# National Health Expenditures, 2002

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*National health expenditures (NHE) were $1.6 trillion in 2002, a 9.3-percent increase from 2001. For the fourth consecutive year health spending grew faster than the overall economy as measured by the GDP. Growth in U.S. health care spending rose for most health services in 2002, with hospital spending once again the primary driver.*

## INTRODUCTION

NHE were $1.6 trillion in 2002, an average $5,440 per person. Health spending growth rose from 8.5 percent in 2001 to 9.3 percent in 2002. Hospital spending, the largest component of health spending, was also the biggest contributor to overall spending growth. Hospital spending recently climbed 7.5 percent in 2001, and 9.5 percent in 2002 from growth that had only averaged 3.4 percent from 1993-1998, a time marked by a shift in enrollment to managed care plans. Growth in spending rose in 2002 for hospitals, but also for most other health services as well. This led to a rate of health spending increase in 2002 that was more than twice the 3.6 percent increase in the GDP. The health care share of GDP increased to 14.1 percent in 2001 and 14.9 percent in 2002, after nearly a decade in the 13.1 to 13.4 percent range. This reflects the growing pressures that payers face in meeting health care commitments as well as the considerable value our society placed on health services.

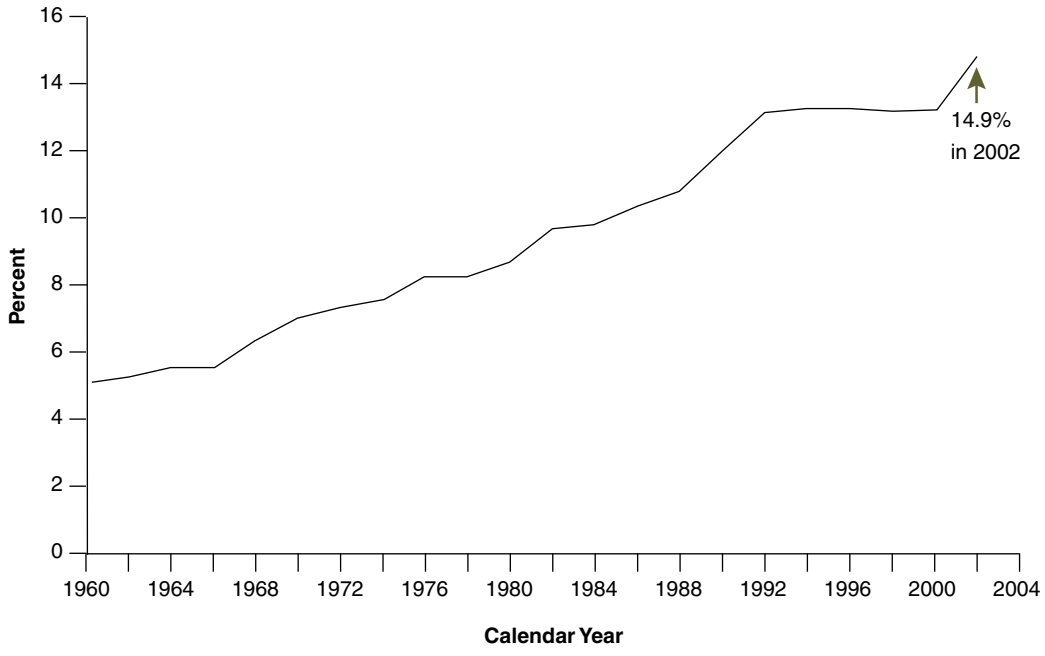
In this article we present historical health spending in the United States and describe the trends in growth and distribution of health care expenditures. NHA estimates report total health spending by payer and by type of service or product. To accurately measure net spending by all payers, these estimates adhere to government national income accounting standards requiring that estimates be tabulated in a mutually exclusive and exhaustive fashion. These estimates form a foundation for projections of health spending and provide a basis for policymakers, researchers, and the public to understand trends in spending.

In the following charts, we detail trends on health care spending through 2002. More complete time-series estimates and updated definitions and methodologies are available online at http://cms.hhs.gov/stats/nhe-oact/.

The authors are with the Office of the Actuary, Centers for Medicare & Medicaid Services (CMS). The views expressed in this article are those of the authors and do not necessarily reflect the views of CMS.

**Figure 1**

**NHE as a Share of GDP: CYs 1960-2002**

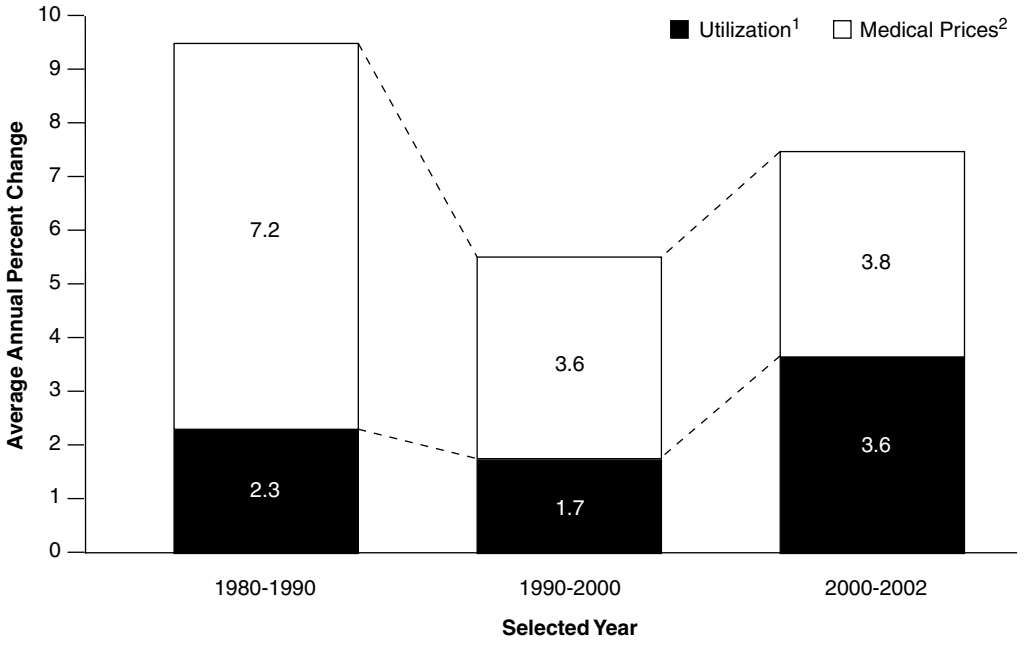



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- The health spending share of GDP had remained steady between 1993 and 2000, due largely to the savings achieved by managed care and relatively strong growth in GDP.
- Health spending share of GDP in 2001 and 2002 increased sharply, rising from 13.3 percent in 2000 to 14.9 percent in 2002—an increase of 1.6 percentage points. This increasing share since 2000 is driven by acceleration in health spending growth from 7.1 percent in 2000 to 9.3 percent in 2002 as GDP growth slowed from 5.9 percent in 2000 to 2.6 percent in 2001 and 3.6 percent in 2002.

**Figure 2**

**Factors Accounting for Growth in PHCE Per Capita: Selected Years 1980-2002**




[1] Utilization includes quality and mix of services. As a residual, this factor also includes any errors in measuring prices or total spending.

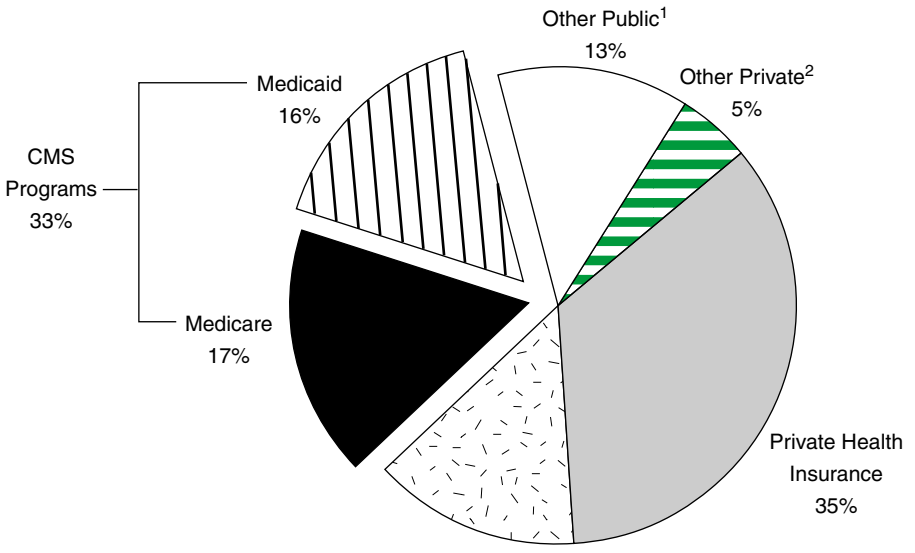
[2] Medical prices are calculated using the PHI chain-type index constructed from the producer price index for hospital care, input price index for nursing home care, and consumer price index specific to each of the remaining PHC components.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Health spending can be divided into two factors: price and quantity. The medical prices factor attempts to measure the change in price holding changes in quality and mix of services constant. The quantity factor, or utilization, includes factors such as the use (visits, prescriptions, inpatient stays) per person, the changing mix and quality of services people consume, as well as the introduction of new technologies.
- The average annual growth in medical prices slowed considerably from 1990 to 2000 when compared to the previous 10 years. The rapid growth of managed care during this period contributed to the slowdowns in medical prices and utilization.
- Growth in both price and in per person utilization rose from 2000-2002, but the acceleration in quantity of services used per person was more significant than the increase in prices. Utilization and prices contributed almost equally to the increase in health care spending during this time.

**Figure 3**

**Nation's Health Dollar, Where It Came From: CY 2002**




[1] Other public includes programs such as SCHIP and Medicaid SCHIP expansion, worker's compensation, public health activity, health programs sponsored by DOD, VA, IHS; State and local hospital subsides, and school health.

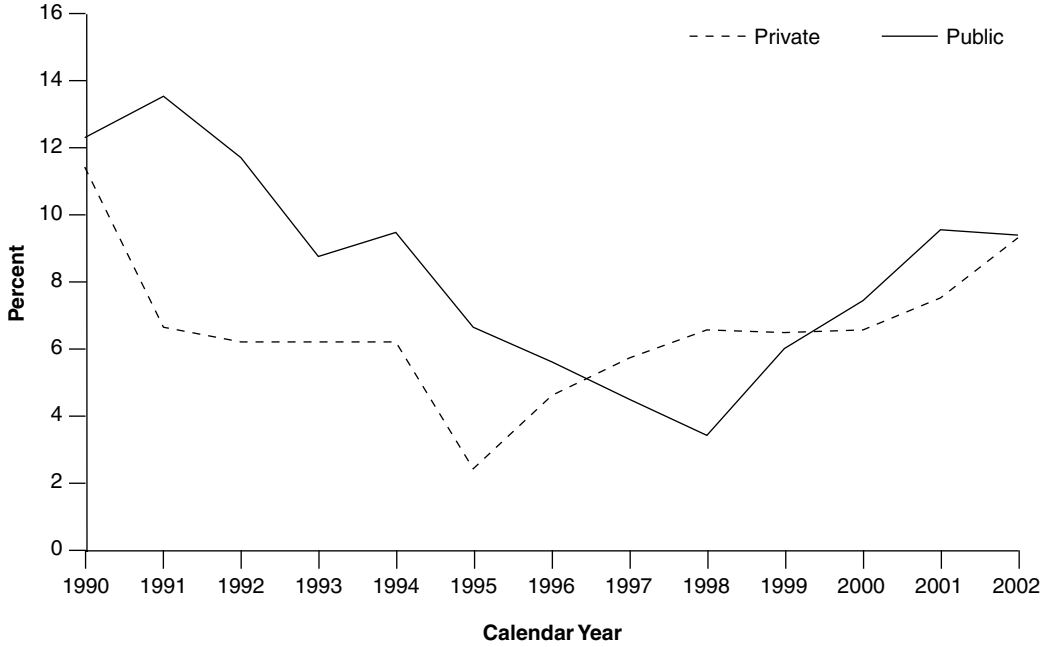
[2] Other private includes industrial in-plant, private funded construction, and non-patient revenues, including philanthropy.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- PHI paid just over one-third of the Nation's health care bill, while CMS programs—Medicare and Medicaid—paid another one-third.
- The remaining one-third of the health bill was paid by individuals' out-of-pocket payments and by other public and private payments.

**Figure 4**

**Growth in Public and Private Sources of NHE: CYs 1990-2002**

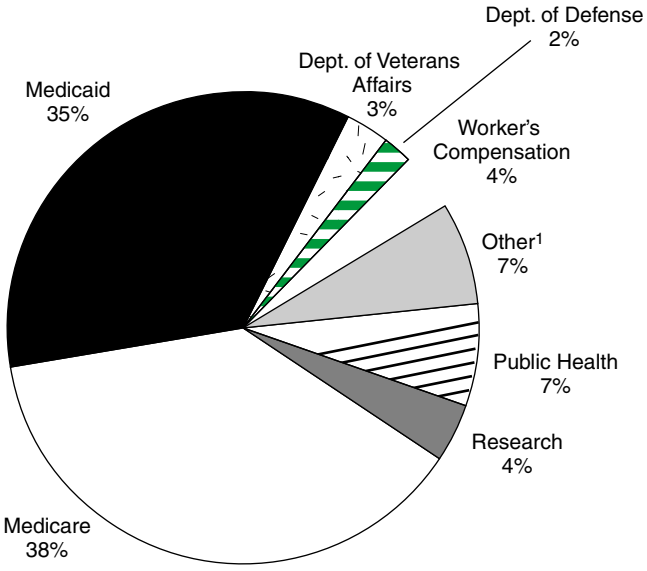



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Private sources funded $839.6 billion, or 54 percent of health care, in 2002. Public sources funded the remainder—$713.4 billion (46 percent).
- Private funding increased at nearly the same rate as public funding in 2002, growing 9.3 percent following 7.5 percent growth in 2001.
- Out-of-pocket funding accelerated slightly in 2002, increasing 6.0 percent. This was the fastest rate of increase since 1998, with one-half of the dollar growth coming from out-of-pocket spending for prescription drugs.
- Total public funding increased 9.7 percent in 2001 and 9.4 percent in 2002, faster than the 5.7 percent average annual growth over the prior 3 years.
- Important sources of public funding growth were temporary Medicare increases to providers in the BBRA, BBA, and BIPA, and increased Medicaid spending as a result of increased enrollment due to the 2001 recession.

**Figure 5**

**Total Public Spending for NHE: CY 2002**



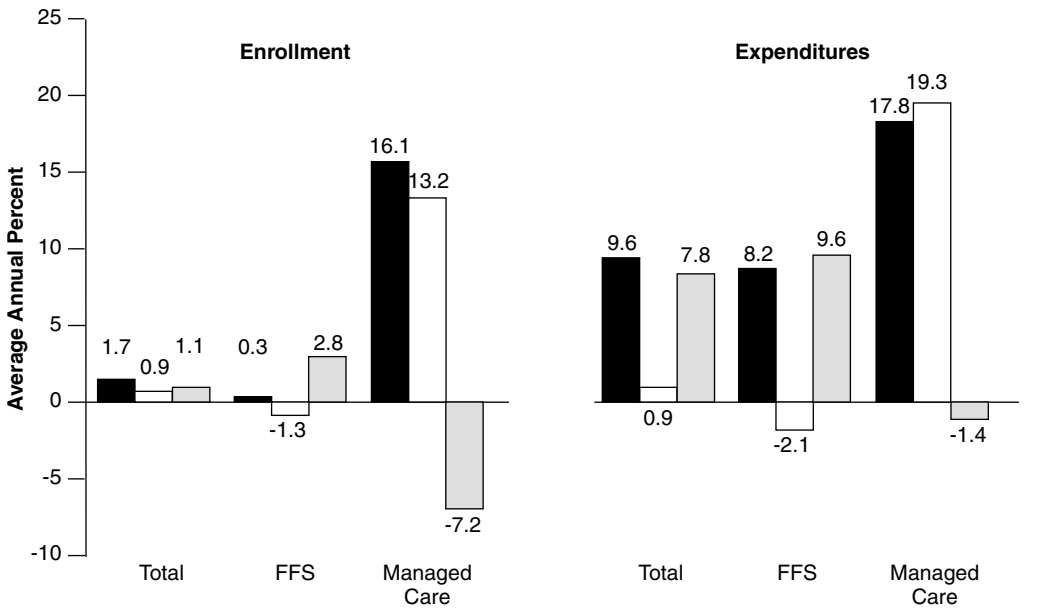

[1] Other includes maternal and child health, vocational rehabilitation, ADAMSA and SAMSHA, Indian Health Services, general hospital/medical NEC, State/local hospital, school health, construction of medical facilities, and SCHIP.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Medicare and Medicaid payments account for nearly three quarters (73 percent) of public sector NHE.
- Public health activity along with public sector research accounts for 11 percent of public sector NHE.
- Three other public payers, DOD, VA, and workers' compensation programs collectively make up 9 percent of public sector NHE.
- SCHIP accounts for less than 1 percent of public expenditures. Spending on all SCHIP grew to $5.6 billion in 2002. State-sponsored plans have accounted for nearly all of the growth in SCHIP spending since 2000.
- All other public sector payers account for the residual, about 6 percent of public sector NHE.

**Figure 6**

**Growth in Medicare Enrollment and Expenditures: Selected Years 1990-2002**

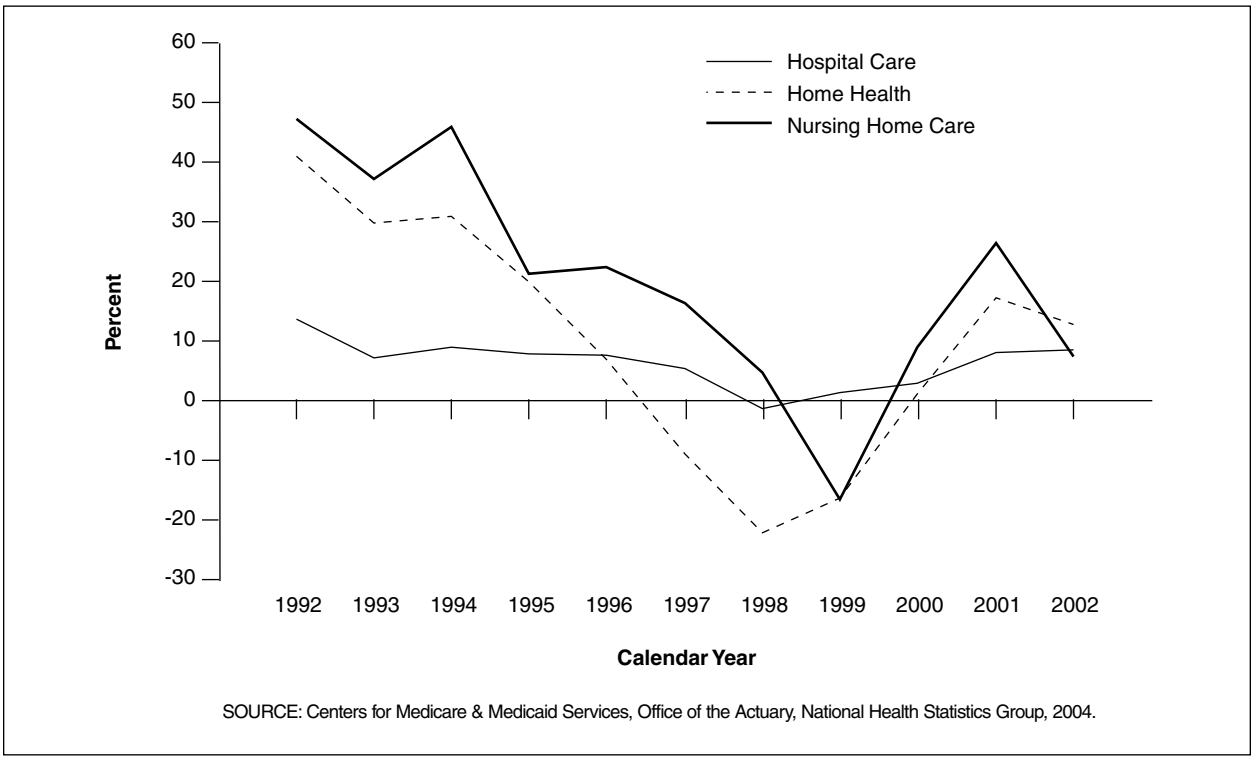



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Aggregate spending for health care on behalf of Medicare's 39.6 million enrollees reached $267 billion in 2002, 8.4 percent higher than spending in 2001.
- Average annual growth in total Medicare enrollment gradually slowed from 1.7 percent from 1990-1997 to 0.9 percent from 1997-1999, but increased slightly to 1.1 percent from 1999-2002.
- BBA contributed to a rapid deceleration in FFS spending growth from 1997-1999, followed by a rebound as the provisions of BBRA and BIPA were implemented.
- Changes introduced by the BBA in the managed care payment formula caused a decline in the number of plans participating in Medicare, reducing managed care enrollment and producing a decline in managed care expenditures from 1999-2002.

**Figure 7**

**Growth in Medicare Spending for Hospitals, Home Health, and Nursing Homes: Selected CYs 1992-2002**

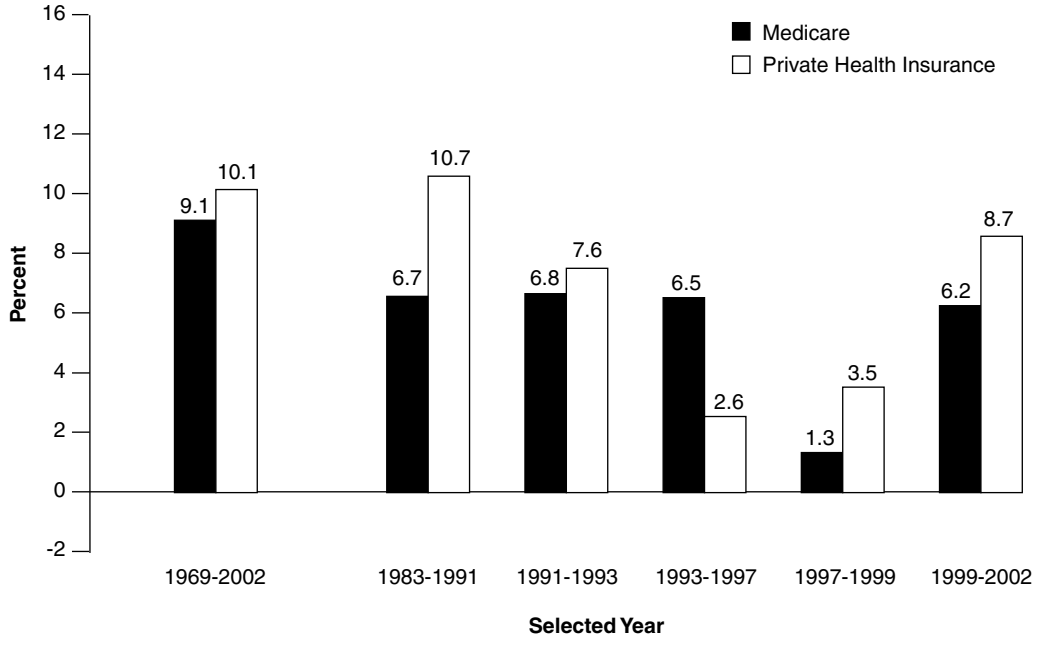



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Prior to the BBA, nursing home and home health revenues were rising rapidly. Cost-based reimbursement and high levels of utilization contributed to these high rates of growth.
- The abrupt slowdown in Medicare spending growth from 1997 to 2000 is attributable, in part, to increased efforts to control fraud and abuse activities in the home health care industry and provisions in the BBA. These BBA provisions mandated the interim payment system for home health services, effective October 1997, and mandated and implemented the PPS for skilled nursing homes, effective in 1998, and for HHAs, effective in October 2000. A PPS for hospital outpatient services was implemented in August 2000.
- Medicare spending began increasing at a more rapid pace in 2000 and 2001, as provisions of the BBRA increased payments to hospitals, nursing homes, and HHAs. Medicare grew 7.7 percent in 2002 for nursing homes and 13.3 percent for HHAs.
- The effects of BBRA and BIPA helped to increase growth in Medicare spending for hospital services by implementing temporary add-on payments, and by increasing payments for outpatient services while accelerating the reduction of Medicare required coinsurance for outpatient services.

**Figure 8**

**Average Annual Growth in Per Enrollee Medicare and PHI Common Benefits[1]: Selected Years 1969-2002**



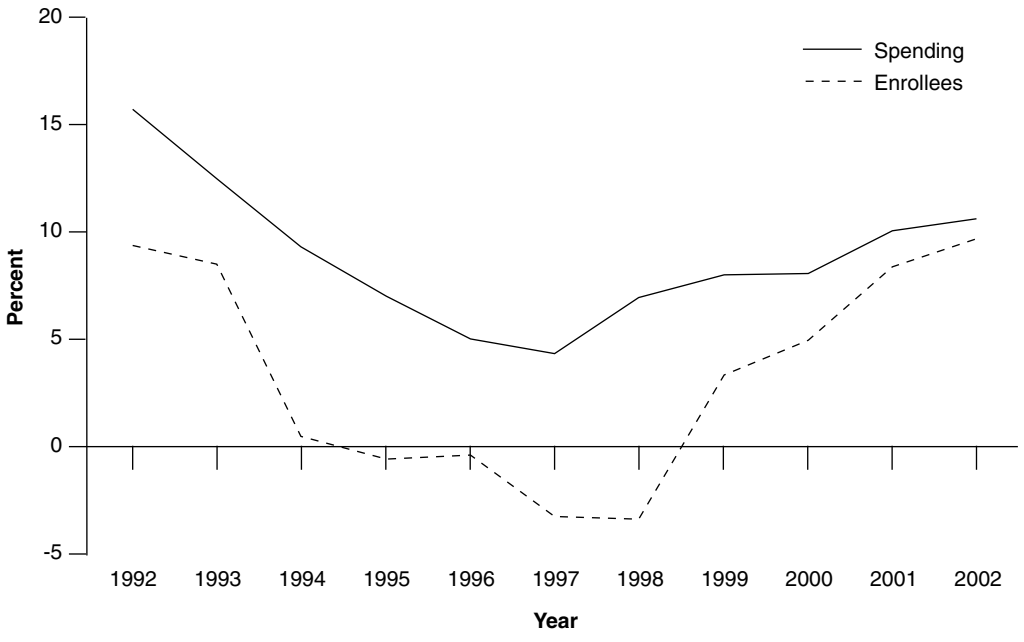

[1] Common benefits include hospital, physician, clinic and other professional service plus durable medical products.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- We compare spending only for benefits provided by both Medicare and PHI (hospital, physician, clinical and other professional services, plus durable medical products). From 1969-2002, Medicare per enrollee spending has grown at a slightly slower average annual rate than PHI, with more pronounced differences in growth occurring after 1983.
- Between 1970 and 1983, average annual per-enrollee growth rates for these benefits were similar. Since September 1983 when Medicare implemented the first PPS for inpatient hospital services—with the exception of the 1993-1997 period when growth in managed care dominated the PHI market—per enrollee costs, on average, for these common services in Medicare have grown more slowly than in PHI.
- Between 1999 and 2002, Medicare per-enrollee spending grew 6.2 percent for these benefits compared to PHI per-enrollee growth of 8.7 percent. During this period, Medicare spending responded to a series of policy changes aimed at better managing public funds while private health insurers responded to consumer demands for more costly, less tightly managed plans.

**Figure 9**

**Growth in Total Medicaid Spending and Enrollment: 1992-2002**

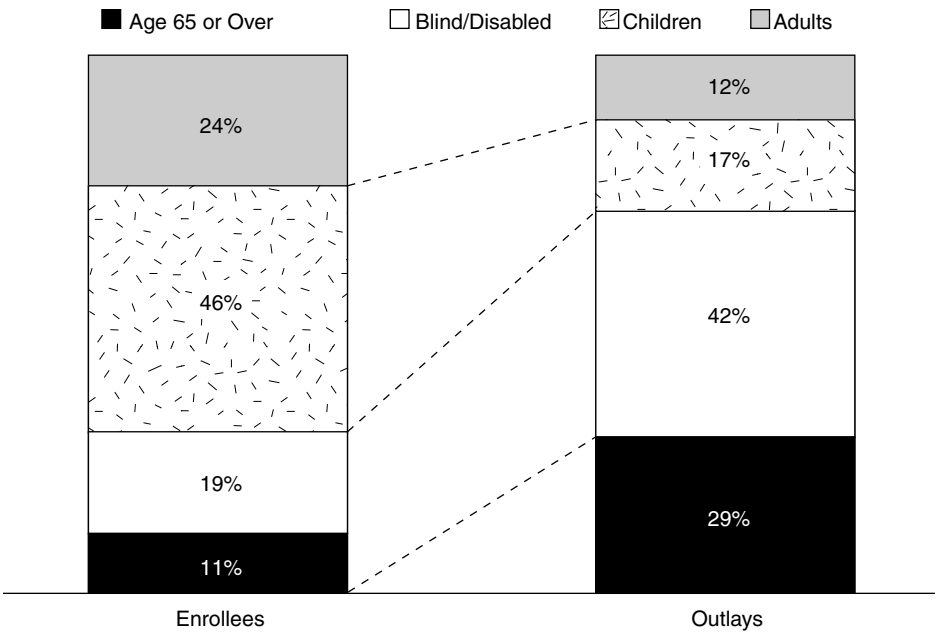



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Total Medicaid spending increased to $250 billion in 2002, an increase of 11.7 percent over the previous year.
- Medicaid spending and enrollment growth has accelerated since the late 1990s.
- Between 2000 and 2002, weak labor markets along with program expansions drove a 5.7-million increase in the number of adults and children eligible for Medicaid.

**Figure 10**

**Medicaid Enrollees and Outlays, by Category: FY 2001**

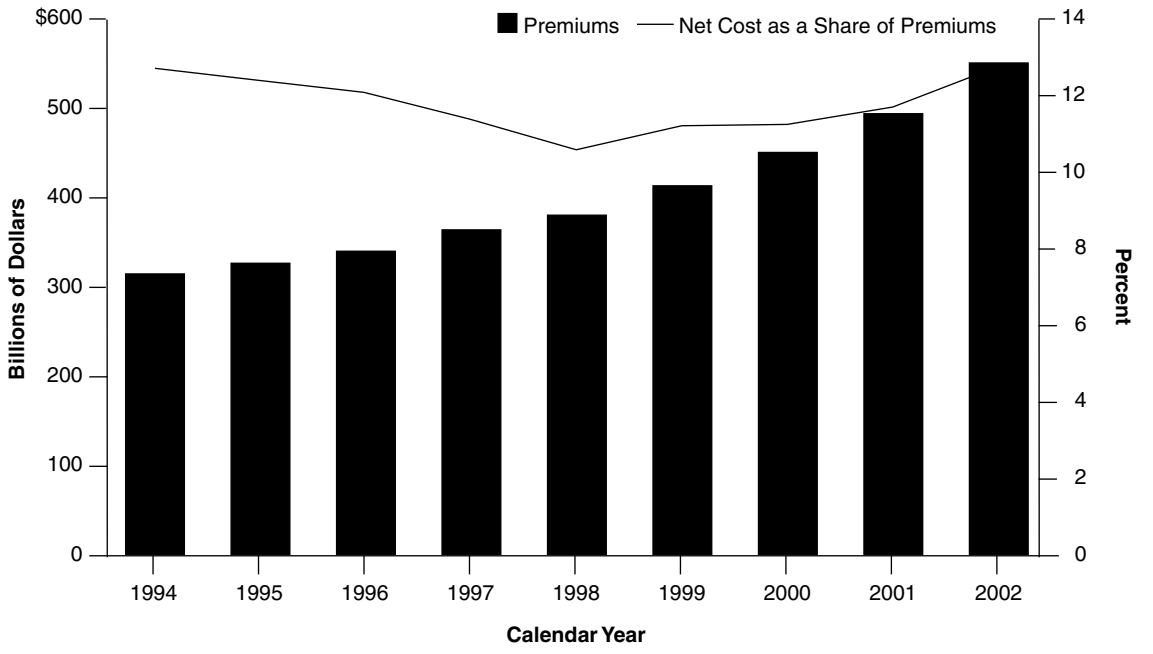



SOURCE: Centers for Medicare & Medicaid Services, Center for Medicaid and State Operations, 2003.

- Adults and children represented 70 percent of Medicaid enrollees in 2002, yet these groups account for only 29 percent of Medicaid outlays.
- Adults and children accounted for 85 percent of the growth in enrollment, yet these groups account for only 36 percent of the growth in outlays.
- The small increase in aged and disabled enrollees, coupled with their much higher spending per enrollee, accounted for most of the increase in Medicaid outlays in 2002.

**Figure 11**

**PHI Premiums and Net Cost[1] as a Share of Total Premiums: CYs 1994-2002**



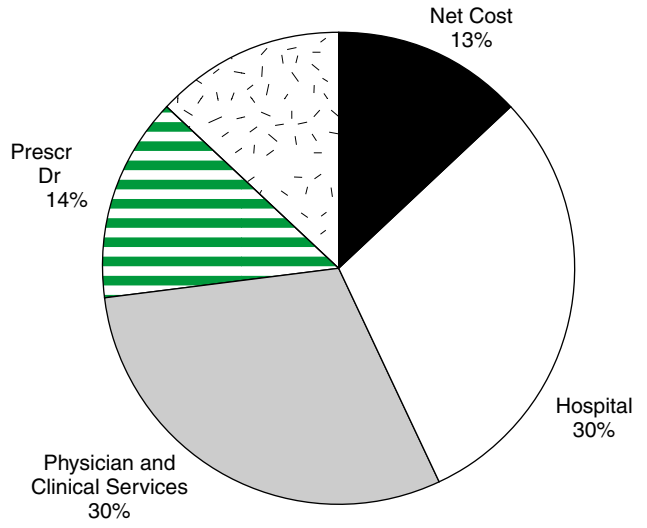

[1] Differences between premiums earned and benefits incurred.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- PHI premiums reached $549.6 billion in 2002, a 10.9-percent increase from 2001. Growth in PHI premiums has accelerated since 1996 when enrollment in tightly managed care plans was at its peak. Since then consumers have preferred to enroll in more expensive and less strictly managed health plans.
- Net cost of PHI in 2002, (the difference between premiums and benefits) reached 12.8 percent of premiums, the highest since 1994.

**Figure 12**

**Distribution of PHI Expenditures: CY 2002**



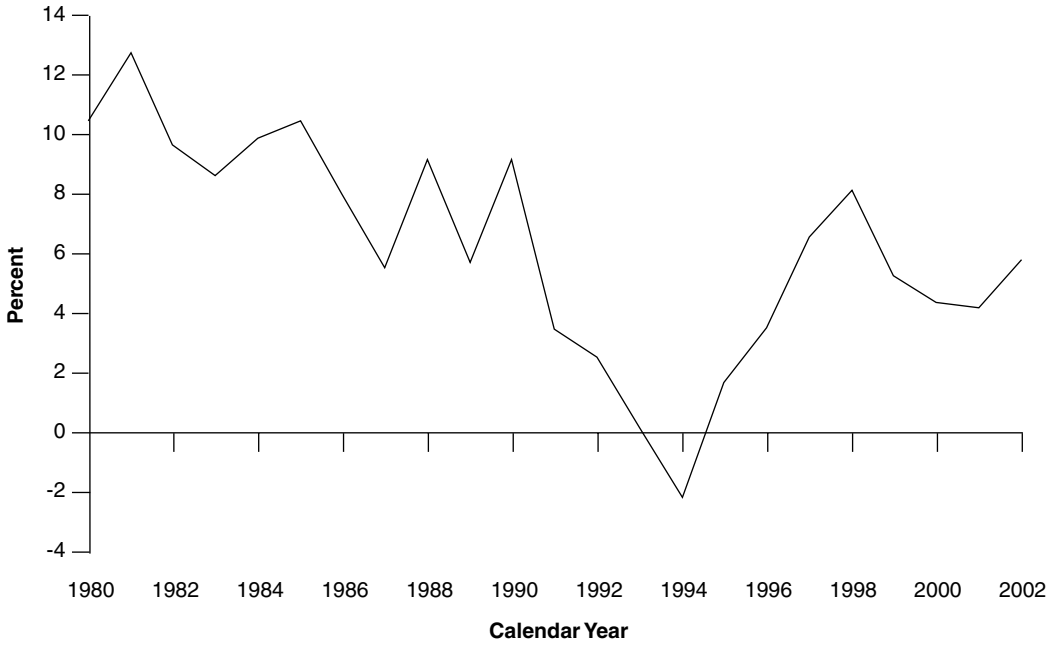

[1] Includes other professional services, dental services, nursing home, home health, and durable medical equipment.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Hospital, physician, and clinical services expenditures in 2002 accounted for almost two-thirds of total PHI spending.
- Prescription drug expenditures were 14 percent of PHI, up from around 4 percent in 1990. This increase in the share of insurance paying for prescription drugs was partially offset by a decrease in the share paid for hospital services.

**Figure 13**

**Growth in Out-of-Pocket Spending for Health Care: CYs 1980-2002**

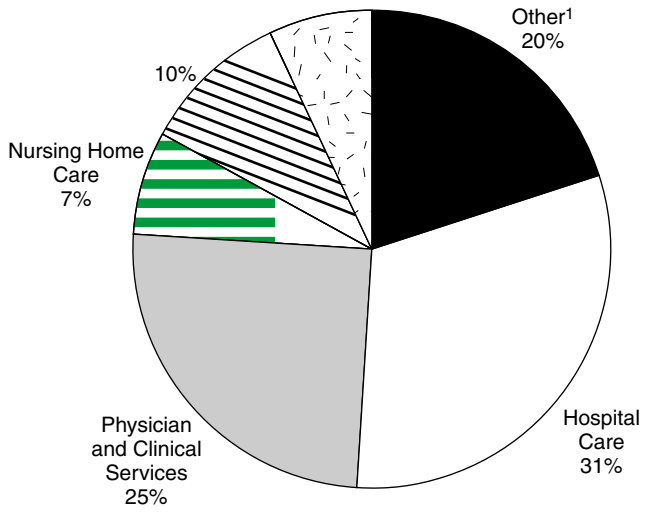



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Out-of-pocket spending includes spending by individuals for services not covered by health insurance, as well as copayments and deductibles.
- Out-of-pocket spending between 1991 and 1994 was suppressed as more households switched to managed care plans with lower cost-sharing requirements. Between 1994 and 1998 out-of-pocket spending growth accelerated, reaching its most recent peak in growth in 1998 (8.2 percent). In 2002, out-of-pocket spending increased 6.0 percent, its fastest pace since 1998.
- Over one-half of the growth in out-of-pocket spending in 2001 and 2002 was related to prescription drugs expenditures.
- Out-of-pocket spending for dental services contributed 17 percent of aggregate out-of-pocket spending growth between 1997 and 2002 and was the second-largest contributor to the level of out-of-pocket spending during this period.

**Figure 14**

**Nation's Health Dollar, Where It Went: CY 2002**



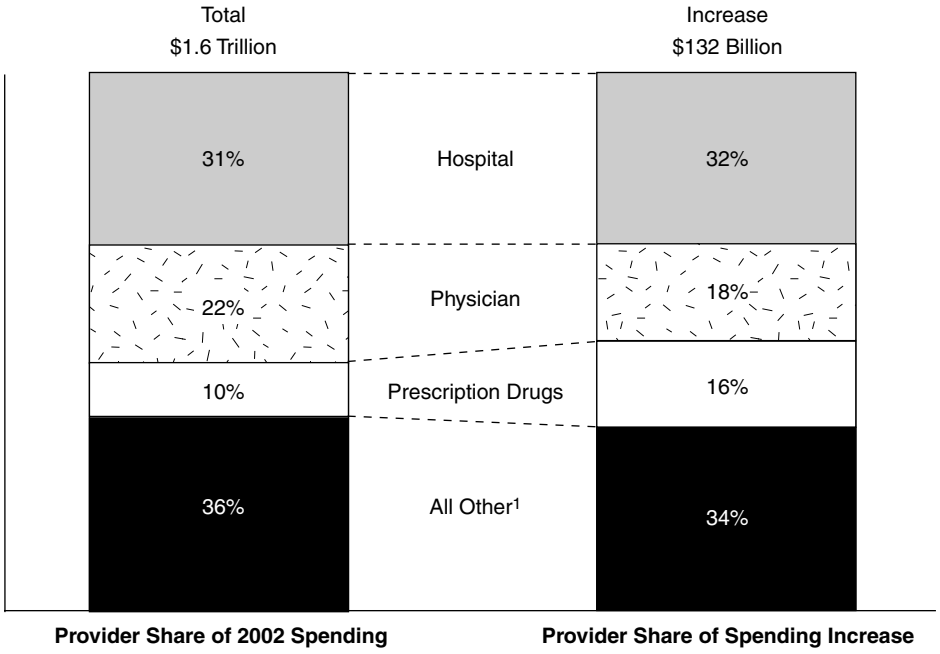

[1] Includes dental services, other professional services, home health, durable medical products, over-the-counter medicines and sundries, public health, research and construction.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Hospital spending in 2002 accounted for almost one-third of total national health spending. Expenditures for physician and clinical services, the next largest spending category, amounted to one-quarter of total health spending.
- Although retail spending for prescription drugs accounted for just 10 percent of health spending in 2002, it continued to grow at a faster pace than any other component.

**Figure 15**

**Provider Shares of Health Spending and of Health Spending Increase: CY 2002**



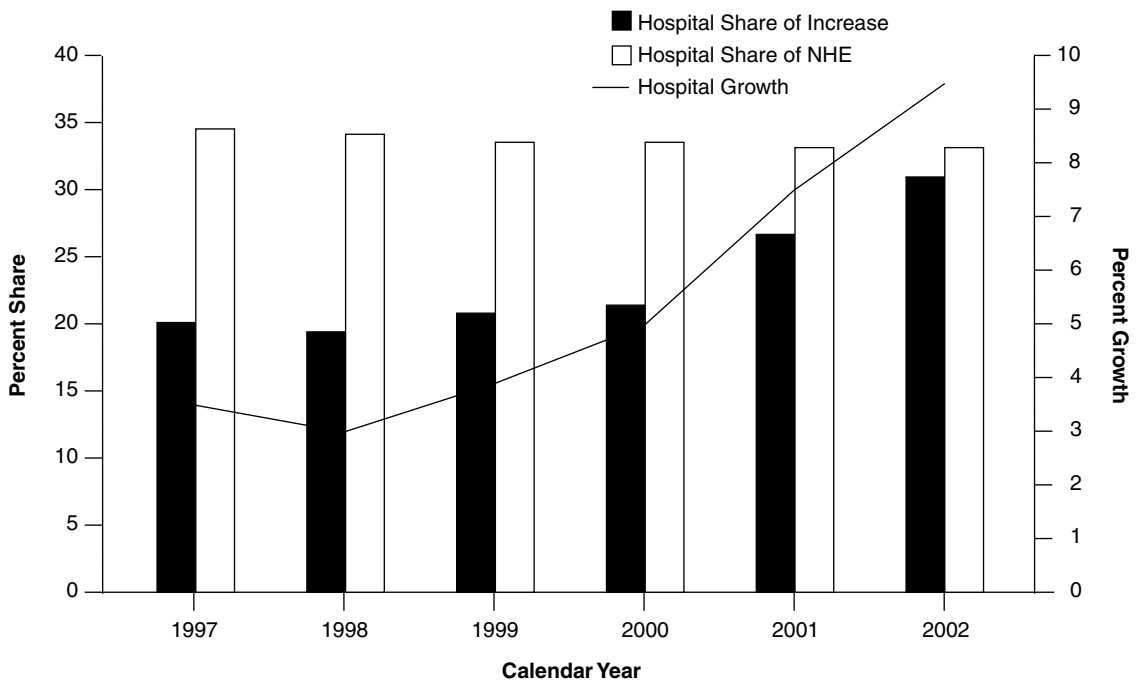

[1] Includes spending for dental, other professional and other personal health care services, home health and nursing home care, durable and other non-durable medical products; administration and insurance net cost; government public health; medical research; and medical construction.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Although prescription drug spending grew at the fastest rate, hospital spending contributed more to the overall increase in health spending in 2002. Prescription drug expenditures accounted for 10 percent of total health spending, but 16 percent of the 2002 spending increase.
- Hospital spending comprised 32 percent of the aggregate spending increase in 2002, approximately equal to its share of total spending for the first time since 1991.
- Spending growth in 2002 for physician services accounted for 18 percent of the spending increase, less than its 22 percent share of total health spending.

**Figure 16**

**Hospital Share of NHE, Annual Health Spending Increase, and Growth: CYs 1997-2002**

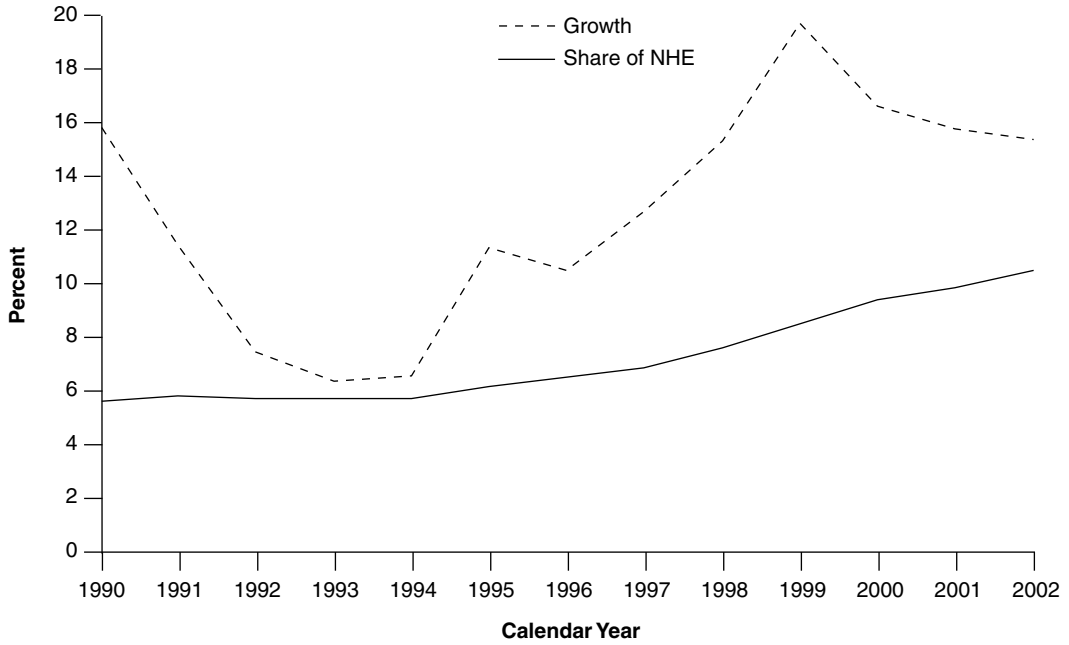



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Hospital spending in 2002 increased 9.5 percent to $486.5 billion, marking the fourth year of accelerated growth following a period of managed care expansion (1993-1998) when growth averaged 3.4 percent.
- This growth reflected increasing demand for hospital services, rising input costs, and hospitals' increased ability to negotiate higher reimbursements.
- Although hospitals' share of total health care spending has declined slowly over time, its share remained stable in 2002 for the first time since 1991.

**Figure 17**

**Prescription Drug Expenditures Growth and Share of NHE: CYs 1990-2002**

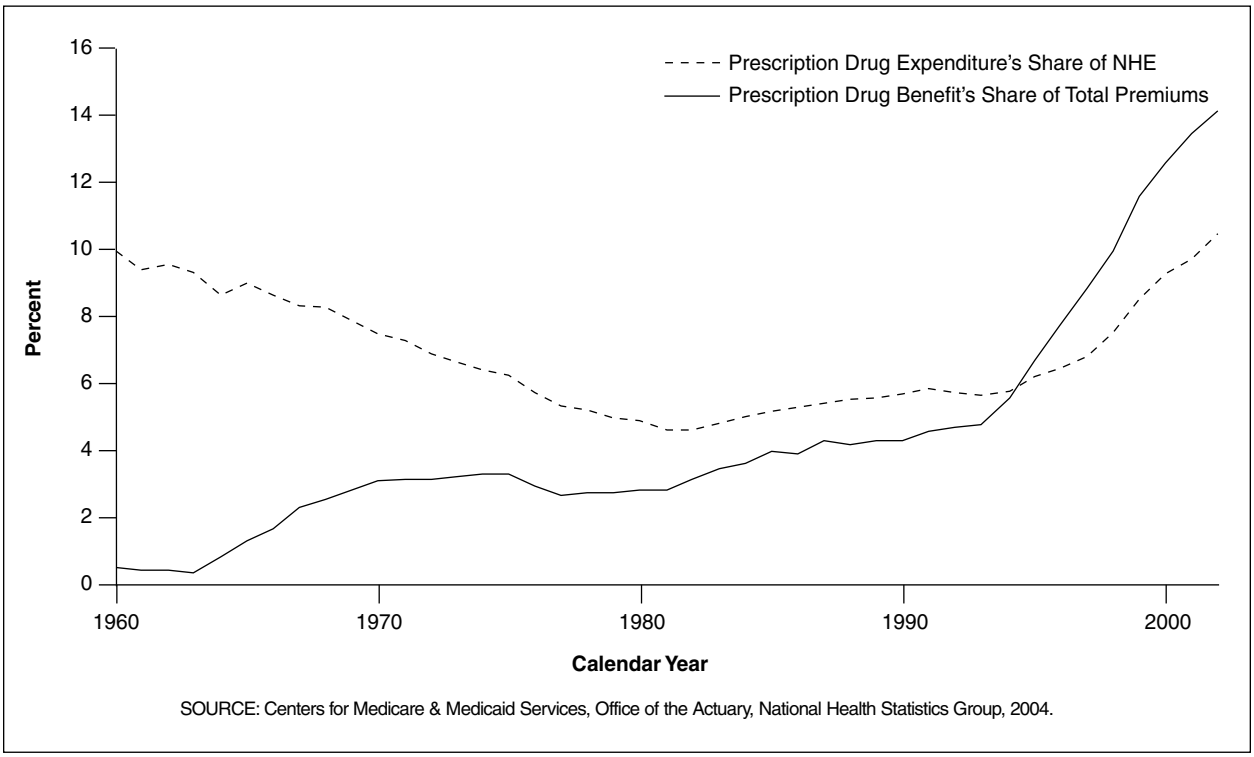



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Growth in retail sales in 2002 of prescription drugs outpaced other health spending, causing its share of NHE to continue to rise.
- Despite its relatively fast growth, the pace of drug spending growth has decelerated. Prescription drug spending in 2000 grew by 16.4 percent, followed by growth of 15.9 percent in 2001, and 15.3 percent in 2002.
- The slowdown in growth between 2000 and 2002 can be traced to fewer new drugs entering the market, a shift in prescriptions to more lower-cost generic drugs, and continued growth of tiered copayment plans.

**Figure 18**

**Prescription Drug Expenditure's Share of NHE and PHI Prescription Drug Benefit's Share of Premiums: CYs 1960-2002**

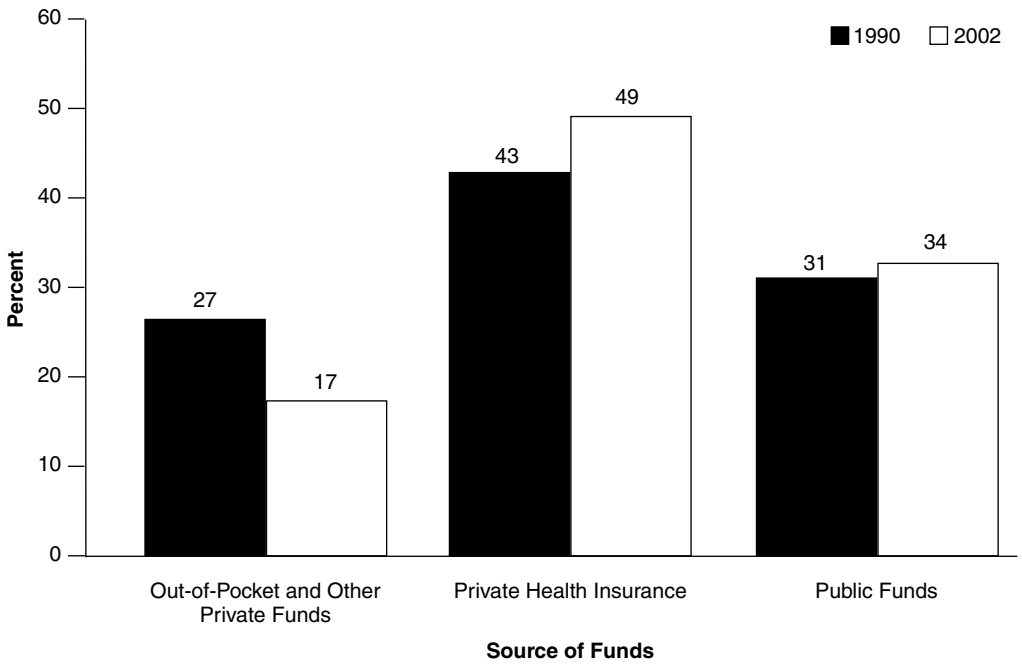



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- The share of PHI funding prescription drug spending has grown dramatically since the mid-1990s, at a much faster pace than the prescription drug share of overall health care spending.
- The prescription drug share of premiums has increased from 4.2 percent in 1990 to 8.9 percent in 1997, and to a peak of 14.1 percent in 2002. At the same time, the prescription drug share of total health care spending was 5.8 in 1990, 6.9 percent in 1997, and 10.5 percent in 2002.
- Sponsors of PHI have sought ways to control drug spending by using tiered cost-sharing, formularies, and prior authorization policies to limit consumption of certain drugs.

**Figure 19**

**Expenditures for Physician and Clinical Services, by Source of Funds: Selected CYs 1990-2002**

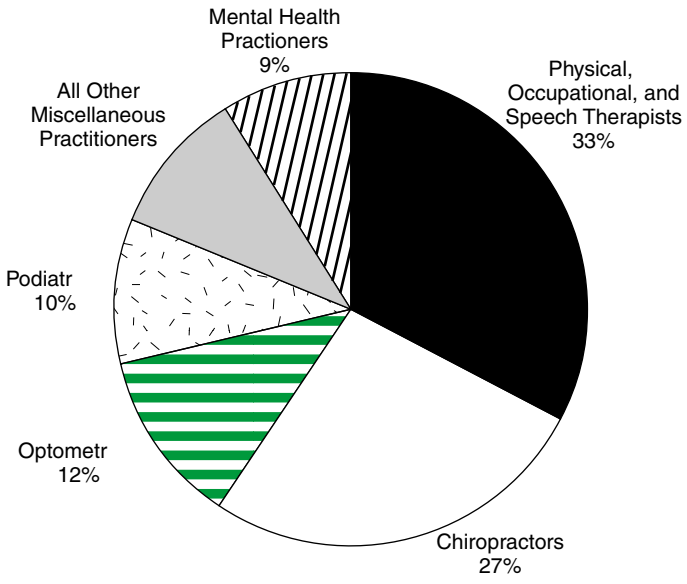



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Physician and clinical expenditures reached $339.5 billion in 2002, up 7.7 percent from 2001, marking the third consecutive year of growth above 7 percent.
- Private health insurance in 2002 accounted for the largest share of physician and clinical spending at 49.1 percent, while out-of-pocket and other private sources funded 10 percent and 7 percent, respectively. Public funds financed 34 percent of physician and clinical services.
- Although the Medicare fee schedule update for physician payments was negative in 2002, expenditures continued to increase due to the volume and intensity of services delivered, and to increase physician participation in the Medicare Program.
- Even though out-of-pocket physician and clinical spending growth accelerated for the second consecutive year, it was still slower than total growth for this category, causing the out-of-pocket share of total physician and clinical services spending to fall.

**Figure 20**

**Distribution of Other Professional Expenditures, by Type of Provider: CY 2002**



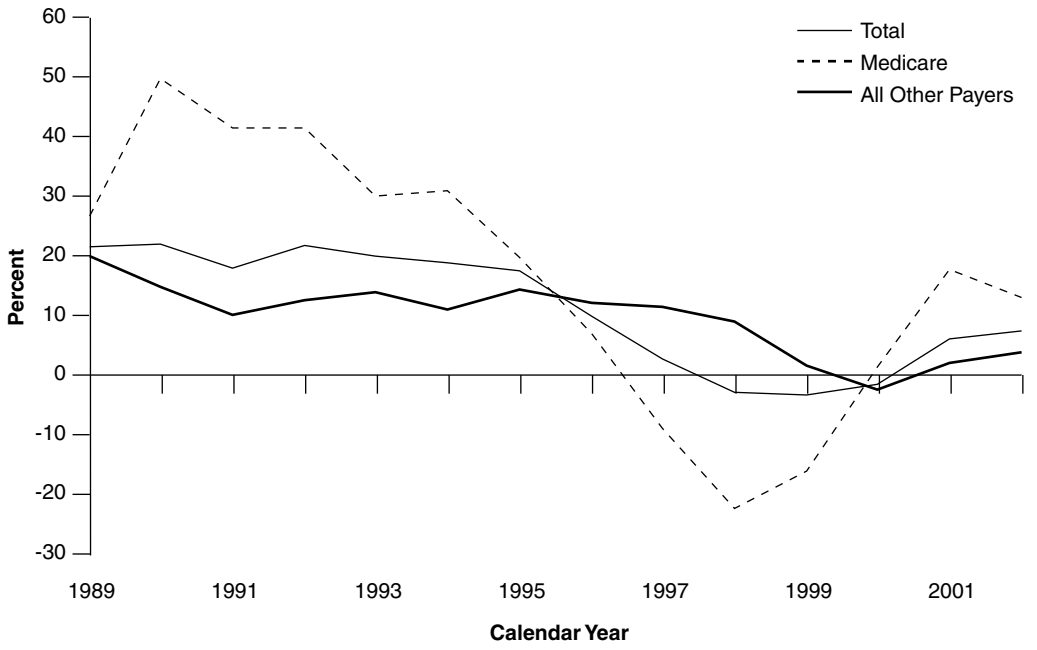

NOTE: Other professional expenditures $45.9 billion.

SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Expenditures for other professional services reached $45.9 billion in 2002, up 7.6 percent from 2001. Over one-half of all business receipts of licensed other professionals are from offices of chiropractors and physical, occupational, and speech therapists.
- Offices of physical, occupational, and speech therapists remained the largest driver of other professional expenditures in 2002, as they continued to account for the largest share of expenditures (32.5 percent), and experienced the fastest growth in spending (12.7 percent) in this category.
- Growth for private funds was significantly lower than that of public funds for the third consecutive year. The average annual growth rate from 1999-2002 was 5.7 percent for private funds in comparison to 14.2 percent for public funds. Both Medicare and Medicaid were major drivers of increased spending by public payers.

**Figure 21**

**Growth in Freestanding Home Health Care Expenditures, by Source of Funds: CYs 1989-2002**

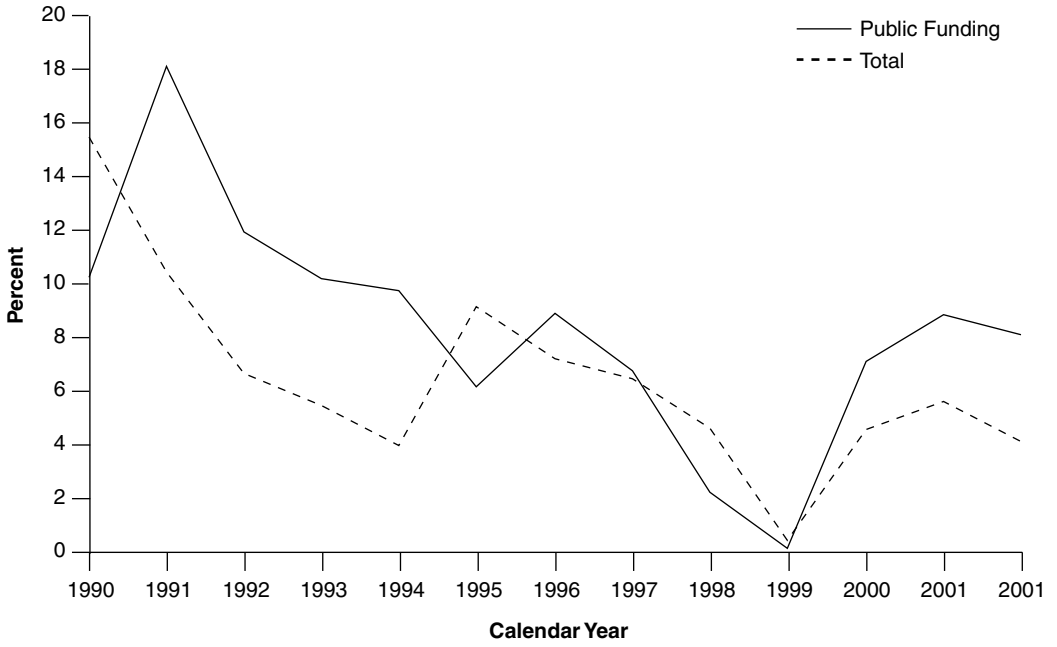



SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Expenditures for freestanding HHAs reached $36.1 billion in 2002, a 7.2-percent increase over 2001. This was the second consecutive year of positive growth, driven mostly by Medicare, the largest single payer for home health services.
- Medicare averaged spending growth of 35.4 percent for home health care services from 1989-1995. In response to these rapid growth rates, the BBA mandated the IPS, effective October 1997, for Medicare home health services until the PPS began in October 2000.
- From 1997 to 1999, the BBA impacts were strongest, leading to an average annual decline of 19.4 percent in Medicare home health spending. A rebound in Medicare has been driven by implementation of the PPS for home health, effective October 2000. Medicare home health spending rose between 2000 and 2002, an average annual 15.4 percent.

**Figure 22**

**Growth in Public and Total Sources of Nursing Home Spending: CYs 1990-2002**




SOURCE: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group, 2004.

- Nursing home expenditures continue to grow more slowly than expenditures for other health services. Annual growth in expenditures for nursing home care provided by free-standing facilities slowed to 4.1 percent in 2002 following growth of 5.7 percent in 2001. This correlates with slow growth in nursing home facility capacity, and a deceleration in the costs of supplies and services used in the provision of care.
- Public funding accounted for 64 percent of nursing home payments in 2002, and private payments for 36 percent. Medicaid, the largest payer, paid for almost one-half of all nursing home services.

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