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Health

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Projected increases in federal spending on health care programs account for most of the anticipated gap between taxes and spending over the next few decades. The gap is so large that cuts in other government programs cannot plausibly close it. The remaining alternatives are to cut Medicare and Medicaid benefits sharply or to accept huge tax increases. Efforts to eliminate waste and improve efficiency should be pursued and may yield sizable savings, but the savings will not be enough to avoid difficult choices. The problem is just too large, and transforming existing medical practices will take many years.

That challenge is hard enough, but it is only part of the problem. The same hospitals and physicians that care for Medicare and Medicaid patients also serve the privately insured. For decades per capita spending in the private sector has risen at a rate similar to that of the public sector. To seek significantly different standards of care for the populations in the two sectors is neither practicable nor desirable. To significantly lower Medicare and Medicaid costs, it may be necessary to limit care for everyone. In plain terms, closing the federal fiscal gap will likely require health care rationing for all.

The Problem: Rising Health Care Costs

Growth of health care spending has outpaced the increase in income per person for the past half-century by an average of more than 2.5 percentage points a year. The source of most of this increase has been the steady march of medical science, which has generated impressive advances in human well-being. From early antibiotics that quickly cured previously intractable and often lethal infections, to artificial hips and knees and imaging devices that have largely replaced exploratory surgery, these advances have brought enormous benefits.¹

But the advances have not been cheap. For decades health care spending has claimed ever larger shares of national income, rising from 5.7 percent of gross domestic product in 1965, the year Medicare and Medicaid were enacted, to 15.3 percent in 2003. Federal government expenditures on health, which were a tiny 0.4 percent of gross domestic product in 1965, rose to 4.9 percent in 2004. Well-insured Americans have every reason to seek essentially all beneficial services, however small the benefit and however high the cost. Providers who are paid for each service rendered have every incentive to supply those services. As a result, per capita health spending in the United States exceeds that in every other nation by at least 47 percent.²

Nor is the growth in health care spending likely to slow down. Advances in molecular medicine and genomics, along with the aging of the population, promise to turn the stream of innovative diagnostic and therapeutic procedures into a torrent.³ Rapid increases in the proportion of the population that is aged or disabled, together with government programs that largely serve these groups, mean that growth in federal health care spending will accelerate.

A continuation of past trends, with health care spending growing 2.5 percent a year more than income, may seem relatively benign. Were the differential to persist, however, *federal* spending on health care by 2045 would claim as large a share of national income as the total federal budget (other than interest on the national debt) does today. By 2022, annual increases in total health care spending would absorb more than half of economic growth—and by 2051, all of it.

Table 4-1 shows federal outlays on Medicare and Medicaid as a share of gross domestic product and of federal spending under two alternative

Table 4-1. *Projection of Medicare and Medicaid Expenditures as a Percent of Federal Outlays and of GDP*

Year	Medicare and Medicaid outlays			
	Percent of federal outlays ^a		Percent of GDP ^b	
	Historical trend scenario ^c	Slowed growth scenario ^d	Historical trend scenario	Slowed growth scenario
2005	19.6	19.6	4.2	4.2
2010	23.2	22.5	5.3	4.8
2020	28.9	27.7	7.8	6.5
2030	33.6	30.8	11.5	8.4
2040	36.1	32.2	16.1	10.1

Source: Figures for 2005 are estimates taken from CBO, “The Budget and Economic Outlook: Fiscal Years 2006 to 2015 (Washington, January 2005). Figures for subsequent years are projections from CBO, “The Long-Term Budget Outlook” (December 2003) (www.cbo.gov/showdoc.cfm?index=4916&sequence=0 [March 17, 2005]).

a. Federal outlays net out premium payments because they are not a share of federal costs. GDP shares are based on the gross cost of services paid in full or in part by Medicare and Medicaid.

b. National outlays on Medicaid as a share of GDP include spending by state and local governments, set at two-thirds of federal outlays.

c. The historical trend scenario assumes that Medicare and Medicaid cost growth exceeds GDP by 2.5 percent a year.

d. The slowed growth scenario assumes that Medicare and Medicaid cost growth exceeds GDP by 1 percent a year.

assumptions—that per capita Medicare and Medicaid outlays continue to increase at the trend rate of 2.5 percentage points a year more than per capita income or that excess spending falls to 1 percentage point a year.

Such projections should provoke two reactions. The first is that mindless extrapolations are, well, *mindless*. Nothing, not even health care costs, can continuously grow materially faster than something of which it is a part. At some point, growth of health care spending must diminish.

The second reaction should be to wonder just *how* the growth of health care spending will be slowed. Were advances in medical science to lower costs rather than boost them, the adjustment would be quite painless. Such an outcome is, however, quite improbable. Scientific advancement often lowers *prices*, but it seldom lowers *cost*, which is price multiplied by quantity.⁴ Most important, the trends portrayed in table 4-1 portend some very difficult budgetary choices.

One option is to adopt diverse measures to slow the growth of health care spending in ways that do not undercut the access of the poor, elderly, and disabled to beneficial care or treat them and privately insured Americans

differently. The savings from the measures we describe could be significant, although probably not as large as their advocates claim. In particular, they are unlikely to forestall very rapid growth in the share of federal spending devoted to health programs.

If these measures do not control health care spending, the nation will face a nasty dilemma. It could raise taxes sharply—and spend relentlessly increasing shares of private income on health care as well. It could deny beneficial care to some patients—that is, ration care. Or it could require patients to pay directly for a larger share of the cost of care. For reasons described below, we anticipate that the nation is likely to have to do some of all three.

Measures to Curtail the Growth of Health Care Spending

Numerous studies document that the U.S. health care system generates a great deal of care that promises no medical benefit and a distressing amount that is downright harmful.⁵ Inappropriate care is not unique to the United States, but certain features of the U.S. health care system may encourage it.⁶ The payment system rewards providers for doing more. The threat of litigation frightens them into doing more. Physicians usually practice as they were taught, even if current research does not validate their methods. Poor organization of hospitals and doctor's offices and missed opportunities to use information technology to reduce medical errors cause needless illness and death, although the number of such adverse outcomes often is exaggerated.⁷ And, of course, mortals—even physicians—sometimes err.

Such waste and inefficiency can be reduced. Increased use of computers to control the dispensing of medication and to maintain patient records would reduce medical error. Reeducation of physicians and other providers can hasten the introduction of “best practices.” Well-designed tort reform may reduce “defensive medicine”—care provided because it protects doctors against litigation, not because it is medically indicated.⁸

A review of forty-eight articles from leading professional journals found that 20 percent of patients received unnecessary or “contraindicated” chronic care and 30 percent received contraindicated acute care. But the same authors also found that 30 percent of patients studied did

not receive recommended acute care, 40 percent did not receive recommended chronic care, and 50 percent did not receive recommended preventive care.⁹ Furthermore, an Institute of Medicine study found that overuse of services is more likely to be detected than underuse because noticing error in medical records is easier than pinpointing where more should have been done. Those who allege that health care costs could be controlled by eliminating waste are more punctilious in citing statistics on overuse than on underuse.¹⁰ Malpractice reforms that do no more than cap damages may reduce somewhat the incentive to overprovide care created by the threat of unlimited damages and thereby save money. However, they may also lead some providers to offer less care than they should and thereby reduce needed care.

These studies clearly document that medical care is misdirected. They do not show, however, that a system that targets recipients more accurately would cost much less than the existing one. Recent research indicates that Medicare expenditures could be reduced nearly 29 percent without affecting health outcomes if the level of spending in high-cost regions could be reduced to the level in low-cost regions.¹¹ Such findings hold the tantalizing promise of major savings. But persuading physicians and hospitals in higher-cost cities such as New York and Miami to practice medicine the way it is done in lower-cost cities such as Minneapolis and Seattle is not easy and may take many years to accomplish.

The first message from all of this research is that enacting and implementing measures that simultaneously curtail waste and ensure provision of needed care will take time and money. The second lesson is that precisely because solving these problems will take time, investments should begin promptly. Research on cost-effective medicine is in its infancy. Physicians' habits in practicing medicine are notoriously hard to change. But the possibility of training and mentoring new generations of physicians to keep them up to date at relatively low cost is increasing with computer-based data systems. Such systems also can be used to maintain medical records, order medications and tests, and process patient bills, although they will require the resolution of many as-yet-unsolved problems and large up-front investments.¹²

Inefficiencies and inappropriate care could be reduced by revising payment incentives and by reorganizing the delivery of care into competing

integrated delivery networks with limited provider panels. Capping the exclusion from taxes of employer-financed insurance at a level that would cover standard physician and hospital services would encourage businesses and individuals to shop for tightly managed health plans. Consumers would be given incentives not to enroll in high-cost plans, and providers would be rewarded for adhering to best medical practices rather than for providing all possible services. Yet capping the exclusion from personal income and payroll taxes of employer-financed health insurance and fostering plans with tightly limited rosters of health care providers have so far generated little political support.

The Medicare Modernization Act of 2003 contained a provision with some promise for reducing the level of health care spending. Under that provision, people who purchase so-called high-deductible health insurance may deposit sums in highly tax-favored vehicles called health savings accounts (HSAs) that may be used for health expenses at any time during their lives or bequeathed to their heirs for health outlays. The deductibles must be at least \$1,000 for individuals and \$2,000 for families. Annual deposits in the accounts may not exceed the deductible or a cap.¹³ HSAs have some promise of slowing, at least temporarily, the growth of health care spending. They also carry a threat. If they shift healthier-than-average people from group to individual insurance plans, they could raise the average price of traditional group insurance. If they lead to the demise of group insurance, they would force older people and those with chronic illnesses into the individual insurance market, where they would face very high premiums.

Medicare and Medicaid Reforms

Certain changes in Medicare and Medicaid could reduce federal budget outlays. Some would cut total spending. Others would simply shift government spending to private payers.

Raising the Age of Eligibility for Medicare

In 1965, Medicare legislation set the eligibility age at sixty-five, a seemingly natural choice because “full” Social Security benefits were paid at

Table 4-2. *Impact on Medicare Costs of Increasing Medicare Age of Eligibility*^a

<i>Increased age of eligibility</i>	<i>Savings as a percent of outlays</i>
66	3.0
67	5.8
68	8.8
69	11.9
70	15.1
71	18.6
72	22.3

Source: Authors' calculations based on data from the Congressional Budget Office.

a. The projections are based on data on relative Medicare spending by age of beneficiary for the year 1999, supplied by Tom Bradley of the Congressional Budget Office. We assume that the ratio of expenditures at each age to average Medicare outlays per person persists into the future, as does the proportion of Medicare beneficiaries at each age. Relative expenditures do not include any allowance for added outlays under the Medicare drug benefit added by the Medicare Modernization Act of 2003. In fact, the age composition of the elderly in 2030 will differ little from that in 2005. Whether relative outlays by age will change will depend on the pattern of technological change and payment policy under Medicare.

age sixty-five.¹⁴ Two important developments have occurred since then. First, workers have begun to claim Social Security benefits at progressively earlier ages—more than 70 percent of workers now claim benefits between the ages of sixty-two and sixty-five. This shift might imply lowering the age of eligibility for Medicare, as most people lose their employer-sponsored coverage when they retire.

Second, in 1983 Congress enacted legislation gradually increasing from sixty-five to sixty-seven the age at which Social Security recipients get a standard benefit—the so-called “full benefit age.”¹⁵ Some have suggested that this change justifies increasing the age of eligibility for Medicare to age sixty-seven as well. Increasing the age of eligibility for Medicare would probably marginally increase labor force participation and boost payroll and income tax collections. However, the direct reduction in Medicare spending would be surprisingly small—only about 6 percent (see table 4-2), because younger retirees incur much smaller health bills than do older retirees and raising the eligibility age has no effect on outlays for the non-elderly disabled.

In addition, these savings would be partly offset by increases in other federal outlays. Ineligibility for Medicare would push some sixty-five- to sixty-seven-year-olds into Medicaid and other government programs, notably those of the Veterans Administration. The increase in Medicaid

enrollments would be particularly problematic for states, which have relatively inelastic revenue sources and operate under balanced budget requirements. An increase in the Medicare eligibility age would also push millions to seek private insurance coverage, but many have chronic illnesses—“preexisting conditions,” in insurance jargon—that result in high premiums or denial of coverage. Were an increase in the Medicare eligibility age to come along without an increase in the actual age of retirement, all of these problems would be exacerbated.

Increased Medicare Cost Sharing

Requiring Medicare enrollees to pay more for care than they now do would lower federal outlays in two ways—by shifting costs from the government to the individual and by reducing individuals’ use of health services by increasing the price that they have to pay. A major social experiment in which participants were exposed to varying deductibles provided evidence that the reductions in the use of care could be large.¹⁶ The adverse health impacts from reduced use of health care services were small for most enrollees, but they were most notable for the disadvantaged. Whether the large cost savings and small health effects would carry over to the elderly and disabled populations is unclear, as both groups were excluded from the experiment; moreover, the health problems of the elderly differ greatly from those of the healthy, non-elderly population.

Medicare already requires considerable cost sharing by its enrollees. Part A, which covers hospital and skilled nursing facility stays, imposes higher deductibles and more cost sharing than most private plans and provides no protection for very lengthy hospital stays.¹⁷ Enrollees must pay sizable premiums for Part B—Supplemental Medical Insurance (SMI)—which covers physicians’ services, durable medical equipment, and the new drug benefit.¹⁸ In 2003, Congress introduced income-related premiums for SMI for the first time in Medicare’s history. Beginning in 2007, individuals and couples with incomes in excess of \$80,000 and \$160,000 respectively will have to pay premiums set at 35 to 80 percent of average premium cost. The top premiums will apply only when income exceeds \$200,000 for individuals and \$400,000 for couples. However, many people do not pay Part B premiums. About 33 percent of

Medicare-enrolled retirees have retiree coverage from their former employers that pays some or all deductibles, premiums, and copayments.¹⁹ Other Medicare enrollees buy insurance themselves. And approximately 7.2 million elderly and disabled people are eligible for both Medicare and Medicaid, which pays most charges and covers certain services excluded from the Medicare benefits package—most notably, nursing home care.²⁰

While raising the proportion of Medicare outlays paid by all enrollees would reduce both budget outlays and consumption of medical services, it would create two problems. First, increased premiums and charges for care could seriously burden all but upper-income elderly and disabled beneficiaries, especially if Social Security benefits are reduced.²¹ Second, demand for preventive care, such as screening tests and maintenance therapy to slow the development of progressive conditions, seems to be sensitive to price. As a result, some analysts recommend providing such services outside deductibles, at little or no charge.

Other cost-sharing reforms should be considered. The various deductibles for different Medicare services could be replaced by a single deductible covering all services. Cost sharing for various services could be substantially increased, in combination with income-graduated waivers for low- and middle-income beneficiaries. A stop-loss provision should be added to Medicare to preclude the devastatingly large charges paid by some recipients under the current system.

The potential budget savings from such reforms should not be exaggerated. Typical elderly and disabled Medicare beneficiaries have modest incomes and few assets. For example, in 2002 only 15 percent of those over age sixty-five lived in households with incomes of \$50,000 a year or more.²² Large increases in cost sharing would threaten Medicare's basic purpose, unless they were limited to the minority of beneficiaries with high incomes.

New Medicare Purchasing Strategies

Medicare tries to limit costs by setting the price it will pay for various services. Many observers now believe that alternative systems could both lower costs and improve quality. Currently, for example, Medicare pays

hospitals on the basis of each patient's primary and secondary diagnosis at admission and pays physicians for procedures performed. The system is enormously complicated to administer, with thousands of different prices; it also is virtually impossible to police fairly at a reasonable cost. For example, without intrusive and expensive administration, how is Medicare to know whether each physician or hospital correctly coded the services performed? For purposes of cost control, the physician payment system has an important additional shortcoming—it controls the price but not the quantity of services rendered. It thereby encourages the provision of low-benefit or even useless tests and procedures. Some observers believe that sizable savings could be achieved under alternative purchasing systems with different incentives.

PAY FOR INSURANCE, NOT CARE. Medicare now pays for services for 88 percent of beneficiaries, while 12 percent are enrolled in prepaid group plans. Medicare could instead pay a flat sum, adjusted for each patient's age and health status, to a health plan of the enrollee's choice—including HMOs, PPOs, point-of-service arrangements, or plans providing fee-for-service care. Under one possible arrangement, modeled on the Federal Employee Health Benefit Program (FEHBP), the federal government would contribute a flat amount equal to a fixed percentage of a weighted average of the premiums of the various plans participating. The current FEHBP share is 72 percent.

Because enrollees pay extra for plans whose premiums exceed the government's contribution, advocates of this approach maintain that they will tend to enroll in cost-effective plans, driving plans to compete to improve the quality of service and control costs. Critics express concern that Congress will not raise federal payments as fast as health costs increase, leading to erosion of Medicare coverage. Linking the federal payment to the cost of a basic package of health services rather than to costs—so-called “premium support”—might ameliorate this problem.²³ Critics of insurance vouchers or premium support also fear that numerous competing health plans would lack the leverage Medicare now has in securing low prices from providers.

SELECTIVE PURCHASING. Medicare now pays for care rendered by any willing provider for about 90 percent of current enrollees. Some observers argue that Medicare could lower costs and improve quality of

care if it *selectively* purchased coverage, either from health plans or directly from providers. Favored vendors would be selected on the basis of cost and quality of services. Medicare enrollees would face additional charges if they chose a plan with high costs or of low quality. Incentives that might push insurers and providers to improve care and lower costs are more appealing to most people than stiff cost sharing at point of use, particularly for an elderly and disabled population, most of whom have modest income and few assets and many of whom lack the capacity or information to make good choices on their own.

Medicaid Modifications

Contrary to popular belief, Medicaid spends far more to support care for aged, blind, and disabled individuals than for poor mothers and their dependent children. Although the aged, blind, and disabled represented only 27 percent of Medicaid recipients in 2000, they accounted for 70 percent of program spending.²⁴ Thus the same demographic trends driving Medicare expenditures will also push up Medicaid outlays. Medicaid differs from Medicare in that a far larger share of its outlays go for nursing home benefits. Medicaid pays for 50 percent of nursing home care and 43 percent of total spending on long-term care.²⁵

Medicaid is administered jointly with the states, most of which bear 40 to 50 percent of the costs. As a result, many changes to improve Medicaid efficiency are not entirely under federal control. Medicaid is the most rapidly growing component of state budgets. As the baby boom generation ages and eventually moves into the age brackets that make heavy use of nursing home services, Medicaid costs will threaten to overwhelm state budgets.

Unless enrollees become healthier or richer, federal Medicaid outlays can be cut in only five ways: by curtailing services, by buying services more cheaply or using them more efficiently, by encouraging people to buy private long-term care insurance, by reducing fraud, and by shifting costs to states.

CURTAILING SERVICES. Major restrictions on eligibility or covered services under Medicaid would directly undermine the program's goal of providing health care to the low-income population. Nor is significant

cost sharing an option. Because Medicaid eligibility is based on lack of income or wealth, increasing charges would amount to denying services to enrollees. Nonetheless, because of severe fiscal pressures at the state level, governors are currently doing exactly that. Some states are proposing to pay only for primary and preventive care, leaving specialty care, diagnostic services, and hospitalization uncovered. Others are instituting premiums for at least some Medicaid enrollees.

BUYING SERVICES MORE CHEAPLY OR USING THEM MORE EFFICIENTLY. The second way to lower the growth of Medicaid spending is through new purchasing strategies. Medicaid now costs less than private insurance, after adjustments are made for coverage and patient characteristics, largely because Medicaid has stringently restricted fees. In addition, Medicaid costs have risen less in recent years than the costs of private care. Nonetheless, opportunities for additional economies exist. Medicaid participants continue to rely on emergency rooms for routine care that could be provided more effectively and economically in a physician's office. The lack of regular caregivers means that too often illnesses are not caught early and chronic conditions and disabilities are not adequately monitored, reducing the quality of care.²⁶ Whether fixing those problems would save money is less clear.

Several states have begun to buy health care at discounted prices for low-income populations from one or a small number of providers. Such contracts may incorporate quality indicators, such as reports that show whether the organization provides appropriate care in a timely fashion. States have also experimented with paying the employee's share of employer-sponsored health coverage for low-income workers and adding coverage when that provided by an employer plan is narrower than the Medicaid benefit package. This approach spares Medicaid the full cost of coverage. As with other supposedly cost-saving measures, such interventions are more likely to improve the quality of services than to cut their cost.

PRIVATE LONG-TERM CARE INSURANCE. The third way to lower Medicaid spending is to encourage people to buy long-term care insurance to protect themselves from nursing home costs, which currently run more than \$60,000 a year for a semiprivate room offering custodial

care.²⁷ Although some analysts see private long-term care insurance as the best hope for reducing the enormous projected growth in Medicaid spending on nursing home care, finding ways to induce people to buy and retain long-term care insurance has proven elusive.²⁸ Insurers have been loath to provide complete coverage because of uncertainty regarding service costs many years in the future. On the buyers' side, demand for long-term care insurance has been weak.

REDUCING FRAUD. Both Medicare and Medicaid pay large sums for services that are both expensive and hard to monitor, a combination that always breeds fraud. Medicare and Medicaid are not exceptional in this regard. So-called Medicaid mills have defrauded the program of millions in payment for needless procedures that were not, in fact, provided. For years, "up-coding," whereby providers bill for services that are more highly reimbursed than those that they actually provided, was generally acknowledged but rarely documented. The federal government has collected more than \$12 billion in settlements from fraud cases since 1986, with the majority of those funds recovered from health care cases. Of \$2.1 billion recovered in civil fraud claims in FY2003, \$1.7 billion involved health care fraud—primarily against Medicare but more recently including substantial Medicaid settlements.²⁹

SHIFTING COSTS TO THE STATES. The final way to rein in federal Medicaid spending is to shift costs to the states. Currently the federal government pays from 50 percent to 78 percent of state Medicaid service costs. In 2003 the Bush administration first proposed converting Medicaid from a matching grant to a block grant,³⁰ but the initiative was adamantly opposed by both Republican and Democratic governors, who recognized that states would face the full fiscal burden of rising enrollments. That risk is particularly acute during recessions, when applications increase and state revenues fall. Because of united opposition from the states, the administration did not reintroduce the block grant idea but instead floated the idea of capping payments per enrollee. This proposal provides the states some cushion against rising enrollments. They would still be forced to pay all of any increase in health costs above the cap, however, and they would be under heightened pressure to curtail benefits and limit enrollments.

Summary

There is no practicable way to estimate by how much the reforms described in this chapter would lower Medicare and Medicaid spending or health care outlays. Sizable reductions in the growth of government spending as a share of gross domestic product are doubtless possible. We believe, however, that the evidence shows conclusively that eliminating large increases in these budget shares is impossible without undermining the purpose of both programs and adversely affecting the health of elderly, disabled, and poor Americans. The largest reductions in government spending would result from increased cost sharing under Medicare, which makes sense for those who can afford it, and raising the age of eligibility, which might create more problems than it would solve. All of the measures presented here would take years to implement. Meanwhile, the population will be aging and using more health care per person, and physicians and other scientists will be developing new beneficial—and costly—forms of diagnosis and therapy. In the next section, we explore various ways in which the nation might adjust to the resulting cost increases.

Confronting Rising Health Costs: Three Budget Options

We turn now to three ways to deal with the huge projected increase in federal health care spending and its impact on the federal budget and on Medicare and Medicaid recipients. The same scenarios are also described in chapter 2, where their implications for other federal spending and the non-elderly population are further elaborated.

—Under the first scenario, we assume that the age of eligibility for Medicare remains sixty-five and that other aspects of the program are unchanged. We assume also that coverage and benefits under Medicare and Medicaid are unchanged and that health care costs continue to rise at the historical average of 2.5 percentage points a year faster than economic growth. Alternatively, some or all of the cost-reducing measures described earlier in this chapter could be introduced, with all of the savings used to bring Medicare coverage up to the standards of typical private insurance or to finance extended long-term care benefits. (This is the “maintaining the social contract” scenario in chapter 2.)

—The second scenario assumes that the growth of health care spending is somehow reduced from the historical average of 2.5 percentage points to 1 percentage point a year more than per capita GDP. Such a slowdown could occur in various ways. The Medicare eligibility age might be increased to seventy. Some combination of system reforms, such as those described earlier in this chapter, might be introduced. Or general health care rationing might slow the growth of all health care spending, public and private. We indicate the amount by which revenues would have to increase to pay for remaining health benefits. (This is the “investing in the future” scenario in chapter 2.)

—Under the third scenario, we assume that the share of gross domestic product devoted to Medicare and Medicaid increases solely because of demographic changes in the population. This scenario implies that per capita health care spending grows at the same rate as per capita income. We describe some of the program changes that such a cost constraint implies. (This is the “smaller government” scenario in chapter 2.)

Scenario 1: No Reduction in Growth of per Capita Health Costs

Under scenario 1, federal spending on Medicare and Medicaid will grow dramatically (see table 4-1). We assume that all of the increase would have to be covered by increased taxes. If growth of Medicare and Medicaid spending per beneficiary did not slow and if payroll and income taxes were used to cover the added costs of Medicare and Medicaid, it would be necessary to nearly double the Medicare payroll tax and increase all personal income tax collections by more than 70 percent to cover Medicare and Medicaid costs. (By 2040, payroll taxes would be two-and-a-half times higher and income tax collections would need to more than double.) Other possible ways of covering these increased costs are described in chapter 5.³¹

Scenario 2: Slowed Growth of Health Costs per Beneficiary

The first scenario makes clear that if growth of health care spending continues at past rates, massive tax increases are inescapable. We therefore suggest an approach that blends some program reductions with tax increases that, while formidable, are less extreme than those with option 1.

The second scenario is based on the assumption that the growth of per capita Medicare and Medicaid spending will moderately decelerate until the annual increase is just 1 percentage point more than the growth in wages, the same assumption used in projections by Medicare's actuaries. To achieve this slowdown will take aggressive action. Such actions will include most or all of the measures that various reformers have suggested and that we described above, including some increase in the age of eligibility for Medicare, increased cost sharing, selective purchasing, and the application of information technology. Even with such measures, it is unlikely that Medicare and Medicaid will be able to continue to provide essentially all beneficial care to those whom they serve. Increasing the age of eligibility for Medicare by five years would reduce spending by only 1.3 percent of GDP in 2030 and 1.5 percent in 2040. Medicare and Medicaid are likely to have to extend contracting with prepaid plans that not only have incentives to provide care efficiently but that also are prepared to ration care.

Medicare enrollees may be able to shoulder more cost sharing in the future than they can now to the extent that health savings accounts are adopted and people carry forward the unused balances in their accounts. Whether HSAs will be widely used is still unclear. If they are used, people may spend all or most of the funds deposited in such accounts during their working lives. And those who carry sizable balances forward are quite likely to reduce other forms of saving. For all of these reasons, the net effect of HSAs on the capacity of future Medicare beneficiaries to shoulder increased cost sharing is questionable.

If growth of per capita Medicare and Medicaid spending can be slowed to 1 percentage point more than GDP, federal spending on health care will still increase, as shown in table 4-1. Taxes would have to increase by 4 percent of gross domestic product by 2030 and 6 percent by 2040 just to cover added health care spending on Medicare and Medicaid. That increase makes no allowance for tax increases for other purposes—to balance the overall budget, to pay for added pension costs, to cover long-term care benefits beyond those now provided under Medicaid, or for military emergencies.

But a reduction in the growth of health care spending from 2.5 percentage points a year more than GDP to just 1 percentage point a year

more would be a monumental achievement. It will demand vigorous action to promote cost-effective delivery of care and significant reductions in coverage.

Scenario 3: GDP and per Capita Health Care Spending Rise at the Same Rate

Under the third scenario, we assume that sufficient changes are made in Medicare and Medicaid to ensure that per beneficiary spending grows no faster than total national per capita income. Even so, Medicare and Medicaid will claim a growing share of government spending because the proportion of the population that is elderly and disabled is projected to grow.³² If growth of per capita health spending did not exceed GDP growth, demography alone would be projected to increase federal Medicare and Medicaid expenditures from 4.2 percent of GDP in 2005 to 5.7 percent in 2030 and 6.2 percent in 2040.³³

If per capita health costs continued to grow at historical rates, the share of GDP absorbed by federal health care spending could be held to these levels only by increasing the age of eligibility for Medicare from sixty-five to seventy-nine by 2030 and eighty-three by 2040. Many would find such increases in the age of eligibility unthinkable. As noted, even with such sharp increases in the age of eligibility, the total cost of Medicare as a share of gross domestic product would increase because the elderly and disabled will constitute a growing share of the total population.

Alternatively, deductibles, copayments, and coinsurance could be increased. This policy would shift costs now borne by Medicare to program beneficiaries and to the states, as higher cost sharing would push some people into Medicaid. In 2000, Medicare paid just under three-fifths of total personal health care spending of beneficiaries living in the community.³⁴ Whether that share will rise or fall depends in part on the character of medical advances and in part on policy. For example, the rapid increase in drug costs from 5.6 percent of personal health care spending in 1980 to 12.4 percent in 2003 increased out-of-pocket spending because Medicare did not cover outpatient drugs. With the passage of the Medicare Modernization Act of 2003, Medicare now covers some of those costs.

Policies that explicitly shift costs to enrollees would have two major effects. First, they would tend to reduce total health care spending. Second, they would increase the number of Medicare participants who also are eligible for Medicaid and who would turn to the Veterans Administration hospitals for care. The omission of the first effect understates budget savings; the omission of the second overstates savings. We ignore both such effects. Under this assumption, to hold the growth of per capita budget outlays on Medicare to that of per capita income, it would be necessary to lower the proportion of personal health care spending paid by Medicare from just under 60 percent to about 29 percent in 2030 and 23 percent in 2040.

Some combination of increases in the age of initial entitlement and cost sharing could also hold the growth in Medicare costs to growth resulting entirely from demographic shifts. Were growth of overall federal spending to be held to growth from demographic shifts, it would be necessary also to cut Medicaid coverage. If cuts in Medicaid spending are proportionately smaller than those in Medicare, holding growth of overall federal health care spending to what is attributable to growth of the population served would require even larger Medicare cuts than those indicated above. Even with the formidable cutbacks in coverage described above, federal health care spending would increase by 2 to 3 percent of GDP because of demographic forces alone.

The Rest of Health Care Spending

Nearly half of total health care spending now results from Medicare, Medicaid, and federal and state health programs for veterans and their families, and others.³⁵ Private health care spending will be affected less by population aging than will Medicare and Medicaid outlays. But private health care spending will be subject to the same upward pressures from technology. As shown in table 4-3, continued growth at historical rates indicates that total health care spending will absorb more than one-fourth of gross domestic product by 2030 and more than one-third by 2040. Increased private costs for care will come on top of the sharply higher taxes to support benefits for dependent populations. Under those circumstances, we anticipate that pressures to ration care for the entire

Table 4-3. *Projection of National Health Care Spending as a Percent of GDP under Two Scenarios^a*

<i>Year</i>	<i>Historical trend scenario (percent)</i>	<i>Slowed growth scenario (percent)</i>
2005	15.6 ^b	15.6 ^b
2010	17.3 ^b	17.3 ^b
2020	21.6	19.8
2030	27.6	21.9
2040	35.2	24.1

a. The historical trend scenario assumes that Medicare and Medicaid cost growth exceeds GDP by 2.5 percent a year. The slowed growth scenario assumes that Medicare and Medicaid cost growth exceeds GDP by 1 percent a year.

b. Estimates of the Centers for Medicare and Medicaid Services (www.cms.hhs.gov/statistics/nhe/ [March 17, 2005]) and authors' calculations.

population will intensify. The idea of health care rationing now offends most Americans. However, an ever-tightening squeeze on the capacity of Americans to afford goods and services other than health care may well persuade them that health care rationing, though very difficult and highly controversial, is less repugnant than the alternatives. The challenge is to develop ways to place systemwide limits on access to health care services in both the public and private sectors that have a rationale that the public can support.

How Do We Get from Here to There?

The United States can restrict health expenditures in three ways. It can limit the quantity of care demanded by raising the cost of care at the time of illness. It can slow the advance of technology. Or it can limit supply by restricting the use of available technologies.

The United States already rations care to those who are not well insured and do not have the means to pay for care. The 45 million people without health insurance, for example, consume on average only a little more than half of the health care services that insured people use. Health insurance could be changed so that it pays only for costs of care that exceed a high deductible. Two decades ago a major social experiment demonstrated that increasing the cost of care significantly reduced

the quantity of care demanded. Proponents of requiring patients to pay more claim that doing so would also lower prices. Exposing patients to increased charges would surely lower the *level* of spending, but it is unlikely to reduce the *growth* of spending unless it slows the pace of technological advancement, an outcome that would probably lower overall social welfare. Hopes that increasing patient charges would lower prices may be unrealistic because individuals would be less able than large groups to bargain for discounts. Most savings would result from services forgone.

The second approach would reduce growth of health care expenditures by directly controlling the principal engine of growth, the development of new medical technology, by limiting support for medical research. This approach would be of only limited efficacy because the United States is the home of much but not all medical research. Furthermore, some U.S. research is driven by the quest for profit and therefore would be hard for public policy to control. More telling is that such controls would reduce general welfare. Medical research has produced total benefits far greater than its cost, even if considerable waste occurs at the margin.³⁶

The third approach is the most promising—to limit the supply of care by requiring care to be justified by “evidence-based” research. Total expenditures would be limited by private or public regulation. Funds would be allocated to services that produce a level of benefits per dollar spent that exceeds some specified threshold. This approach is conceptually straightforward but formidably difficult to implement.³⁷ Medical knowledge of what technologies produce the greatest medical benefits in particular cases is lacking for many—perhaps most—conditions.

We are not confident about which approach to limiting growth of health care expenditures will—or should—be used. The nation is likely to try some combination of all three approaches. That it can avoid all of them seems unlikely.

Notes

1. Kevin Murphy and Robert Topel, eds., *Measuring the Gains from Medical Research: An Economic Approach* (University of Chicago Press, 2003); David M. Cutler and Mark McClellan, “Is Technological Change in Medicine Worth

It?" *Health Affairs* 20, no. 5 (2001): 11–29; Ernst Berndt and others, "Medical Care Prices and Output," in *The Handbook of Health Economics*, vol. 1A, edited by Anthony Culyer and Joseph Newhouse (Amsterdam: Elsevier, 2000), pp. 119–80.

2. Uwe E. Reinhardt, Peter S. Hussey, and Gerard F. Anderson, "U.S. Health Care Spending in an International Context," *Health Affairs* 23, no. 3 (2004): 11.

3. For a careful yet readily accessible review of recent developments, see John Potts and William B. Schwartz, "The Impact of the Revolution in Biomedical Research on Life Expectancy by 2050," in *Coping with Methuselah*, edited by Henry J. Aaron and William B. Schwartz (Brookings, 2003).

4. The automobile and the airplane lowered the price per mile of moving human beings and goods but increased total spending on transportation. Computers reduced the price of performing simple arithmetic operations but increased total spending on computation. Low computation costs in turn led to the use of computers in performing tasks for which no one had ever dreamed of using them. Movies and later television and cassette and DVD recordings reduced the price of seeing dramas, comedies, and musicals, but they increased outlays on entertainment. Millions who had lacked access to live concerts and stage performances or the means to attend them could enjoy a facsimile performance in one of thousands of theaters across the country or in their homes for a fraction of the cost of the real thing.

5. Cutler and McClellan, "Is Technological Change Worth It?"; Jonathan Skinner and John Wennberg, "How Much Is Enough? Efficiency and Medicare Spending in the Last Six Months of Life," in *The Changing Hospital Industry: Comparing Not-for-Profit and For-Profit Hospitals*, edited by David Cutler (University of Chicago Press, 2000). More generally, see "The Dartmouth Atlas of Health Care 1999" (www.dartmouthatlas.org/atlaslinks/99atlas.php [March 7, 2005]).

6. Studies document rates of inappropriate care in Germany, the Netherlands, Spain, and Great Britain similar to those reported for the United States. J. G. Lambert and others, "To Stay or Not to Stay: The Assessment of Appropriate Hospital Stay: A Dutch Report," *International Journal for Quality in Health Care* 14, no. 1 (2002): 55–67. Oliver Sangha and others, "Metric Properties of the Appropriateness Evaluation Protocol and Predictors of Inappropriate Hospital Use in Germany: An Approach Using Longitudinal Patient Data," *International Journal for Quality in Health Care* 14, no. 6 (2002): 483–92; Carlos Moya-Ruiz, Salvador Peiro, and Ricard Meneu, "Effectiveness of Feedback to Physicians in Reducing Inappropriate Use of Hospitalization: A Study in a Spanish Hospital," *International Journal for Quality in Health Care* 14, no. 4 (2002): 305–12; G. J. Elwyn and N. C. H. Stott, "Avoidable Referrals? Analysis of 170 Consecutive Referrals to Secondary Care," *British Medical Journal* 309 (September 3, 1994): 576–78.

7. Barbara Starfield, for example, attributed 225,000 deaths to medical treatments with various "iatrogenic causes" in "Is US Health Really the Best in the World?" *Journal of the American Medical Association* 284 (July 26, 2000): pp. 483–85. This would attribute 9.3 percent of deaths to iatrogenic causes, making

that the third-highest cause of death, after heart disease and cancer. Of those deaths, however, 106,000 were due to adverse reactions to medications for which there was no previous indication of a risk factor. Another 80,000 deaths were due to “nosocomial” infections (those acquired during hospital stays), which do not always reflect avoidable errors; in some cases, they reflect a natural risk of infection in hospitals, where patients are exposed to many germs. “How Common Are Medical Mistakes?” (www.wrongdiagnosis.com/mistakes/common.htm [March 8, 2005]).

8. A recent study indicates that while increases in malpractice settlements account for little of the growth in premiums and malpractice costs do not materially change the number of practicing physicians, increased malpractice liability may somewhat increase the use of such screening procedures as mammography, so-called defensive medicine. Katherine Baicker and Amitabh Chandra, “The Effect of Malpractice Liability on the Delivery of Health Care,” Working Paper 10709 (Cambridge, Mass.: National Bureau of Economic Research, August 2004) (www.nber.org/papers/w10709 [March 8, 2005]).

9. Mark A. Schuster, Elizabeth A. McGlynn, and Robert H. Brook, “How Good Is the Quality of Health Care in the United States?” *Milbank Quarterly* 76, no. 4 (1998): 517–63.

10. Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington: National Academy Press, 2001), p.228.

11. John Wennberg, Elliott Fisher, and Jonathan Skinner, “Geography and the Debate over Medicare Reform,” *Health Affairs* 21 (Supplement): W97–W114; Elliott Fisher and others, “Variations in the Longitudinal Efficiency of Academic Medical Centers,” *Health Affairs* web exclusive, October 7, 2004 (www.healthaffairs.org).

12. Peter McMenamin, “Dr. McCoy to Sickbay: Not ‘Stat’ but with All Deliberate Speed,” May 19, 2004. McMenamin, a health economist based in Silver Spring, Maryland, lists a number of problems with the conversion to digital records. Implementing electronic records will take a large investment in translating old notes. It will take sophisticated software to assist physicians in sifting through the mountains of data that constitute typical medical records. Such software is not fully developed and will depend on advances in artificial intelligence, the feasibility of which remains in question. If these advances prove feasible, electronic records will prevent medical errors that are both costly and tragic, whether they eventually save money or not. Adequate methods of preserving privacy and accurately identifying individuals remain to be addressed. Conversion to digital records may ultimately lower costs, but claimed savings are not yet well documented and will take years to yield returns.

13. For a detailed explanation of HSAs, see Henry J. Aaron, “HSAs—The ‘Sleeper’ in the Medicare Bill,” *Tax Notes*, February 23, 2004, pp. 1025–30.

14. Women could claim Social Security benefits as early as age sixty-two starting in 1956; men, after 1961.

15. Implementation of this change was delayed, however, so that the first affected workers were those turning age sixty-two in 2000. They were eligible to

receive full benefits at age sixty-five and two months. Only in 2022 will the full benefits age reach age sixty-seven for workers turning age sixty-two. Annual Statistical Supplement to the Social Security Bulletin, 2003 (Social Security Administration), table 2.A20 (www.ssa.gov/policy/docs/statcomps/supplement/2003/2a20-2a28.html#table2.a20 [March 22, 2005]).

16. Emmett Keeler, “Effects of Cost Sharing on Use of Medical Services and Health” (RAND Corporation, 1992) (www.rand.org/publications/RP/RP1114/RP1114.pdf [March 8, 2005]). Subjects enrolled in a plan with a \$1,000 deductible (in 1975–81 dollars) consumed medical care costing 34 percent less than did those in a plan under which all care was free. Those who faced 25 percent cost sharing up to a \$1,000 stop-loss level consumed care costing 19 percent less than those under the free-care plan. Translating those results into estimates of the impact of increased Medicare cost sharing on use is problematic because of general and health care price inflation, the exclusion of the elderly from the experiment, and differences in cost sharing and services covered in the experiment.

17. Hospital insurance requires patients to pay a deductible of \$912 in 2005; copayments of \$228 a day for hospital stays of sixty-one to ninety days and \$456 a day for an additional sixty days of coverage during the patient’s lifetime; and all costs for more extended hospital stays. Medicare imposes additional charges for the use of skilled nursing facilities and does not limit out-of-pocket payments. Patients could be forced to pay as much as \$35,112 under Part A before Medicare stops paying altogether.

18. The annual premium for Part B is \$938; the annual deductible is \$110. Medicare enrollees also have to pay an annual premium estimated to be \$420 to qualify for the Medicare drug benefit. If they enroll, they face a deductible of \$250 and costs ranging from 5 percent to 100 percent of additional drug outlays, depending on how much they spend. A person with \$3,000 in drug outlays, for example, would pay \$1,920 in premiums and coinsurance.

19. Patricia Neuman, *The State of Retiree Health Benefits: Historical Trends and Future Uncertainties*, testimony to the Senate Special Committee on Aging, 108th Cong., 2nd. sess., May 17, 2004. Of the 5.8 million retirees between ages fifty-five and sixty-four, 57 percent (3.3 million) have retiree health coverage.

20. Brian Bruen and John Holahan, “Shifting the Cost of Dual Eligibles: Implications for States and the Federal Government” (Washington: Henry J. Kaiser Family Foundation, November 2003). For other exceptions, see “Medicare Cost Sharing and Premium Amounts” (www.cms.hhs.gov/publications/trusteesreport/2004/secivc.asp [March 8, 2005]).

21. Part B premiums are deducted from Social Security benefits before checks are mailed. According to estimates of the Center for Retirement Research, Medicare premiums claimed 6 percent of average Social Security benefits in 2000 and are projected to absorb nearly 11 percent of benefits by 2020. For retirees with low earnings histories, Medicare premiums take up an even larger share of benefits.

22. Social Security Administration, *Income of the Aged Chartbook 2001* (2003).

23. Premium support could raise other problems. How should the included set of services be adjusted as technology advances? How should the payment made on behalf of each enrollee be adjusted for age and health status? How should the design and marketing of plans be regulated to ensure that the elderly, many of whom are frail or mentally impaired, can understand the various offerings and choose intelligently among them? The term “premium support” was coined by Henry J. Aaron and Robert R. Reischauer, “The Medicare Reform Debate: What Is the Next Step?” *Health Affairs* 14, no. 4 (1995): 8–30.

24. Total spending on the aged, blind, and disabled was \$117.2 billion; \$44.5 billion was spent on other identified beneficiaries. Committee on Ways and Means, House of Representatives, *2004 Green Book*, table 15–17 (http://frwebgate.access.gpo.gov/cgi-bin/useftp.cgi?IPaddress=162.140.64.88&filename=wm006_15.pdf&directory=/disk2/wais/data/108_green_book [March 8, 2005]).

25. Ellen O’Brien and Risa Elias, “Medicaid and Long Term Care” (Washington: Henry J. Kaiser Family Foundation, May 2004).

26. Several states are developing disease and case management programs to cope with this problem. Advocates claim they will improve health outcomes and lower costs by making sure that patients take prescribed medications, monitoring indicators that show whether chronic illnesses are under control, referring patients to appropriate medical specialists, coordinating care and developing individualized treatment plans, and involving relatives in patients’ care.

27. MetLife Mature Market Institute, “The MetLife Market Survey of Nursing Home and Home Care Costs” (September 2004).

28. Several states have introduced programs to encourage people to purchase private long-term care insurance. For people who purchase a qualifying long-term care policy, states waive the requirement that they must completely spend down their assets in order to qualify for Medicaid. On retention, see Paul E. McNamara and Nayoung Lee (2004), “Long-Term Care Insurance Policy Dropping in the U.S. from 1996 to 2000: Evidence and Implications for Long-Term Care Financing,” *Geneva Papers on Risk and Insurance: Issues and Practice* 29, no. 4 (October 2004): 640–51.

29. U.S. Department of Justice, “Justice Department Civil Fraud Recoveries Total \$2.1 Billion for FY 2003: False Claims Act Recoveries Exceed \$12 Billion since 1986,” November 10, 2003.

30. Cindy Mann, Melanie Nathanson, and Edwin Park, “Administration’s Medicaid Proposal Would Shift Fiscal Risks to States,” Center on Budget and Policy Priorities, April 22, 2003 (www.cbpp.org/4-1-03health.htm [March 8, 2005]).

31. If Medicare hospital insurance continues to be financed largely by payroll taxes, the payroll tax rate would have to increase from its current 2.9 percent of all earnings in covered employment to 5.6 percent in 2030 and 7.2 percent in 2040. In addition, general revenues would have to be dedicated to Part B of Medicare and to Medicaid. An additional 6.5 percent of gross domestic product would be needed by 2030 and 10 percent by 2040. For comparison, the personal and corporation income taxes currently yield 9 percent of gross domestic product.

32. Growth of Social Security outlays can be used to gauge the impact of demography alone, as benefits are automatically adjusted for wage growth. Official estimates indicate that Social Security costs as a share of GDP will grow from 4.28 percent of GDP in 2005 to 6.31 percent in 2030 and 6.54 percent on 2040. These estimates include the effects of legislated reductions in benefits subsequent to 2005 of about 7 percent by 2030 and about 8 percent by 2040. Thus demography alone can be expected to increase the share of GDP devoted to Medicare by roughly three-fifths by 2030 and roughly two-thirds by 2040.

33. The GDP shares in 2030 and 2040 allow for expenditures under the Medicare drug benefit that begin only in 2006.

34. AARP, "What Share of Beneficiaries' Total Health Care Costs Does Medicare Pay?" (http://research.aarp.org/health/dd78_costs.html [March 8, 2005]). In 2000 Medicare paid 59.2 percent of total personal health care expenditures; Medicaid, 5.5 percent; private insurance, 13.3 percent; out-of-pocket funds, 16.9 percent; and other, 5.1 percent. The Medicare share was lower and the Medicaid share higher for institutionalized patients.

35. Data from the Centers on Medicare and Medicaid, 2004, "National Health Expenditures by Type of Service and Source of Funds, 2003" (www.cms.hhs.gov/statistics/nhe/default.asp#download [March 8, 2005]).

36. See note 1.

37. See Henry J. Aaron and William B. Schwartz, *Can We Say No? The Challenge of Health Care Rationing* (Brookings, 2005, forthcoming).

