.4	7.8	0.4	0.7	0.1	0.8	0.2	2.5	1.4
Private health insurance	15.2	9.6	4.8	0.2	0.1	0.0	0.3	0.1	0.0	—
Other private	1.7	0.9	0.0	—	0.1	0.1	—	—	0.2	0.3
Government	22.4	14.9	3.0	0.2	0.4	0.1	0.5	0.1	2.3	1.1
Federal	14.6	9.8	2.1	0.1	0.2	0.1	0.2	0.1	1.4	0.6
Medicare	7.2	5.3	1.6	—	0.0	0.1	—	0.0	0.2	—
Medicaid	2.7	1.2	0.3	0.1	0.0	0.0	0.2	—	0.7	0.1
Other	4.7	3.3	0.2	0.0	0.2	—	0.0	0.0	0.4	0.5
State and local	7.8	5.1	0.8	0.1	0.1	0.0	0.2	0.0	0.9	0.5
Medicaid	2.3	1.0	0.3	0.1	0.0	0.0	0.2	—	0.6	0.1
Other	5.5	4.1	0.5	0.0	0.1	0.0	0.1	0.0	0.3	0.4
Total Medicaid	5.1	2.2	0.6	0.2	0.1	0.0	0.4	—	1.4	0.2
1988										
Personal health care expenditures	482.8	212.0	105.1	29.4	23.8	4.5	46.3	10.1	42.8	8.7
Out-of-pocket payments	119.3	11.2	20.9	16.3	7.6	0.5	35.3	6.8	20.6	—
Third-party payments	363.5	200.8	84.3	13.1	16.1	4.0	11.0	3.3	22.2	8.7
Private health insurance	154.1	75.4	49.1	12.4	8.9	0.3	6.5	1.0	0.5	—
Other private	16.8	11.1	0.0	—	2.6	0.3	—	—	0.8	1.9
Government	192.6	114.3	35.1	0.7	4.6	3.4	4.5	2.2	20.9	6.9
Federal	141.7	86.2	28.1	0.4	3.5	2.6	2.2	2.0	12.6	4.2
Medicare	88.5	57.5	24.2	—	2.1	1.8	—	1.8	1.0	—
Medicaid	29.4	11.2	2.2	0.3	0.8	0.8	2.1	—	10.7	1.3
Other	23.9	17.5	1.7	0.1	0.6	—	0.1	0.2	1.0	2.9
State and local	50.9	28.1	7.0	0.3	1.1	0.7	2.3	0.3	8.3	2.7
Medicaid	22.7	8.8	1.5	0.3	0.6	0.7	1.5	—	8.3	1.0
Other	28.2	19.3	5.5	0.1	0.5	0.0	0.8	0.3	0.0	1.7
Total Medicaid	52.1	20.0	3.7	0.6	1.4	1.5	3.6	—	19.0	2.2

See footnotes at end of table.

Table 12—Continued

Personal health care expenditures, by type of expenditure and selected sources of payment: Selected years 1960-90

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
1989										
Personal health care expenditures	$529.9	$232.6	$113.6	$31.6	$27.1	$5.6	$50.6	$11.4	$47.7	$9.7
Out-of-pocket payments	126.1	12.1	21.3	17.3	7.9	0.7	38.1	7.8	20.8	—
Third-party payments	403.8	220.5	92.2	14.2	19.2	5.0	12.4	3.6	26.9	9.7
Private health insurance	169.6	83.2	52.8	13.5	10.6	0.4	7.3	1.2	0.5	—
Other private	19.0	12.6	0.0	—	3.0	0.4	—	—	0.9	2.1
Government	215.2	124.6	39.4	0.7	5.6	4.2	5.1	2.4	25.4	7.7
Federal	158.8	93.7	31.6	0.4	4.2	3.3	2.5	2.1	16.4	4.5
Medicare	100.3	62.2	27.4	—	2.6	2.3	—	2.0	3.8	—
Medicaid	33.6	13.0	2.5	0.4	1.0	1.0	2.4	—	11.7	1.7
Other	24.9	18.6	1.7	0.1	0.6	—	0.1	0.2	0.9	2.7
State and local	56.3	30.9	7.8	0.3	1.3	0.9	2.6	0.3	9.0	3.2
Medicaid	25.6	10.0	1.7	0.3	0.7	0.9	1.7	—	8.9	1.3
Other	30.8	20.9	6.0	0.1	0.6	0.0	0.9	0.3	0.0	1.9
Total Medicaid	59.2	22.9	4.3	0.6	1.7	1.9	4.1	—	20.6	3.1
1990										
Personal health care expenditures	585.3	256.0	125.7	34.0	31.6	6.9	54.6	12.1	53.1	11.3
Out-of-pocket payments	136.1	12.8	23.5	18.0	8.8	0.8	40.2	8.2	23.9	—
Third-party payments	449.2	243.2	102.2	16.0	22.8	6.1	14.4	4.0	29.3	11.3
Private health insurance	186.1	89.4	58.2	15.1	12.8	0.5	8.3	1.3	0.6	—
Other private	21.3	13.8	0.0	—	3.6	0.5	—	—	1.0	2.2
Government	241.8	140.0	43.9	0.9	6.4	5.1	6.1	2.7	27.7	9.1
Federal	177.2	104.6	35.1	0.5	4.9	4.1	3.0	2.4	17.2	5.5
Medicare	108.9	68.3	30.0	—	3.1	2.9	—	2.2	2.5	—
Medicaid	40.6	16.2	3.1	0.4	1.2	1.2	2.9	—	13.7	2.0
Other	27.7	20.1	2.0	0.1	0.7	—	0.1	0.2	1.0	3.5
State and local	64.6	35.3	8.8	0.4	1.6	1.0	3.1	0.3	10.5	3.5
Medicaid	30.7	12.3	2.1	0.3	0.9	1.0	2.1	—	10.5	1.6
Other	33.9	23.0	6.7	0.1	0.7	0.0	1.0	0.3	0.1	2.0
Total Medicaid	71.3	28.5	5.2	0.7	2.0	2.2	4.9	—	24.1	3.6

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 13

Expenditures for health services and supplies under public programs, by type of expenditure and program: 1990

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 non-durables	Vision products and other medical durables	Nursing home care	Other		
							Amount in billions						
Public and private spending	$643.4	$585.3	$256.0	$125.7	$34.0	$31.6	$6.9	$54.6	$12.1	$53.1	$11.3	$38.7	$19.3
All public programs	268.6	241.8	140.0	43.9	0.9	6.4	5.1	6.1	2.7	27.7	9.1	7.5	19.3
Federal funds	184.3	177.2	104.6	35.1	0.5	4.9	4.1	3.0	2.4	17.2	5.5	4.8	2.3
State and local funds	84.3	64.6	35.3	8.8	0.4	1.6	1.0	3.1	0.3	10.5	3.5	2.7	17.0
Medicare	111.2	108.9	68.3	30.0	—	3.1	2.9	—	2.2	2.5	—	2.3	—
Medicaid[1]	75.2	71.3	28.5	5.2	0.7	2.0	2.2	4.9	—	24.1	3.6	3.8	—
Federal	42.9	40.6	16.2	3.1	0.4	1.2	1.2	2.9	—	13.7	2.0	2.2	—
State and local	32.3	30.7	12.3	2.1	0.3	0.9	1.0	2.1	—	10.5	1.6	1.6	—
Other State and local public assistance programs	4.2	4.2	2.7	0.5	0.0	0.1	0.0	0.7	—	0.1	0.1	—	—
Department of Veterans Affairs	11.4	11.4	9.5	0.1	0.0	—	—	0.0	0.1	1.0	0.5	0.0	—
Department of Defense[2]	11.5	11.3	9.1	1.4	0.0	—	—	0.1	—	—	0.7	0.2	—
Workers' compensation	15.6	14.6	7.4	6.2	—	0.4	—	0.3	0.3	—	—	1.0	—
Federal	0.5	0.4	0.3	0.1	—	0.0	—	0.0	0.0	—	—	0.0	—
State and local	15.1	14.1	7.1	6.0	—	0.4	—	0.3	0.3	—	—	1.0	—
State and local hospitals[3]	14.1	14.1	13.0	—	—	—	—	—	—	—	—	—	—
Other public programs for personal health care[4]	6.2	6.0	1.5	0.5	0.0	0.8	—	0.0	0.1	—	3.1	0.2	—
Federal	4.6	4.5	1.2	0.3	0.0	0.6	—	0.0	0.1	—	2.3	0.1	—
State and local	1.6	1.5	0.3	0.2	0.0	0.2	—	0.0	0.0	—	0.8	0.1	—
Government public health activities	19.3	—	—	—	—	—	—	—	—	—	—	—	19.3
Federal	2.3	—	—	—	—	—	—	—	—	—	—	—	2.3
State and local	17.0	—	—	—	—	—	—	—	—	—	—	—	17.0
Medicare and Medicaid	186.4	180.2	96.8	35.2	0.7	5.1	5.1	4.9	2.2	26.6	3.6	6.1	—

[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 amounts less than $50 million. 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.

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References

American Hospital Association: *Hospital Statistics: A Comprehensive Summary of U.S. Hospitals, 1990-1991.* Chicago, 1990.

American Medical Association: *Socioeconomic Characteristics of Medical Practice, 1990/1991.* Chicago, 1991.

Kimball, M.C.: States outfox feds for Medicaid cash. *HealthWeek* 5(10):1,59, May 20, 1991.

Lakin, K.C., Prouty, R.W., White, C.C., et al.: *Intermediate Care Facilities for Persons with Mental Retardation (ICFs-MR): Program Utilization and Resident Characteristics.* Center for Residential and Community Services, University of Minnesota. Minneapolis, Mar. 1990.

Lazenby, H.C., and Letsch, S.W.: National health expenditures, 1989. *Health Care Financing Review* 12(2):1-26. HCFA Pub. No. 03316. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Winter 1990.

Letsch, S.W, Maple, B.M., Cowan, C.A., and Donham, C.S.: Health Care Indicators. *Health Care Financing Review* 13(1):129-153. HCFA Pub. No. 03321. Office of Research and Demonstrations, Health Care Financing Administration. Washington, U.S. Government Printing Office, Fall 1991.

Levit, K.R., and Cowan, C.A.: The burden of health care costs: Business, households, and governments. *Health Care Financing Review* 12(2):127-137. HCFA Pub. No. 03298. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Winter 1990.

Mayer, D., and Kimball, M.C.: Ore. commission OKs Medicaid pecking order. *HealthWeek* 5(4):1,36, Feb. 25, 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.

The Nation's Health: Outlays for Medicaid Mandates Strapping Budgets, say States. 21(2):5. American Public Health Association. Washington. Feb. 1991.

U.S. Bureau of the Census: *Services Annual Survey.* U.S. Department of Commerce. Washington. U.S. Government Printing Office, 1990.