

CHAPTER

1

**Context for Medicare
payment policy**

Context for Medicare payment policy

Chapter summary

Medicare and other purchasers of health care in our nation face enormous challenges for the future. As health care costs increase for individuals and private and public payers, quality frequently falls short of patients' needs. The Commission has recommended a number of measures to increase the accountability and value of care, such as having pay for performance, measuring resource use, and comparing the effectiveness of medical treatments. The increasing spending and variation in the use and quality of care in the current system suggest that opportunities exist for reducing waste and improving quality for beneficiaries, but realizing them requires addressing the myriad of factors that drive the current health care system.

As is true for other purchasers of health care, Medicare's spending has been growing much faster than the economy. Our historically substantial national income, the availability of newer medical technologies, and the cost-increasing effects of health insurance are thought to account for much of this long-term growth, and some of those forces will likely push future spending higher. Medicare will

In this chapter

- Trends in Medicare and the U.S. health care system
- Meeting the challenges of Medicare reform

have the additional challenge of higher enrollment associated with retiring baby boomers, which will affect program spending as well as the demand for federal resources for other programs that benefit the elderly, such as Social Security and Medicaid. These factors will lead Medicare to require an unprecedented share of our gross domestic product.

Because of these forces, the Medicare trustees and others warn of a serious mismatch between the benefits and payments the program currently provides and the financial resources available for the future. If Medicare benefits and payment systems remain as they are today, the trustees note that over time the program will require major new sources of financing. Projected levels of spending could also impose a significant financial liability on taxpayers. Medicare beneficiaries, who must pay premiums and cost sharing, will also be affected by rising expenditures. Analysts across the political spectrum have raised concerns that the current programs may become too heavy a fiscal burden and squeeze funding for other federal priorities (Aaron et al. 2008, Antos et al. 2008). No single solution is available to tackle these challenges. Under any scenario, however, a solution for Medicare may require a sizable slowdown in the growth rate of spending on health care and may also require a substantial increase in taxes as a share of our nation's economy (CBO 2005).

Addressing issues of this magnitude will require an extended effort, and analysts have urged policymakers to take immediate action to address Medicare's finances (Boards of Trustees 2008). They argue that major changes to these programs should begin soon to allow beneficiaries, providers, and taxpayers time to adapt to major alterations. For example, expenditures for the Hospital Insurance trust fund, which funds inpatient stays and other post-acute care, exceeded its annual income from taxes in 2008. Part A has remained solvent due to existing trust fund balances and interest income. Delaying actions would constrain the options for addressing Medicare's problems. Many changes, such as reconfiguring the delivery

system to slow cost growth and increase quality, will take time to implement. As cost inflation continues to outstrip revenue and the retirement of the baby boom generation draws closer, the time for phasing in major changes is growing shorter. ■

Introduction

Medicare fills a critical role in our society—ensuring that the elderly and disabled have access to medically necessary care and that they have some financial protection against health costs. Medicare is credited with doubling the share of seniors who have health insurance and reducing the out-of-pocket burden beneficiaries faced before its enactment (Moon 2000). By providing a stable source of funding for a population with significant health care needs, the program plays a major role in the U.S. health care system. For the sake of its beneficiaries, we must preserve the beneficial aspects of the Medicare program. However, Medicare's costs will grow substantially in future years (Figure 1-1), and many analysts have noted that Medicare lags in its efficiency and the quality of care it offers (Fisher et al. 2003a, Fisher et al. 2003b).

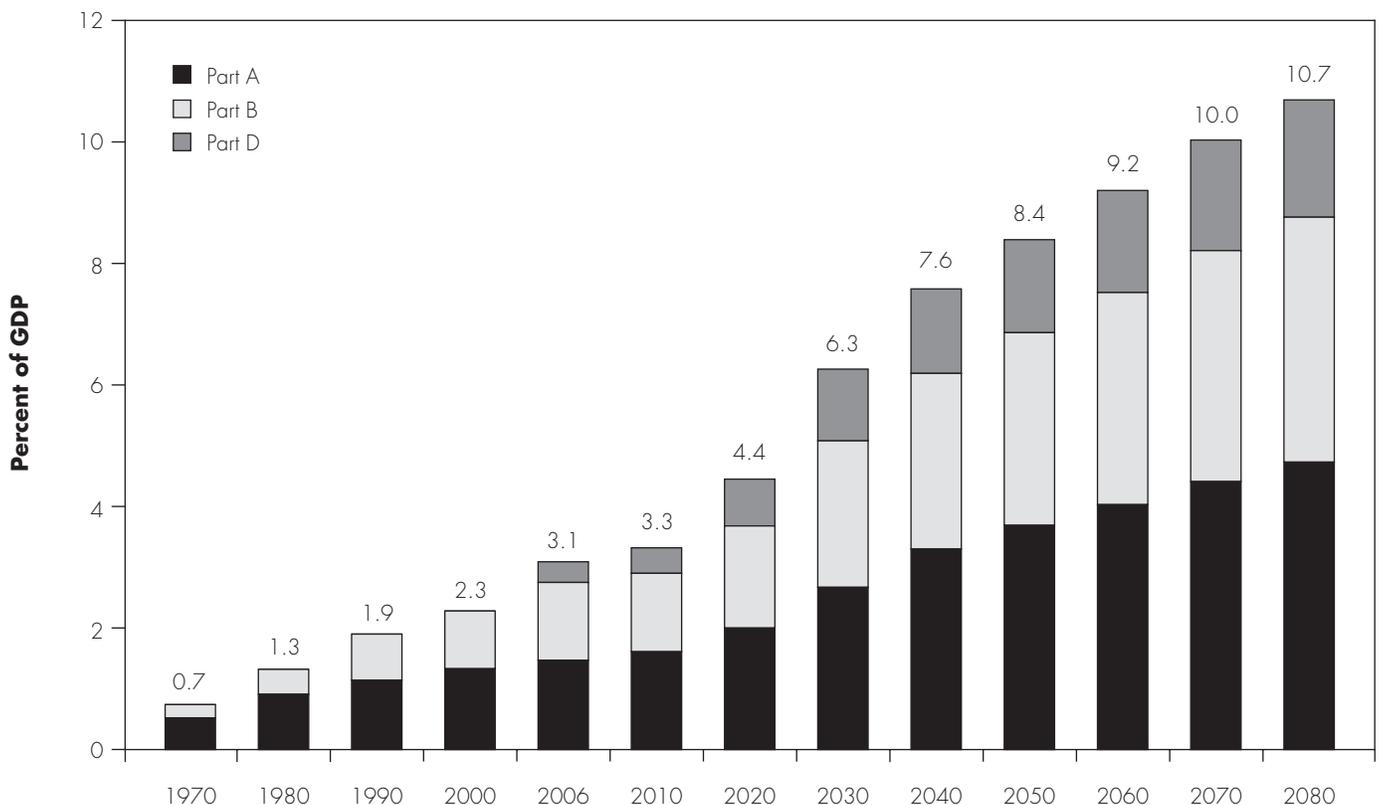
Eligibility and financing for Medicare

Medicare shifts much of the financial liability for health care spending from the elderly to taxpayers through a hybrid system with four major parts—A, B, C, and D—that have different eligibility requirements and different financing mechanisms.¹

Part A, the Hospital Insurance (HI) program, covers stays in hospitals and skilled nursing facilities, hospice care, and some home health care. Policymakers designed Part A as a compulsory social insurance program tied to employment covered by Social Security and financed through a dedicated 2.9 percent payroll tax. Part A essentially finances health care expenses through payroll taxes on current workers, with the promise of future benefits to those workers. Beneficiaries also pay deductibles and co-pays for some Part A services.

FIGURE 1-1

Trustees project Medicare spending to increase as a share of GDP



Note: GDP (gross domestic product). These projections are based on the trustees' intermediate set of assumptions.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

Part B, which covers outpatient and physician services, and Part D, which includes prescription drugs, are separate benefits included in the Supplementary Medical Insurance (SMI) trust fund. Part B was established in 1966 as part of the original Medicare Act, and Part D began operation in 2006 after passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. Financing the expenditures for the two parts currently requires about 12.5 percent of all personal and corporate income tax revenue.

Part B is voluntary, but more than 90 percent of eligible beneficiaries are enrolled. Beneficiary premiums finance about 25 percent of Part B program spending, and general revenues finance the remainder. Beneficiaries also pay cost sharing for a portion of their services, described below.

Like Part B, the Medicare drug benefit is voluntary and is funded through a mixture of beneficiary premiums and a general fund contribution. Premiums paid by beneficiaries equal 9 percent of Part D federal expenditures, and the general fund pays for about 77 percent of federal expenditures.² About 14 percent is financed by payments from states to offset some of the costs of Medicaid-eligible beneficiaries who receive Part D benefits. Beneficiaries also pay copays and deductibles in Part D.

Beneficiaries may opt to receive their benefits through private health plans that have contracted with Medicare under Part C, also known as Medicare Advantage. Payments to these plans are funded through the HI and SMI trust funds. These plans generally provide Part A and Part B benefits, and some also offer a drug benefit under Part D.

Most beneficiaries become eligible for Medicare at age 65, but there are two exceptions. Individuals who qualify for disability payments from the Social Security disability program are eligible for Medicare after they complete a 24-month waiting period, and individuals with end-stage renal disease are eligible regardless of age.

Benefit design and cost sharing

Medicare imposes cost-sharing requirements on beneficiaries at the point where the patient receives most medical services. Medicare's original benefit package left certain services uncovered; for example, until 2006 Medicare did not cover most outpatient prescription drugs. These factors led most Medicare beneficiaries to obtain

supplemental coverage, primarily through individual medigap policies or employer-based retiree coverage.

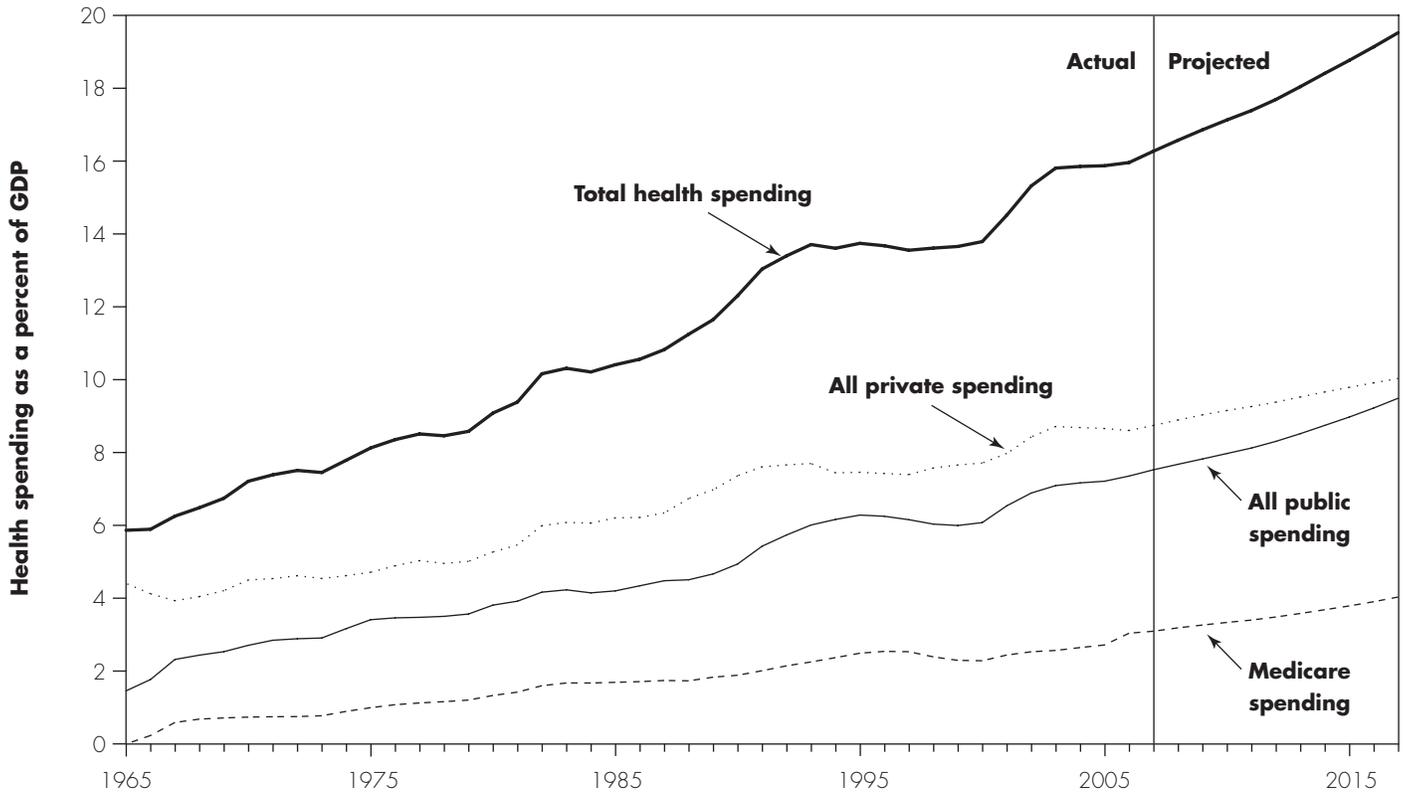
The proportion of spending for Medicare-covered services paid through cost sharing has remained fairly stable. Part A cost-sharing requirements generally increased at the same rate as payment updates for Part A services. Cost sharing for many Part B services is proportional to allowed charges (typically 20 percent coinsurance). Prior to 2005 lawmakers rarely increased Part B's annual deductible. However, in 2005 they raised it from \$100 to \$110, and it now increases at the same rate as growth in Part B spending per person (in 2009, the deductible is \$135).

Most Medicare beneficiaries have supplemental coverage to fill in some or all of Medicare's gaps in cost sharing. In 2005, about 89 percent of Medicare beneficiaries obtained supplemental coverage through former employers (33 percent), medigap policies (25 percent), Medicare Advantage plans (13 percent), Medicaid (16 percent), or other programs (1 percent) (MedPAC 2008a). Supplemental coverage often provides enrollees with better predictability of their out-of-pocket spending. In return for paying an annual premium, beneficiaries can receive supplemental coverage, such as medigap policies, that reduces their cost sharing to zero or nearly zero from the time they begin using health services each year. Insurance for Medicare's coverage gaps creates spending and access issues, which are explored later in this chapter.

Medicaid provides supplemental coverage for lower income Medicare beneficiaries. Policymakers created the Medicaid program at the same time as Medicare to address the health care needs of low-income individuals. The federal government, along with the states, assumes nearly all the cost of health care for beneficiaries who meet means and asset tests, and the federal share is financed with general revenues (like Part B). Medicare and Medicaid serving individuals eligible for both programs (called dual eligibles) creates administrative challenges. Federal and state policy goals for the programs sometimes conflict, and current policies toward dual eligibles create incentives to shift costs between payers, can hinder efforts to improve quality and coordinate care, and may reduce access to care (MedPAC 2004a). Medicaid has become the primary public payer for long-term care (Moore and Smith 2005). The intersection of the two programs' payment policies has created particular problems related to shifting costs among payers for beneficiaries' post-acute and long-term care needs.

**FIGURE
1-2**

**Health care spending has grown more rapidly than GDP,
with public financing making up nearly half of all funding**



Note: GDP (gross domestic product). Total health spending is the sum of all private and public spending. Medicare spending is one component of all public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2008.

Trends in Medicare and the U.S. health care system

Medicare spending is projected to be \$461 billion in 2008 (Keehan et al. 2008). Even so, it is just one part of an expansive and growing U.S. health care system that includes a broad array of private and public purchasers, insurers, providers, manufacturers, and suppliers.

Combined expenditures on health care services in the United States totaled nearly \$2.1 trillion in 2006, or 16 percent of our economy (Catlin et al. 2008) (Figure 1-2).

As is true for other purchasers of health care, Medicare's spending is growing much faster than the economy. Projections of continued rapid growth in spending in the health care system combined with retirement of the baby boom population foreshadow accelerated growth in

Medicare outlays in 2010 and beyond. At the same time, the Medicare program spends widely different amounts for beneficiaries across geographic regions, much of which can be attributed to differences in practice patterns rather than to differences in underlying health status. There are also wide disparities in the quality of care beneficiaries receive, with no relationship or a negative relationship between quality of care and spending.

The distribution of spending among health care users varies significantly. For example, the most costly 1 percent of beneficiaries accounted for 15.5 percent of Medicare expenditures in 2004; similarly, the 5 percent of beneficiaries who died in 2004 accounted for more than 20 percent of Medicare spending that year (Riley 2007). However, recent analysis of long-term spending trends per beneficiary has found that the concentration of spending for Medicare beneficiaries has fallen (Riley 2007). In

1975, the top 5 percent of beneficiaries accounted for 54 percent of spending, while in 2002 they accounted for 43 percent of spending. The trend suggests higher treatment intensities for a broader range of patients. The mix of spending among services has also changed over time for all beneficiaries, not just the most costly. For example, in 1975 hospital services accounted for about 69 percent of the annual expenditures for a beneficiary. In 2004, hospital expenditures fell to 43 percent of annual spending, while the share for physician and outpatient services increased. The rise in spending for less costly beneficiaries and the growth in nonhospital spending suggest that improving the efficiency of health care delivery will require interventions that consider multiple categories of services and consider the changing concentration of beneficiary spending. The high level of spending for beneficiaries in their last year of life also suggests that opportunities exist to improve efficiency at this juncture through better coordination of care across settings.

Private versus public financing in the U.S. health care system

Currently, public financing—federal, state, and local programs—makes up about 46 percent of all U.S. health care spending, with private sources providing the rest. The public share will rise by a few percentage points to nearly 49 percent by 2017 (Keehan et al. 2008). Medicare accounted for 19 percent of health care spending in 2006. Medicaid was the next largest public program, accounting for 15 percent, and private health insurance (including employer-sponsored plans) equaled about 34 percent. In 2004, employers, including private sector and government employers, were the largest source of health insurance, covering about 63 percent of individuals residing in the United States (Fronstin 2007).

Because of the tax preference given to employer-sponsored insurance, public financing plays a large role in coverage even for individuals with private insurance (Helms 2005).³ For 2009, the exemption of employer-paid health insurance from payroll and individual income taxes reduced federal revenues by about \$160 billion (OMB 2008). If these tax expenditures were included in the health accounts as public spending, the share of health care financed by the public would have exceeded half of all health care spending in 2003 (Selden and Sing 2008). However, excluding these tax expenditures from public spending accounts is consistent with the exclusions from national accounts of a wide variety of tax policies affecting decisions about the mix of goods and services the country produces and consumes.⁴

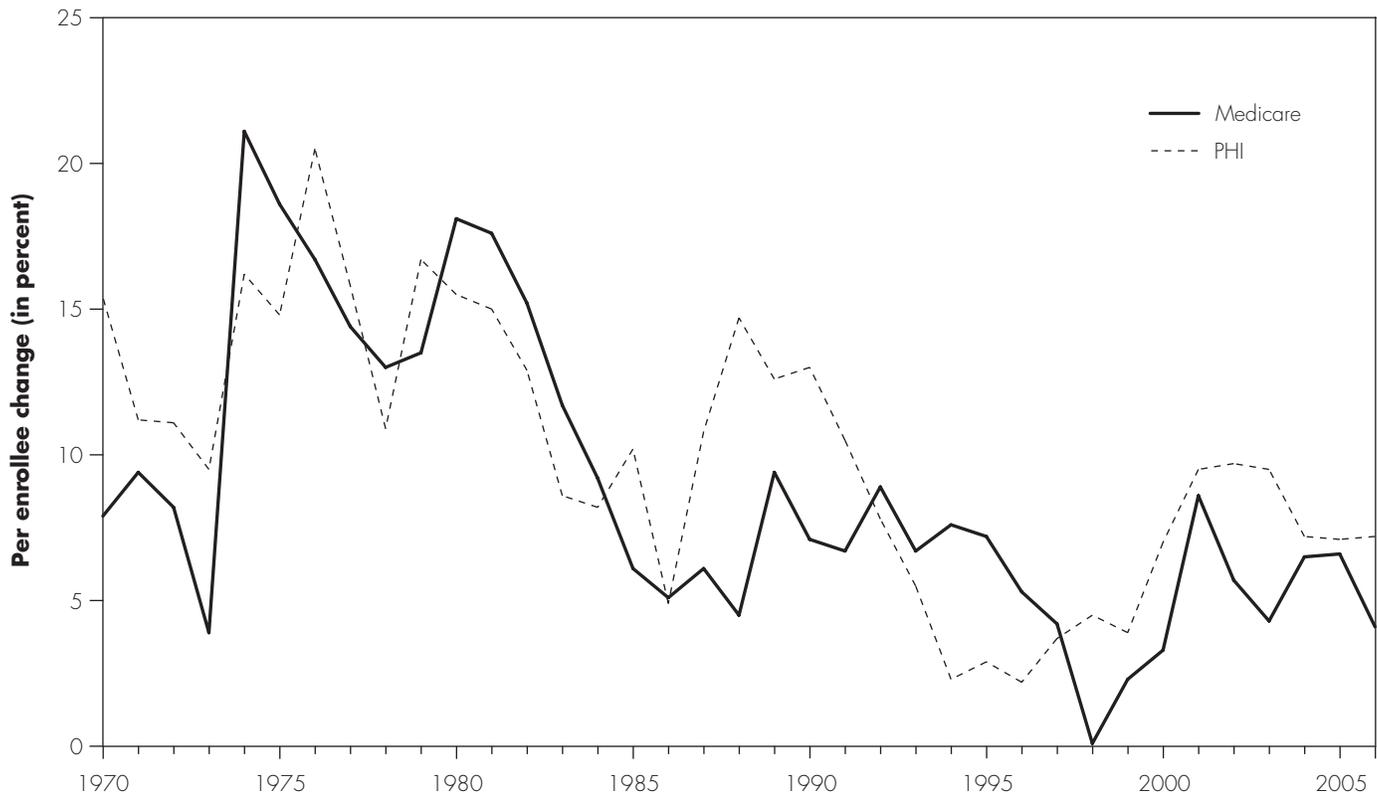
Rapid growth in health care spending among all payers

For each of the past several decades, the United States has spent an expanding share of its resources on health care. In 1960, for example, national health expenditures made up about 5 percent of the gross domestic product (GDP). That share grew to 16 percent by 2005, and CMS projects that it will make up 19.5 percent by 2017 (Figure 1-2, p. 9) (Keehan et al. 2008). All payers in the U.S. health care system—public and private—are facing similar upward pressures on spending.

Since the end of World War II, health care spending has exceeded per capita growth in the nation's economy by more than 2 percentage points (2004 Technical Review Panel). Recent analysis by the Congressional Budget Office (CBO) found that Medicare expenditures per capita had exceeded GDP growth by 2.4 percent per year in 1975–2005 (CBO 2007). The consequence of this excess growth is that health care spending has consumed a growing share of the nation's income.

While private and public programs differ in their coverage and financing, over the long term their rates of per capita growth have been similar (Pauly 2003). When comparing spending for benefits that private insurance and Medicare have in common, Medicare's spending per enrollee grew at a rate about 1 percentage point per year lower than that for private insurance from 1970 to 2006. Differences have been more pronounced since 1985, when Medicare began introducing the prospective payment system for hospital inpatient services (Levit et al. 2004). Some analysts believe that, since the mid-1980s, Medicare, with its larger purchasing power, has had greater success than private payers at containing cost growth (Boccutti and Moon 2003). Others maintain that benefits offered by private insurers have expanded as cost-sharing requirements declined over the entire period and enrollment in managed care plans grew during the 1990s. The comparison is thus problematic, because Medicare's benefits changed little over the same period (Antos and King 2003). However, as Figure 1-3 indicates, both sectors have experienced substantial rates of growth per enrollee.

Although often disputed by economists, many analysts contend that certain health care providers are able to shift costs by charging some payers higher prices to compensate for changes in the administered prices of other payers, thus resulting in higher rates of cost growth for some payers than for others. Providers have the incentive to maximize prices from payers irrespective of Medicare rates, and they

**FIGURE
1-3****Changes in spending per enrollee for Medicare and private health insurance**

Note: PHI (private health insurance). Chart compares services covered by Medicare and PHI, including hospital services, physician and clinical services, and durable medical products.

Source: CMS, Office of the Actuary, National Health Statistics Group, 2008.

can act on this incentive if they have sufficient market power to negotiate higher prices. Some payers may be willing to tolerate higher price increases than other payers and pass through higher costs to the purchaser in the form of premiums. Insurers may be able to pass along costs due to lack of pressure from the purchaser, such as employers providing health insurance for their employees (Nichols et al. 2004). The counter-argument made by many hospital and other health industry executives is that limits on Medicare and Medicaid payment rates lead to higher prices for private payers (Ginsburg 2003). However, recent analysis by the Commission has found that hospitals with low or negative Medicare margins have relatively robust private payer margins (MedPAC 2008b). Rather than reflecting a cost shift from Medicare to private payers, this finding suggests that some hospitals are less aggressive in controlling costs because high costs can be absorbed by

high private sector payments. All things being equal in this scenario, Medicare margins decrease. Increasing Medicare payments is not a long-term solution to the problem of rising private insurance premiums and rising health care costs. In the end, affordable health care will require shared incentives across payers for health care providers to reduce their rates of cost growth and volume growth.

Medicare's administrative costs are relatively small compared with the commonly cited private sector benchmarks for administrative expenditures, but differences between the two sectors may explain some of the disparity. In 2008, about \$5 billion was spent to administer Medicare, equal to about 1 percent of the amount paid in benefits (OMB 2008). This level is significantly lower than the 15 percent to 25 percent share of benefits paid commonly cited for private insurers (Gluck and Sorian 2004, Matthews 2006).

Because the administrative operations of Medicare and the private sector differ significantly, it is difficult to determine which program administers health care benefits more efficiently. For example, the private sector has a greater need to market its offerings. Conversely, Medicare may not have to market itself to attract beneficiaries, but it does have an obligation to educate beneficiaries about their obligations and options under the benefit. On the other hand, there are some costs, such as taxes and the need to earn profits, that are clearly not borne by CMS or Medicare. One estimate suggests that the gap between private insurance and Medicare narrows significantly after correcting for some differences (Matthews 2006).

Any analysis that considers administrative expenses must also consider the efficiency and effectiveness of the benefit expenditures they oversee. Administrative activities contribute to the value of health benefits in a variety of ways, but it is not always clear how Medicare and the private sector compare under various metrics. For example, CMS estimates that about \$9.8 billion in erroneous payments were made in the fee-for-service program in 2007, a figure more than double what CMS spent for claims processing and review activities (CMS 2008a). In Medicare Advantage, CMS estimates that erroneous payments equaled \$6.8 billion in 2006, or approximately 10.6 percent of payments. CMS has not released an erroneous payment rate for Part D. Comparable error rates for private insurers are not available. The significant size of Medicare's erroneous payments suggests that the program's low administrative costs may come at a price.

Higher spending in the United States

Health care spending in the United States is far higher than in other countries—about \$6,714 per person in 2006, or more than twice the median of member countries of the Organisation for Economic Co-operation and Development (OECD 2008).⁵ The United States spends significantly more than other high-spending OECD countries, with the next highest spending nation spending 33 percent less per capita. A variety of factors account for the higher growth in spending in the United States.

One study found that the United States has higher spending even after adjusting for differences in wealth and disease prevalence (McKinsey Global Institute 2007). The analysis estimated how much the United States would have spent based on the statistical relationship between

health spending and per capita income in industrialized countries.⁶

It found that the United States spent \$477 billion, or \$1,645 per capita more, even after accounting for the United States' higher per capita income. The increased incidence in disease accounted for only \$25 billion of the difference. The remainder was attributable to higher utilization, higher input costs for labor and capital, and higher administrative and operational costs. The analysis suggests that the inefficiencies that increase costs are spread throughout the system, and any reform will require multiple strategies.

Other estimates have suggested that the rates of diagnosis and treatment for many common conditions ("rate of treated disease") are much higher in the United States (Thorpe et al. 2007). For example, the rate of chronic lung disease among individuals age 50 or older in the United States is almost double that among the same population in certain European countries. Among those with this diagnosis, almost twice as many individuals in the United States reported receiving medication associated with the condition as did people in Europe. Thorpe and colleagues concluded that if the United States had the same rate of treated disease for the studied conditions as the selected European countries, aggregate expenditures in the United States would have been 13 percent to 19 percent lower in 2003.

The health care systems of other countries may not be preferable to ours. A recent survey of patients in the United States and six other countries found that patient satisfaction and access to care varied, and no country clearly outperformed the others (Schoen et al. 2007). Each health care system reflects the social, economic, and political circumstances of its country, and as a result each system has a mixture of strengths and weaknesses. Comparison with other countries may provide useful information for benchmarking performance, but the broad variations in performance imply that no one country's system should serve as an exemplar for others (McGlynn 2004). However, it is striking how the United States leads all other countries in health spending but in many instances has worse performance in quality and efficiency relative to other countries that spend significantly less (Schoen et al. 2008).

Accounting for the factors driving growth

Many factors account for the rise in health care spending. Examining these disparate causes presents many challenges, as the nation's health status and the health care delivery system are constantly evolving. Commonly cited drivers of growth in health care spending include the rapid development and diffusion of new technology, the nation's wealth, the impact of health insurance, and rising prices. Changing demographics, the nation's health status, and health industry consolidation are additional, though smaller, factors that also contribute to increased spending. The ranges of estimates presented in this section reflect the variations in scope, method, and objective of each study; they should be considered illustrative, and across factors they are not necessarily consistent.

Technology

Most analysts point to the rates of development and diffusion of new technologies as a primary driver of growth in health care spending (CBO 2008a). Many technologies reduce the invasiveness, serious side effects, discomfort, or recovery time associated with the therapies they replace, thereby lowering nonfinancial obstacles to beneficiaries as they decide whether to seek treatment. When procedures, drugs, or devices become available, a base of evidence may not exist to help providers decide how newer therapies compare with older or less expensive ones. In many cases, providers do not wait for evidence to become available before utilizing a new technology (Redburn and Walsh 2008). When providers recommend newer therapies that are covered by Medicare or other insurance, patients do not face the full cost of their care and may not be concerned about the comparative value of those therapies. Some medical technologies lead to savings by reducing lengths of hospital stays or avoiding hospitalizations, but most technologies tend to expand the demand for health care and increase spending. In some cases, providers use new technologies inappropriately or more broadly than intended. Most analysts attribute the majority of long-term growth in per capita spending to technology (CBO 2008a, Fuchs 2005, Newhouse 1992, 2000 Technical Review Panel).

The impact of new technology on spending is compounded under fee-for-service payment systems. Because these systems tie reimbursement to the volume of services provided, widespread use of new technologies can create opportunities for providers

to increase their volume and revenues. Many of the additional services may be beneficial, but fee-for-service payment encourages providers to use the technologies that result in higher volume and payment regardless of value. This practice can bolster an "arms race" mentality in which providers feel compelled to pursue the latest technologies to remain financially successful relative to their peers (Berenson et al. 2006). Under alternative systems, such as capitation or value-based approaches that tie payments to a measure of a procedure's clinical efficacy, the rewards for additional volume are diminished. Under these systems, providers have less financial incentive to pursue the volume opportunities associated with new technology.

Income

As a nation's standard of living grows, it is likely to spend more on health care (Hall and Jones 2007). As individuals become better off and their consumption increases, the incremental value of buying more commodities (e.g., another television or more clothing) falls. By contrast, the marginal value to them of an extended life span does not diminish as quickly. Similarly, the marginal value of procedures that are not life saving but that may improve the quality of life (e.g., joint replacements or cosmetic surgery) may increase relative to that of other goods. Estimates for the impact of rising incomes vary, with one synthesis suggesting that growth in income accounts for 5 percent to 20 percent of the long-term rise in health care costs (CBO 2008a).

Insurance

Research highlights the important role of health insurance in fueling growth in spending. Health insurance can drive up spending because it insulates beneficiaries from the full cost of their care. From 1960 to 2005, the share of health care costs paid out of pocket fell from about 47 percent to 12.5 percent (CMS 2008b). Lower out-of-pocket costs can contribute to the demand for health services and encourage the development of new technologies and additional treatments. CBO found that 5 percent to 20 percent of long-term growth in spending is due to insurance. However, one analysis found that Medicare had a pronounced effect on hospital spending (Finkelstein 2007). Finkelstein asserts that the broad increase in demand for hospital services that occurred after the start of Medicare led to greater incentives for hospitals to enter markets, purchase new equipment and facilities, and adopt new practice styles. Extrapolating from her Medicare

findings, she suggests that about half of the increase in per capita health spending between 1950 and 1990 could be attributable to the spread of health insurance. Other analysts have noted that small changes in assumptions behind Finkelstein's extrapolation to all health care spending would lead to much smaller effects (Ellis 2006). However, as noted earlier, CBO's estimate based on a literature review was much lower.

Some protection against high out-of-pocket spending is desirable, but such coverage may reduce beneficiaries' sensitivity to costs. Individuals with first dollar coverage—insurance policies with little or no deductible before an insurer will pay for services—tend to use more services than those with similar health status and no supplemental coverage. Although Medicare's basic cost-sharing structure has deductibles for both Part A and Part B, many beneficiaries have secondary insurance that pays some or all of the cost sharing. One estimate based on data from the mid-1990s suggests that Medicare spending ranges from 17 percent higher for those with employer coverage to 28 percent higher for those with medigap policies (Christensen and Shinogle 1997). Other analysts believe that, to the extent that supplemental coverage encourages beneficiaries to adhere to medical therapies that prevent hospitalizations or the use of other services, higher levels of Medicare spending may be more modest than that (Chandra et al. 2007). A counterargument to this contention is that many supplemental plans cover all or nearly all of Medicare's cost-sharing requirements—they do not cover medical services that have better evidence of preventing hospitalizations any more selectively than they cover services that tend to be used inappropriately. Another line of research suggests that the responsiveness of beneficiaries to cost sharing is varied, and the effects of supplemental coverage are more modest for individuals in poorer health (Remler and Atherly 2003).

Changes in health care prices

Change in price is another factor that increases health care spending. Measuring price changes in health care can be complex, because changes in quality and outcomes can be challenging to measure. For example, new technology may increase the costs of a laboratory test, but the new test may offer superior diagnostic information that was previously unavailable. Simply tracking the price change without factoring in changes in quality offers an incomplete picture. These concerns aside, a recent summary by CBO suggested that between 10 percent and 20 percent of long-

term growth in per capita spending was attributable to higher prices (CBO 2008a).

Prices play a critical role in the health care economy. For private sector providers, which deliver most health care in the United States, prices are a factor that they must weigh when deciding what services to provide and which populations to serve. As a result, prices can determine what markets providers enter, the medical technologies selected for development, and the medical specialties that physicians select. Prices that accurately reflect the value of care provided and do not offer windfall profits or severe deficits are critical to ensuring that health care markets provide the proper amount and mix of services.

The accuracy of prices is particularly important for Medicare, because providers may exploit inaccuracies to improve financial performance. For example, the Commission found that Medicare's system of hospital payment did not accurately reflect the costs of some patients (MedPAC 2005). By overpaying for certain patients, the system encouraged hospitals to focus on a select set of Medicare patients. The Commission recommended that CMS take action to address these inaccuracies, and CMS implemented major refinements in fiscal year 2008.

Pricing services below appropriate levels can also distort utilization. The Commission has concluded that Medicare primary care services—which rely heavily on cognitive activities such as patient evaluation and management—are undervalued and they risk being underprovided relative to procedurally based services (MedPAC 2008c). The relative difference in reimbursement can distort the supply of care. For example, the share of U.S. medical school graduates entering primary care residency programs has been steadily declining, and internal medicine residents are increasingly choosing to subspecialize rather than practice as generalists (Bodenheimer 2006). Given these trends, the Commission has made a number of recommendations to increase reimbursement for primary care, such as increasing payment for evaluation and management services, raising payments for primary care practitioners, and exploring the medical home concept.

Aging and demographics

Changes in demographics also affect Medicare spending, but they have a much smaller impact than is commonly assumed. Analysts attribute about 2 percent of the increase in health care spending between 1940 and 1990 to aging of

the population (CBO 2008a). The baby boom population, the first wave of which will become eligible for Medicare in 2010, is commonly mentioned as a critical element in the challenge to social insurance programs. Though the growth in the number of beneficiaries will increase in the coming decades, the impact of this growth will be less than other factors driving per beneficiary spending such as technology. In CBO's long-term models, the impact of a graying society will account for 27 percent to 35 percent of future growth in spending for Medicare and Medicaid (CBO 2008b). The remainder of growth will be rising per capita costs due to other factors, such as advanced technology, national wealth, and the use of health insurance.

Health status

Our nation's underlying health status and changes in clinical treatment thresholds also affect spending. Recent work by Thorpe and Howard suggests that, between 1987 and 2002, nearly all the growth in health care spending for Medicare beneficiaries could be attributed to spending for patients being treated for five or more conditions (Thorpe and Howard 2006). In 2002, about 50 percent of all Medicare beneficiaries were being treated for five or more conditions, compared with about 31 percent of beneficiaries in 1987. At the same time, a larger proportion of patients being treated for five or more conditions reported that they were in excellent or good health—60 percent in 2002 compared with 33 percent in 1987. The authors concluded that medical professionals are treating healthier patients, treatments are improving health outcomes, or both are occurring.

Industry consolidation

Recent years have also seen the consolidation of health care providers and health plans (Nichols et al. 2004). These consolidations may result in new efficiencies that lower costs, but they can also lead to lower quality and higher prices (Vogt and Town 2006). The concern is that the primary motivation for much of this consolidation is to capture more market share and to leverage this market share for more favorable payments. Similarly, insurers seek market share to push providers for lower rates. This consolidation has resulted in some markets being served by a few dominant plans and providers; depending on the characteristics of the local market, it can result in cooperation to achieve system improvements or an accommodating détente (Ginsburg and Lesser 2006). In markets where collaboration takes place, consolidation

may unify local delivery systems around common goals such as improving quality. However, markets with few plans and providers may lack sufficient competition to spur needed improvements in efficiency and innovation. Some analysts have found that providers do not compete on price and efficiency in many markets; instead, they compete to increase their market share of the most profitable business lines (Berenson et al. 2006). This situation can lead to an increase in the supply and volume of medical services, but this type of competition does not necessarily address quality or efficiency concerns.

The U.S. health care system is fragmented among many different types of providers, and consolidation could be beneficial if it reorganized the delivery system to make it more efficient. However, many current consolidation trends are not correcting the imbalances in the delivery system that increase costs. For example, consolidation driven by a desire to expand market share may not encourage hospitals and physicians to coordinate care to improve quality or reduce readmissions. Also, market-driven consolidation may not address imbalances in the type of care available. Research suggests that areas with higher rates of specialty care per person are associated with higher spending but not improved access, quality, health outcomes, or patient satisfaction (Fisher et al. 2003a, Fisher et al. 2003b, Kravet et al. 2008, Wennberg et al. 2006). Moreover, states with more primary care physicians per capita have better health outcomes and higher scores on performance measures (Baicker and Chandra 2004, Starfield et al. 2005). The Commission has recommended exploring forms of organization that would encourage collaboration between physicians and hospitals for care coordination and strengthen the role of primary care (MedPAC 2008c). These policies would address the fragmentation in the delivery system with the goal of improving quality and efficiency.

Is higher spending worth it?

Despite high levels of spending, the health care system has not produced commensurate increases in quality or outcomes. A surfeit of evidence suggests that much of the health care delivered has little beneficial value for patients (Fuchs 2004, New England Healthcare Institute 2008). Studies of regional differences in spending and utilization have found that areas with more spending do not have improved patient health or satisfaction (Fisher 2003a, Fisher 2003b). In addition, these studies indicate that variation also exists among different classes of services. For example, one analysis found that the geographic

variation in imaging services was greater than that for most other services (MedPAC 2003). The financial impact of the variation is substantial for all payers, and some have suggested that 25 percent or more of the care delivered in the United States health care system could be eliminated with no detrimental impact on health outcomes (McKinsey Global Institute 2007, Orszag 2008, PricewaterhouseCoopers 2008). In addition, the quality of care provided in the United States has been found to be deficient. A study by the RAND Corporation found that a national sample of patients received only about half of the care that would have been expected (McGlynn et al. 2003). All these findings indicate that the current system is inefficient and often inefficacious, and an opportunity exists to reduce growth in expenditures and increase the value of care provided.

Advances in medical technology have led, on average, to improvements in our health and gains in life expectancy. Recently, Cutler and colleagues concluded that, on average across all ages, increases in medical spending between 1960 and 2000 (attributed largely to advances in medical care) provided reasonably good value, with an average cost per life-year gained of \$19,900 (Cutler et al. 2006).

However, when focused on spending and life expectancy for individuals age 65 or older, the same research found that between the 1970s and 1990s the incremental cost of an additional year of life rose from \$46,800 to \$145,000. These estimates suggest that the cost of adding one more year of life has been increasing, and the authors note that their estimates for the 1990s would fail many cost-benefit criteria.

More recent research finds that survival gains have stagnated since 1996 for patients with acute myocardial infarction (AMI), even though spending for patients with this condition has increased (Skinner et al. 2006). These trends suggest that higher spending is not yielding better outcomes. Skinner and colleagues also found that areas with higher spending for AMI did not have better health outcomes.

Research on the wide geographic variation in health care spending suggests that we waste resources (Fuchs 2005). Some payment systems contribute to the problem of wasteful spending by rewarding inefficient or low-quality care as much as if not more than high-quality care delivered by efficient providers. Given questions about Medicare's sustainability, the Commission has called

for distinguishing between high-quality care and care of more questionable value (MedPAC 2004b).

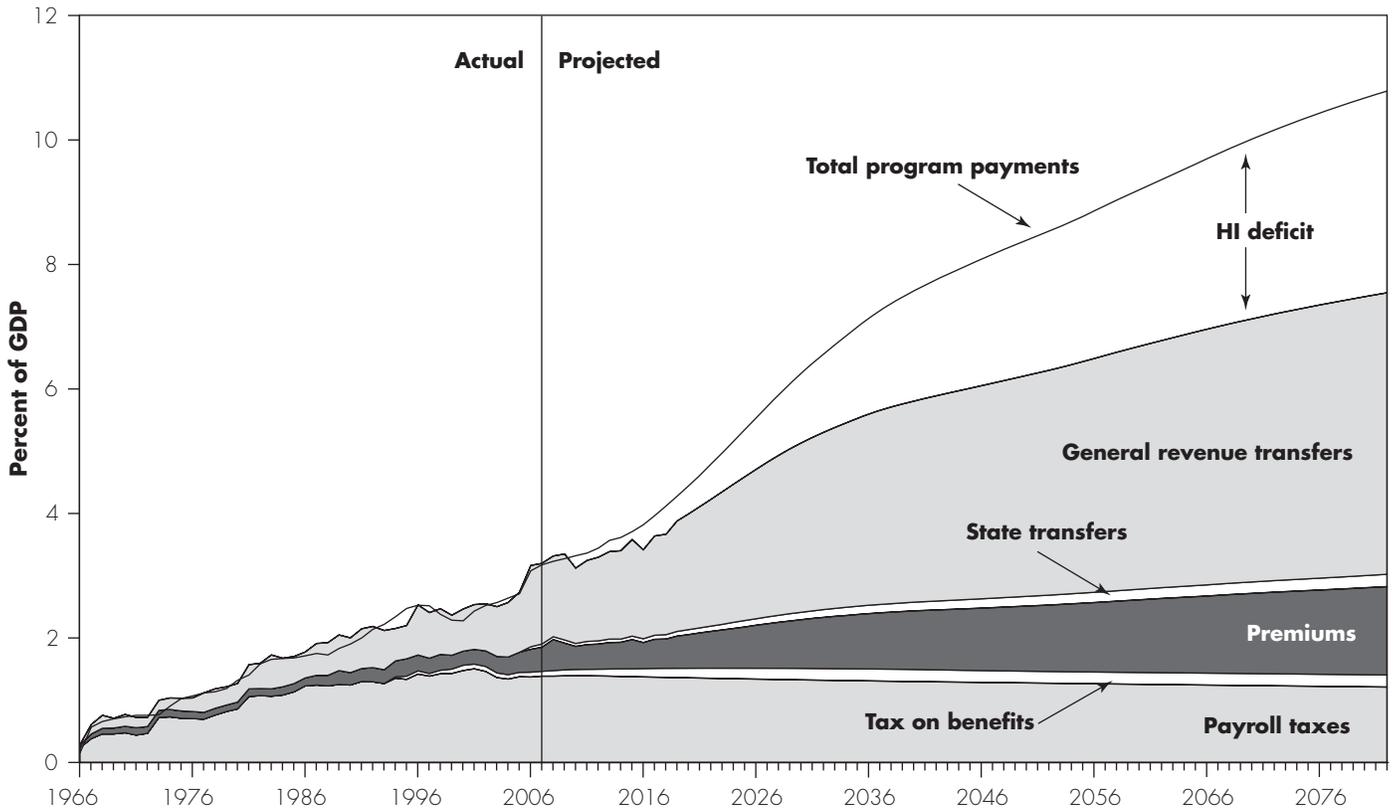
Some studies indicate that the gains to health care may not be evenly distributed in the United States. Numerous measures indicate that low-income individuals and some minority groups have greater difficulty in obtaining appropriate care (AHRQ 2008). Higher income individuals are more likely to be insured, and the insured generally have better access to care than uninsured individuals. For example, insured individuals were six times more likely than uninsured individuals to have a primary care provider. Women over age 40 with lower incomes were less likely to receive mammograms than those with higher incomes. The likelihood of receiving recommended diabetic services increases with income and education and with being white. Conversely, certain minority groups and low-income diabetic individuals were less likely to receive recommended services. Like other quality shortcomings in the U.S. health care system, these disparities persist despite the nation's high level of health spending.

Consequences of rapid spending growth for Medicare

The status of the Medicare trust funds shows the imminent adverse consequences of rapid growth in health care spending. In their most recent report, the Medicare trustees project that, under intermediate assumptions, the assets of the HI trust fund will be exhausted in 2019. Income from payroll taxes collected in that year would cover 78 percent of projected benefit expenditures. In the future, the share of benefit expenditures covered by payroll tax collections would fall as health care cost inflation exceeded growth in payroll; by 2050, payroll tax collections would cover only 40 percent of projected Part A expenditures. Medicare will have no authority to pay the remainder of Part A benefits due. The SMI trust fund is financed automatically with general revenues and beneficiary premiums, but the trustees point out that financing from the federal government's general fund, which is funded primarily through income taxes, would have to increase sharply to match the expected growth in spending. Further, the projections for SMI growth are artificially low because they assume that the reductions in physician spending required under the sustainable growth rate (SGR) formula occur—even though these reductions are usually overridden. Even with the optimistic assumption of lower growth in physician payments, the share of federal taxes and spending would grow significantly. Such rapid growth would have repercussions for beneficiaries and taxpayers

**FIGURE
1-4**

Medicare faces serious challenges with long-term financing



Note: GDP (gross domestic product), HI (Hospital Insurance). These projections are based on the trustees' intermediate set of assumptions. Tax on benefits refers to a portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. State transfers (often called the Part D "clawback") refer to payments called for within the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 from the states to Medicare for assuming primary responsibility for prescription drug spending.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

as well as for the availability of funds for other federal priorities. Specifically, if Medicare benefits and payment systems remain as they are today, the trustees note that over time the program will require major new sources of financing for Part A and will automatically require increasing shares of general tax revenues for Part B and Part D. The trustees project that dedicated payroll taxes will make up a smaller share of Medicare's total revenue and that a large deficit between spending for Part A (HI) and revenue from dedicated payroll taxes will develop (Figure 1-4). The share of the nation's GDP committed to Medicare will grow to unprecedented levels, squeezing other priorities in the federal budget. These long-term projections, which assume that the SGR payment

reductions occur, indicate how significant the changes would have to be to ensure that Medicare does not become an excessive burden for future generations.

To finance the projected deficit through 2080, the trustees estimate that Medicare's payroll tax would need to increase immediately from 2.9 percent to 6.44 percent of earned income, or HI spending would need to decrease immediately by 51 percent. Delays in addressing the HI deficit would eventually require even larger increases in the tax rate or even more dramatic cuts in spending. The premiums and general revenues required to finance projected spending for SMI services could impose a significant financial liability on Medicare beneficiaries and on resources for other priorities. If income taxes remain at

**TABLE
1-1****Changes in standard Medicare
Part B premiums**

Year	Monthly premium	Annual change
1996	\$42.50	
1997	43.80	3.0%
1998	43.80	0.0
1999	45.50	3.7
2000	45.50	0.0
2001	50.00	9.0
2002	54.00	7.4
2003	58.70	8.0
2004	66.60	11.9
2005	78.20	14.8
2006	88.50	11.6
2007	93.50	5.3
2008	96.40	3.0
2009	96.40	0.0

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

the historical average share of the economy, the Medicare trustees estimate that the SMI program's share of personal and corporate income tax revenue would rise from 11 percent today to 24 percent by 2030. If the projections for SMI were adjusted to remove the payment reductions required by the SGR, the share of personal and corporate income taxes required would be even higher.

Increasing financial liability for beneficiaries

Rapid growth in Medicare spending has implications for beneficiaries as well as taxpayers, since both groups finance the program. The cost sharing in Medicare is indexed to increase with expenditures through a variety of mechanisms. For example, from 2004 to 2008 the deductible for Part A has risen 17 percent and the Part B deductible has risen 35 percent. In addition, as Medicare raises its rates for services, beneficiary liabilities for copayments and premiums in Part B also increase. Some aspects of Medicare's cost-sharing and taxation are income-related (see text box, pp. 20–21).

Part B premiums for 2009 are \$96.40 per month (or almost \$1,157 for the year), equal to the 2008 amount. It is unusual to not have an increase in the Part B premium, as Table 1-1 indicates. While Part B expenditures are expected to increase in 2009, a higher than expected contingency reserve mitigated the need for an increase in

2009 (CMS 2008c). Medicare wishes to maintain a reserve equal to about 20 percent of Part B expenditures to ensure it has adequate funds if expenses are higher than predicted. However, the reserve was estimated to equal 24 percent in 2008, and CMS concluded that the excess in 2008 would offset the need to raise premiums to fund the contingency reserve in 2008.

The size of Medicare cost sharing relative to the Social Security benefit is one metric for assessing the burden of cost sharing on beneficiaries, as Social Security accounts for three-quarters of the income for 60 percent of the elderly population in 2006 (Federal Interagency Forum on Aging Related Statistics 2008). If we include the costs of both Part B and Part D, the average cost of SMI premiums and cost sharing for Part B and Part D are estimated to absorb about 27 percent of Social Security benefits. On balance, even though most beneficiaries get relief from out-of-pocket spending because of Part D, growth in health care spending eventually will outpace growth in Social Security benefits (Figure 1-5). At the same time, Medicare's lack of a catastrophic cap on cost sharing under Part A and Part B means that individuals with higher health care needs bear a greater share of the cost-sharing burden.

There is significant variation among beneficiaries in the amount of cost sharing they bear, and beneficiaries with the highest Medicare costs bear a disproportionate share of the total cost-sharing burden. For example, in 2005, the 5 percent of beneficiaries with the greatest cost-sharing liability, those with \$5,000 or more in liabilities, accounted for 35 percent—\$17 billion—of all cost-sharing paid. There is no catastrophic protection in Part A and Part B, and those individuals who have high medical expenses pay a disproportionate share of the cost-sharing liability.

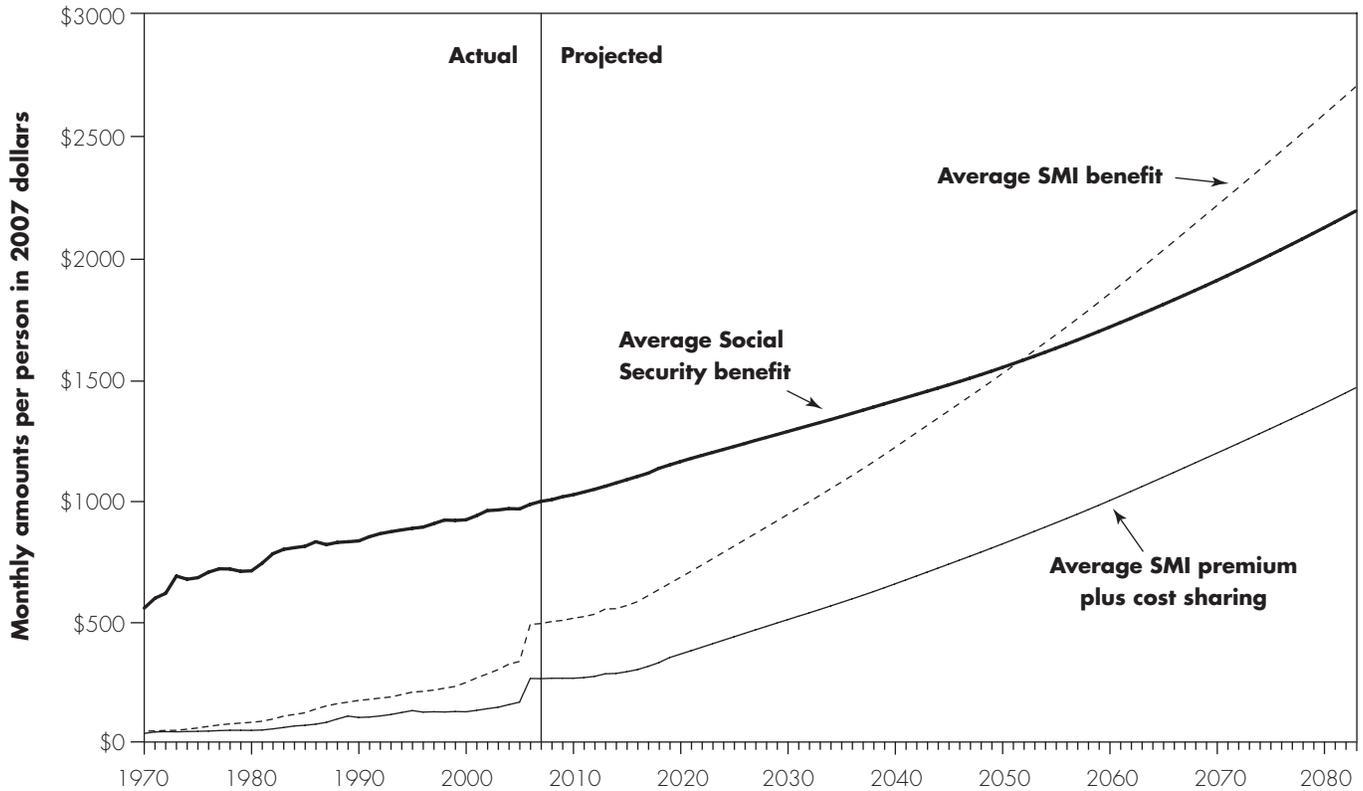
Projections such as these highlight the importance of finding ways to slow growth in Medicare spending (Figure 1-6, p. 22). If policymakers do not act quickly, Medicare's need for financing will place an increasing liability on beneficiaries through their premiums and cost sharing, crowd out resources for other federal priorities, and potentially affect the federal budget deficit, the level of federal taxation and debt, and economic growth.

Consequences of rapid growth for other health care sectors

Some employers argue that the rising cost of health care premiums affects their ability to compete in the world marketplace. However, most economists contend that

FIGURE 1-5

Average monthly SMI benefits, premiums, and cost sharing are projected to grow faster than the average monthly Social Security benefit



Note: SMI (Supplementary Medical Insurance). Average SMI benefit and average SMI premium plus cost-sharing values are for a beneficiary enrolled in Part B and (after 2006) Part D. Beneficiary spending on outpatient prescription drugs prior to 2006 is not shown.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

growth in the health premiums employers pay has no long-term effect on the competitive position of firms (Fuchs 2005, Pauly 1997). Instead, a firm's costs for health premiums substitute for cash compensation that it would otherwise pay to workers, in the same way that retirement and other benefits substitute for higher wages. Longer term contracts with workers may prevent some firms from keeping their full compensation package in line with their productivity. As would be the case with any other cost, rapid growth in health premiums can make firms' need for greater productivity more apparent. To achieve productivity gains quickly, firms sometimes take disruptive steps and redistribute income and health coverage for workers and retirees. Rising health care costs may also affect workers' take-home pay. Employers have a finite budget for compensation, and increases in compensation

costs that are committed to health insurance cannot be used to increase salaries. In recent years, the increases in private health insurance have been two or three times greater than the growth in salaries (Claxton et al. 2007).

Other distributional issues arise from rapid growth in spending on health care. In response to rapid increases in premiums, many employers have raised cost-sharing requirements for their employees, asked them to pay a larger share of premiums, or—particularly for smaller firms—reduced the availability of coverage. From 2000 to 2005, the percentage of nonelderly individuals with employer-based health insurance fell from 67 percent to 62 percent, which analysts attribute to the rising cost of providing health benefits (Fronstin 2007). Since required premium contributions by enrollees have risen faster than

Income-related features of Medicare financing and benefits

Policymakers have added elements to Medicare that set benefits and financial contributions based on beneficiary income. The elements of the income-related policies vary among the different parts of Medicare.

Tax on Social Security benefits

In 1993, the Congress expanded the tax on Social Security benefits to provide additional revenue for the Hospital Insurance (HI) trust fund. For most seniors, income from Social Security is not taxable. However, beneficiaries with incomes over \$34,000 if single, and \$44,000 if married filing jointly, include up to 85 percent of Social Security benefits in their taxable income.⁷ This additional income adds to federal tax liability, and a portion of the revenues associated with this income is paid into the HI trust fund. In 2007, about \$11 billion was paid into the HI trust fund from taxation of Social Security benefits. Because the dollar threshold for including Social Security benefits in taxable income is a fixed amount, the number of beneficiaries paying this tax is expected to increase in future years.

Part B income-related premium

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 is also a Part B income-

related premium. Individuals with modified adjusted gross incomes (MAGIs) of \$85,000 or more and married couples with MAGIs of \$170,000 or more pay a higher premium. The payment was phased in over three years beginning in 2007, and starting in 2009 higher income individuals will pay monthly premiums equal to 35 percent, 50 percent, 65 percent, or 80 percent of Medicare's average Part B costs for elderly beneficiaries, depending on their income. All other individuals pay premiums equal to 25 percent of average costs for elderly beneficiaries. The highest income beneficiaries will pay premiums of about \$308.30 in 2009, more than triple the standard premium. CMS estimates that about 5 percent of Part B enrollees will pay higher premiums based on income (CMS 2006).

Medicare Savings Programs

Beginning with the qualified Medicare beneficiary (QMB) program in 1988, the Congress has created a number of programs to help beneficiaries with limited incomes pay for Medicare premiums and cost sharing. Medicare Savings Programs—including QMB, specified low-income Medicare beneficiary (SLMB), and qualifying individual—have the potential to reduce the financial burden for access to needed medical services for beneficiaries with limited incomes. Beneficiaries who meet income and resource (or asset)

continued next page

income, some workers choose to forgo coverage (Ginsburg 2004). During 2006, nearly 45.7 million people, or 15.3 percent of the U.S. population, were uninsured at some point in time (DeNavas-Walt et al. 2008).

Increases in the numbers of people without private health insurance raise demand for public coverage. Those who cannot secure coverage may receive uncompensated care, and providers may seek higher payments for insured patients to cover losses. The costs of caring for the uninsured do not fall equally on all providers, since

the uninsured often postpone care until their condition becomes more serious. In turn, providers that bear more of those costs sometimes seek public subsidies or limits on the competition they face. Rising costs put upward pressure on the financing needs of public and private health care programs for the beneficiaries who already have coverage. Some analysts contend that higher health care costs can also lead to greater fragmentation of risk pools in the health care market, as healthier people search for insurance alternatives that are less costly (Glied 2003).

Income-related features of Medicare financing and benefits (cont.)

criteria pay no Medicare Part B premiums and, in some cases, no deductibles or coinsurance for Medicare-covered services (Table 1-2). They are also deemed eligible for the low-income drug subsidy (LIS) under Part D. Despite the benefits available, participation in the programs has been low (MedPAC 2008b). An estimated 33 percent of eligible beneficiaries are enrolled in the QMB program and fewer eligible beneficiaries (13 percent) are taking part in the SLMB program.

Part D low-income drug subsidy

The LIS provides limited copayments and gap coverage for beneficiaries who meet certain eligibility requirements tied to income and assets. Beneficiaries who qualify for the benefit pay little or no premiums and

cost sharing and are not subject to the Part D coverage gap. Despite considerable publicity, participation in LIS remains limited. As of January 2007, about 9.5 million beneficiaries were receiving the drug subsidy. Of them, about 7 million, or 57 percent of the eligible population, were dual eligibles who were deemed eligible because of their Medicaid status. Another 2.3 million, or 17 percent of the eligible population, individually applied for LIS and were found eligible by the Social Security Administration. Of those beneficiaries not automatically enrolled in LIS, the National Council on Aging estimates that between 35 percent and 42 percent of those eligible have enrolled (ABC 2007). CMS estimates that most Medicare beneficiaries who have not signed up for Part D and do not have other creditable drug coverage are eligible for LIS. ■

**TABLE
1-2**

Federal eligibility criteria for Medicare Savings Programs

Medicare Savings Program	Income	Asset limit (individual/couple)	Covered costs and services
QMB	<100% of poverty	\$4,000/\$6,000	Medicare premiums and cost-sharing
SLMB	100–120% of poverty	\$4,000/\$6,000	Medicare premiums
QI—block grant funded by federal government	120–135% of poverty	\$4,000/\$6,000	Medicare premiums

Note: QMB (qualified Medicare beneficiary), SLMB (specified low-income beneficiary), QI (qualifying individual). States have the flexibility to adjust countable income and assets.

Source: Nemore et al. 2006.

Meeting the challenges of Medicare reform

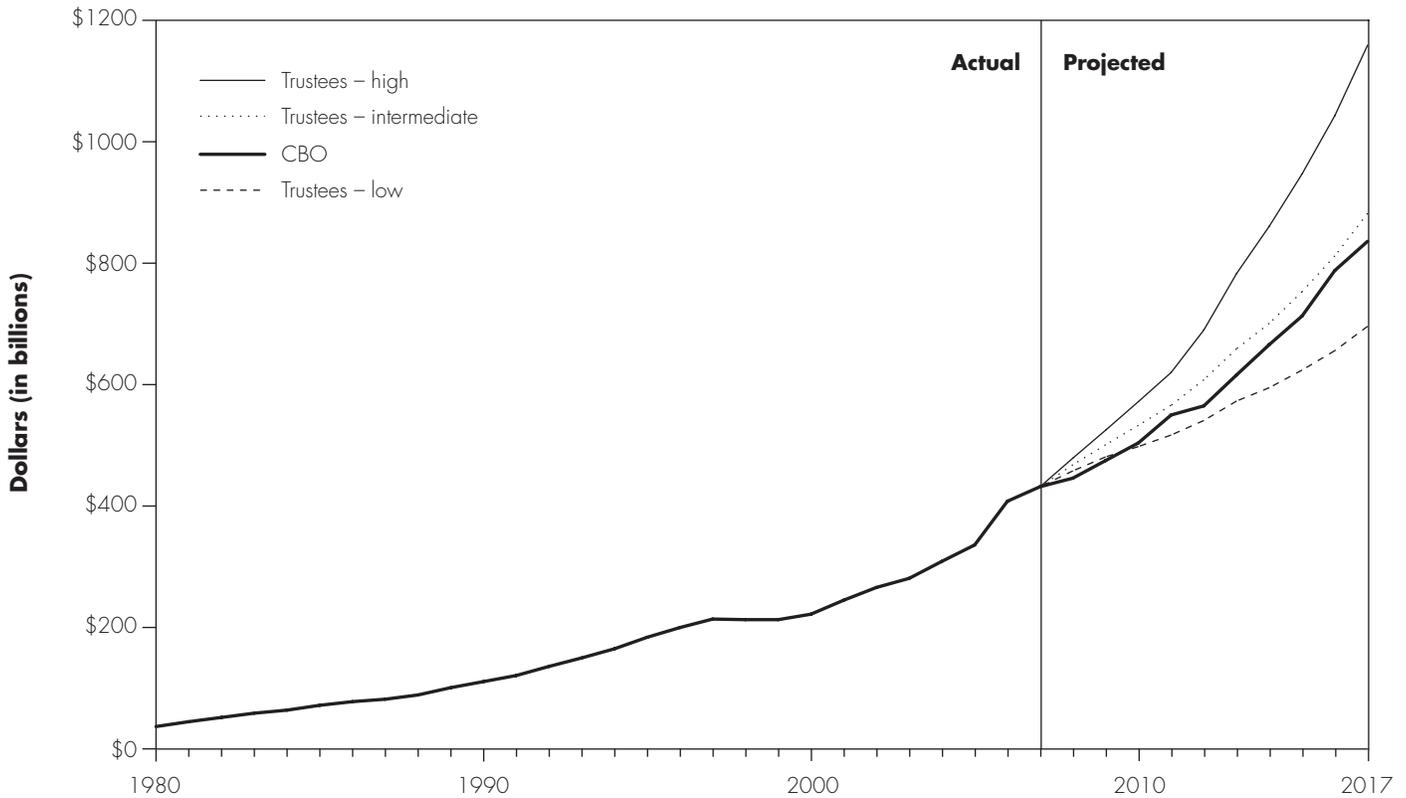
Medicare faces powerful upward pressures on spending that will be difficult to staunch. The interaction between broad use of newer medical technologies and health insurance is thought to account for much of the long-term spending growth in the United States, and those forces will likely push future spending higher. The recent addition of Medicare's outpatient prescription drug benefit places a substantial new financial responsibility on the program.

As we near the end of this decade, Medicare will have to grapple with the additional challenge of higher enrollment levels associated with retiring baby boomers, which will affect program spending levels as well as the demand for federal resources for other programs that benefit the elderly, such as Social Security and Medicaid.

Policymakers will need to use a combination of approaches to address Medicare's long-term financing because no single strategy will be sufficient to address the problem. Strategies to constrain payments may be shorter term in nature since, over time, continually restricting Medicare's payments below the cost of

FIGURE 1-6

Trustees and CBO project Medicare spending to grow at an annual average rate of 7 percent to 8 percent over the next 10 years



Note: CBO (Congressional Budget Office). All data are nominal, gross program outlays (mandatory plus administrative expenses) by calendar year.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds. CBO March 2008 baseline.

providing care could hurt beneficiaries' access to care. Changes to supplemental coverage could curb spending but could require changes to cost sharing that have divisive distributional impacts. Increasing revenue would not disrupt the current delivery system, but it would increase the tax burden on society and reduce the resources available for other national priorities.

Encouraging greater efficiency may be the most desirable because it would enable the Medicare program to do more with existing resources. Reconfigured payment systems would change the distribution of payments among providers, with some gaining and others losing. Much of the Commission's work focuses on encouraging greater efficiency, and the recommendations in this report are part of our mandate from the Congress. These recommendations assess the efficiency of each

payment system, but the Commission acknowledges that the challenges facing Medicare require addressing the incentives and organization of the health care system at a fundamental level. In prior reports to the Congress, we have made recommendations that would address some of these changes, including comparative effectiveness, medical home, and the bundling of services provided in an episode of care (MedPAC 2008c, MedPAC 2007). ■

Endnotes

- 1 As Robert Myers, the Social Security Administration's Chief Actuary in 1965, stated, designing a two-part program resulted from a "legislative process [that] was a matter of political compromise and was not by any means dictated by actuarial principles" (Myers 2000).
- 2 The premium for Part D plans is set to cover 25 percent of the cost of the benefit. However, the balance of Part D funded by the general fund is greater than 75 percent because several categories of expenditures are not included in the premium. The federal government pays the Part D premium for low-income beneficiaries. Part D also pays a subsidy to employers that is not funded through premiums. For these reasons, the overall share of Part D expenditures funded by the general fund is greater than 75 percent.
- 3 The United States uses private health insurance extensively because of the country's tax policies and economic history. During the World War II era, larger U.S. companies began offering health insurance to provide higher compensation to a relatively scarce labor force while avoiding wage and price controls. The federal government did not consider such fringe benefits subject to wage controls, and health insurance contributions paid by employers were not considered taxable income (Helms 2005). At the time, the health insurance industry was in its infancy. Since then, the use of employer-sponsored health insurance and the broader market for private insurance have grown substantially.
- 4 For example, we would not include the value of personal exemptions from individual income tax for dependent minors when calculating U.S. economic output.
- 5 Dollar amounts are adjusted for purchasing power parity—differences in the cost of living across countries—by comparing prices for a fixed basket of goods. OECD's adjustment is a broad-based basket, not one specific to health costs.
- 6 The model uses data from OECD countries to estimate the predicted relationship between per capita income and per capita health care consumption. The authors then compare estimated health care spending for the United States based on the model with actual health care spending and arrive at a variance of \$477 billion between actual and predicted spending.
- 7 Half of the Social Security benefit amount is included in determining beneficiary income under these thresholds.

References

- 2004 Technical Review Panel on the Medicare Trustees Report. 2004. *Review of the assumptions and methods of the Medicare trustees' financial projections*. http://aspe.hhs.gov/health/medpanel/2004/2004_Technical_Review_Panel_on_the_Medicare_Trustees_Report.pdf.
- 2000 Technical Review Panel on the Medicare Trustees Report. 2000. *Review of the assumptions and methods of the Medicare trustees' financial projections*. <http://www.cms.hhs.gov/ReportsTrustFunds/downloads/TechnicalPanelReport2000.pdf>.
- Aaron, J., N. Altman, K. Apfel, et al. 2008. *A balanced approach to restoring fiscal responsibility*. Washington, DC: Center on Budget and Policy Priorities. July.
- Access to Benefits Coalition. 2007. *The next steps: Strategies to improve the Medicare Part D low-income subsidy*. Washington, DC: ABC.
- Agency for Healthcare Research and Quality, Department of Health and Human Services. 2008. *2007 national healthcare disparities report*. Publication no. 08-0041. Rockville, MD: AHRQ. February.
- Antos, J., R. Bixby, S. Butler, et al. 2008. *Taking back our fiscal future*. Washington, DC: The Brookings Institution and The Heritage Foundation. April.
- Antos, J., and R. E. King. 2003. *Comparing Medicare and private-sector spending growth: Recent study does not account for important private sector changes*. Washington, DC: Pharmaceutical Research and Manufacturers of America.
- Baicker, K., and A. Chandra. 2004. Medicare spending, the physician workforce, and beneficiaries' quality of care. *Health Affairs* (April): 184–196.
- Berenson, R. A., T. Bodenheimer, and H. H. Pham. 2006. Specialty-service lines: Salvos in the new medical arms race. *Health Affairs Web Exclusives* (July 25). <http://www.healthaffairs.org>.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2008. *2008 Annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Boccutti, C., and M. Moon. 2003. Comparing Medicare and private insurers: Growth rates in spending over three decades. *Health Affairs* 22, no. 2 (March/April): 230–237.
- Bodenheimer, T. 2006. Primary care—will it survive? *New England Journal of Medicine* 355, no. 9 (August 31): 861–864.
- Catlin, A., C. Cowan, M. Hartman, et al. 2008. National health spending in 2006: A year of change for prescription drugs. *Health Affairs* 27, no. 1 (January/February): 14–29.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008a. CMS issues improper payment rates for Medicare, Medicaid, and SCHIP. Press release. Baltimore, MD: CMS. November 17.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008b. National health accounts. http://www.cms.hhs.gov/NationalHealthExpendData/02_NationalHealthAccountsHistorical.asp#TopOfPage.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008c. September 19 fact sheet. CMS announces Medicare premiums, deductibles for 2009. http://www.cms.hhs.gov/apps/media/fact_sheets.asp.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2006. September 12 fact sheet. Medicare premiums and deductibles for 2007. http://www.cms.hhs.gov/apps/media/fact_sheets.asp.
- Chandra, A., J. Gruber, and R. McKnight. 2007. Patient cost-sharing, hospitalization offsets, and the design of optimal health insurance for the elderly. Working paper 12972. Cambridge, MA: National Bureau of Economic Research. March.
- Christensen, S., and J. Shinogle. 1997. Effects of supplemental coverage on use of services by Medicare enrollees. *Health Care Financing Review* 19, no. 1 (Fall): 5–17.
- Claxton, G., B. DiJulio, and B. Finder. 2007. *Employee health benefits 2007 annual survey*. Washington, DC: Kaiser Family Foundation and Health Research Educational Trust.
- Congressional Budget Office. 2008a. *Technological change and the growth of health care spending*. Washington, DC: CBO.
- Congressional Budget Office. 2008b. *Accounting for sources of projected growth in federal spending on Medicare and Medicaid*. Washington, DC: CBO.
- Congressional Budget Office. 2007. *The long-term outlook for health care spending*. Washington, DC: CBO.
- Congressional Budget Office. 2005. *The long-term budget outlook*. Washington, DC: CBO.

- Cutler, D. M., A. B. Rosen, and S. Vijan. 2006. The value of medical spending in the United States, 1960–2000. *New England Journal of Medicine* 355, no. 9 (August 31): 920–927.
- DeNavas-Walt, C., B. Proctor, and J. Smith. 2008. *Current population reports, P60–235, income, poverty, and health insurance coverage in the United States: 2007*. Washington, DC: Government Printing Office.
- Ellis, P. 2006. Technology or insurance: What is behind the rapid growth of health spending? Comments at American Enterprise Institute panel. Washington, DC: American Enterprise Institute. July.
- Federal Interagency Forum on Aging Related Statistics. 2008. *Older Americans 2008: Key indicators of well-being*. Washington, DC: Government Printing Office.
- Finkelstein, A. 2007. The aggregate effects of health insurance: Evidence from the introduction of Medicare. *Quarterly Journal of Economics* 122, no. 2: 1–37.
- Fisher, E. S., D. E. Wennberg, T. A. Stukel, et al. 2003a. The implications of regional variations in Medicare spending. Part 1: The content, quality and accessibility of care. *Annals of Internal Medicine* 138, no. 4 (February 18): 273–287.
- Fisher, E. S., D. E. Wennberg, T. A. Stukel, et al. 2003b. The implications of regional variations in Medicare spending. Part 2: Health outcomes and satisfaction with care. *Annals of Internal Medicine* 138, no. 4 (February 18): 288–298.
- Fronstin, P. 2007. *Employment-based health benefits: Access and coverage, 1988–2005*. Issue brief no. 303. Washington, DC: Employee Benefit Research Institute. March.
- Fuchs, V. R. 2005. Health care expenditures reexamined. *Annals of Internal Medicine* 143, no. 1 (July 5): 76–78.
- Fuchs, V. 2004. Perspective: More variation in use of care, more flat-of-the-curve medicine. *Health Affairs Web Exclusives* (October 7). <http://www.healthaffairs.org>.
- Ginsburg, P. B., and C. Lesser. 2006. *A decade of tracking health system change*. Commentary no. 2. Washington, DC: Center for the Study of Health System Change. March.
- Ginsburg, P. B. 2004. Controlling health care costs. *New England Journal of Medicine* 351, no. 16 (October 14): 1591–1593.
- Ginsburg, P. B. 2003. Can hospitals and physicians shift the effects of cuts in Medicare reimbursement to private payers? *Health Affairs Web Exclusives* (October 8). <http://www.healthaffairs.org>.
- Glied, S. 2003. Health care costs: On the rise again. *Journal of Economic Perspectives* 17, no. 2 (Spring): 125–148.
- Gluck, M., and R. Sorian. 2004. *Administrative challenges in managing the Medicare program*. Washington, DC: AARP Public Policy Institute. December.
- Hall, R. E., and C. I. Jones. 2007. The value of life and the rise in health spending. *Quarterly Journal of Economics* 122, no. 1: 39–72.
- Helms, R. B. 2005. *Tax reform and health insurance*. Washington, DC: American Enterprise Institute. January.
- Keehan, S., A. Sisko, C. Truffer, et al. 2008. Health spending projections through 2017: The baby boom generation is coming to Medicare. *Health Affairs Web Exclusives* (February 26). <http://www.healthaffairs.org>.
- Kravet, S., A. D. Shore, R. Miller, et al. 2008. Health care utilization and the proportion of primary care physicians. *American Journal of Medicine* 121, no. 2: 142–148.
- Levit, K., C. Smith, C. Cowan, et al. 2004. Health spending rebound continues in 2002. *Health Affairs* 23, no. 1 (January/February): 147–159.
- Matthews, Merrill. 2006. *Medicare's hidden administrative costs: A comparison of Medicare and the private sector*. Washington, DC: Council for Affordable Health Insurance. January 10.
- McGlynn, E. 2004. There is no perfect health care system. *Health Affairs* 23, no. 3 (May/June): 100–102.
- McGlynn, E. A., S. M. Asch, J. Adams, et al. 2003. The quality of health care delivered to adults in the United States. *New England Journal of Medicine* 26, no. 348: 2635–2645.
- McKinsey Global Institute. 2007. *Accounting for the cost of health care in the United States*. New York: McKinsey and Company.
- Medicare Payment Advisory Commission. 2008a. *A data book: Healthcare spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008c. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.

- Medicare Payment Advisory Commission. 2005. *Report to the Congress: Physician-owned specialty hospitals*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2004a. *Report to the Congress: New approaches in Medicare*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2004b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2003. *Report to the Congress: Variation and innovation in Medicare*. Washington, DC: MedPAC.
- Moon, M. 2000. Medicare matters: Building on a record of accomplishments. *Health Care Financing Review* 22, no. 1 (Fall): 9–22.
- Moore, J. D., and D. G. Smith. 2005. Legislating Medicaid: Considering Medicaid and its origin. *Health Care Financing Review* 27, no. 2 (Winter): 45–52.
- Myers, R. J. 2000. Why Medicare Part A and Part B, as well as Medicaid? *Health Care Financing Review* 22, no. 1 (Fall): 53–54.
- Nemore, P., J. A. Bender, and W. W. Kwok. 2006. *Toward making Medicare work for low-income beneficiaries: A baseline comparison of the Part D low-income subsidy and Medicare Savings Programs eligibility and enrollment rules*. Washington, DC: Kaiser Family Foundation.
- Newhouse, J. P. 1992. Medical care costs: How much welfare loss? *Journal of Economic Perspectives* 6, no. 3 (Summer): 3–21.
- New England Healthcare Institute. 2008. *How many more studies will it take?* Boston, MA: New England Healthcare Institute. February.
- Nichols, L., P. Ginsburg, R. Berenson, et al. 2004. Are market forces strong enough to deliver efficient health care systems? Confidence is waning. *Health Affairs* 23, no. 2 (March/April): 8–21.
- Office of Management and Budget. 2008. *Analytic perspectives, budget of the United States government*. Washington, DC: OMB. February.
- Organisation for Economic Co-operation and Development. 2008. *Health data 2007*. Paris: OECD.
- Orszag, P. 2008. Policy workshop to examine implications of Medicare’s funding warning. Comments at Kaiser Family Foundation’s panel. Washington, DC: Kaiser Family Foundation. March.
- Pauly, M. V. 2003. What if technology never stops improving? Medicare’s future under continuous cost increases. *Washington & Lee Law Review* 60, no. 4 (Fall): 1233–1250.
- Pauly, M. V. 1997. *Health benefits at work*. Ann Arbor: University of Michigan Press.
- PricewaterhouseCoopers. 2008. *The price of excess: Identifying waste in healthcare spending*. Rockville, MD: PricewaterhouseCoopers Health Research Institute.
- Redburn, R. F., and J. Walsh. 2008. Pay now, benefits may follow—the case of cardiac computed tomographic angiography. *New England Journal of Medicine* 359, no. 22 (November 27): 2309–2311.
- Remler, D. K., and A. J. Atherly. 2003. Health status heterogeneity of cost-sharing responsiveness: How do sick people respond to cost-sharing? *Health Economics* 12: 269–280.
- Riley, G. 2007. Long-term trends in the concentration of Medicare spending. *Health Affairs* 26, no. 2 (May/June): 808–816.
- Schoen, K., R. Osborn, S. How, et al. 2008. In chronic condition: experiences of patients with complex health care needs, 2008. *Health Affairs Web Exclusives* (November 13). <http://www.healthaffairs.org>.
- Schoen, C., R. Osborn, M. Doty, et al. 2007. Toward higher-performance health systems: Adults’ health care experiences in seven countries. *Health Affairs Web Exclusives* (October 31). <http://www.healthaffairs.org>.
- Selden, T. M., and M. Sing. 2008. The distribution of public spending for health care in the United States, 2002. *Health Affairs Web Exclusive*, <http://www.healthaffairs.org>.
- Skinner, J., D. Staiger, and E. Fisher. 2006. Is technological change in medicine always worth it? The case of acute myocardial infarction. *Health Affairs Web Exclusives* (February 2). <http://www.healthaffairs.org>.
- Starfield, B., L. Shi, and J. Macinko. 2005. Contribution of primary care to health systems and health. *Milbank Quarterly* 83, no. 3: 457–502.
- Thorpe, K. E., D. H. Howard, and K. Galactionova. 2007. Differences in disease prevalence as a source of the U.S.–European health care spending gap. *Health Affairs Web Exclusives* (October 2). <http://www.healthaffairs.org>.

Thorpe, K. E., and D. H. Howard. 2006. The rise in spending among Medicare beneficiaries: The role of chronic disease prevalence and changes in treatment intensity. *Health Affairs Web Exclusives* (August 22). <http://www.healthaffairs.org>.

Vogt, W., and R. Town. 2006. *How has hospital consolidation affected the price and quality of health care?* The Synthesis Project. Issue brief no. 9. Princeton, NJ: Robert Wood Johnson Foundation. February.

Wennberg, J., E. Fischer, and S. Sharp. 2006. *Dartmouth atlas of health care 2006: The care of patients with severe chronic illness*. http://www.dartmouthatlas.org/atlasses/2006_Chronic_Care_Atlas.pdf.

Woolhandler, S., D. Himmelstein, and Q. Young. 2003. Proposal of the physicians working group for single payer national health insurance. *Journal of the American Medical Association* 290, no. 6 (August 13): 798–805.