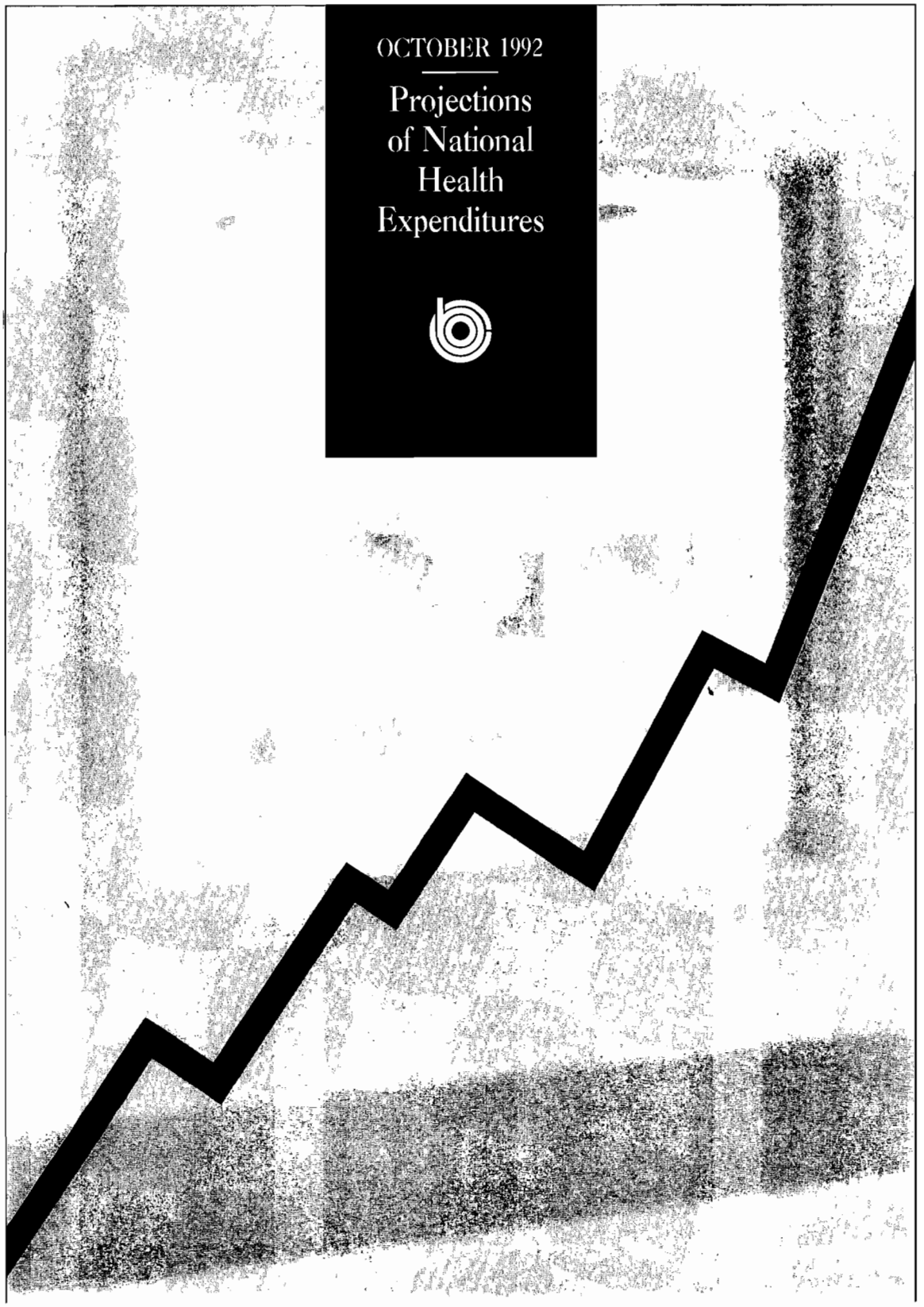
CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

A
CBO
STUDY

OCTOBER 1992

Projections of National Health Expenditures



PROJECTIONS OF NATIONAL HEALTH EXPENDITURES

The Congress of the United States
Congressional Budget Office

NOTE

Cover photo: An operating room at the Center for Ambulatory Surgery in Washington, D.C. (From the *U.S. News & World Report* Collection, Prints and Photographs Division, Library of Congress.)

Preface

Spending on health care has grown rapidly in recent decades and has placed increasing pressure on both private and public budgets. The House Committee on Ways and Means has asked the Congressional Budget Office (CBO) to study the economic and budgetary costs of the rapid rise in national health care expenditures. CBO's response is in two parts. This study reviews the growth in national health spending since 1965 and provides projections through 2000. A companion study, *Economic Implications of Rising Health Care Costs*, examines the implications of providing health insurance through an employment-based system and the effects of the rising costs of federal health programs on the economy. In keeping with CBO's mandate to provide impartial analysis, the studies make no recommendations.

This report was written by Jeffrey Lemieux of CBO's Budget Analysis Division and Christopher Williams of the Fiscal Analysis Division, under the direction of Robert Dennis, C.G. Nuckols, Charles E. Seagrave, and Paul N. Van de Water. Mr. Williams was primarily responsible for Chapter 1 and Appendix B, and Mr. Lemieux was the principal author of Chapters 2 through 4 and Appendix A.

Valuable comments were provided by Joseph Anderson of Capital Research Associates; Sally Burner and Katharine Levit of the Health Care Financing Administration; and Nancy Gordon, Kathryn Langwell, Jack Rodgers, Larry Ozanne, Eric Toder, Rick Kasten, Murray Ross, Alan Fairbank, and Douglas Hamilton of CBO. Special thanks to Marion Curry, Rae Roy, and Dorothy Kornegay for assistance in preparing the tables, and to Mark McMullen, Patricia Wahl, Daniel Covitz, Michael Simpson, and Blake Mackey for research assistance.

Sherwood D. Kohn edited the report. Chris Spoor provided editorial support. With the assistance of Martina Wojak-Piotrow, Kathryn Quattrone prepared the report for publication.

Robert D. Reischauer
Director

October 1992

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Summary

Over the last 25 years, the health sector's share of the U.S. economy has more than doubled. In 1965, national health spending constituted less than 6 percent of the gross domestic product (GDP), but by 1990 it had expanded to more than 12 percent of GDP. Assuming that current government policies remain in force, and that medical practice and private health insurance trends continue, the Congressional Budget Office (CBO) projects that national health spending will reach 18 percent of GDP by the year 2000, or almost $1.7 trillion. As health spending continues to grow, concerns mount about its financial impacts on consumers, businesses, and governments.

Despite recent weakness in the economy, employment and incomes in the health sector have increased at striking rates. The total number of jobs in the health sector of the economy increased by 639,000 from May 1990 through May 1992, while the total number of jobs in the economy fell by almost 1.8 million and the number of nonhealth jobs fell by 2.4 million. According to the American Medical Association, the average net income of physicians (after subtracting office expenses, malpractice insurance premiums, and the like) in 1990 was $164,000, up from $98,000 in 1982--an average annual growth rate of 6.6 percent. By comparison, the average pay of all full-time workers increased from $18,500 to $25,900 during the same period, a growth rate of only 4.3 percent a year. Similarly, community hospital margins (the net of revenues less expenses) reported by the American Hospital Association were 5.2 percent in 1991, higher than their 20-year average of 4.2 percent.

Health expenditures generally grow more rapidly than spending in most other parts of the economy, largely because of what economists call market failure. This failure has allowed rapid technological change that tends to inflate rather than save costs, an unrelenting expansion of services provided during each doctor visit or hospital stay, and large increases in fees paid to health care providers. The aging of the U.S. population contributes to higher spending on health care because older patients use a disproportionate amount of health services, but in the next decade the impact of the aging population will increase health spending only modestly. Increases in hospital stays and physician visits that can be expected because the population is aging are likely to account for only a small part of increased health spending.

Health insurance, the nation's primary method of financing health care, is one source of market failure that prevents the usual workings of competition. It permits the rapid application of new and expensive procedures and helps insulate providers from price competition. Collective payment through insurance is a natural response to the possibility of large and uncertain health care expenses. When an insurance company or government

program pays the bills, however, patients and health providers have less incentive to control costs carefully.

Another source of market failure is the delegation of much decisionmaking to providers. Patients who have little medical expertise are happy to benefit from whatever treatments providers recommend when the insurance will pay the bill. And even if they wish to do benefit-cost calculations, patients are often unable to judge the appropriateness, quality, or price of a health service.

Because the competitive market has failed, health spending cannot be assumed to represent well-informed demands by consumers or efficient provision of services by providers.

Many of these attributes of U.S. health markets are not unique to this country or even to the health industry. Regulatory agencies oversee other industries where competitive markets do not function, such as public utilities. In other countries, budgets, regulatory constraints, or other countervailing forces help prevent health expenditures from spiraling out of control. In this country, however, cost-containing pressures operate only on parts of the sector, and their overall impact is diluted.

National Health Expenditures

Total spending on health is projected to reach almost $1.7 trillion in 2000, compared with about $800 billion in 1992. One can look at the projections from two points of view:

- Type of spending--hospital care, physician services, and so forth, and
- Source of funding--private or public.

Projections by Type of Spending

Hospital, physician, drug, and nursing home expenditures accounted for almost 75 percent of national health spending in 1990 (see Summary Table 1 for CBO's baseline health spending projections classified by major type of spending).

CBO projects that hospital spending will increase at an average rate of 10 percent a year in the 1990s, up slightly from 9.5 percent in the 1980s (see Summary Table 1). The shift toward use of outpatient services is expected to continue, with the number of outpatient hospital visits increasing almost 5 percent a year. The occupancy rate for community hospitals is projected to remain below 65 percent--despite reductions in the number of available beds--as the rate of inpatient admissions per person continues to fall and the average length of a hospital stay drifts lower.

Spending on physician services is expected to increase at an average annual rate of 9.7 percent in the 1990s, down from 11.6 percent in the 1980s. Increases in physicians' charges, additional procedures per doctor visit, and the continual increase in the complexity or intensity of treatments provided in doctors' offices account for almost nine-tenths of the total increase in this spending. Changes in the demographic composition of the population and an increasing number of doctor visits per person contribute little to the growth of spending for physician services.

Spending on drugs, which is characterized by a high proportion of out-of-pocket payments, is projected to grow by about 7.5 percent a year in the 1990s. Spending on nursing home care is projected to grow 10 percent annually in the 1990s, even as financing constraints and the reluctance of states to approve new construction prevent the number of beds from keeping up with the demands of the aging population.

Projections by Source of Funds

The main sources of funds in the health sector, accounting for more than 80 percent of total health spending, are out-of-pocket payments by patients, private health insurance payments, and Medicare and Medicaid (see Summary Table 2 for a division of national spending projections into private and government funds).

CBO projects that the number of people covered by private health insurance will increase slowly, and enrollment in the major government health insurance programs, especially Medicaid, will grow strongly. Encouraged by federal tax policy, private health insurance coverage increased steadily until the 1980s. Since the 1981-1982 recession, however, private health insurance benefits have stabilized as a share of health expenditures, and the

Summary Table 1.
Projections of National Health Expenditures, by Type of Spending

Type of Spending	Selected Calendar Years						
	1965	1980	1985	1990	1992[a]	1995[a]	2000[a]
	Billions of Dollars						
Hospital	14	102	168	256	310	416	671
Physician	8	42	74	126	153	204	316
Drugs, Other Nondurables	6	22	36	55	63	78	111
Nursing Home	2	20	34	53	65	87	137
All Other	12	64	110	177	218	287	444
Total	42	250	423	666	808	1,072	1,679
	Average Annual Growth Rate from Previous Year Shown (Percent)						
Hospital		14.2	10.4	8.8	10.0	10.3	10.1
Physician		11.5	12.0	11.2	10.4	10.0	9.1
Drugs, Other Nondurables		9.0	10.9	8.6	7.1	7.5	7.4
Nursing Home		17.9	11.3	9.3	10.5	10.3	9.5
All Other		12.0	11.4	10.0	11.0	9.7	9.1
National Health Expenditure		12.7	11.1	9.5	10.1	9.9	9.4
Memoranda:[b]							
Gross Domestic Product (Billions of dollars)	703	2,708	4,039	5,514	5,931	7,104	9,322
Average Annual Growth of Gross Domestic Product (Percent)	n.a.	9.4	8.3	6.4	3.7	6.2	5.6
Ratio of National Health Expenditures to Gross Domestic Product	5.9	9.2	10.5	12.1	13.6	15.1	18.0

SOURCE: Congressional Budget Office.

NOTES: n.a. = not applicable. Details may not add to totals because of rounding.

a. Projected.

b. Economic assumptions reflect the Congressional Budget Office baseline of January 1992.

Summary Table 2.
Projections of National Health Expenditures, by Source of Funds

Source of Funds	Selected Calendar Years						
	1965	1980	1985	1990	1992[a]	1995[a]	2000[a]
	Billions of Dollars						
Private	31	145	248	384	441	574	869
Public							
Federal	5	72	124	195	253	343	566
State and local	5	33	51	87	115	155	244
Total, National	42	250	423	666	808	1,072	1,679
	Percentage of Total						
Private	75.3	58.0	58.6	57.6	54.5	53.5	51.7
Public							
Federal	11.6	28.8	29.2	29.3	31.3	32.0	33.7
State and local	13.2	13.3	12.1	13.1	14.2	14.5	14.5
Total, National	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Average Annual Growth Rate from Previous Year Shown (Percent)						
Private		10.8	11.3	9.1	7.2	9.2	8.7
Public							
Federal		19.7	11.4	9.6	13.7	10.7	10.5
State and local		12.8	9.0	11.3	14.7	10.6	9.5
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SOURCE: Congressional Budget Office.

NOTES: n.a. = not applicable. Details may not add to totals because of rounding.

a. Projected.

b. Economic and government spending assumptions reflect the Congressional Budge Office baseline of January 1992.

continuing pressure of higher health spending is expected to cause a decrease in the proportion of people covered by private health insurance. CBO projects that the other major component of private funding--direct out-of-pocket payments by patients to providers--will continue to grow at slower rates, constrained by limited growth in patients' incomes.

CBO expects that in the 1990s private funding of health care will shrink as a share of national health expenditures. The proportion of people receiving health coverage through government programs and the share of national health spending by governments will grow.

These projections of national health expenditures incorporate CBO's January 1992 baseline for spending on the Medicare and Medicaid programs. Medicare inpatient hospital spending is expected to resume growth rates of 9 percent to 10 percent a year in the 1990s, after a period of slower growth in the 1980s. Active cost containment efforts in the 1980s temporarily reduced the growth in Medicare hospital spending, but the impact of these efforts had waned by the end of the decade. CBO assumes that the introduction of reforms in Medicare payments to physicians in 1992 will not restrain Medicare payments significantly, although payments in some physician specialties and regions of the country may be noticeably changed. Aside from physician payment reform, current law provides no major cost-containing changes during the 1990s.

CBO expects the growth of Medicaid to slow from its current rapid rate--26 percent projected for 1992 alone--to an annual rate of 12 percent by the year 2000. Medicaid remains the fastest growing source of funds for national health expenditures, and CBO projects that its share of payments will rise from 11 percent in 1990 to almost 19 percent in 2000. This increase in payments is driven by a combination of recent expansions in eligibility, rising reimbursement rates mandated by the courts, and the weakening of private health insurance coverage.

Implications

If present laws, institutional arrangements, and trends continue in the 1990s, the high cost of private health insurance will shrink the proportion of Americans who are privately covered and increase the number of people with no insurance. Governments will pay a larger fraction of U.S. health spending through the Medicare and Medicaid programs. Higher government spending on health care has serious implications for the federal budget; the projected increase in health care spending outpaces the growth in any other major component of the budget and promises not only to preempt resources from other government programs, but also to make deficit reduction more difficult.

People pay for government health spending directly, through taxes, or indirectly, through the adverse effects of government deficit spending on capital formation and economic growth. People pay in a different sense when government health spending preempts other government expenditures, such as investments in education and infrastructure or income maintenance programs. Similarly, employees pay for employer-sponsored health insurance indirectly, through wages and salaries they might otherwise have received in the absence of coverage. The increasing cost of health benefits has contributed to the slow growth in wages and salaries that many U.S. workers have experienced in recent years. Without significant changes in public policy and private behavior, rising spending on health care will continue to limit wage and salary gains as private employers pour money into higher health insurance premiums for employees rather than into pay raises.

Chapter One

National Health Expenditures

Health care spending, both private and public, has taken a steadily increasing share of national income for the last 25 years. Spending on health care has increased from 6 percent of the national gross domestic product (GDP) in 1965 to 12 percent in 1990, and the Congressional Budget Office (CBO) projects that spending on health will rise to 18 percent of GDP by the year 2000 if current trends and government policies continue (see Figure 1). Such rapidly rising spending on health would increase the pressure on household budgets and on federal, state, and local government budgets in the 1990s.

These projections provide a basis for measuring the impact of policy changes rather than a forecast of spending on health care. They are not a prediction that national health expenditures will inevitably rise to 18 percent of GDP, because government and private policies are likely to change, at least in modest ways. But they are a suitable baseline against which the costs of major health financing reform bills can be estimated. The Health Care Financing Administration (HCFA) also regularly publishes detailed, long-term projections of national spending on health. The projections in this paper differ from the HCFA projections in their economic, technical, and conceptual assumptions; CBO's projections of health expenditures are consistent with its January 1992 baseline economic assumptions and federal budget projections, which assume unchanged current policies and trends.[1]

1. CBO's August 1992 baseline is only slightly different. The Health Care Financing Administration's most recent projections are reported in Sally Sonnefeld, Daniel Waldo, Jeffrey Lemieux, and David McKusick, "Projections of Health Care Spending Through the Year 2000," *Health Care Financing Review* (Fall 1991), although updated HCFA projections are forthcoming.

Rising National Health Expenditures

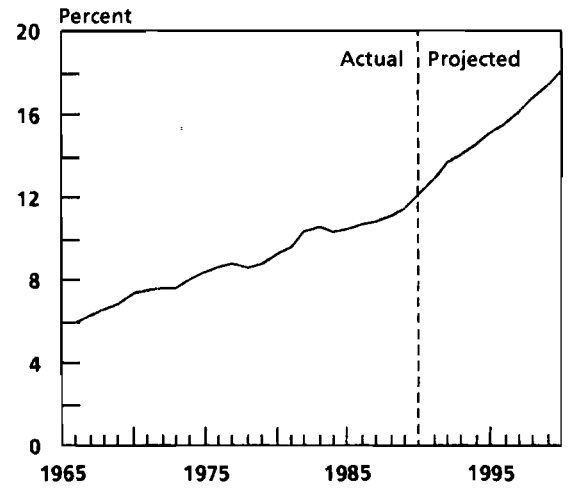
CBO projects that national health spending will grow from $666 billion in 1990 to more than $800 billion in 1992 and almost $1.7 trillion in 2000. Between 1992 and 2000, CBO expects that spending on health care will grow at an average annual rate of 9.6 percent, almost 4 percentage points faster than the projected GDP growth of 5.8 percent.

The United States spends considerably more on health care than do other countries, but there seems to be little difference between the health of its population and the populations of other industrialized countries that spend considerably less.[2] Since the mid-1970s, U.S. health care expenditures have grown much more rapidly as a share of national income than those of other countries (see Figure 2). The United States now stands out as an anomaly.

The sheer size and growth rate of the health care sector should not cause concern over poli-

2. Henry Aaron, writing in *Serious and Unstable Condition: Financing America's Health Care* (Washington D.C.: Brookings Institution, 1991), pp. 89-92, is skeptical of attempts to link health spending and health status in national comparisons. He specifically warns against the use of infant mortality and life expectancy as summary indicators of health outcomes in the United States. Nevertheless, some evidence is available from within the United States on health spending and health status. The RAND Health Insurance Experiment indicated that, with some minor exceptions, health status outcomes did not differ significantly among consumers who, faced with different coinsurance rates in their health insurance plans, chose different levels of health expenditure. See Willard Manning and others, "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," *American Economic Review*, vol. 77 (June 1987), p. 265.

Figure 1.
National Health Expenditures as a Share of Gross Domestic Product



SOURCE: Congressional Budget Office.

cy if it reflects rational and informed private and public choices. Policymakers accept, for example, that the service sectors of mature industrial countries will claim an increasing proportion of resources as a result of free-market choices. But the health market does not function in the same way as other markets.[3] As a result, decisions on health spending are distorted in relation to the usual standards of pure market choice. Moreover, although public policy has shaped many aspects of health spending, the nation's pattern of spending on health may not be the result of a deliberate social choice.

Decisions about health care in the United States are made in the context of a complicated system that does not allow much room for explicit choices among competing uses of resources. The highly uncertain and individual nature of health care diagnosis and treatment, and the difficulty that the consumer faces in assessing the appropriateness or quality of care, make the market for health care function quite differently from the competitive markets for other goods and services. The system of financing health care, which uses third-party payment extensively, encourages higher levels of expenditure and the use of services and procedures that may cost more than they are worth. The prevalence of insurance means that consumers do not consider the full price of services when deciding on the quantity and quality of services they want--decisions they often delegate to physicians anyway.

The pattern of rapid increases in spending is widespread and cannot be attributed to the increased incidence of particular illnesses or diseases. The cost of treating people infected with human immunodeficiency virus (HIV) and patients with full-blown acquired immune deficiency syndrome (AIDS) illustrates this point well. Despite the rapid (and widely publicized) spread of the disease, treatment of HIV and AIDS patients is not a major contributor to the rapid growth of total health spending.[4]

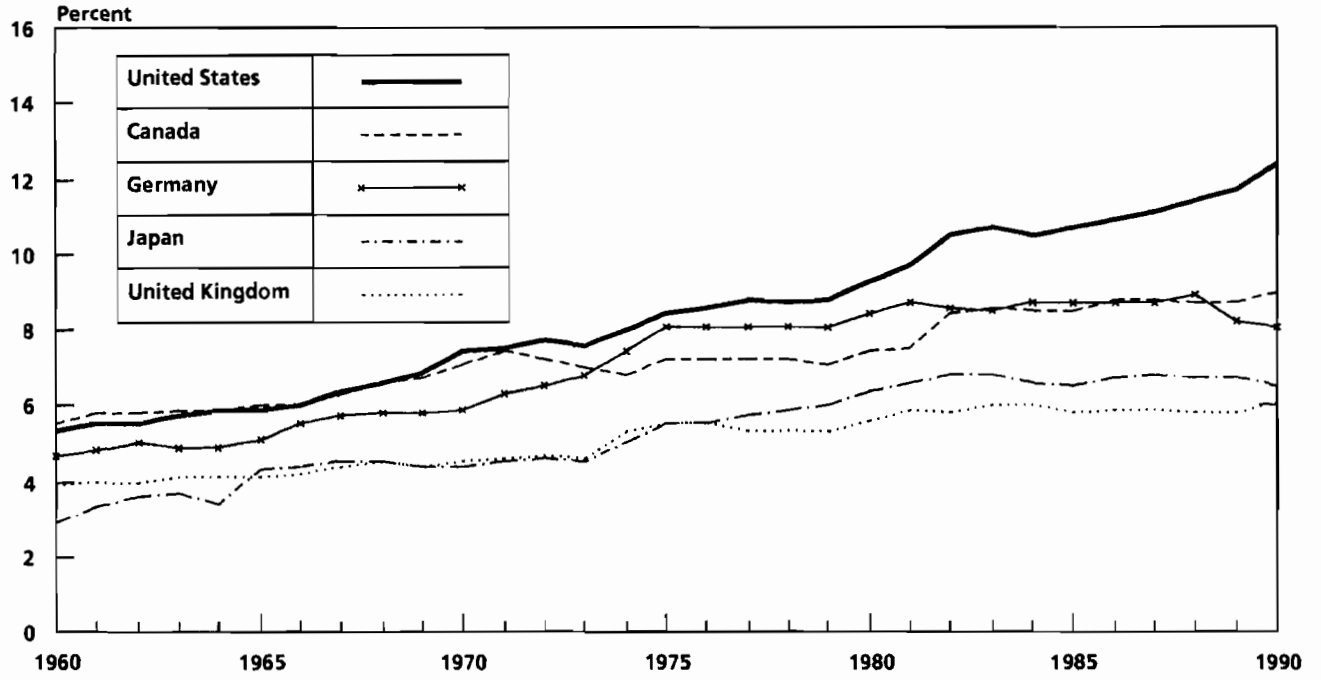
Implications of Rising Health Expenditures

The high levels and rapid growth of projected health care expenditures have several broad implications. Some of these result from the largely employer-sponsored, tax-subsidized system of financing. These implications are examined in detail in a companion CBO study,

3. The workings of the health market are discussed in greater detail in Chapter 1 of a companion study, Congressional Budget Office, *Economic Implications of Rising Health Care Costs* (October 1992). That study also analyzes in greater detail the impact of the employment-based system of health insurance and the feedbacks from rising health care costs through the federal deficit to the economy as a whole.

4. Spending on HIV and AIDS is growing faster than all other health spending, but the share of total spending on health devoted to HIV and AIDS is still small. The latest projections of the Public Health Service's Agency for Health Care Policy and Research indicate that an annual cost of $10.3 billion in 1992 will rise to $15.2 billion in 1995. Spending on HIV-positive people will therefore only rise from 1.3 percent of national health spending in 1992 to 1.4 percent in 1995.

Figure 2.
Health Expenditures as a Percentage of Gross Domestic Product, United States and Selected Countries, 1960-1990



SOURCE: Organization for Economic Cooperation and Development, Health Data File, 1991.

Economic Implications of Rising Health Care Costs (October 1992).

As costs increase, fewer employers offer insurance and the number of uninsured people rises, reducing access. Moreover, the growth of cash wages is limited where employers continue to offer insurance. Higher state spending on health will probably preempt expenditures on other state and local programs, and, given current policies, net saving by the federal government will be reduced, thereby raising interest rates and lowering investment, capital formation, and economic growth.[5] Although the quantity and sophistication of health care available to most Americans will continue to rise, many will--directly or indirectly--bear a heavy burden of increasing costs.

Reduced Access to Health Insurance

Under current policies and practices, most people have access to some form of health insurance, but a substantial minority do not. The majority of people (57 percent of the total population in 1991) are covered by private health insurance that they obtain directly through their own employers or as dependents through relatives' employer-sponsored health insurance.[6]

5. If increased government spending on health entitlements were financed by tax increases and reduced private spending, or by cuts in other government spending, there may be no adverse effects on net government saving and economic growth. Such an outcome would require a change in current policies.

6. The companion CBO study, *Economic Implications of Rising Health Care Costs*, presents data for 1990 on the insurance status of the nonelderly population in its discussion of health coverage provided through employment. This study describes the pattern of insurance coverage for the total population in 1991.

Almost all the elderly have guaranteed access to health care through the Medicare program, which pays the bulk of hospitalization costs and offers a heavily subsidized insurance program for physician services and other outpatient care. The Medicaid program provides medical services to about one-half of the nation's poor. Medicaid furnished about 6 percent of the population with their primary coverage in 1991.

A relatively small number of people (7 percent in 1991) buy their primary health insurance independently: these policies can be more expensive than employment-based or government programs. The higher per-person administrative costs that make health insurance more expensive for smaller firms are still higher for individual policies, as a result of higher overheads. Thus, even though the benefits offered may be highly restricted, individual insurance policies may be prohibitively expensive. Moreover, individual policies may not be freely available to some people who have neither employment-based nor government-provided insurance, especially those with a history of health problems.

According to the March 1992 Current Population Survey, more than 35 million people--14 percent of the total population--had no health insurance. People in single-parent families and in families with an unemployed worker, young adults, and black Americans are disproportionately represented among the uninsured. Some of the uninsured--particularly young and healthy people--may choose to go without health insurance. But many would wish to obtain insurance if only they could afford it, and some people may not be able to obtain health insurance at any price.

As health insurance premiums and the cost of health care rise, an increasing number of people will find it difficult to afford health insurance, and the number of uninsured will grow. Despite the nation's employment-based system of health insurance, a substantial majority of the uninsured are full-time workers or their dependents. The number of people covered by private health insurance will grow quite slowly during the 1990s. Even allowing for increases in Medicaid enrollment, CBO projects that the number of uninsured people will rise from 35 million in 1992 to 39 million in 2000.

Under the employment-based system of health insurance, rising health costs will make access more difficult for low-wage workers and those in smaller firms. To obtain favorable tax treatment for their health plans, employers must offer all full-time workers equitable coverage.[7] But they can exclude part-time workers from their plans. Therefore, rising health costs may increase the incentive for employers to shift lower-paid work to part-time employees and deny them health benefits without running afoul of the law. Alternatively, employers may choose to subcontract the work done by their low-wage workers to firms that provide no health benefits to their employees. Almost no minimum-wage workers have employer-provided insurance; one reason for this may be that the legal floor under cash wages inhibits employers from passing on rising health costs to such employees.

The costs per person of administering health insurance plans are higher for small firms than for large ones. These higher costs reflect higher administrative and marketing costs and the high turnover of accounts encouraged by some underwriting practices. Hence, small firms face higher costs for insurance and are less likely than larger companies to offer health benefits.

Problems of access have recently intensified for employees of small firms because insurers, driven by competitive pressures, have shifted from community to experience rating. Under community rating the insurance company lumps all the insured into a single pool and averages the risks among them. Under ex-

7. Under antidiscrimination statutes, the tax advantage of employer-sponsored plans is only available to plans that are judged to be nondiscriminatory. Legally, this requirement is met if a plan's coverage satisfies one of two alternative formulas or if the Internal Revenue Service certifies it to be so.

perience rating each insured group in a geographic area is classified according to its history and other observable indicators, making coverage for work forces that are at greater risk for high health spending more expensive--sometimes prohibitively so. Another aspect of the shift to experience rating of health insurance is that a person with a known health problem may be unable to obtain health insurance without excluding that condition from treatment. Without changes in government policy, rising health costs can only make it more difficult for many small firms to obtain health insurance for their employees. Such a trend could have wide consequences; if many people feel that they cannot change jobs without losing health coverage, labor markets may lose both flexibility and efficiency.[8]

Slower Growth of Wages

Because the majority of U.S. workers obtain health insurance at the workplace, as part of employee compensation, rapidly rising health costs will translate into slower growth in pay and other benefits. Rising health costs will raise the cost of insurance, and the employees will bear most of the increase in the long run. This conclusion is most valid for competitive markets; but even if firms have monopoly power, or workers are unionized, there is no reason to think that changes in the cost of health benefits will alter the balance of forces that determine total compensation.

As the cost of insurance rises, employers can be expected to adjust the other elements of total employee compensation so that real compensation stays in line with productivity and profits are maintained. At the same time, if workers value health insurance as much as wages, they will be content to trade lower pay for the increased health benefits. Over a long enough period, employees are likely to value an extra dollar of health benefits paid by their employer as much as a dollar of before-tax wages. Otherwise, other firms that offer a better mix of benefits and wages should be able to lure the workers away. Workers will choose their employment on the basis of a mix of wages and benefits that best suits their needs and preferences. But even if workers do not fully value health insurance--because the insurance market only provides a limited range of alternative packages and so workers cannot choose exactly what they would prefer--firms will still be able to pass most of the increased cost on to workers because relatively few workers drop out of the labor force when wages fall. Profits may suffer in the short run while adjustments take place. Output, employment, and competitiveness may also decline. In the long run, though, it is largely workers who will bear the burden of increased health costs.[9] (See Appendix B for a discussion of the relationships between projections of health costs, economic forecasts of the components of total compensation, and projections of federal revenues.)

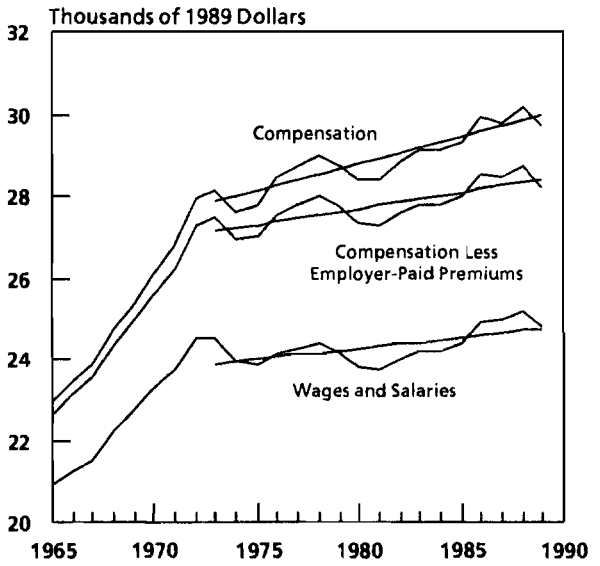
Increasing health care spending has swallowed up a large part of the increase in real compensation that employees have garnered from growth in productivity since 1973. From 1973 to 1989, health insurance premiums paid by employers accounted for more than half of the increase in real compensation per full-time employee, even though they still amounted to only 5 percent of total compensation by 1989 (see Figure 3).[10] Over this period, health benefits per employee more than doubled, other fringe benefits (including pensions and employer payroll taxes) rose by

8. See Congressional Budget Office, *Economic Implications of Rising Health Care Costs*, Chapter 3.

9. Chapter 3 of CBO's study *Economic Implications of Rising Health Care Costs* contains further discussion of the incidence of health care costs, including the effects of tax policy toward health insurance. It discusses in greater detail how factors such as labor contracts could produce a wide range of impacts on prices, competitiveness, profits, and employment in the short run, as well as emphasizing the expected long-run effect on employees.

10. The choice of 1973 and 1989 for the comparison holds fluctuations in economic activity roughly constant.

Figure 3.
Inflation-Adjusted Compensation, Health Premiums, and Wages per Full-Time Employee: Actual Data and 1973-1989 Trends



SOURCE: Congressional Budget Office based on data from the Department of Commerce, Bureau of Economic Analysis.

NOTE: Deflated by the consumer price index for all urban consumers.

15 percent, and real cash wages and salaries grew hardly at all.[11]

CBO's projections for health spending, along with projected rates of productivity growth, imply that real cash wages will continue to grow slowly during the next decade. The importance of increasing health care costs in the slow growth of wages from 1973 should be kept in perspective, however. The primary explanation for the slowdown in wages is the slowdown in productivity growth (and hence in the growth of total compensation) after 1972. Rapidly growing health spending would be a much easier burden for wage earners if there were a return to the faster growth in productivity of the 1960s.

Implications for Government Budgets

Federal, state, and local governments are heavily involved in funding and providing health care, directly through programs and indirectly through tax expenditures. Hence, as the cost of health care rises, the pressures on government resources increase from both the outlay and revenue sides of the budget. If governments are unable to slow the growth in health spending, they can either cut back their other spending plans, or raise tax revenues. The federal government can also fund the increased bill for existing health entitlement programs through increased borrowing.

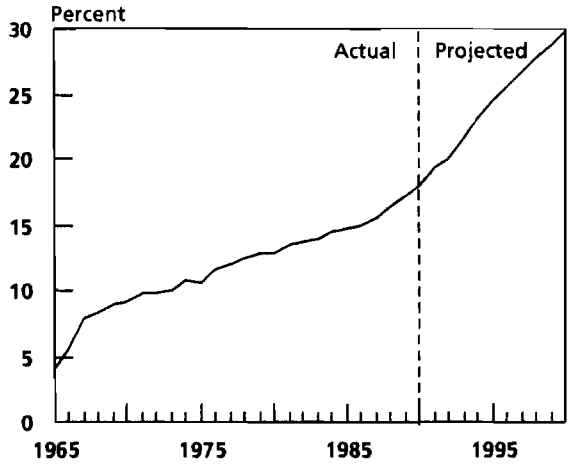
The health entitlement programs, Medicare and Medicaid, are by far the fastest growing major items in the federal budget. Medicare and Medicaid spending together accounted for 8 percent of federal outlays in 1980 and 13 percent in 1991. According to CBO's projections, they will rise to 23 percent of the budget by the year 2000 (see Figure 4). By contrast, all discretionary spending (defense, international, and domestic programs taken together) is expected to fall from 40 percent to 31 percent of the federal budget by the turn of the century.[12] By the end of the century, under current policy, Medicare and Medicaid will account for more of the budget than either Social Security or defense spending.

The Congress controls these entitlements indirectly by defining eligibility and payment rules. Unless the Congress changes the rules, federal expenditures on entitlements are driven by factors beyond legislative control. Current law provides no direct limit to these health expenditures.

11. During the 1980s, the pressure on wages and salaries from increasing health costs was less than it might have been because other nonhealth compensation actually fell in real terms, in part because rising asset values buoyed up pension funds in the mid-1980s. Wages and salaries grew faster between 1979 and 1989 than between 1973 and 1979, but health costs still took more than half of the total growth in real compensation.

12. Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 1993* (March 1992), Appendix A.

Figure 4.
Federal Health Expenditures as a Percentage of Gross Federal Outlays Less Interest



SOURCE: Congressional Budget Office.

The rising costs of health care will squeeze the federal budget from two sides. Expenditures on Medicare and Medicaid will rise faster than other federal spending.[13] At the same time, tax exemptions for private health expenditures of various kinds rise as a proportion of income, limiting the growth of the federal tax base.

The government forgoes tax revenues because of the special tax status of certain health-related spending, most notably exempting from income tax health insurance payments sponsored by employers. These tax exemptions effectively subsidize the demand for health care services. Total federal tax expenditures related to health care are projected to grow to $128 billion in 2000. (For a discussion of health-related tax expenditures, see Box 1.)

The principal health outlay of state and local governments is state funding for Medicaid, which is growing very rapidly. On average the states pay for 43 percent of Medic-

13. The federal government will also have to cope with rising health costs as an employer, and as a direct provider of medical services through the Defense Department, the Veterans Administration, and the Bureau of Indian Affairs.

Box 1.
Tax Subsidies to Private Health Spending

The federal tax code allows exclusions and deductions from taxable income relating to health care, which added up to a total federal tax expenditure of some $45.4 billion in 1991. Tax expenditures are not shown in the national health expenditure accounts compiled by the Health Care Financing Administration, but they are very important in understanding the nature of the U.S. health care financing system.

The exemption of employer-provided health insurance from taxable income constitutes the largest category of tax expenditure related to health care. Other, smaller categories include the deductibility of out-of-pocket medical expenses in excess of certain thresholds and the exemption of donations to charitable health care institutions.

Federal revenues are about 4 percent less than they would be without these exclusions and deductions. If this subsidy to private spending was counted as government spending, the share of spending on health care financed through the federal government--by the taxpayer--would rise from 30 percent to 36 percent, with private funding reduced by the same amount. Many states follow the federal treatment of health insurance and do not count it as taxable income. Assuming an average marginal income tax rate of 4 percent, the state and local tax expenditure for health care could be some $6.8 billion in 1991. If the state and local sector is taken into account, the inclusion of tax expenditures as spending funded through government, albeit indirectly, raises the share of national health spending funded by government to 51 percent, compared with 44 percent if only direct spending is included.

Tax expenditures for health care affect the efficiency of the economy. By lowering the after-tax price of health care in relation to other kinds of spending, they amount to subsidies for health spending.

Tax expenditures also have distributional consequences. Although the precise implications are complex, the tax deductibility of employer-provided insurance gives the largest absolute subsidy to higher-income workers with their higher tax rates, and little or no help to low-income workers, many of whose jobs do not provide health insurance.

(See Appendix B for a detailed breakdown of historical estimates for the principal federal and state tax expenditures, along with projections of future tax expenditures.)

aid, with the federal government picking up the other 57 percent. In addition, states and localities provide funds for public health services, hospitals, and clinics. Unlike the federal government, however, almost all states are required by their own laws to balance their budgets. Therefore, the CBO projections imply that state and local governments may be required to increase revenues and reduce the growth of nonhealth spending (for example, on infrastructure, education, and income-maintenance programs) in order to fund their increasing expenditures on health.

In 1991, state contributions to spending on health care accounted for about 17 percent of state and local expenditures less federal grants-in-aid. By 2000, assuming that overall state and local government revenues and spending remain roughly constant as a share of gross domestic product, health spending could rise to more than 27 percent of state and local expenditures (see Figure 5, first panel).[14] State and local spending on health will rise significantly faster than nonhealth spending, although the rapid growth of health expenditures still leaves some room for the growth of other expenditures (see Figure 5, second panel).

Why Are Health Expenditures Rising So Rapidly?

Several characteristics of U.S. health care markets encourage consumers to purchase more health care--including more expensive new procedures and treatments--and allow higher-than-average price increases by health care providers.[15] When these characteristics are combined with rising incomes and the possibility of medical innovation, they help explain the pattern of continually rising spending. Without structural changes in the delivery and financing of health care services, these influences will continue to push health spending up through the 1990s.

Rising National Income

Given a growing economy and a rising national income, national health expenditures should also be expected to grow. But growth in income alone cannot explain the strong increase in the share of income that is spent on health in the United States. Wealthier countries typically spend more on health than poorer countries, with per capita health spending rising approximately in proportion with per capita income (see Figure 6).[16] As national income rises, people may choose to purchase health services that improve their quality of life, as well as the basic services that are essential to good health. In addition, the governments of wealthier countries may be able to spend more on public health and research. The growth of national income alone cannot plausibly account for much more than one-third of the dramatic rise in health spending that has occurred over the last 25 years in the United States.[17]

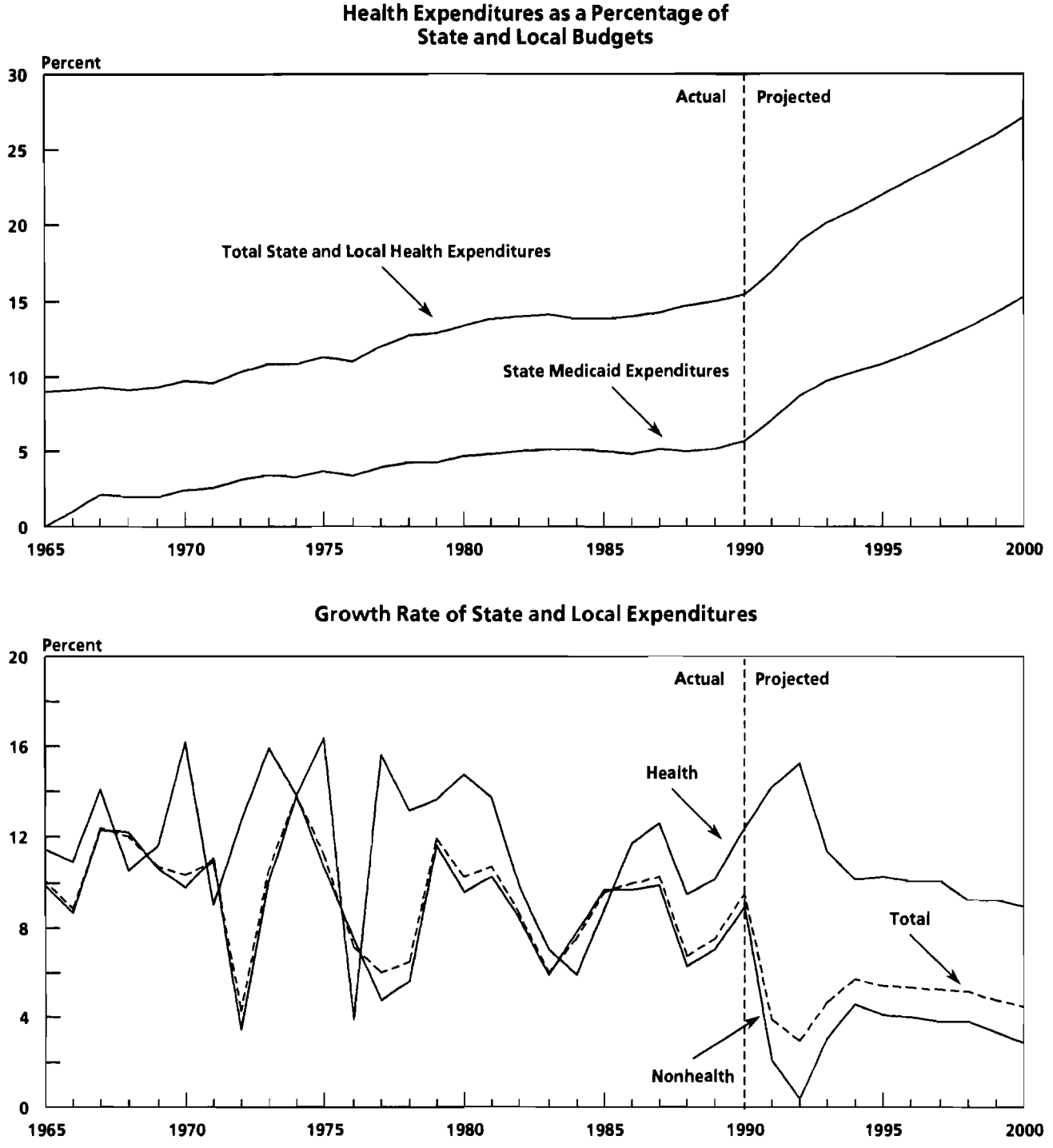
14. There is considerable uncertainty concerning future state and local government spending, but these estimates are consistent with CBO economic projections.

15. The characteristics of the health sector are discussed in greater detail in Congressional Budget Office, *Rising Health Care Costs: Causes, Implications, and Strategies* (April 1991), and in Congressional Budget Office, *Economic Implications of Rising Health Care Costs.*

16. Economists' estimates of the relationship between income and health spending vary considerably depending on the data and methods used. Joseph P. Newhouse, "Medical Care Costs: How Much Welfare Loss," *Journal of Economic Perspectives*, vol. 6 (1992), pp. 7-8, explains why estimates of the income elasticity from international cross sections may be preferred to estimates taken from households within one country. An income elasticity of one is supported by the evidence in David Parkin and others, "Aggregate Health Expenditures and National Income: Is Health Care a Luxury Good?" *Journal of Health Economics*, vol. 6 (1987), pp. 109-127.

17. This estimate of the additional health spending that can be explained by rising income alone could be high because it may attribute some of the growth resulting from technological progress to rising income. See Newhouse, "Medical Care Costs," p. 8.

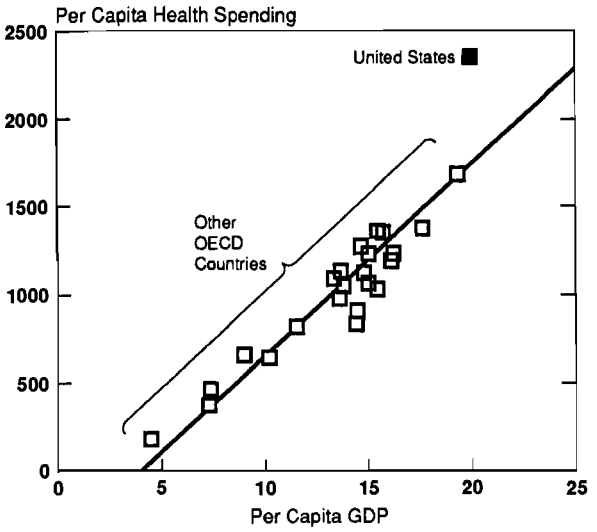
Figure 5.
State and Local Spending on Health Care



SOURCES: Department of Commerce, Bureau of Economic Analysis; Health Care Financing Administration; and Congressional Budget Office.

NOTE: Total state and local expenditures are assumed to remain roughly constant as a share of gross domestic product, consistent with CBO's economic assumptions.

Figure 6.
Health Spending and Income in Countries of the Organization for Economic Cooperation and Development, 1989



SOURCE: George Schieber and others, "Health Care Systems in Twenty-Four Countries," *Health Affairs*, vol. 10, no. 3 (Fall 1991), pp. 7-21.

NOTES: Health spending and gross domestic product are converted to dollars using purchasing power parities. Per capita gross domestic product is expressed in thousands of dollars. Per capita health spending is expressed in dollars.

"Doctor Knows Best"

The market for health care is different from most other markets. Patients rarely are well informed about the appropriateness, value, or quality of medical treatments and thus delegate many decisions to the professional experts--doctors. And, of course, sick or injured people and their families are in an especially poor position to drive a hard bargain with providers. This situation gives doctors extraordinary authority to determine spending on health care. Patients routinely defer to providers on questions of care, and often do not know what will ultimately be charged at the time of treatment. Even if consumers think that they can make appropriate decisions, they are legally or effectively prohibited from self-medication and treatment. For instance, most drugs are sold only with a doctor's prescription.

Once consumers delegate decisions to doctors, they surrender their power to control the level and growth of health spending. Professional ethics encourage physicians to provide all services that promise medical benefits, and patients, knowing little about the medical details, may base their satisfaction on how much medical care is provided. The inescapable, if uncomfortable, reality is that providers have an interest in higher spending. Compared with other markets, the delegation of responsibility to medical providers creates an inherent bias in most health care towards higher spending and away from cost control.

Third-Party Payment and Technological Change

Most health payments are made by a third party--an insurance company or government program--on a fee-for-service basis, and this reinforces the bias in health care toward higher spending and away from cost control. Neither the patient nor the doctor is likely to care much about the costs of the treatment at the point of service. Fee-for-service arrangements with distant third-party reimbursement ensure that patients have an incentive to accept, as well as providers have to offer, any treatment that may possibly have a positive benefit, with little regard for cost.

These features may encourage spending on health care procedures or services that cost more than the value consumers place on the benefits. The same features may spur the development and use of new, often expensive, medical technologies and drugs even when their benefits may be small compared with the costs. People who have insurance face a low out-of-pocket charge for health services at the point of delivery, and as a result go to doctors more often and have more tests and elaborate treatment than people who are faced with the

full prices.[18] One hypothesis is that cost-increasing technology raises the demand for health insurance and, hence, for health care, but the development of cost-increasing technology is itself encouraged by more extensive insurance.[19] Together, it is argued, the two effects produce an upward spiral of health care costs.[20] Because third-party reimbursement, based on provider charges, dominates the market, competitive pressures do not encourage the efficient provision of services. Doctors compete for patient loyalties, and hospitals compete for physician referrals, but providers do not tend to compete with one another over fees. Lack of medical knowledge on the part of consumers, difficulties in performing price or quality comparisons, and professional links between providers inhibit price competition in the usual sense.

Employer-Sponsored Insurance

Most private health insurance in the United States is organized by employers. Employers who offer more than one insurance option to their workers traditionally contribute more per worker to the more expensive plans--employees who choose inexpensive plans are not always rewarded with higher cash wages. This practice further discourages price comparisons and reduces the incentive for efficient insurers to offer low prices.[21] In principle, employers could change these arrangements to favor cost-conscious behavior, and some have begun to do so.

Government Tax Policy

Tax policy reinforces the bias against cost control in the U.S. system of health care finance. The exemption of employer-paid private health insurance from the income tax has supported the widespread growth of employment-based private health insurance over the past 40 years and thus contributes to the increased demand for health care.[22] This feature of the tax code is the largest of several tax expenditures through which, by providing tax deductions for certain health care costs, the government helps eligible taxpayers to finance their health expenditures.

Although federal tax policy has achieved its major health policy goal--the expansion of private health insurance to most of the population--it has also encouraged inefficiency because of the resulting failure to confront choices. Favorable tax treatment of employer-paid health insurance premiums reduces the effective price and so increases the amount of health insurance through a hidden subsidy. Such tax breaks cause even higher levels of health expenditure at the expense of tax revenues that would otherwise be collected.

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18. Martin Feldstein, "The Welfare Loss of Excess Health Insurance," *Journal of Political Economy*, vol. 81 (1973), pp. 853-72; Martin Feldstein and Bernard Friedman, "Tax Subsidies, the Rational Demand for Insurance, and the Health Care Crisis," *Journal of Public Economics*, vol. 7 (1977), pp. 155-78; Mark Pauly, "Taxation, Health Insurance, and Market Failure in the Medical Economy," *Journal of Economic Literature* vol. 24 (1986), pp. 629-75; Willard Manning and others, "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," *American Economic Review*, vol. 77 (June 1987), pp. 251-77.

19. See Burton A. Weisbrod, "The Health Care Quadrilemma: An Essay on Technological Change, Insurance, Quality of Care and Cost Containment," *Journal of Economic Literature*, vol. 23 (1991), pp. 523-52.

20. Not all medical advances increase costs: Burton A. Weisbrod in "The Health Care Quadrilemma," p. 534, contrasts cost-reducing innovations in medical processes such as vaccines with quality-increasing but cost-increasing innovations in medical products and procedures such as artificial organs and organ transplants. Under retrospective systems of payment, cost-increasing technical advance is not discouraged, and so more cost-increasing technologies have probably been developed than cost-reducing ones. However, recent moves toward more prospective systems of payment--Medicare's prospective payment system for hospitals, as well as developments in the private sector--may have tilted the incentives for future research and development toward cost-saving technologies.

21. See, for example, Alain C. Enthoven, "How Employers Boost Health Costs," *Wall Street Journal*, January 24, 1992.

22. The tax expenditure for private health insurance increases expenditures on health insurance, which strengthens the existing effect of insurance in raising health expenditures. See Feldstein and Friedman, "Tax Subsidies, the Rational Demand for Insurance, and the Health Care Crisis"; and Pauly, "Taxation, Health Insurance, and Market Failure in the Medical Economy."

Health Care as a Public Priority

Public policy contributes to high and rising health spending in other ways as well. For reasons of equity, the government intervenes to ensure that the very poor and the elderly have access to care. Public values appear to reinforce the medical ethic that life should be sustained as long as possible, regardless of cost, especially at the beginning and near the end of the lifespan. This strict medical protocol makes high spending on health very hard to avoid in some cases. Government policy in the entitlement programs has been to reimburse those procedures that physicians recommend on medical grounds.

Defensive Medicine

Some commentators have blamed the malpractice system for increasing health costs. They claim that physicians must pay more for malpractice insurance, and feel that doctors must practice defensive medicine, using more tests and precautionary procedures than would otherwise seem necessary, in order to remove all but the remotest doubts of misdiagnosis or errant treatment. A patient with limited medical knowledge and a weak incentive to worry about costs is not likely to resist what might be redundant tests or only marginally beneficial procedures. The available evidence indicates, however, that changing the medical liability system would have little effect on total health spending. If the system of medical malpractice law were restructured, much of the care commonly dubbed "defensive medicine" would probably still be provided for reasons other than concerns about malpractice.[23]

23. See testimony of Robert D. Reischauer, Director, Congressional Budget Office, before the House Committee on Ways and Means, March 4, 1992, Appendix F.

A Soft Budget Constraint

In relation to the size of the economy, health spending per capita in this country is some 35 percent higher than in other industrialized nations (see Figure 6). The preceding sections have explored reasons for high and rapidly growing health spending, but many of these reasons are common to other industrialized countries and so cannot alone explain why the United States appears as an anomaly. A crucial additional element is that in the United States, unlike other countries, the pressures for increased health spending are not counterbalanced by mechanisms that put a lid on total expenditures.

Other countries have carried out some form of global budgeting for health expenditures that places effective limits on spending by pressuring providers to supply services more cheaply and efficiently, restricting investment in new technology, or rationing the provision of services in some way. By contrast, neither federal entitlement programs nor the private system of health insurance in the United States responds to rising costs by strongly resisting increases in health expenditures. On the contrary, federal expenditures and private insurance premiums have tended to rise to meet the higher costs. In effect, both private and public financing mechanisms appear to provide only a soft budget constraint that is ineffective in restraining total health spending in the United States.

Chapter Two

CBO Baseline Projections: Assumptions, Concepts, and Methodology

The special characteristics of the health care market, especially the relative absence of price competition and the features of health insurance that encourage the development and use of new technology, cause health spending to grow more rapidly than other sectors of the economy. The Congressional Budget Office (CBO) projects rapid growth in health spending based on an analysis of a variety of factors--most notably increases in the price and intensity or complexity of care.

Current Policy Assumptions

CBO's current policy projections assume that government health programs, laws, and regulations do not change over the period of the projections. The projections also assume that current trends in clinical medical practices and procedures will continue and that there will be no major structural change in the private sector's primary health-payment institution: private health insurance obtained through employers.

These projections are not predictions--a projection of current policy may be far from the best forecast. Federal and state governments may take new actions to try to limit health spending, and new legislation affecting the private health insurance system is also possible.

The most recent recession may provoke new cost control efforts in the government and private sectors that are not reflected in these projections. The recession of 1981-1982 highlighted the need for efforts by the government and private sector to control health payments. During that downturn, the growth in health spending continued unabated while government tax revenues and private incomes--the funding resources for health care--were under economic pressure.[1] Subsequently, both the federal government and private insurers concentrated on containing health spending. While similar types of policy changes may well occur over the next decade, the projections presented here represent a baseline that assumes continuation of current policies and trends.

Economic and Demographic Assumptions

The projections are consistent with CBO's January 1992 baseline economic assumptions and spending projections for Medicare and

1. Cost containment efforts in the private sector are also stimulated by the peculiar premium cycle of private health insurers. When private health insurance premiums rise rapidly, businesses may prod insurers for cost control. For the private sector, both the business and insurance cycles may lead to cost control efforts.

Table 1.
National and Personal Health Spending: Demographic and Economic Assumptions

	Selected Calendar Years					
	1965	1983	1987	1990	1992[a]	2000[a]
Level of Spending (Billions of dollars)						
National Health Expenditures						
Personal health expenditures[b]	36	315	439	585	713	1,507
Other health expenditures[c]	6	44	55	81	95	172
Total	42	359	494	666	808	1,679
Gross Domestic Product (GDP)	703	3,405	4,540	5,514	5,931	9,322
Real GDP (Billions of 1987 dollars)	2,473	3,907	4,540	4,885	4,924	6,026
GDP implicit deflator (1987 = 1)	0.284	0.871	1.000	1.129	1.204	1.547
Total Population (Millions)	204	242	252	260	265	283
Age 65 and over	19	28	30	32	33	36
Age 75 and over	7	11	13	14	14	17
Average Annual Growth Rate from Previous Year Shown (Percent)						
National Health Expenditures						
Personal health expenditures[b]		12.9	8.7	10.0	10.4	9.8
Other health expenditures[c]		11.7	5.8	13.8	8.3	7.7
National Expenditures		12.7	8.3	10.5	10.1	9.6
Gross Domestic Product		9.2	7.5	6.7	3.7	5.8
Real GDP		2.6	3.8	2.5	0.4	2.6
GDP implicit price deflator		6.4	3.5	4.1	3.3	3.2
Total Population		1.0	1.0	1.0	1.0	0.8
Age 65 and over		2.1	2.1	1.9	1.6	1.0
Age 75 and over		2.8	2.7	2.4	2.3	2.3

SOURCES: Population projections are from the 1991 Social Security Trustees' Report. Economic assumptions reflect the Congressional Budget Office baseline of January 1992. Health expenditure projections are by the Congressional Budget Office, based on historical estimates from the Health Care Financing Administration.

a. Projected.

b. Personal health expenditures include all spending directly related to patient care.

c. Other health expenditures include administrative, research, and construction spending.

Medicaid.[2] They use population projections from the 1991 Social Security Administration Trustees' Report (see Table 1).

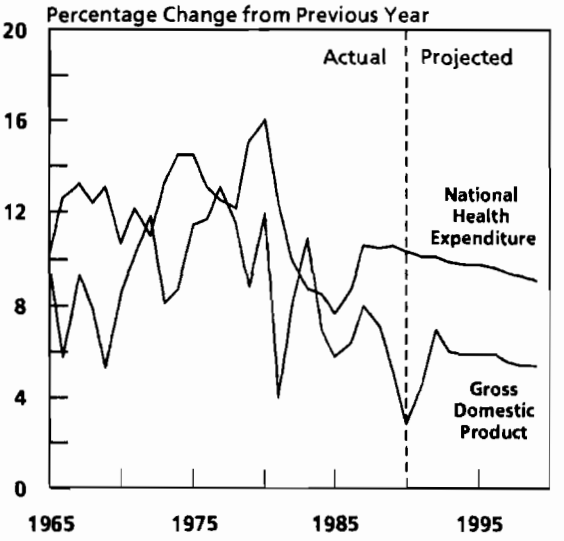
CBO projects relatively slow economic growth in the remainder of the 1990s, with low inflation. Under these assumptions, GDP grows by 5.8 percent a year between 1992 and 2000, with real growth averaging 2.6 percent a year and average price growth of 3.2 percent. Population growth, especially that of the elderly segment, will slow somewhat in the 1990s. The number of people over age 65 will increase by 1 percent a year between 1992 and 2000, down from its average growth of about 2 percent a year in the 1970s and 1980s.

2. Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1993-1997* (January 1992).

National Health Expenditures: Concepts and Trends

National health expenditures are reported by the Health Care Financing Administration (HCFA) in detailed estimates of spending in the health sector of the economy.[3] HCFA estimates national health expenditures by major types of spending and sources of funds. HCFA compiles and reports current dollar expenditures from 1960 through 1990. The first CBO projection year is 1991, although some preliminary 1991 data are available, and these help guide the 1991 figures.[4] Figure 7 shows HCFA's estimate of the percentage change in national health expenditures from 1965 through 1990 (and CBO's projection from 1991 through 2000) in relation to the percentage change in GDP.

Figure 7.
National Health Expenditures vs. Gross Domestic Product



SOURCE: Congressional Budget Office.

National health expenditures are separated into personal health spending, which consists of all direct spending for patient care (primarily hospital, physician, drug, and nursing home expenditures), and other health spending (including administrative, research, and investment costs).

The growth in national health spending can be divided into three distinct periods: 1965 to 1983, when it grew largely unencumbered by policy or financing constraints; 1983 to 1987, when government and private cost containment efforts temporarily reduced the growth of health spending (especially for costly inpatient hospital stays) and the number of uninsured people increased significantly; and 1987 to 1990, when more rapid growth of expenditures resumed. The projections are divided into two periods: 1990 to 1992, a time of recession; and 1992 to 2000, assumed to be a period of relatively stable economic growth. (See Table 1 for a comparison of growth in national health spending with major economic and population indicators during these periods.)

Projection Methodology

The CBO projections follow the HCFA method--a process of separation and analysis of trends using the HCFA accounting framework for national health expenditures. The methodology is actuarial rather than econometric, consisting of a series of identities, the elements of which are projected and reconciled. It explicitly takes into account the effect

3. See Katharine R. Levit, Helen C. Lazenby, Cathy A. Cowan, and Suzanne W. Letsch, "National Health Expenditures, 1990," *Health Care Financing Review* (Fall 1991), for the latest historical national health expenditure data; and Office of National Cost Estimates, "National Health Expenditures, 1988" and "Revisions to the National Health Accounts and Methodology," *Health Care Financing Review* (Summer 1990), for detailed discussions of the accounts and their construction.

4. For example, American Hospital Association data on community hospital revenues and use are available for all of 1991.

of changes in the demographic (age and sex) composition of the population on the use of health services per person and on the complexity or intensity of the services provided.

Each type of personal health care spending--spending that is directly related to patient care--is broken down into factors that account for its growth. These factors are projected into the future based on analysis of current trends, judgments about patients' demands for services, and the consequent demands by providers for payment. Because some types of health spending may complement or substitute for other types of spending, the projection factors must be reconciled among themselves to ensure consistent patterns of use and expenditure among types of health services. Finally, the projection of expenditures for each service must be matched with projected sources of health care financing.

Categories of health spending not directly related to patient care--government program administration and the administrative costs of private health insurance, public health administration, research, and construction--are projected using different methods (see Appendix A for a detailed discussion of the projection methods).

Growth Factors in Personal Health Spending

The factors accounting for the growth in spending on health care are population growth, the demographic composition of the population, trends in the per capita use of basic health care services (for example, hospital days and physician visits), overall inflation rates, trends in the relative prices of health services, and a residual factor called intensity of service. Intensity of service is understood to express the growth in expenditures associated with additional health services per basic unit of use and with advancing technologies and sophistication of health services.[5] Table 2 presents the contributions of population growth, change in demographic composition, growth in basic use of services, inflation, and the combined contributions of increases in the relative price and of the intensity of health care services to the projected rise in personal health spending.

One important assumption of the CBO projections is that use of basic health services per person will return to its previous positive growth rate, after declining for most of the 1980s under the influence of changes in policy. CBO does not foresee any significant new constraints on hospital days or physician contacts in the 1990s from current government or private-sector policies, and the resumption of growth in the use of services boosts the health spending projections.

Demographics. Shifts in the size and composition of the population, including the increase in the proportion of the elderly, will add only modestly to the growth of health spending over the next decade. Population growth alone accounts for 0.8 percentage points per year of the 9.8 percent average annual growth in personal health spending between 1992 and 2000. Although older people use a disproportionate amount of health care services, the aging character of the population adds an average increase of only about 0.5 percent per year to the growth of personal health spending.[6]

The aging of the baby-boom generation will probably add upward pressure to health spending after 2000, but even at its peak just

5. Use in the model refers to very basic numbers of patient-provider contacts. Intensity can be both extra services provided per contact, or more involved, complex, or capital-intensive procedures per contact. For example, suppose average prenatal obstetrician visits per person have remained constant over the years. But in modern visits, patients are much more likely to have ultrasound screenings in the doctor's office. The extra billings for the screenings are not price or use increases; in the model these would be considered intensity increases.

6. See Daniel R. Waldo and others, "Health Expenditures by Age Group, 1977 and 1987," *Health Care Financing Review* (Summer 1989). Note that the tables on pages 115 and 117 of the article are mislabeled; correctly titled, they cover the 19-to-64 and 65-and-older populations.

Table 2.
Factors Accounting for Growth in Personal Health Spending
(Average annual growth rate by calendar year)

	1965-1983	1983-1987	1987-1990	1990-1992[a]	1992-2000[a]
Total Growth in Personal Health Expenditures	12.9	8.7	10.0	10.4	9.8
Factors Accounting for Growth[b]					
Population increase	1.0	1.0	1.0	1.0	0.8
Demographic composition	0.5	0.4	0.4	0.5	0.5
Use per person[c]	0.6	-2.1	-0.5	0.2	0.8
GDP implicit price deflator	6.4	3.5	4.1	3.3	3.2
Other price and intensity[d]	3.9	5.8	4.7	5.1	4.2

SOURCE: Congressional Budget Office.

NOTES: "Use per person" and "Other price and intensity" are net of predicted impacts on use and intensity from changes in demographic composition. CBO has no measure of demographic composition effects for some smaller types of health spending and no independent use or volume measures for some types of spending. In these cases, CBO has approximated the demographic and use contributions to personal health expenditure growth using data from similar types of spending.

GDP = gross domestic product.

a. Projected.

b. Factors are combined multiplicatively to yield total growth rate.

c. Use per person consists of basic medical contacts, such as days in the hospital or physician visits.

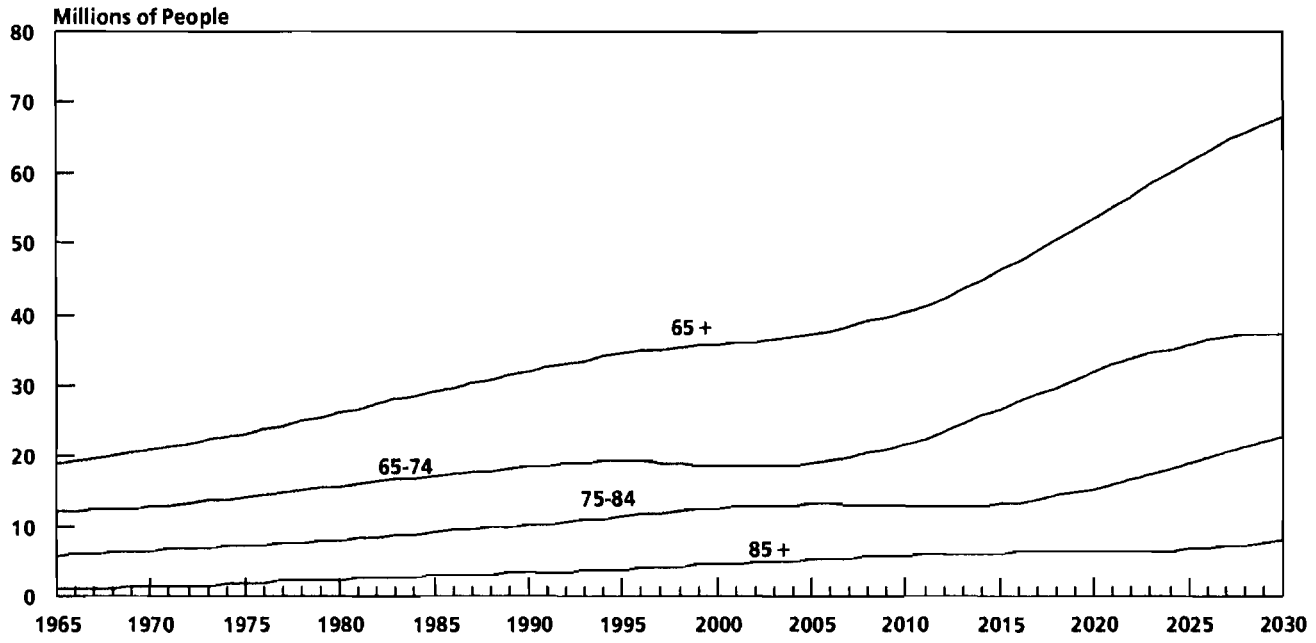
d. Other price and intensity includes price increases in excess of the GDP deflator, additional volume of services per unit of use, and increases in the complexity of services.

before 2030 changes in demographic composition are expected to add less than 1 percentage point to the growth rate of health spending per year.[7] The share of the population 65 years old and older has been growing steadily, but this growth will slow during the 1990s. Fewer children were born during the Great Depression of the 1930s and the 1940-1945 war years, and this accounts for a slowdown in the number of people reaching retirement age in this decade. The baby-boom generation, born between World War II and about 1965, will begin reaching retirement age after 2010, and the population over age 65 will then increase sharply. Within the over-65 population, the share of people over 85 will continue to increase during the 1990s--leading to pressures for increased use of nursing homes (see Figure 8 for projections of the number of people older than 65).

Use of Basic Services. The number of basic health services used per person, such as the number of hospital days or physician visits, is also projected to grow relatively slowly in the 1990s. Rapid increases in hospital outpatient visits will be largely offset by declines in inpatient (overnight) stays, if current trends continue. The number of times a person visits a physician will increase by less than 1 percent per year, and dental visits are expected to

7. Because CBO does not have data on costs by age and sex for some of the smaller types of personal health care, and because the age and sex distributions of cost can be expected to change somewhat over long time periods, these calculations of overall age and sex impacts, especially for the distant future, are highly uncertain. For more information about HCFA's predictions of health expenditure growth from demographic changes, see Division of National Cost Estimates, "National Health Expenditures, 1986-2000," *Health Care Financing Review* (Summer 1987); and Daniel R. Waldo, Sally T. Sonnefeld, Jeffrey A. Lemieux, and David R. McKusick, "Health Spending Through 2030: Three Scenarios," *Health Affairs* (Winter 1991).

Figure 8.
Projected Growth of U.S. Population Aged 65 or Older, by Age Group and Year



SOURCE: Social Security Administration: data used in 1991 trustee's report.

increase slowly, especially in the later years of the projection. Increases in use of basic services per person have not driven rapid health spending growth in the past, and despite the assumption that modest growth in basic hospital and physician contacts resumes, use per person is not the key factor accounting for rapidly increasing health spending.

Price and Intensity Increases. The primary factors behind rapid growth of health spending are higher-than-average price increases received by health care providers and rapid growth in intensity per unit of service, based on extra services provided per basic unit of use and on the introduction of technologies and treatments that increase spending.

Unfortunately, health prices are difficult to measure and interpret.[8] The statistics do not allow higher charges resulting from increased intensity to be disentangled from increases in prices for identical procedures. Measured price indexes for health care may not account for new technologies or discounted fees (see Box 2). Some evidence indicates that, when fees are strictly controlled, providers order more treatments and procedures for their patients and change their billing practices in ways that increase revenues in order to maintain income levels.[9] (Indeed, CBO assumes such behavior in developing cost estimates and baseline projections for Medicare.)

Despite measurement problems, the forces driving increasing health care spending are the combination of increasing prices, expensive new services and procedures, and addi-

8. See Joseph P. Newhouse, "Measuring Medical Prices and Understanding Their Effects: The Baxter Foundation Prize Address," *Journal of Health Administration Education*, vol. 7 (Winter 1989), pp. 19-26.

9. For estimates of behavioral responses under Medicare, see Appendix B of Congressional Budget Office, *Physician Payment Reform Under Medicare* (April 1990). This study notes another factor that may contribute to the observed effects, namely patients demanding more care because of lower out-of-pocket costs under fee constraints.

Box 2. Reporting Health Expenditure Data: Health Expenditures and Inflation

In this study, health expenditures are expressed in current dollars. Tables showing health expenditures are in current dollars, with the growth in current dollar gross domestic product (GDP) shown at the bottom of the table. The GDP growth rate is intended to help the reader compare the growth of health expenditures with the growth of the economy. Several tables report the ratio of total health spending to GDP, a good summary measure of health spending in relation to the economy, especially over long periods. The tables that show factors accounting for growth in the components of personal health spending include a general inflation measure.

Displaying health estimates in current dollars can confound the role of movements in economic growth and general inflation with changes in the amount of health care services delivered over time. But separating changes in expenditures into changes in quantities and prices is difficult because of the uncertainties about the measurement and interpretation of health service prices.

Price indexes for health care suffer from numerous minor technical problems and from one major theoretical problem: price indexes cannot adequately adjust for improvements in the quality of medical care. New, more accurate diagnostic tools such as magnetic resonance imaging (MRI) are now readily available. Ultrasound screening for pregnant women is now routine. Less invasive and less risky surgical techniques are now the norm. Although these improvements have generally pushed up spending, it is impossible to distinguish the portion of those cost increases that reflects higher prices without somehow measuring the improvement in quality that has taken place.

Some analysts are working to create improved measures. For example, the Health Care Financing Administration has developed a set of price indexes for medical services that attempt to overcome some of the technical hurdles, including distinguishing between reported prices and the prices actually paid, and accounting for health spending paid through insurance. But the treatment of quality change remains at issue.

tional services and procedures per medical contact. Assuming current policies and trends continue, rising prices and more expensive procedures will also be the rule in the 1990s (see Table 2 for price and intensity increases, after overall inflation, measured with the GDP deflator, is subtracted).[10]

Sources of Payment

Analysis of these demographic, use, and price and intensity factors helps guide the initial estimates of the demand for services. Projected demands must then be reconciled with the availability of funds from the sources of health care payments. The two largest government payers are the Medicare and Medicaid programs. The largest private sources are health insurance benefits and direct out-of-pocket payments by patients.

Out-of-Pocket Payments. All health spending eventually comes out of the consumer's pocket, some through direct payments, some through higher taxes, and some through lower wages. A major theme of these projections, and a firm historical trend, is that direct patient payments tend to grow much more slowly than payments made by third-party intermediaries. Relatively slow growth in out-of-pocket payments is consistent with the basic motivation for health insurance; people want to avoid large and uncertain out-of-pocket expenditures. When patients must pay directly, they are more likely to resist marginal procedures; often, uninsured patients are simply not offered expensive care options.

Private Health Insurance. CBO projects that private health insurance benefits will continue growing rapidly despite a slow increase in the number of people covered and a decline in the proportion of the population covered by private health insurance. The private health insurance projections are based largely on judgments about current trends in coverages and costs per covered person. Although private health insurance costs per person are projected to continue growing rapidly, the total number of people covered is expected

10. The GDP deflator is not a measure of pure price inflation since it does not hold constant the proportions of items purchased. But, for this application, the deflator is used because the differences between the GDP deflator and more appropriate, fixed-weighted indexes are minor, and because the GDP deflator facilitates comparisons with HCFA's projection factors.

to increase by only 4 million in the 1990s, and will actually fall during the recession years of 1990 to 1992.

Government Program Spending. Under current policies, CBO projects that the government's share of financing for national health expenditures will grow significantly in the 1990s. Medicare and Medicaid are expected to cover an expanding proportion of the population, and the percentage of people covered by private insurance will fall. Medicare and Medicaid are entitlement programs, and CBO assumes that under current law spending for these programs will continue to increase rapidly on behalf of the entitled populations.

Chapter Three

Projections of National Health Expenditures by Type of Spending

Growth in health expenditure will vary substantially by type of spending in the 1990s, following current clinical and financing trends. Because similar medical procedures may be performed in various clinical settings, and because proposed reforms of the health financing system might affect categories of spending differently, the Congressional Budget Office's projections include details of spending by type of service and source of funds.

National health expenditures fall into two major categories: personal and other health expenditures. Personal health expenditures include all services and goods purchased for direct patient care. They accounted for 88 percent of national health expenditures in 1990.

The largest personal health spending categories are hospital care, physician services, drugs, and nursing homes. These four types of spending accounted for 84 percent of personal health expenditure in 1990 (see Table 3 for CBO's baseline projections for national health expenditures, personal health spending, and the major components of personal spending).

Smaller categories of personal health spending include dental care, other professional services, home health care, vision products and durable medical equipment, and a residual category called other personal expenditures. All of these smaller varieties accounted for 16 percent of personal health spending in 1990.

Other national health expenditures include construction and research, investments related to future health care, and certain administrative costs of government programs, public health services, and private health insurance. These expenditures do not apply to direct patient care; therefore, they are separated from personal health expenditures. Other national health expenditures accounted for about 12 percent of total national health spending in 1990.

Hospital expenditures, largely funded by private insurance benefits and government program payments, are expected to grow more rapidly in the 1990s than in the 1980s, with inpatient expenditures increasing by 8 percent per year. The annual growth of outpatient expenditure will average 16 percent in the projection period. Technological changes are allowing practitioners to perform more procedures on an outpatient basis, and CBO expects pressures from both government and private insurers to continue steering care away from costly inpatient settings. Spending for physician services is projected to grow at slower rates in the 1990s than in the recent past. A combination of slower growth in the number of doctors and in private health insurance and out-of-pocket spending should help reduce increases in expenditures, despite the fact that more high-tech procedures will be performed in doctors' offices.

Health spending categories that carry a high proportion of out-of-pocket payments--

Table 3.
Projections of National Health Expenditures to 2000, by Major Types of Spending

Type of Spending	Selected Calendar Years					
	1965	1983	1987	1990	1992[a]	2000[a]
	Billions of Dollars					
Personal Health Expenditures						
Hospital expenditures						
Community hospitals, inpatient	8	104	130	165	194	364
Community hospitals, outpatient	1	17	32	51	71	230
Federal hospitals	2	11	14	18	20	29
Other hospitals[b]	3	15	18	21	25	48
Subtotal, hospital expenditures	14	147	194	256	310	671
Physician	8	61	93	126	153	316
Drugs, other nondurables	6	31	43	55	63	111
Nursing home	2	29	40	53	65	137
Smaller types of spending	6	47	69	96	123	272
Total, personal expenditures	36	315	439	585	713	1,507
Other Health Expenditures	6	44	55	81	95	172
Total, National Health Expenditures	42	359	494	666	808	1,679
	Average Annual Growth Rate from Previous Year Shown (Percent)					
Personal Health Expenditures						
Hospital expenditures						
Community hospitals, inpatient		15.3	5.6	8.4	8.4	8.2
Community hospitals, outpatient		18.8	16.7	17.5	17.7	15.8
Federal hospitals		10.4	6.7	7.7	5.2	4.7
Other hospitals[b]		8.6	5.6	5.3	7.1	8.8
All hospital expenditures		14.0	7.2	9.6	10.0	10.2
Physician		11.8	11.3	10.6	10.4	9.5
Drugs, other nondurables		9.6	8.7	8.1	7.1	7.5
Nursing home		17.0	8.3	10.2	10.5	9.8
Smaller types of spending		12.4	10.0	11.5	13.1	10.4
All personal expenditures		12.9	8.7	10.0	10.4	9.8
Other Health Expenditures		11.7	5.8	13.8	8.3	7.7
National Health Expenditures		12.7	8.3	10.5	10.1	9.6
Memorandum:						
Average Annual Growth of GDP (Percent)		9.2	7.5	6.7	3.7	5.8

SOURCE: Congressional Budget Office.

NOTES: Details may not add to totals because of rounding.

GDP = gross domestic product.

a. Projected.

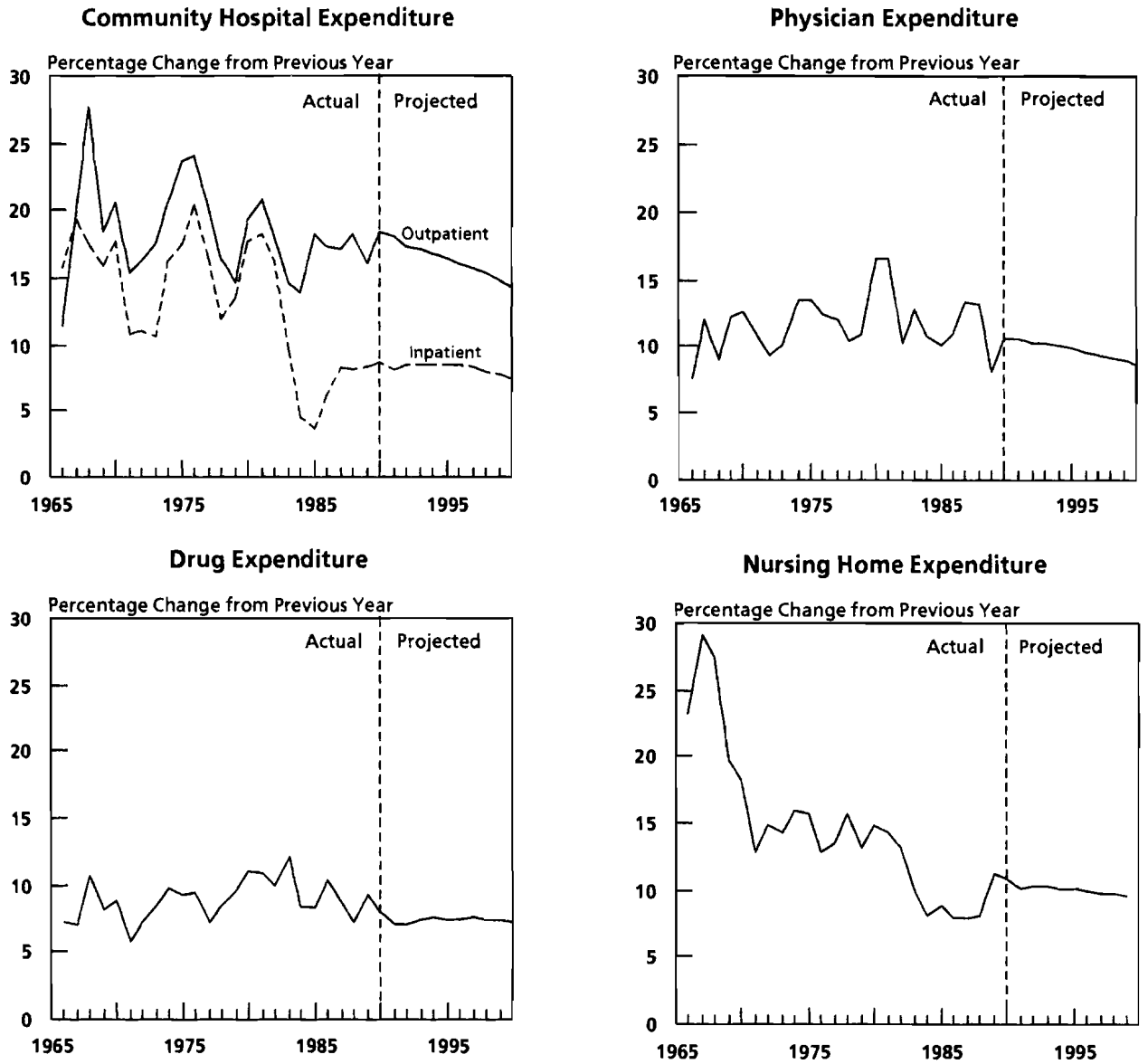
b. Includes nonfederal, noncommunity hospitals and nonpatient revenues at community hospitals.

drugs, durable medical goods, dental services, and so on--are expected to grow at slower rates. Nursing home spending, despite being funded largely by out-of-pocket and Medicaid payments, has grown rapidly in the past, and CBO projects continued strong growth in the 1990s (see Figure 9 for trends in each major category of personal health spending).

Hospital Expenditure

There are three major subcategories of hospital spending: inpatient spending at community hospitals, outpatient spending at community hospitals, and total spending at fed-

Figure 9.
Percentage Change in Major Health Expenditure Categories



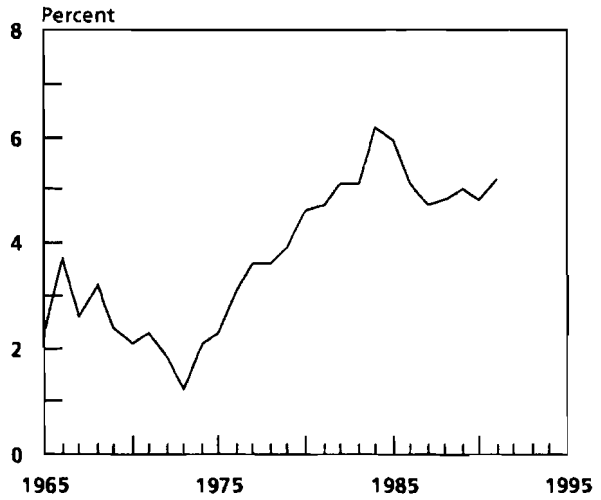
SOURCE: Congressional Budget Office.

eral hospitals. Community hospital spending makes up 90 percent of total hospital spending, and federal hospitals account for another 7 percent. The Health Care Financing Administration's estimates of hospital spending are based on hospitals' total receipts and include the value of drugs and durable goods paid for through hospital bills and the services of salaried hospital medical personnel. (See Box 3 for additional information on the estimates of hospital expenditures.)

Hospital spending makes up almost 40 percent of national health expenditures and is expected to grow at 10 percent annually in the 1990s, somewhat faster than in the 1980s. In CBO's projection, hospital spending grows from $281 billion in 1991 to $671 billion in 2000, with a continuing shift toward outpatient rather than inpatient treatment.

Hospitals' financial performance, on average, remained strong in the 1980s. Community hospital margins peaked in 1984 at more than 6 percent and have been around 5 percent through 1991 (see Figure 10). Hospital margins, the percentage excess of hospital revenues over operating expenses (mostly wages and salaries, professional fees, and equipment and supply expenses), are expected to remain positive in the 1990s.

Figure 10.
Community Hospital Margins



SOURCE: American Hospital Association.

Box 3.
Estimating Community Hospital Expenditures

The Health Care Financing Administration (HCFA) defines community hospitals as "acute care hospitals whose average length of stay is less than 30 days and whose facilities and services are open to the general public." HCFA measures health expenditures by type of spending, using estimates of receipts of the various providers. Community hospital expenditure includes all revenues actually received by the hospital--including nonpatient operating revenues (gift shop and so on) and nonoperating revenues (interest income, philanthropy, and so on)--but not necessarily total charges or billings. This measure is independent of the profits or losses (often called mar-gins) that hospitals incur.[1]

1. For more information about definitions and measurement in the national health accounts, see Office of National Cost Estimates, "Revisions to the National Health Accounts and Methodology," *Health Care Financing Review* (Summer 1990).

Community Hospitals: Inpatient Care

Spending for inpatient care at community hospitals, which amounts to about 65 percent of total hospital expenditures, grows in CBO's projection at an annual rate of 8 percent in the 1990s, from $179 billion in 1991 to $364 billion in 2000. This growth reflects continuing reductions in inpatient use per person and continued strong growth in hospital prices and intensity of services provided. Inpatient use, measured by inpatient days per person, is projected to decline by 2.7 percent a year between 1992 and 2000, while price and intensity increases over and above general inflation grow by 6.4 percent. The aging of the population adds about one-half of one percentage point to the expected growth of inpatient spending each year (see Table 4).

Since the early 1980s, the number of inpatient hospital days per person has fallen in response to government and private-sector initiatives to reduce costs. Technological and procedural changes that allow outpatient treatment have made the decrease possible. The number of inpatient days has decreased consistently since 1982 and is projected to continue declining through 2000, although at slower rates than during the last 10 years. Nationwide, the hospital occupancy rate fell from about 75 percent in 1982 to under 65 percent in 1985, despite reductions in the number of beds available during the period (see Figure 11).

Community Hospitals: Outpatient Services

Substantial increases in the number of outpatient hospital visits have coincided with declines in inpatient hospital days since the mid-1980s. As a result, total outpatient spending at community hospitals has continued to grow rapidly. Outpatient spending will grow at an average annual rate of 16 percent between 1992 and 2000, compared with 18 percent growth in 1991 and 1992. Outpatient visits per capita (the measure of outpatient use) are expected to continue growing by almost 4 percent per person in the decade (see Table 5). Rapid technological change has allowed many procedures that previously required overnight stays to be accomplished on an outpatient basis.

Federal Hospitals

CBO projects that direct federal hospital spending, the majority of which takes place at Veterans Administration (VA) hospitals, will grow slowly in the 1990s. The average growth rate is projected to be between 4 percent and 5 percent per year. The number of days of occu-

Table 4.
Factors Accounting for Growth in Inpatient Expenditures at Community Hospitals (Average annual growth rate by calendar year)

	1965-1983	1983-1987	1987-1990	1990-1992[a]	1992-2000[a]
Growth in Inpatient Hospital Expenditures	15.3	5.6	8.4	8.4	8.2
Factors Accounting for Growth[b]					
Population increase	1.0	1.0	1.0	1.0	0.8
Demographic composition	0.5	0.4	0.4	0.4	0.5
Use per person[c]	0	-5.5	-2.4	-3.7	-2.7
GDP implicit price deflator	6.4	3.5	4.1	3.3	3.2
Other price and intensity[d]	6.8	6.5	5.2	7.5	6.4

SOURCE: Congressional Budget Office.

NOTES: "Use per person" and "Other price and intensity" are net of predicted impacts on use and intensity from demographic changes.

GDP = gross domestic product.

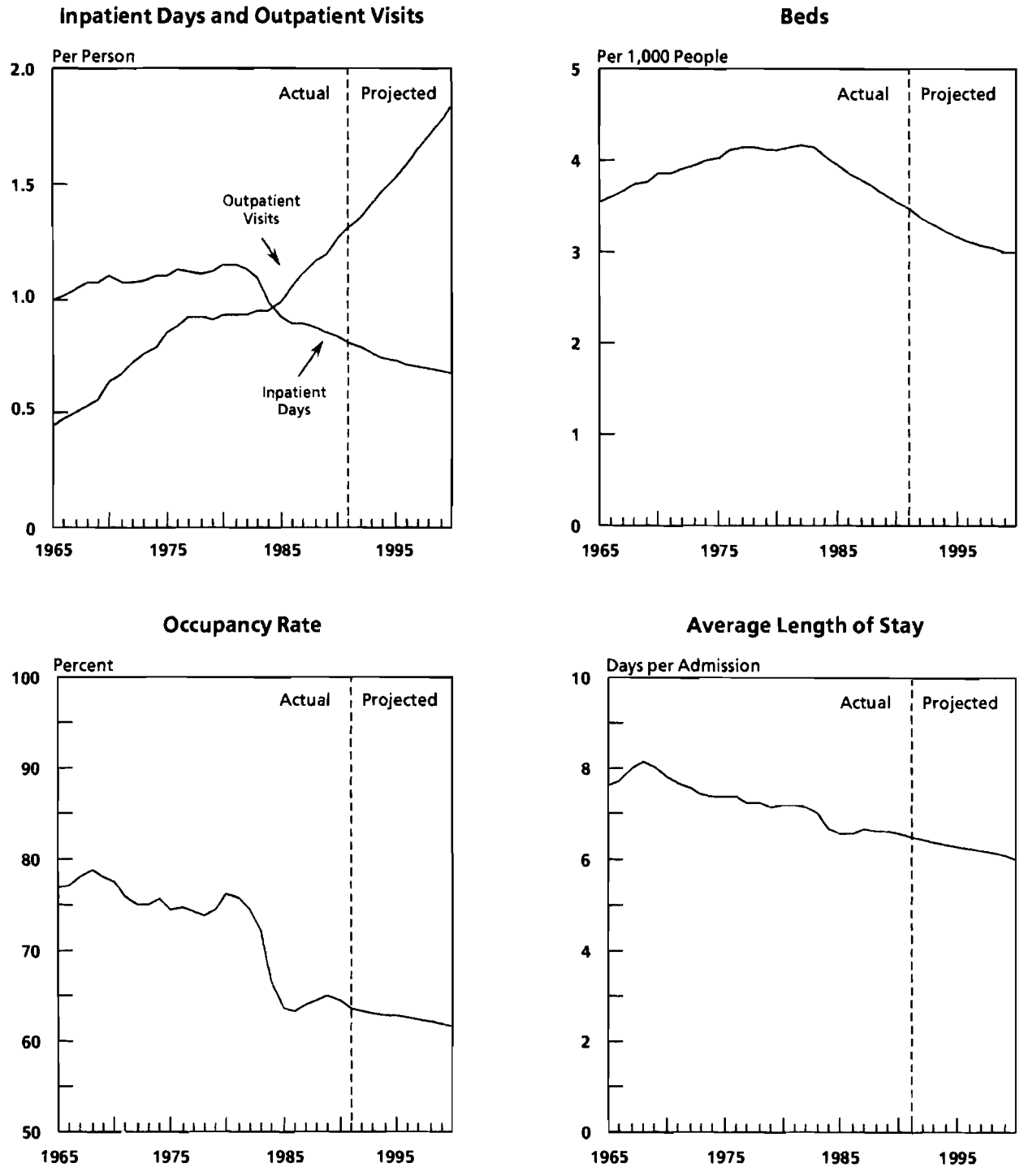
a. Projected.

b. Factors are combined multiplicatively to yield total growth rate.

c. Use per person is measured by per capita days in the hospital.

d. Other price and intensity includes price increases in excess of the GDP deflator, additional volume of services per inpatient day, and increases in the complexity of services.

Figure 11.
Trends in Community Hospital Use and Occupancy



SOURCE: Congressional Budget Office based on data from the American Hospital Association.

Table 5.
Factors Accounting for Growth in Outpatient Expenditures at Community Hospitals (Average annual growth rate by calendar year)

	1965-1983	1983-1987	1987-1990	1990-1992[a]	1992-2000[a]
Growth in Outpatient Hospital Expenditures	18.8	16.7	17.5	17.7	15.8
Factors Accounting for Growth[b]					
Population increase	1.0	1.0	1.0	1.0	0.8
Demographic composition	0.1	0.1	0.1	0.2	0.2
Use per person[c]	4.3	4.0	4.3	4.0	3.7
GDP implicit price deflator	6.4	3.5	4.1	3.3	3.2
Other price and intensity[d]	5.9	7.2	7.0	8.3	7.1

SOURCE: Congressional Budget Office.

NOTES: "Use per person" and "Other price and intensity" are net of predicted impacts on use and intensity from demographic changes.

GDP = gross domestic Product.

a. Projected.

b. Factors are combined multiplicatively to yield total growth rate.

c. Use per person is measured by per capita outpatient visits.

d. Other price and intensity includes price increases in excess of the GDP deflator, additional volume of services per outpatient visit, and increases in the complexity of services.

pancy per person in federal hospitals has fallen almost continually in the last 20 years, and 2 percent to 3 percent annual declines are projected in the 1990s. VA hospitals are facing declining occupancy rates and are actively converting beds from acute to long-term care.

Physician Services

Physician services account for about 20 percent of national health spending. CBO estimates that these expenditures will grow from $126 billion in 1990 to $153 billion in 1992 and to $316 billion in 2000. Physician spending covers services for which patients are billed by private doctors' offices. Professional fees paid by hospitals to physicians are reported in hospital spending and are not included under physician services. Physician spending includes the salaries of physicians employed by health maintenance organizations.[1]

CBO projects that physician spending will increase rapidly, both because prices for physician services increase faster than general inflation and because new, high-technology treatments are available in doctors' offices, thereby increasing the intensity of physician visits. The aging of the population and the number of physician visits per person are expected to add very little to the growth of spending for physician services. Between 1992 and 2000, change in the demographic composition of the population accounts for only 0.2 percentage points of the projected 9.5 percent average annual spending growth. Use, measured by physician visits per person,

1. Other spending channeled through health maintenance organizations is accounted for primarily in the hospital and other professionals categories.

Table 6.
Factors Accounting for Growth in Expenditures for Physician Services
(Average annual growth rate by calendar year)

	1965-1983	1983-1987	1987-1990	1990-1992[a]	1992-2000[a]
Growth in Physician Expenditures	11.8	11.3	10.6	10.4	9.5
Factors Accounting for Growth[b]					
Population increase	1.0	1.0	1.0	1.0	0.8
Demographic composition	0.2	0.2	0.2	0.2	0.2
Use per person[c]	0.7	0.4	0.0	0.8	0.5
GDP implicit price deflator	6.4	3.5	4.1	3.3	3.2
Other price and intensity[d]	3.1	5.8	5.0	4.8	4.5

SOURCE: Congressional Budget Office.

NOTES: "Use per person" and "Other price and intensity" are net of predicted impacts on use and intensity from demographic changes.

GDP = gross domestic product.

a. Projected.

b. Factors are combined multiplicatively to yield total growth rate.

c. Use per person is measured by per capita physician visits.

d. Other price and intensity includes price increases in excess of the GDP delator, additional volume of services per physician visit, and increases in the complexity of services.

is expected to grow slowly at just over one-half of one percent per year, slightly higher than in the 1987-1990 period, but in line with longer-term trends in the past (see Table 6).

Trends in the number of practicing physicians and their average incomes are important indicators of the amount spent on physician services. The number of nonfederal doctors who practice out of their own offices has grown from 275,000 in 1980 to 364,000 in 1990 (an average annual growth rate of 2.8 percent since 1980) and is projected to increase to 450,000 in 2000 (a growth rate of 2.2 percent from 1990).[2] Slower growth in the number of doctors should help restrain expenditures on physician services in the 1990s. Nevertheless, the number of practicing doctors is expected to grow more than twice as fast as the general population in the 1990s, with the 1990 ratio of one physician per 714 people rising to one physician per 628 people in 2000.

Total spending on physician services in the national health expenditure estimates is roughly equal to the average gross practice income per physician multiplied by the number of self-employed physicians. The average self-employed physician grossed $336,000 in 1990 from his or her medical practice, according to a recent American Medical Association survey (see Table 7).[3] The average net income for all doctors increased from $98,000 in 1982 to $164,000 in 1990, an average annual increase of 6.6 percent, which compares to a 4.3 percent average increase for all full-time em-

2. These projections of numbers of physicians are made by the Bureau of Health Professions of the Public Health Service and developed by HCFA.

3. The American Medical Association reports these figures in an annual report, the most recent of which is AMA Center for Health Policy Research, *Socioeconomic Characteristics of Medical Practice 1991/1992* (Chicago: American Medical Association, 1992).

Table 7.
Average Physician Practice Incomes and Expenses, All Specialties (In dollars per year)

	Selected Calendar Years		
	1982	1986	1990
All Physicians			
Net practice income	98,000	120,000	164,000
Self-Employed Physicians			
Total practice revenue	187,000	250,000	336,000
Total practice expense	78,000	118,000	150,000
Liability insurance premiums	6,000	13,000	15,000
Net practice income	109,000	131,000	186,000
Memoranda:			
Office-Based Nonfederal Active Physicians (Total number)	298,441	327,826	363,703
National Health Expenditure Physician Services (Millions of dollars)	54,000	82,000	126,000
Average Wage and Salary Disbursements per Full-Time Equivalent Employee (Dollars)	18,500	22,000	25,900

SOURCES: American Medical Association, Center for Health Policy Research; Health Care Financing Administration; Department of Commerce, Bureau of Economic Analysis.

ployees. The average net income of self-employed doctors increased from $109,000 in 1982 to $186,000 in 1990, an average growth rate of 6.9 percent a year.

Drugs and Other Medical Nondurable Products

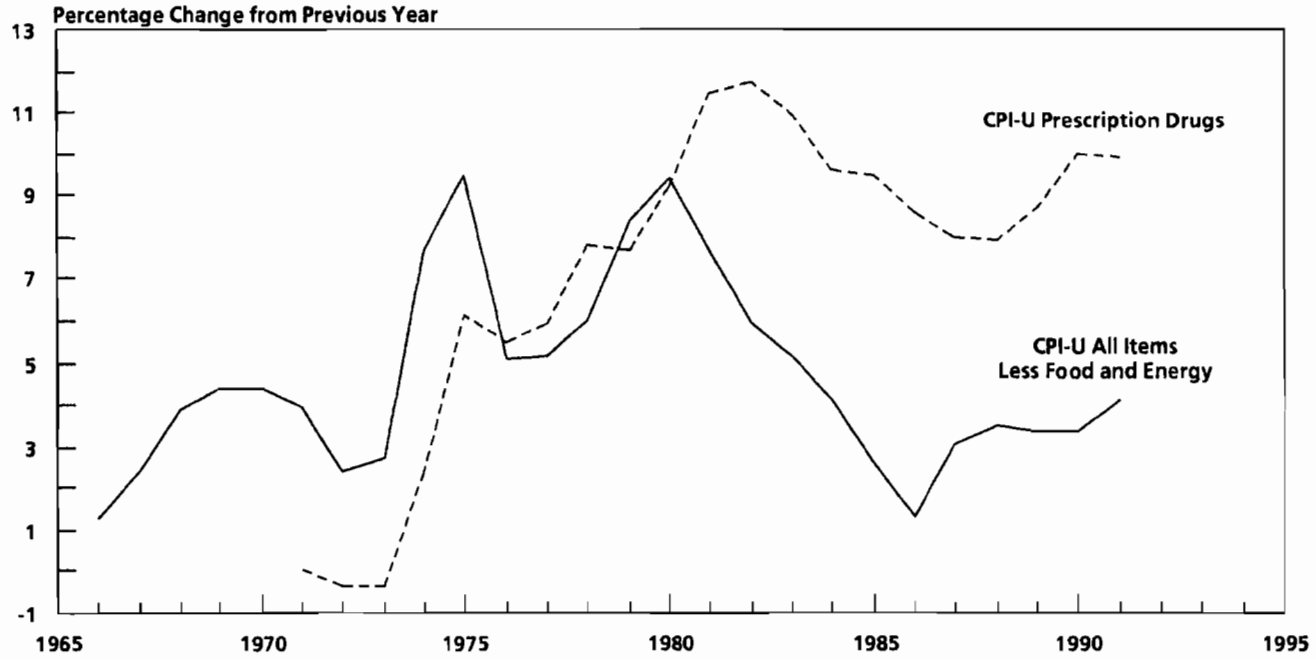
CBO projects that spending on drugs will grow 7.5 percent a year from 1992 to 2000, a continuation of its recent trend and at the low end of the longer-term average growth rate. Drug expenditure is defined as goods purchased through retail channels and includes prescription drugs (about 60 percent of total drug spending) and over-the-counter preparations and nondurable medical products (about 40 percent of the total). Medicines administered in hospitals and nursing homes, which are included in hospital bills or nursing home financial arrangements, are not included in this account.

Total spending on drugs has grown at a fairly steady pace of about 9 percent a year through the entire 1965-1990 period. Almost 75 percent of drug spending is paid out of pocket by consumers, which has helped restrain drug spending in relation to other, more heavily insured types of spending.

The relatively stable growth of spending on retail drugs since 1965, however, may mask dramatic changes in its composition. In the late 1960s and early 1970s, the consumer price index (CPI) for prescription drugs grew more slowly than the overall economic inflation rate. From about 1975 to 1982, the CPI for prescription drugs grew at almost the same rate as overall inflation, and since 1982 the prescription drug CPI has grown about 4 percentage points faster per year than the overall inflation rate (and almost as fast as drug expenditures; see Figure 12).[4] Although it is difficult to make firm judgments about pure health price increases, much of the recent in-

4. The CPI for over-the-counter drugs shows a similar, but less exaggerated, pattern.

Figure 12.
Consumer Price Index



SOURCE: Department of Labor, Bureau of Labor Statistics.

NOTE: CPI-U = consumer price index for all urban consumers.

crease in drug spending may be caused by increases in prices rather than quantities.[5]

Nursing Home Care

CBO projects that spending for nursing home care will grow at a 10 percent annual rate in the 1990s, continuing its recent trend. Nursing home care includes skilled nursing and intermediate care facilities.[6] Table 8 shows the major factors accounting for the growth of nursing home spending.

Projections of nursing home spending depend heavily on the projected sources of payment. In 1990, Medicaid paid for about 45 percent of all nursing home care. Consumers paid for another 45 percent out of pocket. Private health insurance and Medicare have paid for a very small portion of nursing home spending.

Medicaid funding fell from 50 percent of the total from all sources of payment in 1981 to less than 45 percent by 1984, and the out-of-pocket share rose from 43 percent to 48 percent in the same period. Growth in nursing home spending gradually fell to 8.3 percent per year between 1983 and 1987, substantially slower than the 17 percent average annual growth between 1965 and 1983. By 1989, however, Medicare nursing home payments were temporarily boosted by the Medicare Catastrophic Coverage Act of 1988, Medicaid

5. The analysis of drug expenditure and apparent price increases implies that quantity increases must be very slight. Unfortunately there is little independent evidence available to confirm this implication. HCFA has no independent measure for the use of drugs.

6. The nursing home estimates include intermediate care facilities for the mentally retarded financed by the Medicaid program.

payments resumed stronger growth, the out-of-pocket share fell, and nursing home expenditures resumed their historic double-digit growth.

The aging of the population will have a strong impact on the demand for nursing home care, adding 1.4 percentage points of growth to the demand for nursing home days per person between 1992 and 2000. CBO projects that actual nursing home days per person, however, will increase by only 1 percent a year, in part because the supply of nursing home beds is expected to grow less rapidly than the medical demand prompted by demographic changes. In the 1980s, the number of nursing home days per person increased barely at all, despite the demographic predictions of 1.4 percent growth a year. The nursing home occupancy rate is projected to continue at more than 90 percent of available beds in the 1990s, and the number of nursing home days will increase as fast as the availability of beds allows. States, which pay for a significant amount of nursing home care through Medicaid, have been reluctant to issue permits for new nursing home construction, a development that has helped limit the supply of nursing home beds.

Other Types of Personal Health Spending

Smaller categories of personal health spending include dental services, other professional services, durable medical products, and home health services. These categories, with the exception of other professional services, are characterized by relatively large proportions of out-of-pocket payments and lower rates of expenditure growth. (See Table 9 for an analysis of the smaller categories of personal health spending, and categories of spending

Table 8.
Factors Accounting for Growth in Nursing Home Expenditures (Average annual growth rate by calendar year)

	1965-1983	1983-1987	1987-1990	1990-1992[a]	1992-2000[a]
Growth in Nursing Home Expenditures	17.0	8.3	10.2	10.5	9.8
Factors Accounting for Growth[b]					
Population increase	1.0	1.0	1.0	1.0	0.8
Demographic composition	2.0	1.4	1.2	1.3	1.4
Use per person[c]	2.4	-1.1	-1.1	-0.3	-0.5
GDP implicit price deflator	6.4	3.5	4.1	3.3	3.2
Other price and intensity[d]	4.2	3.3	4.7	4.9	4.6

SOURCE: Congressional Budget Office.

NOTES: "Use per person" and "Other price and intensity" are net of predicted impacts on use and intensity from demographic changes.

GDP = gross domestic product.

a. Projected.

b. Factors are combined multiplicatively to yield total growth rate.

c. Use per person is measured by per capita nursing home days.

d. Other price and intensity includes price increases in excess of the GDP deflator, additional volume of services per nursing home day, and increases in the complexity of services.

Table 9.
Projections of National Health Expenditures to 2000, by Smaller Types of Spending

Type of Spending	Selected Calendar Years					
	1965	1983	1987	1990	1992[a]	2000[a]
	Billions of Dollars					
Personal Health Expenditures						
Major types of spending	30	268	370	489	590	1,236
Dental	3	20	27	34	39	64
Other professional	1	13	21	32	41	109
Home health	0	3	4	7	12	35
Vision and durables	1	5	9	12	13	22
Other personal	1	6	8	11	17	41
Subtotal	36	315	439	585	713	1,507
Other National Health Expenditures						
Administration, net cost of private insurance	2	19	23	39	47	97
Government public health	1	10	15	19	22	36
Research	2	6	9	12	14	23
Construction	2	9	8	10	12	17
Subtotal	6	44	55	81	95	172
Total	42	359	494	666	808	1,679
	Average Annual Growth Rate from Previous Year Shown (Percent)					
Personal Health Expenditures						
Major types of spending		13.0	8.4	9.8	9.8	9.7
Dental		11.5	8.2	7.8	7.3	6.4
Other professional		16.2	12.0	14.4	14.4	12.8
Home health		20.3	10.0	19.1	31.5	14.5
Vision and durables		8.7	13.9	10.1	4.8	6.7
Other personal		11.7	7.2	13.2	22.6	11.7
All personal health expenditures		12.9	8.7	10.0	10.4	9.8
Other National Health Expenditures						
Administration, net cost of private insurance		13.6	4.9	19.1	10.5	9.4
Government public health		16.8	10.5	9.8	6.6	6.2
Research		8.3	9.3	11.2	6.6	6.2
Construction		8.8	-1.5	8.4	5.5	4.7
All other health expenditures		11.8	5.8	13.9	8.3	7.7
National Health Expenditures		12.7	8.3	10.5	10.1	9.6
Memorandum:						
Average Annual Growth of GDP (Percent)		9.2	7.5	6.7	3.7	5.8

SOURCE: Congressional Budget Office.

NOTES: Details may not add to totals because of rounding.

GDP = gross domestic product.

a. Projected.

that make up other national health expenditures.)

Dental Services

Dental care services are the slowest-growing category of professional services. Spending growth is projected to decline from 8 percent per year in the 1987-1990 period to 6 percent in the 1992-2000 period. The growth of spending on dental services has slowed over the last 20 years as advances in preventive care have allowed a greater proportion of routine, less complicated visits and more care by dental hygienists.[7] Improved preventive care in this sector and low insurance coverage--more than half of dental spending is paid directly by patients--compared with hospital and physician services are reasons to expect lower spending growth for dental care in the future.

Other Professional Services

CBO projects that spending for other professional services will remain strong, although spending growth is expected to slow to about 13 percent a year between 1992 and 2000, down from more than 14 percent growth in recent years. The other professional services category covers spending for services of licensed health professionals, such as private-duty nurses, chiropractors, podiatrists, and optometrists, and for services performed in outpatient clinics.

Substantial insurance coverage of these services underlies their continued rapid growth. The proportion of out-of-pocket spending by patients for other professional services has fallen dramatically--from 44 percent in 1980 to 28 percent in 1990--as public programs and private health insurance have accounted for a steadily increasing share.

7. This situation is accounted for in the HCFA model as negative intensity growth, especially since about 1982.

Durable Medical Products

CBO projects that spending for durable medical products, such as prescription eyewear, hearing aids, and wheelchairs, will rebound from current slow rates of growth as the economy emerges from recession. Durables are one of the few categories of health expenditures with an obvious response to the business cycle; spending on durables increases when the economy is strong and falls off during recessions. About two-thirds of spending for durables is financed through direct patient out-of-pocket payments, and thus slower-than-average spending growth is projected.

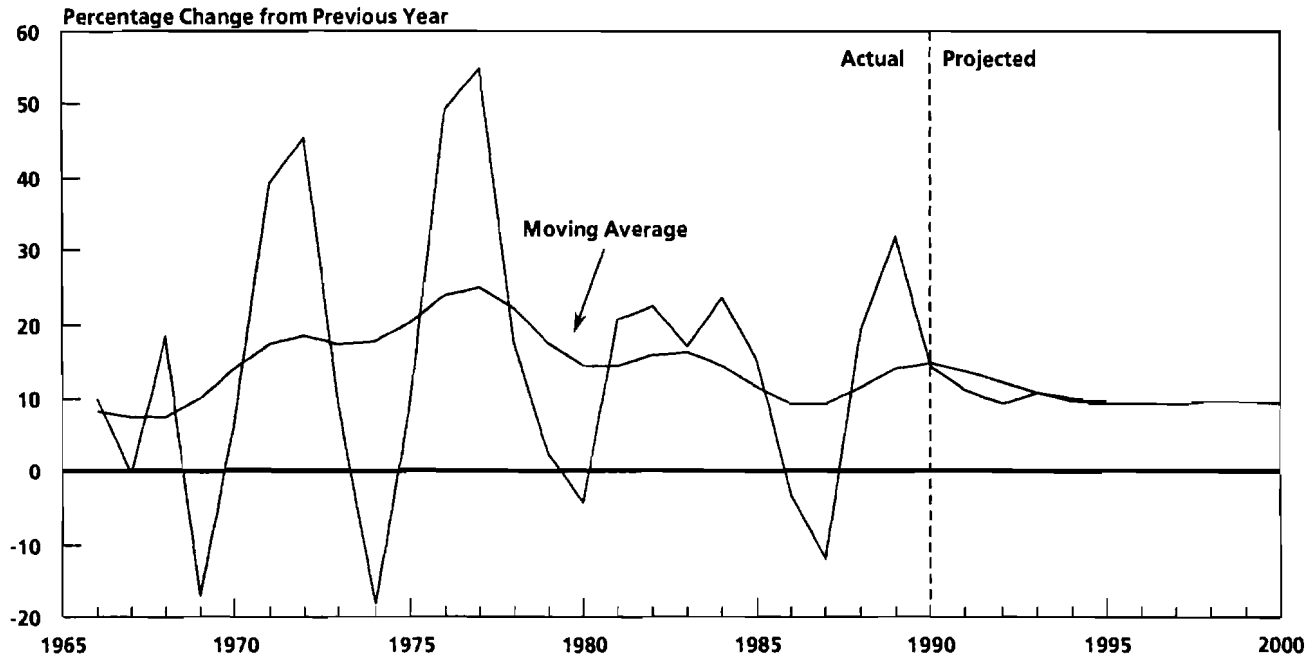
Home Health Spending

Home health spending grew more than 20 percent in 1989 and 1990, and a continuation of double-digit growth rates is projected in the 1990s as more patients are shifted from costly inpatient stays to home treatment. As the home health industry expands and matures, spending growth is expected to taper off to about 12 percent annually by the year 2000. CBO projects that home health spending will exceed $35 billion by 2000. Home health spending includes only spending for services that are medical in nature, not primarily custodial. For example, Meals on Wheels and other nonmedical home assistance programs are not included. This home health estimate measures spending by home health agencies that are not based at hospitals or nursing homes. The agencies must provide skilled nursing or medical care in the home, under the supervision of a physician.

Other National Health Expenditures

Other national health expenditures that are not directly related to patient care include the costs of administering third-party payments

Figure 13.
Private Health Insurance Administration and Net Cost



SOURCE: Congressional Budget Office.

and public health efforts, research, and construction.

Administration

This category includes the costs of administering government programs as well as profits, overhead costs, and additions to the reserves of private health insurance companies--the annual difference between premiums collected and benefits paid. The administrative cost of private health insurance does not include the cost of filing forms and billing in hospitals and in other providers' offices. (Billing and other administrative costs incurred by health providers are included in the specific categories of personal health spending.) These projections assume fairly stable growth in the administrative expenses of Medicare, Medicaid, and noninsurance private and public programs.

The peculiar underwriting cycle of private health insurance makes forecasting administrative costs for private health insurance, and thus total private health insurance premiums, difficult. State regulatory behavior, competitive forces, and the way health insurance companies set premiums have contributed to regular wide swings in the growth rates of health insurance premiums.[8] (See Figure 13 for the percentage change in the administrative costs of private health insurance.) To avoid having to project this cycle, CBO assumed that the net cost of private health insurance will grow at its expected average annual rate of about 9.5 percent a year from 1991 to 2000. Projecting the private health insurance underwriting cycle would be too speculative to add much insight, and elimi-

8. See Jon Gabel, Roger Formisano, Barbara Lohr, and Steven DiCarlo, "Tracing the Cycle of Health Insurance," *Health Affairs* (Winter 1991).

nating it reduces distortion in CBO's evaluation of insurance over the longer period.

Public Health

The public health category encompasses the cost of organizing and delivering health care, including preventive efforts, over and above direct payments on behalf of individuals for immediate care (which is accounted for in the various personal health expenditure categories based on the treatment given). State and local governments make the most public health expenditures.

CBO projects that total public health expenditures will grow slightly faster than gross domestic product in the 1990s, averaging 6.3 percent annual growth in the 1990s. State and local public health spending has risen continually since the 1960s as a share of state and local government purchases. CBO projects, however, that budget pressures on the states will hold the growth in state and local public health spending in the 1990s to less than previous rates.

Noncommercial Research

Research spending only includes activities of nonprofit or government research entities. Commercial medical research and development costs are included in the value of the drugs or equipment provided in personal health expenditures. The federal government funds most noncommercial research.

CBO projects that research will grow slightly faster than GDP, averaging 6.2 percent annual growth in the 1990s, in continuation of recent trends. Between 1965 and 1986, federal research spending was a nearly constant 7 percent share of federal nondefense purchases. Since 1987, federal research spending has been higher than this long-run trend, in part because of additional AIDS research.

Construction

Expenditures for construction expresses the value of new hospitals and nursing home construction. Construction spending grows slowly because inpatient hospital use declines and the supply of nursing home beds grows relatively slowly, restricted by the reluctance of the states to approve new facilities.

Chapter Four

Projections of National Health Expenditures by Source of Funds

The government share of health spending will increase in the 1990s under current policies and the share of private payments will decline. CBO expects strong growth in Medicare payments despite slower growth in the elderly population, and projects that Medicaid payments will continue growing rapidly because of increases in enrollments and court decisions requiring Medicaid programs to increase payments.

CBO projects that the number of people covered by private health insurance will increase slowly and the proportion of the population covered by private health insurance will continue to decrease. As a result, private health insurance benefits, which had accounted for a steadily increasing share of health expenditure until the mid-1980s, are expected to pay for a slightly smaller share of health spending by the end of the 1990s. CBO projects that the number of uninsured people will increase from about 35 million in 1992 to more than 39 million in 2000, despite the growth in Medicare and Medicaid (see Table 10).

CBO projects that direct out-of-pocket payments by patients to providers will continue declining as a share of total health spending, despite the increase in the number of uninsured people. Types of health spending that are funded largely by out-of-pocket payments tend to grow more slowly than hospital or physician spending, which are heavily insured, and many of the newly uninsured will choose to do without nonessential services and are not in a position to pay large amounts for the services they do receive. (See Figure 14 for an illustration of the share of health spending accounted for by government programs, private health insurance, and out-of-pocket payments over the 1965-2000 period.)

Private Payments

Private health payments have been a stable percentage of health spending since the mid-1970s. Between 1975 and 1990, private health insurance payments, out-of-pocket payments, and other private payments have together accounted for about 58 percent of health expenditures. In the projections, the out-of-pocket share declines rapidly, the private health insurance share declines slightly, and the total share of private payments declines to 52 percent by the year 2000. (See Table 11 for the composition of national health expenditures, with emphasis on private sources of funds.)

Private Health Insurance Continues to Erode

The proportion of spending on health care paid by private health insurance increased steadily during the 1970s, although its share has grown more slowly in 1980s. CBO projects that total private health insurance spending will swell from $217 billion in 1990 to $527 billion in 2000, an average annual growth

Table 10.
Health Insurance Primary Coverage

Type of Coverage	Selected Calendar Years					
	1980	1983	1987	1990	1992[a]	2000[a]
	Millions of People					
Employer-Sponsored Insurance	134.9	135.6	138.4	141.0	138.9	145.2
CHAMPUS/Military	8.8	9.3	8.9	8.0	7.7	6.6
Individual Insurance	19.2	18.6	16.7	16.9	16.1	14.8
Medicare	25.3	27.2	29.2	31.6	32.5	35.7
Medicaid	8.3	9.7	12.0	15.3	20.7	27.2
Uninsured	26.7	29.2	33.6	33.4	35.4	39.2
Total Population	223.2	229.6	238.8	246.2	251.3	268.6
	Percentage of Population					
Employer-Sponsored Insurance	60.4	59.1	58.0	57.3	55.3	54.0
CHAMPUS/Military	3.9	4.1	3.7	3.3	3.1	2.4
Individual Insurance	8.6	8.1	7.0	6.8	6.4	5.5
Medicare	11.3	11.8	12.2	12.8	12.9	13.3
Medicaid	3.7	4.2	5.0	6.2	8.3	10.1
Uninsured	12.0	12.7	14.1	13.6	14.1	14.6
Total Population	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Congressional Budget Office.

NOTES: CHAMPUS = Civilian Health and Medical Program of the Uniformed Services.

Estimates and projections based on data from the March Current Population Surveys. Note that the Current Population Surveys use a more restrictive definition of the population than the Social Security Administration figures used elsewhere in this report.

Details may not add to totals because of rounding.

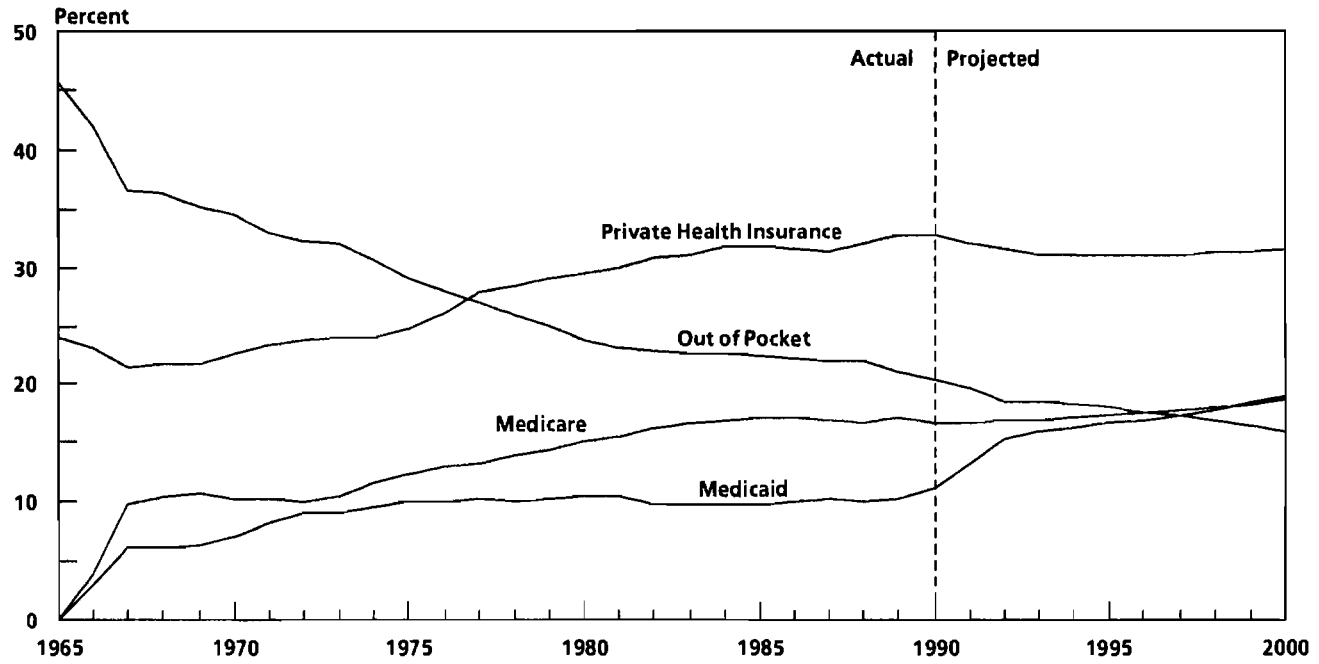
a. Projected.

rate of 9.3 percent, slightly less than the increase in total spending on health care. Total private insurance spending in the estimates of national health expenditure equals total benefits paid to providers by private insurers plus administrative and net underwriting costs, and is identical to total health insurance premiums. Private health insurance benefits for personal health care will expand from $186 billion in 1990 to $450 billion in 2000, and administrative and net underwriting costs will remain a constant 17 percent of benefits paid (see Table 12).[1]

CBO projects that the total number of people covered by employer-sponsored insurance will grow slowly in the 1990s. Total employer-sponsored coverage increased from about 135 million people in 1980 to about 141 million in 1990 and is expected to grow to only 145 million in 2000. The number of people with individual insurance (including all insurance not organized through employ-

1. This stability is caused, in part, by the fact that the private insurance underwriting cycle is not projected, as discussed in Chapter 3.

Figure 14.
Major Sources of Funds for Health Care, by Percentage of Total Health Expenditures



SOURCE: Congressional Budget Office.

ment) is expected to continue falling in the 1990s, from about 17 million in 1990 to 15 million in 2000.[2]

The rise in private health insurance benefits paid, therefore, almost entirely consists of growth in benefits paid per covered person, with the number of people covered increasing slowly. The expanding population combined with slow growth in private health insurance coverage leads to an increase in the number of uninsured people from 35 million in 1992 to 39 million in 2000, despite projected rapid increases in Medicare and Medicaid enrollment.[3]

The public often equates "health care costs" with employer-sponsored insurance premiums. It is not unusual to read that a firm faces dramatic increases in premiums to renew its current coverage. Obviously such increases represent only a portion of total health care financing, leaving out government and other private funding, and do not really represent increases in total national health costs. Moreover, premium increases quoted by particular insurance companies do not necessarily correspond to the total premium increases actually paid in the system; total premiums reported in the national health accounts frequently grow more slowly than reported increases in premium prices, as employers change coverage or offer coverage to fewer workers.

The cycle of private health insurance premiums also distorts the common view of health costs. Private health insurance premiums tend to rise rapidly as insurance companies build reserves, and then grow slowly (or even fall) until losses require new premium

2. For a discussion of trends in individual insurance, see Jon Gabel, "On Their Own: A Profile of the Individually Insured," *Journal of American Health Policy* (November/December 1991).

3. Figures for insured and uninsured populations are CBO estimates based on data from the Current Population Survey and other sources.

Table 11.
Projections of National Health Expenditures to 2000, by Source of Funds

Source of Funds	Selected Calendar Years					
	1965	1983	1987	1990	1992[a]	2000[a]
	Billions of Dollars					
Private						
Health insurance	10	111	155	217	254	527
Out of pocket	19	81	109	136	150	268
Other	2	18	22	31	36	73
Subtotal	31	211	286	384	441	869
Public						
Federal	5	103	144	195	253	566
State and local	5	44	64	87	115	244
Subtotal	10	148	208	283	367	810
Total	42	359	494	666	808	1,679
	Percentage of Total					
Private						
Health insurance	24.0	31.1	31.3	32.5	31.5	31.4
Out of pocket	45.7	22.7	22.0	20.4	18.6	16.0
Other	5.5	5.1	4.5	4.6	4.5	4.4
Subtotal	75.3	58.8	57.8	57.6	54.5	51.7
Public						
Federal	11.6	28.8	29.1	29.3	31.3	33.7
State and Local	13.2	12.4	13.0	13.1	14.2	14.5
Subtotal	24.7	41.2	42.2	42.4	45.5	48.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Average Annual Growth Rate from Previous Year Shown (Percent)					
Private						
Health insurance		14.3	8.6	11.9	8.3	9.5
Out of pocket		8.4	7.5	7.7	5.1	7.5
Other		12.2	5.1	11.4	8.4	9.3
Private health expenditures		11.2	7.9	10.3	7.2	8.9
Public						
Federal		18.6	8.7	10.7	13.7	10.6
State and local		12.3	9.7	10.7	14.7	9.9
Public health expenditures		15.9	9.0	10.7	14.0	10.4
National Health Expenditures		12.7	8.3	10.5	10.1	9.6
Memorandum:						
Average Annual Growth of GDP (Percent)		9.2	7.5	6.7	3.7	5.8

SOURCE: Congressional Budget Office.

NOTES: Details may not add to totals because of rounding.

GDP = gross domestic product.

a. Projected.

Table 12.
Private and Public Health Insurance Expenditures

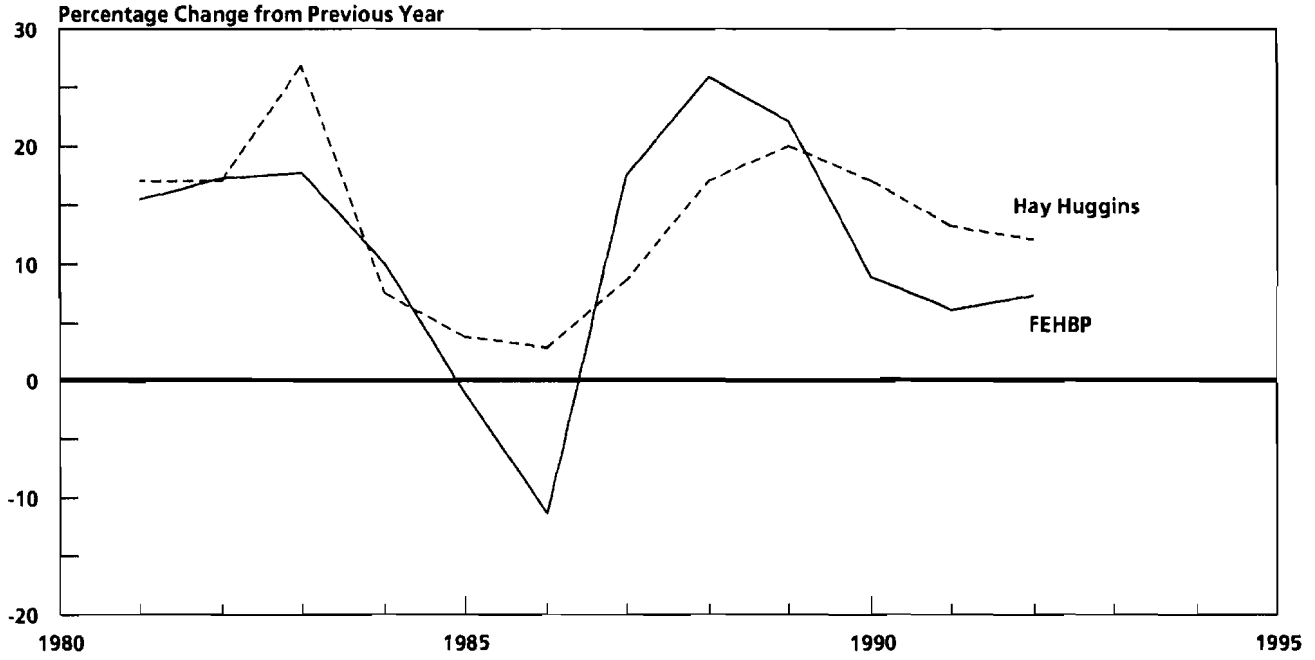
	Selected Calendar Years					
	1980	1983	1987	1990	1992[a]	2000[a]
Billions of Dollars						
Private Insurance						
Benefits	65	97	138	186	217	450
Administration	8	14	17	31	37	77
Total premiums	73	111	155	217	254	527
Medicare						
Benefits	36	58	82	109	133	308
Administration	1	1	2	2	3	4
Total expenditures	38	60	83	111	136	313
Medicaid						
Benefits	25	34	48	71	118	307
Administration	1	2	3	4	5	10
Total expenditures	26	35	51	75	123	317
Administration Rate as Percentage of Benefits Paid						
Private Insurance	12.5	14.5	12.4	16.5	17.2	17.2
Medicare	3.1	2.4	2.1	2.1	2.4	1.4
Medicaid	5.3	5.2	5.3	5.4	3.8	3.4
Average Annual Growth Rate from Previous Year Shown (Percent)						
Private Insurance						
Benefits		14.3	9.1	10.6	8.0	9.6
Administration		20.0	4.9	21.6	10.2	9.5
Increase in premiums		14.9	8.6	11.9	8.3	9.6
Medicare						
Benefits		17.1	8.7	10.1	10.5	11.1
Administration		8.3	4.8	10.0	17.3	4.2
Increase in expenditures		16.9	8.6	10.1	10.6	11.0
Medicaid						
Benefits		10.6	9.5	13.9	28.8	12.6
Administration		9.6	10.1	14.6	8.6	11.1
Increase in expenditures		10.6	9.5	14.0	27.9	12.6

SOURCE: Congressional Budget Office.

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

a. Projected.

Figure 15.
Trends in Private Health Insurance Premiums, 1981-1992



SOURCE: Congressional Research Service.

NOTE: Hay Huggins surveys about 1,000 large and medium-sized employers. FEHBP is the Federal Employees Health Benefits Program, covering about 10 million people.

increases. The cycle has consistently been five or six years long, with large changes in the growth of premium prices from year to year (see Figure 15 for an illustration of the growth in premiums for the Federal Employees Health Benefits plan and the average increase reported in a private survey of large firms).[4]

Out-of-Pocket Payments

Out-of-pocket or direct patient payments have grown much more slowly than national health spending as a whole. The proportion of national health expenditures paid directly by patients has fallen from 45 percent in 1965 (before Medicare and Medicaid) to 20 percent in 1990, and CBO projects that it will fall further to 16 percent in 2000. Direct patient payments will nevertheless rise more rapidly than gross domestic product--from 2.5 percent of GDP in 1990 to 2.9 percent in 2000--since health spending is growing faster than GDP.

Sectors with a high proportion of out-of-pocket payments--drugs, durables, and dental services--have shown slower growth in spending than sectors financed more heavily by private health insurance or government sources. Payments of deductibles and coinsurance by insured patients are considered out-of-pocket payments.

Insurance can allow patients to ignore costs when receiving treatments, but direct patient payments are subject to a stronger cost-benefit calculation. In the estimates of national health expenditures, consumer payments of private health insurance premiums (including

4. Congressional Research Service, *The Federal Employees Health Benefits Program* (May 24, 1989), with updated figures from Congressional Research Service staff.

employee cost sharing of premium payments sponsored by employers) are not classified as direct out-of-pocket payments. Instead, these payments are included in the private health insurance account, and no attempt is made to calculate the burden of private health insurance premiums on consumers. CBO assumes that consumers or workers ultimately bear the entire burden of private health insurance payments regardless of whether employers organize the coverage, or the amount of the apparent cost sharing of the premiums by employees. Thus, even if employers are asking employees to pay a greater share of their health insurance premiums, the estimates of out-of-pocket spending presented here are not affected.

Other Private Payments

Other private payments include hospital nonpatient revenues and philanthropy. As in the past, other private payments are expected to grow at 9.1 percent in the 1990s, maintaining about a 4.5 percent share of national health expenditures.

Public Funding

The government's share of health care payments has been growing faster than the private share. Payments per person participating in government programs are growing at about the same rate as private health insurance benefits per covered person, but the government is becoming the primary payer for a greater proportion of the population (see Table 13 for a breakdown of the sources of funds for national health expenditures with emphasis on public funding).

Federal

The federal share of national expenditure on health care consists of the Medicare and Medicaid programs and smaller programs supporting public health, research, and the needs of particular groups of people, such as veterans.[5] Total federal health payments are expected to rise from 29 percent of national health spending in 1990 to 34 percent in 2000.

Medicare. CBO projects that Medicare spending will grow at about 11 percent annually in the projection period, raising its share of national health expenditure from 17 percent in 1990 to 19 percent in 2000.

The federal Medicare program for the elderly has two parts: Hospital Insurance (HI, or Part A), which covers inpatient hospital care, and Supplementary Medical Insurance (SMI, or Part B), which covers mostly physician and outpatient hospital services. Part A is largely funded by a payroll tax. About 75 percent of Part B is funded from general revenues with the other 25 percent from premiums paid by beneficiaries.

Medicare Part A spending for inpatient hospital care has grown relatively slowly since the mid-1980s when the prospective payment system (PPS) was put into effect. This system pays hospitals on the basis of a fixed fee according to the broad diagnosis of the patient, or diagnosis-related group (DRG). Peer review organizations were created to help prevent inappropriate admissions of Medicare patients to hospitals. The PPS discourages hospitals from providing longer-term or maintenance care of the elderly in an inpatient setting, and admissions and lengths of stay for Medicare beneficiaries have fallen considerably since the system was started.

CBO projects that Medicare Part A inpatient hospital payments will resume growing at 9 percent to 10 percent a year in the 1990s,

5. Payments made by government agencies for employee health insurance are included under private health insurance payments. Government payments exclude nutrition, sanitation, and antipollution programs as these are not directly related to the provision of medical care or treatment of disease. Expenditures assisting the training of health professionals are also excluded from national health expenditures.

Table 13.
Projections of National Health Expenditures in the Public Sector to 2000, by Source of Funds

Source of Funds	Selected Calendar Years					
	1965	1983	1987	1990	1992[a]	2000[a]
	Billions of Dollars					
Private	31	211	286	384	441	869
Federal						
Medicare	0	60	83	111	136	313
Medicaid	0	19	28	43	70	181
Other	5	24	33	41	46	73
Subtotal	5	103	144	195	253	566
State and Local						
Medicaid	0	16	23	32	53	136
Other	5	28	42	55	62	108
Subtotal	5	44	64	87	115	244
Total	42	359	494	666	808	1,679
	Percent Distribution					
Private	75.3	58.8	57.8	57.6	54.5	51.7
Federal						
Medicare	0.0	16.7	16.9	16.7	16.8	18.6
Medicaid	0.0	5.4	5.6	6.4	8.7	10.8
Other	11.6	6.7	6.6	6.2	5.7	4.3
Subtotal	11.6	28.8	29.1	29.3	31.3	33.7
State and Local						
Medicaid	0.0	4.5	4.6	4.9	6.5	8.1
Other	13.2	7.9	8.4	8.2	7.7	6.4
Subtotal	13.2	12.4	13.0	13.1	14.2	14.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Average Annual Growth Rate from Previous Year Shown (Percent)					
Private		11.2	7.9	10.3	7.2	8.9
Federal						
Medicare		n.a.	8.6	10.1	10.6	11.0
Medicaid		n.a.	9.8	15.4	27.9	12.6
Other		9.3	8.0	8.1	6.1	5.7
All federal		18.6	8.7	10.7	13.7	10.6
State and Local						
Medicaid		n.a.	9.2	12.2	27.9	12.6
Other		9.6	10.0	9.8	6.2	7.1
All state and local		12.3	9.7	10.7	14.7	9.9
National Health Expenditures		12.7	8.3	10.5	10.1	9.6
Memorandum:						
Average Annual Growth of GDP (Percent)		9.2	7.5	6.7	3.7	5.8

SOURCE: Congressional Budget Office.

NOTES: Details may not add to totals because of rounding.

n.a. = not applicable; GDP = gross domestic product.

a. Projected.

after a period of slower growth in the late 1980s. Inpatient admissions per enrollee are expected to resume growing, and DRG payment rates are projected to increase more quickly than in the recent past. Inpatient admissions of people over age 65 have fallen from 404 per thousand in 1983 to 350 per thousand in 1991, but CBO projects that admissions of elderly patients will grow to 374 per thousand by 2000. Since 1986, Medicare DRG payment rates have been increased more slowly than a price index (called the hospital "market basket" or "input price index") that is used to track hospital operating costs. DRG rate increases were held below this price index during portions of the 1980s, but beginning in 1995, according to current law, hospitals are scheduled to begin receiving DRG rate increases based on the full price index, which will add to Medicare costs.

Medicare Part B has paid for physician services in the past, based on the reasonable and customary fees for the services provided in the physician's locality. This system has been criticized for making inequitable allocations of payments between primary and specialty services, and by region.[6] For example, Medicare paid for certain intensive technological procedures and surgeries much more generously than it did for consultative visits.

Medicare began changing its method of paying physicians in 1992. The new system is based on a fee schedule with set payments for services, adjusted for differences in practice costs in different parts of the country. The fees are based on an outside determination of the relative values of each service. A feature of the new system is that the fees are expected to grow according to a price index; if overall payments grow more rapidly than a predetermined target rate in a year, the growth of fees for succeeding years may be reduced. Although the Congressional Budget Office expects some redistribution of payments among physician specialties and regions of the country, CBO projects only small reductions in total payments to physicians from the new system. Part B payments for physicians, which total about two-thirds of Part B spending, are projected to grow at about 12 percent a year during the 1990s.

The second largest component of Medicare Part B is outpatient hospital payments, which account for about 20 percent of Part B spending. CBO projects that outpatient hospital payments on behalf of Medicare beneficiaries will continue growing about 18 percent a year in the projection period. Overall Part B expenditure stabilizes at a 13 percent a year rate of growth in the 1993-2000 period.

Medicaid. Medicaid finances health care for some of the nation's poor and is administered by the states under broad federal guidelines. The states, which pay 43 percent of total Medicaid costs, can exercise considerable discretion in deciding whom and what to cover, and eligibility rules and coverage vary widely. Federal Medicaid spending has grown very rapidly in recent years--21 percent in 1990, 29 percent in 1991, and an estimated 26 percent in 1992. CBO projects that Medicaid growth will slow to about 12 percent a year by 2000, but Medicaid's share of national health expenditures will rise from 11 percent in 1990 to more than 19 percent in 2000.

Population and cost pressures, legislated extensions of eligibility, legal decisions requiring increased payments, and the fiscal pressures that push state and local governments to get the most funds from the federal government all drive rapid growth in Medicaid spending. In the short term, the extraordinary growth between 1990 and 1993 stems partly from so-called disproportionate share payments and tax and donation programs. Disproportionate share payments are supplementary amounts allotted to hospitals that serve unusually large numbers of indigent and uninsured patients. Legislation enacted in 1990 extended these payments and gave states great latitude to designate hospitals that qualify and placed some limits on total payments. Many states, too, have

6. See, for example, Physician Payment Review Commission, *Annual Report to Congress* (1991), p. 1.

discovered a mini-bonanza in tax and donation programs since 1990. Such programs involve raising Medicaid reimbursements and simultaneously levying special taxes on providers. States have used such arrangements as a tool to obtain the highest possible federal matching payments. These complicated tactics were curtailed by Public Law 102-345, enacted in 1991, which requires that any such levies be broad-based and caps the proportion of state Medicaid spending that states can finance.

But even after these extraordinary growth rates taper off, longer-run pressures persist. Recent expansions in eligibility, particularly for poor children, will continue to raise the number of people who are eligible. States may keep shifting programs that they formerly funded for mental health, testing, and so forth into Medicaid to gain the federal match. Many states now run outreach programs to alert potential beneficiaries to their eligibility. The impacts of provisions for nursing home reform (enacted in 1987 but only recently effective) remain uncertain. And finally, a rash of lawsuits has resulted in sharply higher reimbursements under a 1980 amendment requiring that Medicaid payments to providers be "reasonable and adequate." Pressures for increased Medicaid payments will continue to inflate the costs of the program.

Other Federal Funding. The Department of Defense, the Department of Veterans Affairs (VA), and the National Institutes of Health spend most of the rest of federal health funds, which CBO expects will grow at about the same rate as GDP in the projection period, from $41 billion in 1990 to $73 billion in 2000. CBO projects that slow growth in VA hospital spending and declines in health insurance enrollment through the Department of Defense will help restrain the total cost.

State and Local Government Financing

CBO projects that total state and local funding for health will grow at double-digit rates through the mid-1990s, before tapering off to about 9 percent a year in 2000. These growth rates are considerably higher than the growth expected in state and local revenues outside of federal Medicaid payments. Under current policies, therefore, unless taxes are increased, states are likely to have very little room to expand nonhealth spending.

Medicaid. CBO assumes that Medicaid costs at the state and local level will grow at the same rate as federal payments, and expects that the current ratio of state and local Medicaid funding to federal--43 percent to 57 percent--will remain constant. States' efforts to increase the effective federal matching rate through tax and donation schemes are not expected to result in any further increase in the federal share.

Other State and Local Health Payments. Other expenditures by state and local governments for health care include workers' compensation, direct support of public hospitals and school health programs, and public health efforts. CBO projects that state and local spending other than Medicaid will grow less rapidly than national health expenditures as a whole. The other state and local share of national health expenditures thus declines from 8.2 percent in 1990 to 6.4 percent in 2000. Despite the declining share of total spending on health, other state and local spending is expected to grow more rapidly than GDP, averaging 7 percent growth a year in the 1990s compared with 5.4 percent average annual growth in GDP.

Appendixes

Appendix A

HCFA National Health Expenditure Projections Methodology

The projections in this study use the Congressional Budget Office's (CBO's) economic and technical estimating assumptions and the Health Care Financing Administration's (HCFA's) method of projecting--a process of trend analysis using the accounting framework for national health expenditures.[1] This actuarial method employs a series of identities that divide spending for a particular service into the factors accounting for its growth, and by its sources of funds. Price, demographic, and quantity factors account for growth in the demand for health funding, while government financing, private health insurance benefits, and direct out-of-pocket payments by patients supply most of the funds.

HCFA refers to health service quantities in terms of the use of services and the intensity of each service. Use reflects the measured unit number of basic services provided: for example, the number of inpatient days, outpatient visits, or visits to physician's offices. Intensity is unmeasured quantity change--the expenditure, adjusted for price, per unit of use.

The HCFA Seven-Factor Model for Personal Health Spending

HCFA sorts the growth of a particular type of health spending into seven component factors for analysis and projection. They are general price inflation measured by the gross domestic product (GDP) implicit deflator; specific medical price inflation in relation to general inflation; overall population growth; change in use per capita as a result of the changing age and sex composition of the population; change in intensity of service due to the impact of age and sex; change in use per capita exclusive of age and sex; and change in intensity of service exclusive of age and sex.

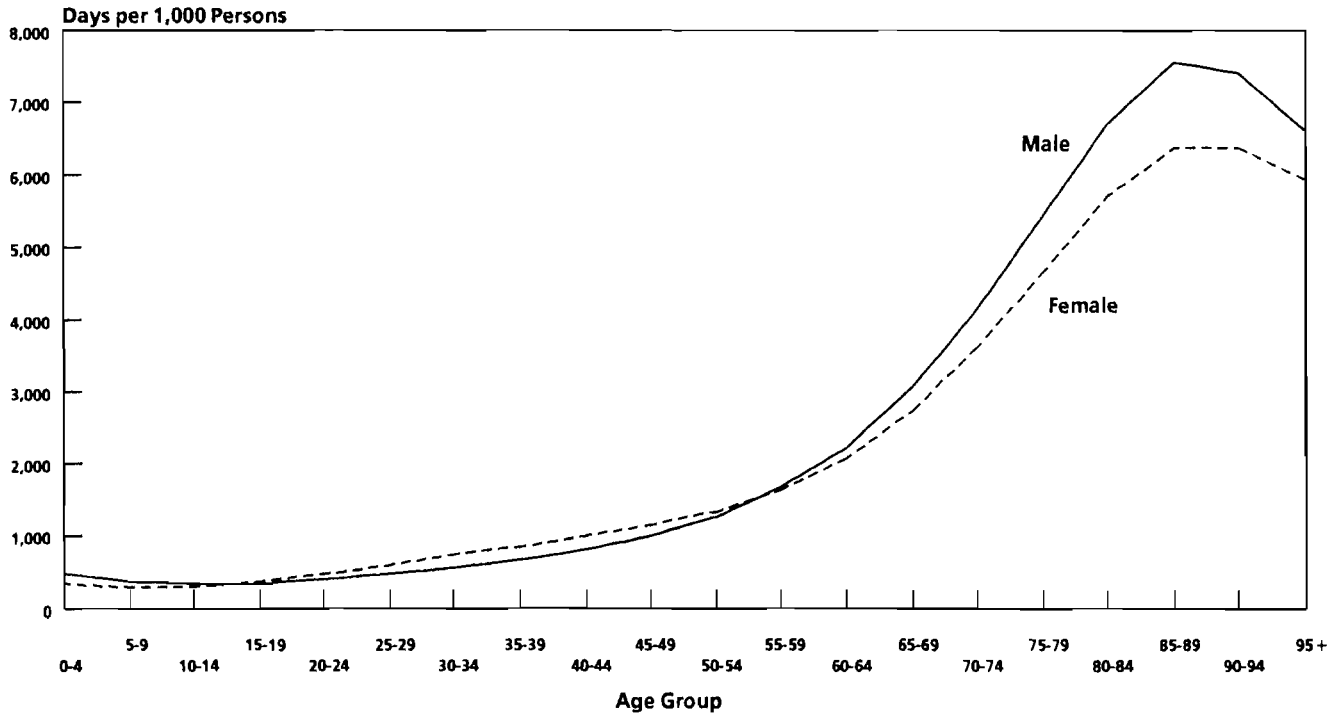
Two factors pertain to the amount that price change contributes to the growth in expenditures. The first factor is the rate of growth of the general price level in the economy. HCFA uses the GDP deflator as a proxy for the general inflation rate. The second factor reflects the increase in the relative price of individual types of health services. Proxies for medical price inflation are based on input price indexes for hospitals, nursing homes, and home health care and consumer price indexes for professional care and health goods. The medical price proxy divided by the GDP deflator yields a relative price measure.[2]

Three of the seven factors express the influence of population growth and changes in the age and sex composition of the population. Trends in the size and composition of the population are well understood and widely accepted explanations of variation in health spending.

1. For HCFA's national health expenditure projections, see Sally T. Sonnefeld and others, "Projections of Health Care Spending Through the Year 2000," *Health Care Financing Review* (Fall 1991).

2. The GDP implicit price deflator is not a measure of pure price change. The Congressional Budget Office generally uses the "core" consumer price index to measure general inflation or the cost of living. CBO uses the GDP implicit deflator here to facilitate comparisons with the HCFA projections, and because the differences between the price measures are not important for this application.

Figure A-1.
Number of Hospital Days, by Age Group and Sex



SOURCE: Health Care Financing Administration.

NOTE: Hospital days exclude maternity and newborn use.

One demographic factor used to explain growth in expenditures is the growth rate of the total population. The HCFA method also employs two other factors that predict the spending impacts of changes in the demographic (age and sex) composition. The age and sex factor for use projects additional use per person as the age and sex structure of the population changes; the age and sex factor for intensity projects changes in real cost per unit of use from the changing population structure.

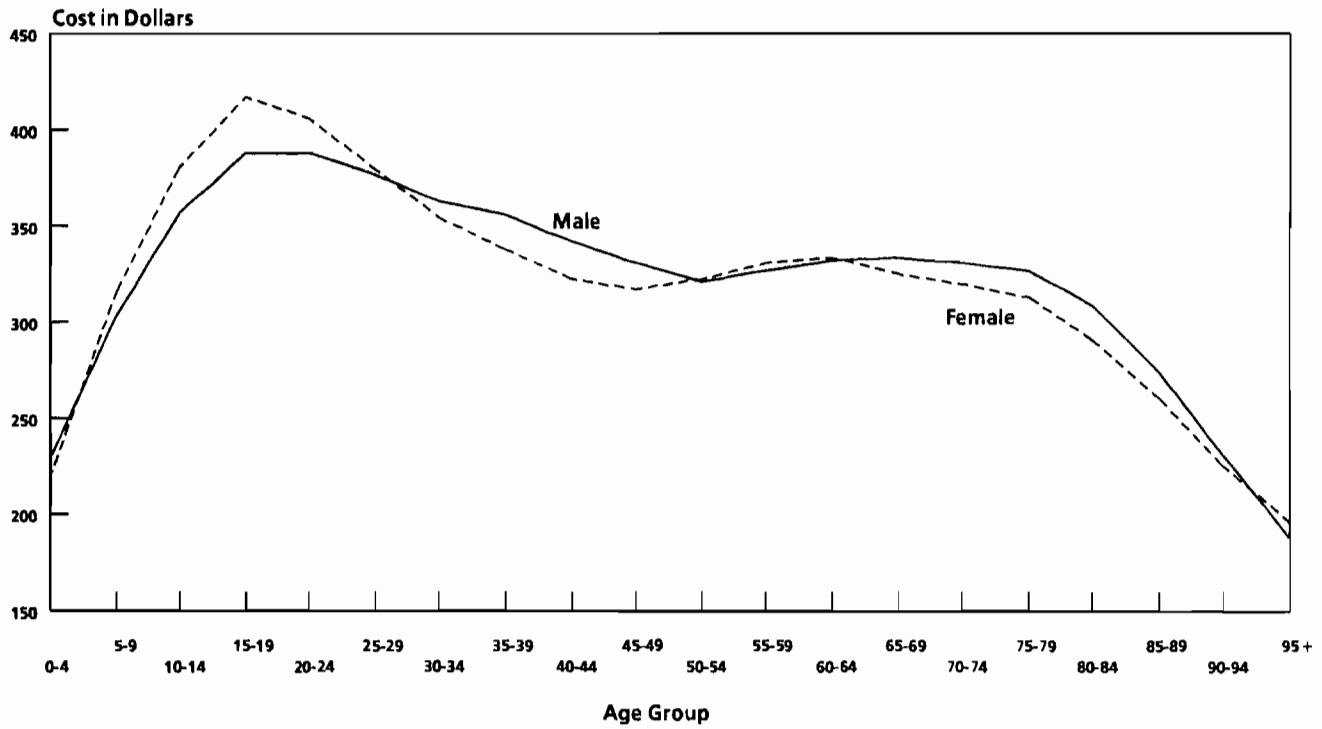
These age and sex factors are based on distributions of use per person and cost per unit of use by sex and five-year age cohort. Population projections by age and sex from the Social Security Administration are applied to these distributions to form indexes that predict the impact on use or intensity of expected changes in the age and sex composition of population. Figures A-1 and A-2 show inpatient hospital days per person (the distribution used to calculate the age and sex index for inpatient hospital use), and inpatient hospital cost per day by age and sex (the distribution used to calculate the age and sex index for inpatient hospital intensity). Hospital days per person increase rapidly for older people, but cost per day actually decreases somewhat. Thus, as the population ages, the age and sex index for hospital days per person predicts increased use, while the index for hospital cost per day predicts slightly reduced intensity.[3]

A sixth factor determining the level of overall health expenditures is per capita use, ex-

3. The surveys upon which the age and sex indexes are based are quite old (1977 National Medical Consumer Expenditure Survey, 1981 National Hospital Discharge Survey, and so forth). CBO is currently studying distributions from the newly available 1987 National Medical Expenditure Survey to check for possible changes in the distributions, but expects that the use of newer distributions in future projections will change the results

(Continued)

Figure A-2.
Hospital Cost per Day, by Age Group and Sex



SOURCE: Health Care Financing Administration.

clusive of that which could be expected from changes in demographic composition. The specific measure varies by type of service. For example, inpatient days per capita, adjusted for the expected impact of age and sex change, are used to explain and project hospital inpatient expenditures.

An important part of the experience of increased health expenditures remains unexplained by the factors described above. This residual factor is called intensity per unit of service, exclusive of age and sex effects. This residual contains any measurement or other errors in the other six factors, as well as the effects of items not identified (or misidentified) in the seven-factor scheme.

Economic and Demographic Assumptions

In CBO's projections, the GDP deflator is taken directly from the CBO baseline economic assumptions for January 1992. Total population growth and population composition change are based on Social Security Administration population projections from the 1991 Trustees' Report. Projections of relative health prices, and use and intensity exclusive of age and sex, are computed on the basis of recent trends and judgments about the interactions between factors for various types of service.

3. Continued

only slightly. For more information about the HCFA age and sex indexes, see Daniel R. Waldo and others, "Health Expenditures by Age Group, 1977-1987," *Health Care Financing Review* (Summer 1989); and Ross H. Arnett III and others, "Projections of Health Care Spending to 1990," *Health Care Financing Review* (Spring 1986).

Reconciliation with Sources of Funds and Other Data

Projections of some services are reconciled with others that may be clinical complements or substitutes. Projections of professional services are checked against forecasts of practitioner supply. For physicians, projections of expenditure are checked against data on average physician incomes from the American Medical Association.

Overall demands for services from the seven-factor model must also be reconciled with expectations about sources of funding. Projections of demand for spending on a service from the seven-factor model must be equilibrated to projections of the supply of funds for that service. The sum of projected payments by a particular payer, such as Medicare, for all types of spending must correspond with overall payment and policy trends for that payer.

Medicare and Medicaid projections are consistent with the CBO baseline from January 1992. Other federal hospital payments, mostly by the Department of Veterans Affairs and the Department of Defense, also grow in line with CBO baseline assumptions (nonhospital spending amounts are based on trends). Non-Medicaid state and local government payments are also based primarily on recent trends.

Private payments are split into private health insurance and out-of-pocket spending based on judgments about trends in insurance coverage and incomes. Out-of-pocket payments are implicitly restricted by the forecast of income growth in the economy as a whole.

Other Types of National Health Spending

Projections for research and public health are related to CBO baselines for federal government research and public health administration and to trends in government funding of these services. Public program administration is based on CBO's baseline projections of Medicare and Medicaid administrative costs, and the administrative cost of private health insurance--the overhead costs and net underwriting profits of insurance companies--is projected using long-term historical averages.[4] Construction spending is based on the projections of hospital and nursing home use, which translates to demand for construction of additional capacity.

Comparison with HCFA's Projections

CBO's projections of national health expenditures are higher than HCFA's baseline; CBO projects that health expenditures will reach 18.0 percent of GDP in 2000, HCFA projects 16.4 percent.[5] CBO's projections are based on more recent estimates of health expenditures, economic forecasts, and government program assumptions. HCFA expects to publish complete updated projections in an upcoming issue of the *Health Care Financing Review*.

4. The net cost of private health insurance (premiums collected less benefits paid) is smoothed in the projections to expected trend rates. This approach allows examination of private health insurance premiums without the distortions caused by the volatile underwriting or profit cycle.

5. HCFA's ratio is to gross national product (GNP) based on the economic assumptions the administration's analysts used. Recalculation of HCFA's ratio by constructing an appropriate GDP measure would yield a similar, but perhaps not identical, result. GDP and GNP are almost identical in CBO's projections.

Appendix B

Projecting Employer-Paid Health Insurance Premiums: Their Impact on Wages and Tax Revenues

Projections of national health expenditures feed back into economic and budgetary forecasts through their impact on wages and tax revenues, in addition to any direct impact of government health spending on the economy and the budget. As health spending rises, increases in employers' contributions to private health insurance premiums are largely paid for out of wages. As a result, wages are lower than they would be otherwise. Because premiums for employer-sponsored insurance are not taxable, increases in the premiums paid by employers tend to reduce taxable income and revenues. Increases in health care costs could further increase the federal deficit through this channel, as well as by increasing federal spending on health entitlements.

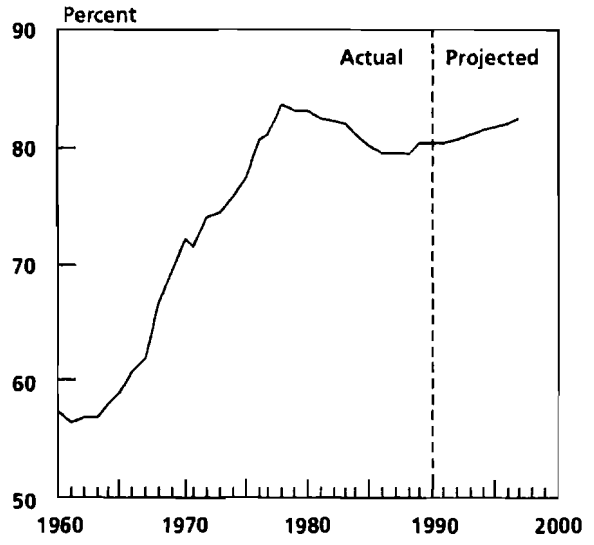
This appendix considers only the effect of changes in health costs on health insurance premiums paid by employers, on wages, and on tax revenues.

Forecasting Employer-Paid Premiums

Employer-paid premiums for private health insurance enter the national income and product accounts (NIPAs) as a component of a category called other labor income, which is part of total employee compensation. This item includes payments made on behalf of retirees as well as the active labor force. The premiums paid by employers are also incorporated in the total costs of health care discussed in this study. They are part of the total of private health insurance premiums, along with the component of premiums paid by employees and the total of individual insurance policies. The Health Care Financing Administration's framework for the national health accounts does not, however, distinguish among insurance premiums paid by employers, employees, or private individuals on their own behalf.

Some extra steps are required to arrive at the amount of employer-paid premiums from

Figure B-1.
Ratio of Employer-Paid Premiums to Total Private Health Insurance



SOURCE: Congressional Budget Office.

Table B-1.
Employer-Paid Health Insurance Premiums and Wages and Salaries, 1991-1997, Showing Hypothetical Gains from Restraint in the Growth of Health Premiums (In billions of dollars)

	1991	1992	1993	1994	1995	1996	1997
Employer-Paid Health Insurance Premiums	189	205	225	247	272	300	330
Wages and Salaries	2,808	2,914	3,093	3,280	3,472	3,664	3,859
Wages and Salaries If Employer-Paid Premiums Hold Constant at 1991 Share of Compensation	2,808	2,914	3,108	3,305	3,506	3,714	3,924
Federal Revenue Gain	0	3	4	8	11	16	21

SOURCE: Congressional Budget Office.

projections for the total amount of private health insurance. The future path of health insurance premiums paid by employers will depend on such issues as how the burden of total premiums will be shared between employers and employees, the treatment of commitments to retirees, and the extent to which insurance coverage in the form of individual policies will decline.

CBO makes its projection of the employers' share of premiums by assuming that recent trends will continue in the relationship between the measure of private insurance included in the health accounts and the measure of employer-paid premiums in the national income accounts. The ratio of the private health insurance component of other labor income (from the NIPA accounts) to total private health insurance premiums (from the national health accounts) is assumed to follow the trend of the late 1980s, when the ratio of employer-paid health premiums to total private health insurance was rising at around 0.4 percent per year (see Figure B-1). The resulting projections of the ratio fall well within the range of past experience.

As illustrated in Table B-1, CBO's estimates of the employer-paid component of health insurance are consistent with a decline in the number and total amount of individual policies, but also with some rise in the employee's share of employer-sponsored premiums.

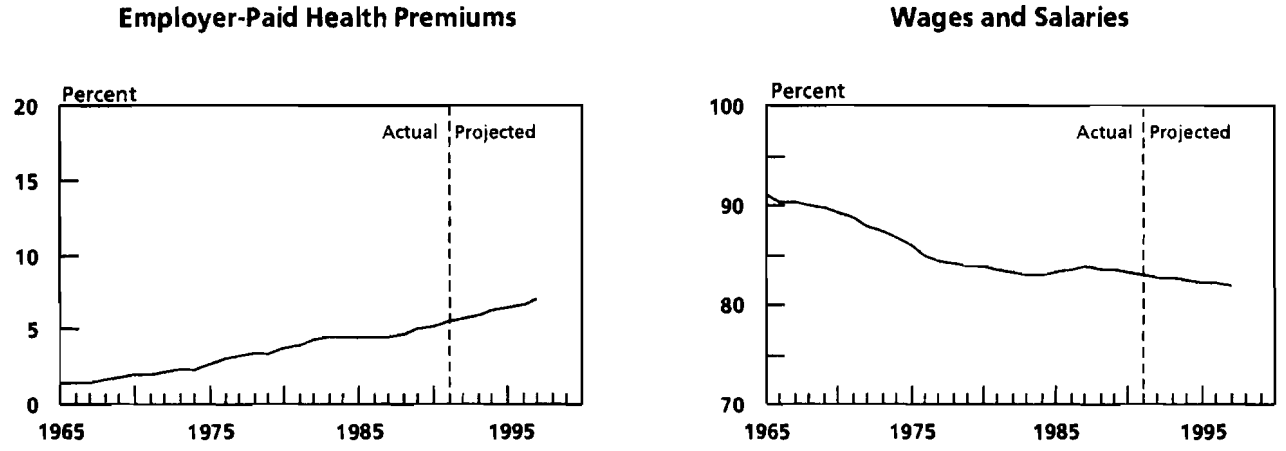
The Impact on Wages and Salaries

Health insurance premiums paid by employers will grow, but largely at the expense of employees' wages and salaries. Some decline in other fringe benefits will probably also occur, but the change will be much smaller. This account of the impact on wages and salaries draws on the analysis of employment-based health insurance detailed in the companion CBO study, *Economic Implications of Rising Health Care Costs.*[1]

Employers' payments to health premiums have consumed, and are expected to take, an increasing proportion of total compensation. The share of wages and salaries is projected to fall over time (see Figure B-2 and Table B-1 for the projected path of wages and salaries).

1. Congressional Budget Office, *Economic Implications of Rising Health Care Costs* (October 1992).

Figure B-2.
Employer-Paid Health Insurance Premiums and Wages and Salaries as Shares of Total Compensation



SOURCE: Congressional Budget Office.

If the share of total compensation accounted for by health premiums paid by employers did not rise as predicted in this study, but were to remain constant, then wages and salaries would be about 3 percent higher in 1997.

CBO assumes that in the long run real total compensation increases in line with productivity growth, and that total compensation is not affected by its division into parts. Hence, increases in employer-paid premiums must come at the expense either of wages and salaries or of other fringe benefits, such as pensions. Empirical studies and the economic theory of consumer behavior offer little guidance, however, on the subsequent question of how the incidence of increased health premiums is likely to fall between wages and salaries and other fringe benefits.

CBO currently assumes that the projected growth in employer-paid premiums will result in an approximately proportionate squeeze on wages and salaries and in the nonwage/nonhealth component of total compensation. Nontaxable fringe benefits other than health insurance constitute only about 3 percent of total compensation. Hence, if all nonhealth components of compensation were reduced by the same proportion, the vast majority (96 percent) of the increase in employer contributions would still come out of the largest component, wages and salaries. Conversely, if health premiums were to grow more slowly, most of the gains would accrue to wages and salaries (see Table B-1).

The Impact on Tax Revenues

A change in wages and salaries amounts to a change in taxable income, and CBO uses an average marginal tax rate of 32 percent in 1992 (rising to 32.6 percent in 1997) to derive the change in federal tax revenues. This reflects both the loss of individual income tax revenues and payroll taxes. If health premiums paid by employers were held to a constant share of total compensation after 1991, the gain in federal revenue would be $3 billion in 1992 and would rise to $21 billion in 1997 (see Table B-1).

Tax expenditures are another measure of the impact of health costs on tax revenues. As

explained in Chapter 1, certain kinds of health expenditures are exempt from tax, or can be deducted from taxable income. Historical estimates of the principal federal and state tax expenditures and projections of future tax expenditures indicate the tax revenues that would otherwise be collected if these tax exemptions were not available (see Table B-2). The revenue gains from eliminating all health-related tax expenditures would prob-

Table B-2.
Estimated Tax Expenditures Related to Health Care, Calendar Years 1967-2000 (In billions of dollars)

				Principal Federal Tax Expenditures				
	Total	Federal	State	Exemption of Employer-Paid Insurance Premiums	Deductibility of Medical Expenses	Untaxed Medicare (H.I.) Benefits	Deductibility of Charitable Contributions	Interest on State and Local Bonds for Nonprofit Hospitals
1967	3.1	2.9	0.2	1.1	1.5	0.3	n.a.	n.a.
1968	3.6	3.4	0.3	1.4	1.6	0.4	n.a.	n.a.
1969	3.9	3.6	0.3	1.5	1.7	0.4	n.a.	n.a.
1970	4.0	3.6	0.4	1.5	1.7	0.4	n.a.	n.a.
1971	4.8	4.4	0.4	2.0	1.9	0.5	n.a.	n.a.
1972	5.5	5.0	0.5	2.5	1.9	0.6	n.a.	n.a.
1973	6.3	5.8	0.6	3.0	2.1	0.7	n.a.	n.a.
1974	6.6	6.0	0.7	3.0	2.2	0.8	n.a.	n.a.
1975	8.7	8.0	0.8	3.5	2.3	1.0	1.0	n.a.
1976	10.2	9.3	1.0	4.8	2.3	1.3	1.0	n.a.
1977	11.9	10.7	1.2	5.8	2.3	1.5	1.0	n.a.
1978	15.3	13.9	1.4	8.1	2.9	1.8	1.1	n.a.
1079	19.7	18.1	1.6	11.5	3.2	2.1	1.3	n.a.
1980	21.6	19.7	1.9	12.4	3.2	2.6	1.4	n.a.
1981	25.8	23.5	2.3	14.8	3.8	3.1	1.6	0.3
1982	27.8	25.1	2.7	16.1	3.9	3.5	1.3	0.4
1983	27.9	24.9	3.0	16.0	3.3	3.9	1.2	0.6
1984	32.7	29.4	3.4	19.8	3.3	4.3	1.5	0.6
1985	35.9	32.2	3.7	21.7	3.6	4.4	1.7	0.7
1986	39.0	35.0	4.0	23.9	3.6	4.7	2.0	1.0
1987	39.3	35.1	4.2	24.5	3.2	4.3	1.9	1.2
1988	38.5	33.6	5.0	25.1	2.2	3.8	1.3	1.1
1989	44.3	38.7	5.6	29.0	2.6	4.7	1.4	1.0
1990	50.4	44.2	6.3	32.9	2.8	5.8	1.5	1.1
1991	52.2	45.4	6.8	33.9	2.9	5.9	1.5	1.1
1992	60.8	53.3	7.4	39.8	2.9	7.3	2.0	1.3
1993	71.1	63.0	8.2	47.9	3.2	7.8	2.7	1.4
1994	78.2	69.2	9.0	52.6	3.7	8.6	2.7	1.5
1995	86.8	76.8	9.9	58.4	4.2	9.6	2.9	1.8
1996	96.0	85.0	11.0	64.6	4.8	10.7	3.0	2.0
1997	106.3	94.2	12.1	71.4	5.5	11.9	3.3	2.2
1998	117.6	104.3	13.4	78.8	6.3	13.4	3.4	2.4
1999	130.1	115.4	14.7	87.1	7.2	14.9	3.6	2.6
2000	144.0	127.8	16.2	96.3	8.2	16.6	3.8	2.9

SOURCES: Joint Committee on Taxation; Office of Management and Budget; and Congressional Budget Office.

NOTE: The Congressional Budget Office uses tax expenditure estimates based on projections of the Joint Committee on Taxation (JCT) published annually in "Tax Expenditure Estimates By Budget Function." CBO converts these to a calendar-year basis and extrapolates them through 2000 based on CBO's projections of health spending. Until the mid-1980s, JCT estimates were identical to those of the Office of Management and Budget (OMB) as published in *The Budget of the United States*. The OMB estimates provide an additional year of revision and therefore are used for historical data where appropriate. The sum of the estimates reported here may differ from the actual revenue gain by eliminating all the individual tax expenditures because of interaction effects.

n.a. = not applicable; HI = Hospital Insurance (Part A of Medicare).

ably differ slightly from the sum of the estimates of individual revenue gains.

The base for Social Security payroll taxes excludes employer-paid health insurance premiums. Conceptually, this could be taken as part of the tax subsidy to health insurance and in order of magnitude would rank second only to the income tax exemption for employer-paid insurance. CBO has considered the inclusion of such premiums in the payroll tax base as one of the options in its studies of deficit reduction.[2] Because lower contributions reduce enrollees' entitlements to benefits from the Social Security system, however, estimates of the Social Security payroll tax expenditure are not reckoned into the estimates of tax expenditures prepared by the Joint Committee on Taxation (see Table B-2).

2. See Congressional Budget Office, *Reducing the Deficit: Spending and Revenue Options* (February 1992).

RELATED CBO STUDIES

Economic Implications of Rising Health Care Costs, October 1992.

Rural Hospitals and Medicare's Prospective Payment System, January 1992.

Universal Health Insurance Coverage Using Medicare's Payment Rates, December 1991.

Restructuring Health Insurance for Medicare Enrollees, August 1991.

Selected Options for Expanding Health Insurance Coverage, July 1991.

Policy Choices for Long-Term Care, June 1991.

Rising Health Care Costs: Causes, Implications, and Strategies, April 1991.

Medicare's Disproportionate Share Adjustment for Hospitals, May 1990

Physician Payment Reform Under Medicare, April 1990.

Questions about these studies should be directed to CBO's Human Resources and Community Development Division at (202) 226-2653. The Office of Intergovernmental Relations is CBO's Congressional liaison office and can be reached at 226-2600. Copies of the studies may be obtained by calling CBO's Publications Office at 226-2809.

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