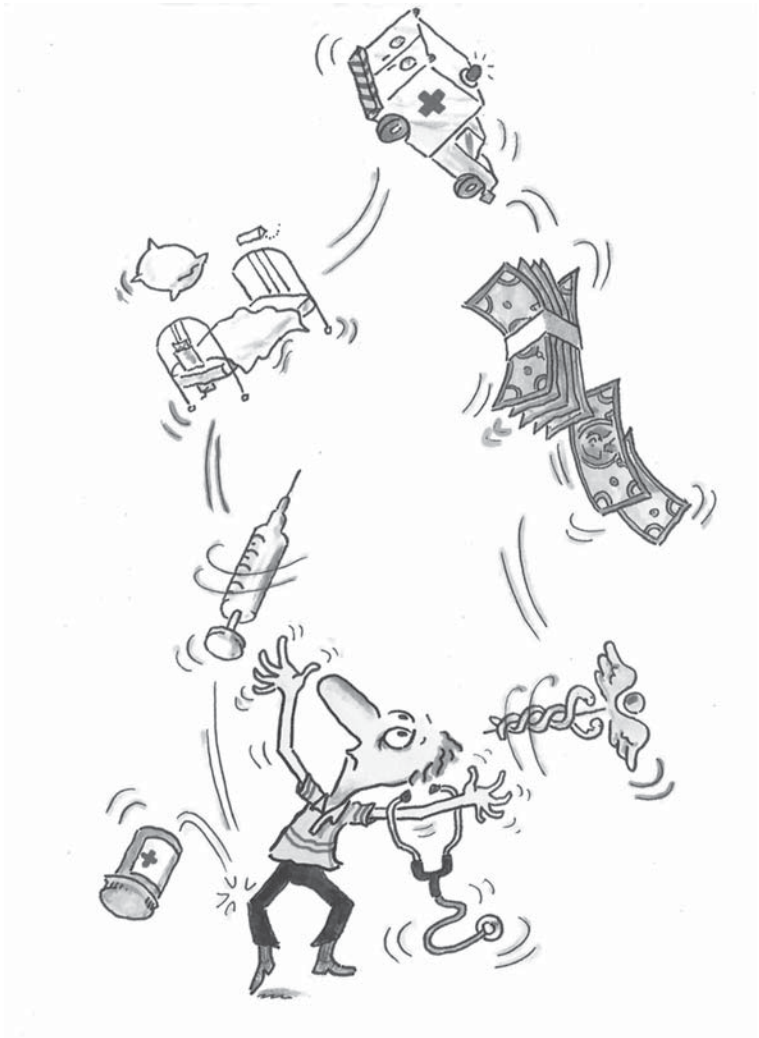
Wanting It All: The Challenge of Reforming the U.S. Health Care System



Wanting It All: The Challenge of Reforming the U.S. Health Care System

edited by

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Introduction

Reforming the U.S. Health Care System: Where There's a Will, There Could Be a Way

Jane Sneddon Little and Teresa Foy Romano

Periodically, the tensions and contradictions emanating from the big, marvelously innovative, highly inequitable, and hugely expensive U.S. health care system force a general reassessment of the way this country finances and delivers health care for its citizens. One of these periods appears to be approaching—although, as Ted Marmor pointed out over a decade ago, coalitions preferring the status quo almost always prevent these reassessments from resulting in more than incremental change (Marmor 1994). Today, more than 46 million people are uninsured, families with health insurance fear that they may lose it, firms with household names seek ways to extricate themselves from providing health insurance for their employees, and the new Deficit Reduction Act of 2005 permits doctors and hospitals to deny services to Medicaid recipients who cannot meet required co-payments and deductibles. In an early 2006 article, the *Economist* asserts that the "world's biggest and most expensive health care system is beginning to fall apart"; it also suggests that health reform is "one of the most complicated challenges facing America's economy" ("Special report: America's health-care crisis" 2006). Why has health care become a major challenge to the U.S. economy and to economic policymakers? At least three developments explain the growing importance of health reform as an economic issue.

Clearly, the health care sector is now very large and touches most aspects of the U.S. and New England economies. In 2004, spending on medical care amounted to 16 percent of U.S. nominal gross domestic product (GDP)—more than consumers spent on food, clothing, and energy in total and about equal to all business investment in plant and equipment. Furthermore, health care's share of nonfarm employment is

now 9 percent and growing—that is roughly akin to manufacturing's shrinking share of the workforce. In New England, health care looms even larger, accounting for almost 12 percent of regional employment. In the future, this sector is almost certain to absorb an even greater share of GDP; for, as Organisation for Economic Co-operation and Development (OECD) data suggest, as national incomes rise, countries generally choose to spend a growing share of their income on health and health care (Figure 1.1).[1]

With health care spending projected to reach 22 percent of GDP by 2025 (Council of Economic Advisers 2006), it becomes increasingly important that U.S. policymakers be able to measure accurately health care output, prices, and productivity—no easy task. Currently, the most familiar measure of health care costs is probably the medical care consumer price index (CPI), which measures inflation in consumers' out-of-pocket costs for medical care, a fraction of total health care spending. For a variety of reasons, the medical CPI has been increasing a lot faster than the core CPI, helping to boost broad measures of inflation and labor costs as well. In addition, rapid medical cost inflation has contributed to

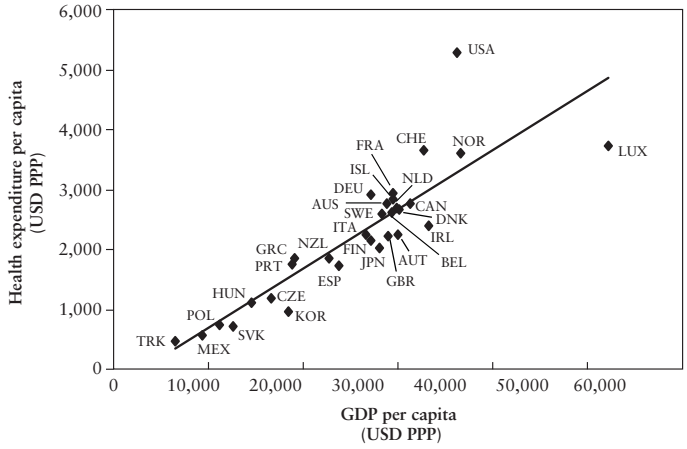

Figure 1.1
International Comparison of Per Capita Spending: Health Care versus GDP
Source: OECD, 2002.

a widespread impression that productivity in the U.S. health care sector may be rather low. By contrast, a growing body of recent research provides evidence of significant productivity gains in health care for patients suffering from specific widespread problems, such as cataracts, depression, and heart attacks. But do these findings apply to the entire health care sector? Indeed, international data indicate that the United States spends far more per person on health care than would be expected given its per capita income (Figure 1.1),[2] while data on expenditures and outcomes suggest that this country's extra spending may not be particularly productive (Figure 1.2).[3]

A second reason for economists' concern about the health care system reflects its possibly distorting effect on the operation of the U.S. labor market. Compared with other OECD countries, employment-based insurance plays an unusually large role in the U.S. health care system, where it finances about 40 percent of U.S. health care spending. But, of course, not all employers offer health insurance. And from 1993 to 2003, the share of private-sector workers actually participating in employer-provided medical plans fell from 63 to 45 percent, in part reflecting workforce

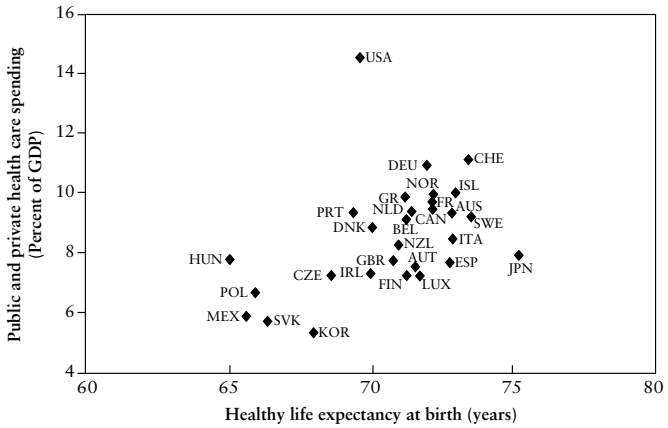

Figure 1.2
International Comparisons of Health Care Spending versus Healthy Life Expectancy, 2002
Source: OECD, 2002.

shifts from full-time to part-time, and union to nonunion, status. In addition, a smaller share of workers who are offered health insurance now choose to take it—most likely because a growing fraction of employers are requiring workers who elect this benefit to contribute more toward its cost (Wiatrowski 2004). Another factor may be the increase in two-worker households.

Are these employment-based financing arrangements affecting the supply or demand for labor in this country? Do they influence the structure of employment, encouraging a shift toward the use of temporary or contract labor? Does our health care system distort our labor market and reduce its flexibility? Policymakers are concerned about the answers to these questions.

Finally, turning to fiscal issues, the "tax-financed" share of health care is estimated to have reached about 60 percent in 1999,[4] up from 55 percent in 1990 and a higher percentage than most people might expect. The large and rising share of publicly funded health care puts pressure on federal and state budgets, limiting those governments' nonhealth policy options. According to the Social Security and Medicare Trustees Reports of 2005, total Medicare expenditures will rise as a share of GDP from 2.6 percent currently to 13.6 percent in 2079. If so, Medicare expenditures will exceed those for Social Security in 2024 and will represent twice the cost of Social Security in 2079 (Figure 1.3). Moreover, at the state level, many governments have taken steps to expand the scope of Medicaid in order to extend health insurance coverage to particularly vulnerable groups, such as children. This trend has placed an increased burden on state budgets (Figure 1.4). How the nation and individual states address these imbalances—whether through increased taxes, reduced benefits, or increased borrowing—will affect U.S. interest rates, private savings and investment, and international capital flows.

Prompted by its interest in these issues, in June 2005, the Federal Reserve Bank of Boston brought together economists, health practitioners, and policymakers to examine the topic, "Wanting It All: The Challenge of Reforming the U.S. Health Care System." This essay summarizes the themes and the consensus-based prescriptions for action that emerged from that conference.

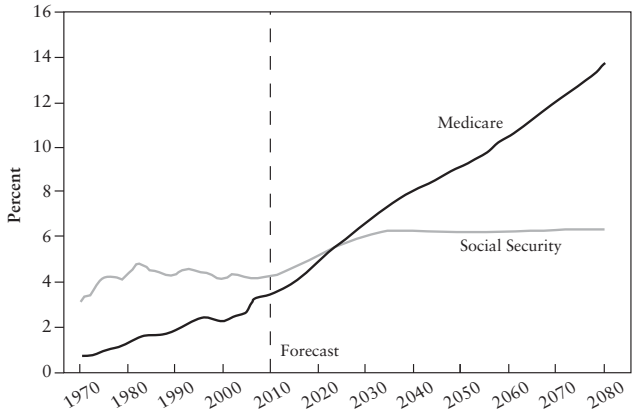

Figure 1.3
Social Security and Medicare Costs as a Share of GDP
Sources: Medicare Trustees Report, 2005, and *Social Security Trustees Report, 2005*.

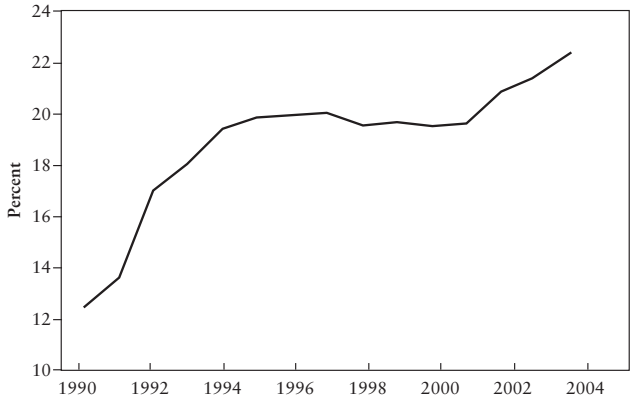

Figure 1.4
Medicaid as a Share of State Expenditures
Source: National Association of State Budget Officers, *State Expenditure Report, 1990–2004.*

Defining the Health Care Challenge—"The Problem with No Obvious Solution"

This country's health care goals include broad, secure access to "appropriate," high-quality care based on active discovery and innovation at an "acceptable" (aye, there's the rub!) cost to the ultimate payer. All industrial countries share these goals, although, as Kieke Okma points out, not necessarily the weights they assign to them. For example, Europeans tend to put more weight on access to care than do Americans, who seem to put consumer choice at the top of the list and access toward the bottom. But in the end, by "wanting it all," every country struggles with the inherent conflicts between these goals. In particular, since all countries adopt new medical technologies as they become available, all struggle to contain the rapid pace of growth in health care costs. And most could put more emphasis on prevention and achieving good health.[5]

These inherent conflicts reflect the essential value of health care to many consumers (patients). They also reflect, as William Nordhaus points out, society's embrace of "specific egalitarianism"[6] as well as its reluctance to ration health care by price or even by regulation. Obviously, these attitudes do not accord well with an equally widespread lack of political will to pay for other people's health care. And these inconsistencies are only exacerbated by information asymmetries; by the absence of cost consciousness among consumers; and by limited competition among providers and health plans. Finally, Richard Frank and others raise a host of behavioral issues that further compound the situation, issues that include patient-doctor inertia, rules of thumb, excessive optimism, and myopia regarding the need to save for medical emergencies. These inherent conflicts lead David Cutler to call health reform "a hard problem"; Nordhaus to call it "a very hard problem"; and Henry Aaron to call it "the problem that won't go away."

Measuring and Valuing Health Care

David Cutler and William Nordhaus both demonstrate that improvements in public health and medical care have added enormously to our standard of living over the past century. Nordhaus even concludes that the value of the gains stemming from improvements in health status equals

the value of all other gains in consumption over the past 25 years. Not surprisingly, then, as physicians have become more effective and societies have grown wealthier, people have chosen to spend a higher share of their incomes on health care—they value what doctors can do for them. In addition, as Cutler points out, health care turns out to be highly price elastic; properly measured, some quality-adjusted health care prices are actually falling, and people spend more in response. Moreover, as Cutler also demonstrates, cost-benefit analysis of specific interventions, like treatment for heart attack, finds that such interventions are clearly "worth" their cost, based on common assumptions regarding the economic value of the additional years of life resulting from the intervention. For example, $30,000 in expenditures for a 45-year-old cardiac patient leads on average to three years' longer life. Since three years' longer life has a discounted present value of $120,000 by common estimates, the return on the investment is 4 to 1.

But, as Cutler also notes, the fact that much of today's health care is highly *valued* (particularly by individual doctors, patients, and their families confronting specific medical crises) does not necessarily make it *affordable* (particularly to taxpayers, to whom hypothetical patients are mere statistics). Nor does this high valuation mean that all health care dollars are well spent. Cutler suggests that at least 20 percent of health care spending is wasted, while Wennberg, Fisher, and Skinner (who find that Medicare spends half as much per patient in Minnesota as in Miami with equally good results) conclude that the waste in Medicare is closer to 30 percent.[7] But *underspending* also contributes to the inefficiency of the U.S. health care system. For example, too little is spent on prevention and chronic disease management—for the insured as well as for the uninsured. And the system often does a poor job of coordinating different aspects or phases of a patient's care, such as the transition from acute to chronic care, or the transfer of records from one hospital or doctor to another.

Improving Efficiency: Consumer Incentives, Provider Incentives, and Technology

Prescriptions for reducing the inefficiencies plaguing the U.S. health care system include making consumers more sensitive to the costs of their medical care, making providers more responsible for health care outcomes, and encouraging better use of information and communication technology throughout the health care system. To start with consumer awareness, most analysts, including those at the Boston Fed conference, agree that the tax subsidy for employer-provided health insurance, which currently cuts federal tax revenues by about $200 billion per year (Council of Economic Advisers 2006), reduces cost consciousness and should be eliminated for the nonpoor.[8]

A second, newly popular approach to encouraging patients to be more cost conscious involves increasing the availability of low-cost insurance with high deductibles and high co-payments, combined with health savings accounts (HSAs) or health reimbursement arrangements. Together, these elements make up "consumer-driven health care" (CDHC), which, to be effective, requires that health care cost information be widely available and of significance to patients making health care decisions. While several conference participants, including Stuart Altman, Alain Enthoven, Mark Pauly, and Gene Steuerle, see some merit in aspects of consumer-driven health care,[9] many attendees are concerned that CDHC will encourage underutilization of preventive care, particularly by low-income individuals who are unable to afford the high co-payments and deductibles. And such concerns appear to be warranted, judging by a recent study, which finds that, for reasons of cost, 35 percent of individuals with CDHC plans skipped or delayed health care, compared with 17 percent of persons with comprehensive health plans.[10] In addition, conference participants, including Richard Frank, Robert Galvin, Sherry Glied, and David Meltzer, point to the general absence of the information regarding health care costs that would be required to make CDHC work; the reluctance of doctors and patients to discuss matters of cost; the importance of advice from family and friends; and the prominence of inertia in determining patient choice of health care providers.

As for motivating providers to improve efficiency, many conference participants see considerable promise in "pay for performance," a reimbursement system that rewards providers for good outcomes and for following prescribed protocols for vaccinations and other preventive care—that is, for doing what they ought to do. A smaller group, led by Alain Enthoven, advocates combining pay for performance with support for integrated delivery systems like Kaiser Permanente in California and Harvard Vanguard in Massachusetts. Such systems are built around

a core multi-specialty group practice that has a significant share of its revenues based on per capita prepayment. Additionally, members of the practice are encouraged to adhere to up-to-date clinical standards developed by the team.[11] According to Enthoven, integrated delivery systems, also known as "delivery system HMOs," should be sharply distinguished from "carrier HMOs," rather inclusive networks of unaffiliated physicians generally working under fee-for-service arrangements. In choosing to receive care from an integrated delivery system, an individual is opting to hire a general contractor, to use a Karen Davis metaphor, rather than to deal with the plumber, the roofer, the painter, and the candlestick maker individually. Obviously, the individual's care is likely to be better coordinated; in addition, between capitation and patient inertia regarding choice of doctor, the system's managers have considerable incentive to provide good preventive care and disease management, using nonphysician providers whenever appropriate.

But while Kaiser, Mayo, and Harvard Vanguard are widely acknowledged to provide great care, integrated delivery systems are not popular outside of California and, to a lesser extent, Massachusetts and Connecticut. Why not? Chernew and Glied suggest that people fear precommitting to a narrow set of doctors before knowing what their medical needs may be and that such systems may require too much travel. But in their eyes, the major deterrent is likely to be resistance to switching doctors, a reluctance that has fostered the spread of preferred provider organizations (PPOs) and other almost universally inclusive networks of independent providers. Richard Frank and David Meltzer also raise some behavioral concerns about the efficacy of practice guidelines and pay for performance, noting that physicians tend to be overly optimistic, overly confident, and very reluctant (or uncertain how) to change their ways. In the end, while most observers view integrated delivery systems and pay for performance as likely to improve the efficiency of the U.S. health care system, no one claims that these options will keep health care expenditures from rising as a share of income. And, as Chernew points out, the more efficient the system becomes, the harder it is to avoid the painful trade-offs between quality and access.

Turning to technology, while almost everyone agrees that advancing medical technology is the primary driver of rising health care costs—"it's the technology, stupid," to quote Mark Pauly—many conference participants remain convinced that better use of information and communication technology holds great promise for improving the efficiency of the complex, disjointed U.S. health care system. According to Mongan and Brailer, for example, electronic medical records will do far more than cut paperwork and reduce error; more important, they will also drive medicine toward evidence-based practice. Galvin, Brailer, Davis, and Mongan all see huge potential in a national effort to identify and spread best practices and to develop and publicize quality measures. Nevertheless, Pauly and others suspect that, even with better consumer and provider incentives as well as improved information and communication technology, U.S. policymakers will likely need to find a graceful, politically acceptable way to slow the adoption of new or unneeded medical technology for the insured middle class.

Employer-Based Health Insurance: Pros and Cons

In the United States, members of the middle class generally obtain their health insurance through employer-provided health benefits. Although employment-based insurance crops up in many countries, this arrangement has played an unusually dominant role in the United States. In the 1940s, U.S. employers constrained by wartime price controls were encouraged to compete for workers by offering tax-subsidized health benefits in place of higher wages; today, employer-provided benefits are the primary source of health insurance for the non-elderly. These employment-based arrangements cover 63 percent of the non-elderly population; by contrast, public programs like Medicaid and Medicare cover just 17 percent (Figure 1.5). As Brigitte Madrian points out, the result is a highly fragmented system where thousands of employers define the health insurance options available to their workers and where even Medicaid comprises 50 different state programs. Does this employment-based system serve the country well?

Many conference participants, including Alain Enthoven and Henry Farber, answer "no." They describe the system as "hopelessly flawed" and a "terrible idea," because it leaves millions of people without access to affordable health care, bears most heavily on low-wage workers, and makes the U.S. labor market less flexible and dynamic. To start with this last point, just 60 percent of U.S. employers offer health insurance to

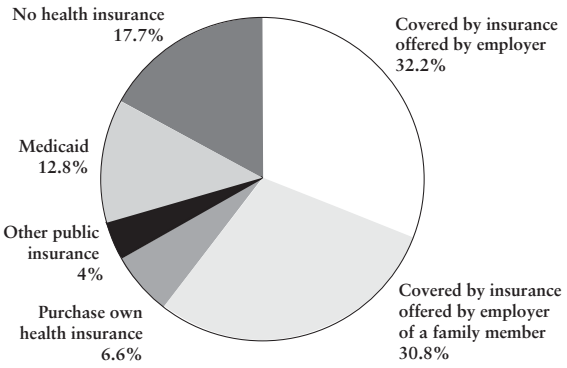

Figure 1.5
Health Insurance Coverage of the Non-Elderly
Total exceeds 100 percent because people may get coverage from more than one source.
Source: Employee Benefit Research Institute, 2003.

any part of their workforce, and that share has been declining in recent years as health benefits have grown more costly. As a result, Madrian and others find that worker demand for affordable health insurance and employer efforts to minimize the cost of offering this benefit distort labor market decisions, reducing labor market flexibility and worker productivity. On the supply side, the availability of affordable health insurance significantly affects individual decisions regarding where to work or whether to work at all. Further, because employer-provided health insurance is not portable, insurance contracts exclude pre-existing conditions; and because people hate changing their doctors, the employer-based system tends to discourage labor mobility, producing a phenomenon known as "job lock"[12]—even "wedlock" on occasion. More important, perhaps, on the demand side, employers face an incentive to substitute part-time or temporary workers for full-time workers in order to avoid health insurance costs. Similarly, firms may ask existing full-time staff, who already have health benefits, to work more hours, instead of hiring more full-time workers, who will add to insurance costs. Given the evidence that workers do, in fact, pay for their health benefits through lower wages as economic theory would suggest, such employer efforts to minimize health

insurance costs may seem puzzling. But it is not clear that the wage-benefit trade-off is either immediate or one-for-one. For example, as Joseph Newhouse points out, minimum wage laws limit employers' practical ability to shift big increases in insurance costs to low-wage workers. Nor is it easy to ask current workers to pay for big increases in the cost of retiree insurance, especially since, as Farber notes, mature firms like GM now have more pensioners than active employees.

In addition, Enthoven, Farber, and Galvin agree that many employers are ill equipped to purchase health insurance for their workers. Few small employers have a good understanding of health care issues, and employer/worker interests may not coincide. For example, while employers clearly have an interest in attracting healthy, productive workers, management's interest in their workers' long-term health may have declined in recent years as average job tenures have fallen and lifetime employment has virtually disappeared.

On the other hand, as Altman, Galvin, and Pauly argue, large firms with good benefits departments deliver very responsive health care to their workers in a very efficient manner. These firms have taken the lead in promoting fitness and wellness programs, in encouraging pay for performance, and in developing accessible information on provider quality and costs. Further, as Galvin emphasizes, in an employer-linked system, decisions regarding the use of new technologies are market based. Without these market signals, how would the nation determine how much to invest in desirable medical innovation? Would a single-payer system with a "politically acceptable" global budget do as well?

Fiscal Pressures

Even now, the federal government's existing responsibilities for health care are projected to create extraordinary fiscal—and political—pressures in the decades ahead. Although political and media attention has so far focused primarily on the need to address the Social Security "crisis" approaching with the retirement of the baby boom generation, the government's future commitments under the Medicare and Medicaid programs loom considerably larger, as Henry Aaron, Stuart Altman, and others emphasize.

To draw the comparison more precisely, the baseline, or intermediate, estimate from the Congressional Budget Office (CBO) projects that federal spending for Social Security will rise from 4.2 percent of GDP in 2005 to 6.4 percent in 2050. By contrast, in the intermediate case, federal spending for Medicare and Medicaid, also 4.2 percent of GDP today, is projected to reach 12.6 percent of national output by midcentury (Figure 1.6). Unfortunately, however, the CBO's intermediate projection assumes, as do the Medicare trustees, that Medicare and Medicaid spending per enrollee will exceed per capita GDP growth by just 1 percentage point per year—an unrealistic assumption judging by U.S. history and by international trends. As the CBO points out, Medicare-Medicaid spending (and health care spending more generally) has, in fact, grown an average of 2.5 percentage points faster than per capita GDP since 1970. Again, this gap largely reflects technological improvements, not population aging. If these trends continue, Medicare-Medicaid spending will account for 22 percent of GDP in 2050—almost 18 percentage points more than currently.[13] Further, as Henry Aaron points out, because the private and public sectors share responsibility for health care spending in this country, at current trends, health care will claim about half of all U.S. income and

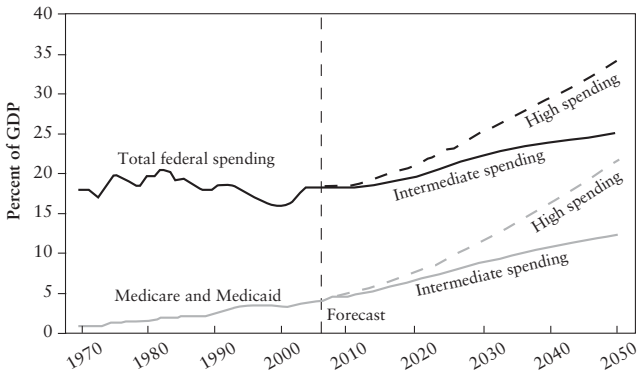

Figure 1.6
Projections of Federal Spending
Source: U.S. Congressional Budget Office (2005).

all of the increase in economic output by midcentury. Valuable as health care is, is this outcome realistic?

Confronted with these prospects, what will the U.S. electorate do? Among the alternatives Aaron posits, one course might be to continue, by default, along the current path and simply pay the bill. This option would allow increasing our nonhealth standard of living for a while, but, as health care came to claim all of the growth in economic output and then more, the situation could turn unsustainable—if the share of economic output devoted to education, research and development, and crucial infrastructure began to shrink, economic growth itself would slow. As an obvious, desirable alternative, U.S. policymakers could redouble their efforts to make the health care system more efficient; but, as already discussed, a better-targeted system requires more spending in some areas and less in others, making the net savings likely not very large. To curb Medicare spending specifically, Congress could pass restrictive legislation, increasing the Medicare eligibility age to 67, for example. While this change might encourage people to work longer, it would not save much money, because the young elderly are reasonably healthy. Congress could also increase Medicare deductibles, co-payments, and premiums,[14] but, as Aaron notes, these changes would simply shift costs to the private sector or reduce the elderly population's access to medical care. While Medicare administrators could, for example, conceivably slow the pace at which they approve Medicare coverage for new technologies, the boomer generation, as Stuart Altman observes, has always been a demanding, spending lot, even in their 30s and 40s; thus, he doubts they will permit substandard care for the elderly (and poor?) to reemerge as they age.

How, then, is the nation going to pay this medical bill? Assuming that the current gap between the growth in health care costs and the growth in GDP continues, meeting current Medicare-Medicaid commitments, Henry Aaron calculates, will require doubling payroll and income tax revenues as a share of GDP by 2040. Even slowing the increase in health care spending to 1 percentage point above per capita GDP growth would mean raising tax revenues by 6 percent of GDP by 2040. But, according to Stuart Altman, the United States is a "tax-phobic" nation with an Eleventh Commandment proscribing tax rates above 18 percent to 19 percent of

GDP, while Joseph Newhouse notes that U.S. tax revenues have exceeded 20 percent of GDP on just one occasion in the post-World War II era.

Our options are limited—both collectively as a society and individually. The more we choose to emphasize individual responsibility, the more cost conscious the system will be, but the more access for the poor and the seriously ill will become problematic. In the end, U.S. voters will have to decide what they are willing to spend for other people's health care, for, as Alan Weil points out, while people are willing to spend a lot for their own health care, it is less clear what they are willing to spend on the care of others. In Henry Aaron's view, resolving these issues will impose major stresses on the democratic polity of this country in coming decades.

Wanting It All, Getting Much of It—Areas of Agreement

Most of the health care experts attending the Boston Fed's June 2005 conference appear to agree with Karen Davis, whose remarks argued that we actually do know how to achieve much of what we want for the U.S. health care system—even including broader access—and we should "just go ahead and do it." Within this group of analysts, all tend to cite the same list of ways to increase the efficiency of the U.S. health care system and move it toward the production possibility frontier. In their view, some good steps to take include encouraging the increased use of pay for performance and integrated delivery systems—with ongoing efforts to understand the behavioral issues that might undermine their spread and effectiveness. They also advocate added emphasis on primary and preventive care and disease management as well as broader use of communication and information technology to identify what works. Less obviously, perhaps, most experts also support renewed efforts to improve consumer cost consciousness by eliminating tax subsidies for employer-provided health benefits and, to a lesser extent, by additional provision of consumer-directed health plans. While the conference attendees admit that individually these measures will not save a lot of money, 10 percent here and 15 percent there will begin to add up.

Moreover, these experts broadly agree that insuring the uninsured would require relatively modest amounts of additional money: less than $100 billion a year, a sum that represents less than 5 percent of current health care spending, or roughly the amount of money returned to taxpayer pockets by recent below-average tax rates.[15] This money could prevent 18,000 premature deaths a year among the under-65s, according to Jim Mongan. On net, the extra cost is likely to be modest because the uninsured already get some medical care, often in emergency settings, and because providing preventive care and disease management for these people would actually be more efficient over time.

Thus, once again, these analysts concur that the nation should "just do it"[16] and move to provide universal coverage without waiting until we figure out how to control health care costs. As Judy Feder argues, the uninsured minority have been held hostage to our unwillingness to slow the growth of health care spending for the well-insured majority for 50 years. Henry Aaron concludes that universal coverage may be a necessary precondition for controlling overall health care spending; others argue that universal coverage must come first, because cost control without coverage would mean squeezing low-income people out of the system.

As a result, the conference participants generally advocate using any cost savings reaped from the reforms discussed above to fund broader health insurance coverage. As one example, Alan Weil suggests making employer payments for health insurance benefits taxable and using the resulting revenue gains to fund universal coverage.

Where Achieving Consensus Becomes a Challenge

Beyond the large areas of agreement just reviewed, two issues—the role of employer-based insurance and the most appropriate way to control the growth of U.S. health care costs—defy consensus. To start with the first issue, conference attendees clearly have differing views on the merits of this country's employment-based system, with some viewing it as a disaster and others finding it an efficient organizing mechanism as well as a progressive force. But whatever their views on its merits, many analysts, including Altman, Feder, and Newhouse, are convinced that the employment-based system is crumbling badly, because, as Galvin notes, many employers are seeking to escape from providing health insurance. That explains why employers are responding with enthusiasm to consumer-driven health care (CDHC); while they truly do believe that consumers

must become more cost conscious, they are also looking for an exit strategy. Thus, Galvin predicts, 20 to 30 percent of all workers will soon have HSAs, which will drive out traditional health insurance just as 401(k)s drove out defined benefit pensions. Employers do not want to abandon their employees, but CDHC provides them with an acceptable way out.

Unfortunately, however, CDHC and HSAs may not work well for low-income workers, who may opt to buy low-premium insurance but be unable to pay the required deductibles, co-payments, and other large, but less than "catastrophic"[17] expenses, or who may opt out of buying health insurance altogether. These people will swell the ranks of the uninsured or the Medicaid population because, as noted above, many states are making imaginative efforts to redefine their Medicaid programs to let them cover nontraditional beneficiaries. (See the box on page 21 for a description of recent state initiatives in New England.)

But, as Alan Weil points out, the fiscal stresses at the state level are becoming enormous. As a result, the U.S. Congress passed the Deficit Reduction Act of 2005 to give the states new leeway to charge premiums and raise co-payments for Medicaid benefits. Moreover, for the first time ever, this law allows states to end Medicaid coverage for people who fail to pay these new premiums and permits doctors, hospitals, and pharmacies to deny services to Medicaid recipients who cannot make the required co-payments. To judge from current trends, the end result of employer efforts to avoid health care costs may be a de facto single-payer (or largely single-payer) system, but one in which impoverished people can be denied needed health care. For analysts who favor employer-based insurance, the only way to stem this tide may be to return to the list of live policy options "pay or play" laws that require all employers to either provide health benefits or contribute to a state insurance pool.

The conference attendees also fail to reach consensus on further ways to curb the growth in health care costs beyond those that would position the U.S. health care system to operate at maximum efficiency, although most agree that such efforts would have to include limiting insured middle-class access to valuable new technologies. At one extreme, a de facto single-payer system would require a global budget. Would such a budget fund optimum investment in new technologies, Bob Galvin wonders, or would a market-based system do a better job? Also envisioning an ongoing role for private insurance, Mark Pauly suggests that insurers develop low-cost insurance with limited access to new interventions and technology, and tout these products as "prudent care" in order to slow the adoption of possibly dangerous (and clearly expensive) new technologies. By contrast, Gene Steuerle would focus on finding ways to encourage cost-saving, rather than cost-increasing, new technologies. Nevertheless, privately funded health care would set the standards for all, because, as Jim Mongan points out, while we find price rationing acceptable in the case of hotels, we naturally find it far less palatable in the case of health care. Still, nonprice rationing through government or private-payer limits leads to unacceptable queues and shortages. In the same vein, Nordhaus sees some attractions in Oregon's system of ranking medical interventions, as cost-benefit analysis and good sense would suggest, and then drawing a line where the health care budget is totally absorbed. Although the Oregon system has many problems and critics, and, after all, only applies to Medicaid patients, Nordhaus argues that it is logical and flexible, responding to both technological and fiscal developments.

In the end, conference participants conclude, the major challenge posed by the U.S. health care system remains summoning the political will to make these difficult allocational decisions in a responsible and equitable way. Failure to meet this challenge would have serious consequences for the U.S. macro economy and polity—as well as for every individual family's well-being.

Box 1.1
Health Insurance Reform in Three New England States

The last several years have seen private health insurance premiums rise and the ranks of the uninsured swell, while state budgets have come under increased fiscal pressure, limiting expansion or compelling cuts in existing programs. Nevertheless, some states have managed to summon the political will to implement health reform strategies that stretch health care dollars by using a portion of state money to leverage private, federal, and additional state funds in order to expand coverage and improve program efficiency. Initiatives of the New England states include using federal Medicaid waivers and State Children's Health Insurance Program (SCHIP) waivers to expand coverage to nontraditional beneficiaries; enacting "pay or play" laws; and creating group purchasing arrangements.[18] The programs of three states are explored here.

Rhode Island

In 1993, Rhode Island applied for a Medicaid 1115 waiver, permitting it to conduct a demonstration project, RIte Care. The project provides comprehensive coverage to families on the Family Independence Program (formerly AFDC) and eligible uninsured pregnant women, parents of children 18 and younger, and children up to age 19. RIte Care experienced a higher-than-expected take-up rate, resulting in fiscal pressure. In 2001, in an effort to reduce the cost burden without cutting eligibility, the state obtained a SCHIP 1115 waiver, converting the parents of children eligible for public health coverage from Medicaid to SCHIP and, in so doing, receiving a higher SCHIP federal match for these enrollees. Additionally, Rhode Island created RIte Share, a premium-assistance program for RIte Care-eligible families with access to approved employer-sponsored health insurance. RIte Share leverages employer dollars, resulting in savings to the state for every family enrolled in this plan instead of in RIte Care, which has a full public subsidy. Under RIte Share, the state pays the employee's share of work-based insurance premiums (families above 150 percent of the federal poverty level make contributions according to a sliding scale), the employee's co-payments, and wraparound coverage for Medicaid benefits not included in the employer's health plan.

The results of RIte Share are encouraging. The Rhode Island Department of Human Services (DHS) has determined that subsidizing a family in RIte Share plus providing wraparound services costs the state slightly more than half the expense of covering the family through the RIte Care managed care plan. Thus far, DHS has transitioned 4 percent of the RIte Care population into RIte Share, resulting in a savings of about 2 percent of the program.

Maine

Maine's Dirigo Health Plan, created in 2003, aims to increase access to affordable health insurance coverage, slow the growth of health care costs, and improve the quality of care. One component, DirigoChoice, offers affordable health care insurance, through private carriers, to small-business employees, the self-employed, individuals without access to employer coverage, and dependents of these eligibles. The program pools employee, employer, state, and federal funding sources to be able to deliver reduced-cost health insurance.

To increase coverage for its low-income population, Maine obtained a federal waiver to extend its state Medicaid program, MaineCare, to parents with incomes under 200 percent of the federal poverty level and to childless adults with incomes up to 125 percent of the federal poverty level. For working persons who are ineligible for MaineCare and whose income is below 300 percent of the federal poverty level, the state provides assistance in purchasing DirigoChoice coverage on a sliding scale. Both the sliding scale and the MaineCare expansion are financed by redirecting a portion of the disproportionate share hospital (DSH) allocation.

In an effort to contain health care costs, the Governor's Office of Health Policy and Finance now sets explicit targets for quality, cost, and access to health care, and establishes a budget to assist in resource allocation. In a move to increase transparency, Maine requires that average charges and payments accepted for commonly performed procedures be posted at each provider site. In addition, Maine has expanded the reach of its certificate-of-need program to cover functions and expenditures regardless of the site of care and has put voluntary limits on the growth of insurance premiums and health care costs. Mandatory provider use of health care information technology has also been proposed.

In its first nine months, DirigoChoice enrolled more than 7,000 residents and achieved $43.7 million in savings for the Maine health care system. However, enrollment was lower than expected, and a survey of enrollees found that only one in four was uninsured at the time they purchased state-subsidized insurance. The majority of DirigoChoice enrollees simply switched from other private insurance.

Massachusetts

In Massachusetts, April 2006 saw a bipartisan bill break political gridlock and potentially extend health care coverage to the state's 500,000 uninsured. The new legislation combines the individual mandate championed by conservatives—that all individuals should have health insurance—with liberal measures, such as large subsidies to help low-income individuals buy insurance, and a proposed employer mandate—that all firms with 11 or more employees should provide health insurance. Under the legislation, the approximately 200,000 uninsured Bay State residents who can afford to buy health insurance will be required to purchase it or face tax penalties. To help these individuals acquire coverage, the state will create a group purchasing arrangement, allowing individuals and small businesses to buy insurance as one entity.

The state's additional uninsured comprise two groups: (1) 100,000 individuals who qualify for Medicaid but are not signed up for it, and (2) 200,000 individuals who do not qualify for Medicaid but are too poor to buy health insurance on their own. Those who qualify for Medicaid will be enrolled in it, with the cost split between the state and the federal government. For the second group, those earning up to 100 percent of the federal poverty level will receive coverage at no cost, while those with incomes between 100 percent and 300 percent of the federal poverty level will pay a portion of the premium, based on a sliding scale. Funding for both groups will come from (1) state funds set aside to pay hospitals and other providers for treating the uninsured, as well as (2) $385 million pledged by the federal government if the state can show it is on a path to reducing its number of uninsured. Funding would also come from the proposed pay or play provision of the new law, which requires all employers with 11 or more

employees to provide health care insurance or to pay an annual penalty of $295 per worker.

Rhode Island, Maine, and Massachusetts have implemented innovative policies to address the rising ranks of the uninsured and to control health care costs. While none of these plans to date has provided a solution to all of the challenges that the health care system currently faces, they do offer innovative ideas and reinvigorate the ongoing national debate.

Notes

1. Population aging will contribute modestly to this trend as well.

2. Many health economists argue that it is foolish to expect the income elasticity of health care spending to be similar across countries and particularly foolish to expect the relationship to be linear. Furthermore, this country's "outlier" status largely reflects the fact that the United States pays its health professionals relatively well, not that the U.S. system is inefficient. However, GDP does provide one constraint on health care spending, and one might ask *why* U.S. health professionals earn relatively high wages.

3. Looking beyond the healthy life expectancy data shown in the chart, the United States also uses more cardiovascular procedures per capita than Australia and Canada, with less effect in terms of reduced mortality from heart disease. The United States also ranks near the bottom of OECD countries in terms of infant mortality and years lost to premature death, in part reflecting the uneven distribution of health care resources in this country.

4. "Tax-financed" includes Medicare and Medicaid, health care spending for the military and their dependents, health benefits for government employees, and the value of tax subsidies for employer-provided health benefits (Woolhandler and Himmelstein 2002).

5. However, Okma argues that some single-payer systems are quite good at prevention. She notes that the Germans are good at disease management—for instance, by sending cardiac patients to spas to learn how to change their lifestyle by exercising and losing weight.

6. "Specific egalitarianism" is the belief that a program or service should be distributed equally across all people, as with voting, the wartime draft, and primary and secondary education.

7. Even worse, a study by the Institute of Medicine finds that medical error is the eighth-largest cause of death in the United States (Wennberg, Fisher, and Skinner 2002).

8. This subsidized system also places low-wage workers at a comparative disadvantage, because health insurance premiums loom larger relative to their wages than they do for highly compensated workers.

9. Gene Steuerle points out that most people, including health economists, have no idea that total health care spending per household averaged $16,000 in 2003.

10. Furthermore, 42 percent of those with high-deductible plans spent 5 percent or more of their income on health care (premiums and out-of-pocket items) compared with 12 percent of those with more comprehensive plans (Frontsin and Collins 2005).

11. In a somewhat narrower setting, David Meltzer also notes how the development of "hospitalists," physicians who specialize in providing inpatient care, has cut costs and improved the quality of hospital care delivered both by the hospitalists and by other physicians who work with them.

12. However, because most workers are relatively healthy, Mark Pauly suspects that job lock is unlikely to be a major concern. The growing number of two-worker households also helps to alleviate this problem.

13. According to the CBO long-term outlook, the intermediate path would result in primary spending (defense, Social Security, Medicare and Medicaid, and other noninterest expenditures) rising from 17.5 percent of GDP in 2005 to 25 percent in 2050. The higher path would see primary spending soar from 17.5 percent of GDP to 34 percent (Congressional Budget Office 2005).

14. Making a dent would require some big changes. According to Aaron, just to keep Medicare costs from rising faster than GDP would require boosting the eligibility age for Medicare to 83 in 2040 or reducing Medicare's share of health care spending by the elderly from 60 percent currently to 23 percent in 2040.

15. Federal tax revenues have averaged 18.3 percent of GDP over the past 30 years, but were just 17.5 percent of GDP in 2005.

16. The mechanisms for doing so vary and could include broadening eligibility criteria for Medicare, Medicaid, the Federal Employees Health Benefits Plan, and other health plan purchasing organizations, instituting an employer or individual mandate, or shifting to a single-payer system.

17. Low-premium, high-deductible health insurance plans do tend to cover catastrophic medical expenses.

18. The strategies employed by states include reinsurance, high-risk pools, and limited benefit plans. This section covers only a subset of the New England states' utilization of federal waivers and other state health system reforms.

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2

Understanding the Political Challenge

The Politics of U.S. Health System Reform

Theodore R. Marmor

Health System Reform: A Story of Long-Term Aspiration and Deep Frustration

The Politics of Universal Health Insurance: Lessons from the Past?

We Americans, I wish to assert without much qualification, are not particularly well served by our current medical care arrangements. In comparison with our major trading partners and competitors, we are less likely to be insured for the cost of care, and the care that we receive is almost certain to be more costly. Although American medicine has produced many "miracles," we are not the undisputed leader in medical innovation, only in the costliness and ubiquity of high-technology medicine. Most of us who are "covered" by some form of health insurance still worry about its continuation should we or a close family member become seriously ill. Some of us are "locked into" employment that we would gladly leave but for the potential catastrophic loss of existing insurance coverage.[1]

While most commentators decry our peculiar ability to combine insecurity with high cost, the substantial reform of American medicine at the national level has been enormously difficult to achieve, and comprehensive reform has been impossible. This is not simply a description of the Clinton Health Plan debacle of 1993–94. On multiple occasions before and after the Second World War, comprehensive national reform has been attempted (and between 1973 and 1974, appeared imminent). In all those instances, however, reform has fallen short of the necessary political majorities. Each of these failures has its own peculiar history, and in each there are many contributing causes of the failure.[2] One simple fact remains, however. Americans have long been dissatisfied with the

nation's medical arrangements, but our political system has been unable to come up with a solution that satisfies enough of the public to overwhelm the other institutional and interest group barriers to substantial, publicly directed reform.[3]

There is, once again, a remarkable consensus that American medical care—particularly its financing and insurance coverage—needs a major overhaul. The critical unanimity on this point—what Paul Starr once rightly termed a "negative consensus"—bridges almost all the usual cleavages in American politics—between old and young, Democrats and Republicans, management and labor, the well paid and the low paid.[4] We spend more on and feel worse about medical care than our economic competitors, with the overwhelming majority of Americans (including Fortune 500 executives) telling pollsters that our medical system requires substantial change. That level of public discontent was, in 1993 as in 2005, good news for medical reformers.[5]

The bad news for reformers, then and now, is this: For a variety of ideological and institutional reasons, American politics makes it very difficult to coalesce around a solution that reasonably satisfies the requirements for a stable and workable system of financing and delivering modern medical care. We have no assurance that agreement on the seriousness of the nation's medical ills will generate the legislative support required for a substantively adequate and administratively workable program of reform. That is as true now as it was before.

History: Lesson or Lamentation?

Indeed, the task of substantially changing the rules of American medical care is one of the most difficult challenges reformers face. At four other moments in twentieth-century American politics (excepting 1993–94), reformers and their presidential backers tried to implement change. In the Progressive Era, during the New Deal, under President Truman, and during the early 1970s, advocates thought universal health insurance was imminent and were bitterly disappointed. In 2005, as before, entrenched stakeholders can be counted on to block national health insurance by skillfully manipulating our deepest fears to protect what they regard as their interests.

Yet, before an administration and the Congress can meet the challenges of workable reform, they have to resolve—or at least cope with—some of the nastiest ideological and budgetary conflicts in American politics. What might we learn by reviewing earlier efforts by those committed to broad medical reform, but faced with seemingly intractable problems of substance, symbol, and support? Those who do not learn the lessons of history, academics regularly intone, are doomed to repeat past mistakes.

The health reformers of the Progressive Era were convinced that broadened health insurance, financed and administered through social insurance, held the key to improved health, medical progress, and economic security. But theirs was an elite view, helped in the pre-World War I period by the apparent acquiescence of the American Medical Association (AMA). Yet, as it turned out, there was nothing like a massive popular consensus on the need for change; and, after the AMA turned against the idea, the reform movement withered from frustrating efforts for state initiatives to mere academic discussion. A negative elite consensus on the need for change, it appears, is a necessary but not sufficient condition for the enactment of reform programs.

The Lost Reform: Compulsory Health Insurance in the New Deal

The agony of the Great Depression opened up enormous opportunities for change in American domestic politics. President Roosevelt led the way, commissioning expert group after expert group to take on reforms needed in welfare, unemployment, agricultural failure, and banking collapse, as well as in the institutions of economic security more generally. The opening for universal health insurance came in 1935 with the famous Committee of Economic Security (CES). A cabinet-level special committee, the CES took a year to review the circumstances of welfare, unemployment, child health, and old-age poverty and to arrive at a package of programmatic suggestions. They did their work with admirable skill and timeliness, fashioning workable ideas from a far-flung research investigation of various methods to resolve these difficult problems. Unemployment and welfare were the most pressing and obvious problems; retirement benefits, though they have loomed much larger in subsequent decades, did not dominate their deliberations. With compulsory health insurance,

President Roosevelt hesitated, worried that the presumed opposition of the AMA and its ideological allies might jeopardize the success of the bulk of his social insurance reform package.[6] So it was that the committee refrained from even studying health insurance reform, leaving that to the congressional advocates in the next decade, who, under the banner of the Murray-Wagner-Dingell bill, would frustratingly try to generate majority support in the public and in the Congress.[7]

From National Health Insurance to Medicare: The Dogged Retreat

President Truman's experience with national health insurance was no less frustrating. He fought the election battle of 1948 with national health insurance prominent among his proposals for a Fair Deal. During and after the election, however, he faced a barrage of ideological criticism that linked national health insurance with socialism, communism, and the recently demonized Soviet Union. After some years of facing certain defeat in the Congress, Truman in 1951 turned his executive advisors to a more modest goal: a national health insurance program for Social Security recipients that would in time (14 years) become the Medicare program of 1965.

During Truman's presidency, the general public was, according to the polls, always supportive of government health insurance. But this support was neither deep nor informed. Socialized medicine was a tag that scared many, enough so that no amount of presidential enthusiasm seemed adequate to generate majority support in the Congress. What we later came to know as the "conservative coalition" linked opposition from powerful, conservative Southern Democrats and their ideological counterparts among Republicans. This was enough to defeat every attempt at universal coverage—whether for all Americans or just the over-65s—until 1965.

The fight over Medicare illustrates one rare set of conditions sufficient for successful, even partial, reform. Before 1965, the conservative coalition remained formidable. The Democratic landslide of 1964 swept away the key conservative bases of institutional power: dilatory tactics symbolically represented by the Rules Committee, control of other key committees without threat from the Democratic caucus, and an ideological balance in the Congress less liberal than the Congresses of Presidents

Kennedy and Johnson. But the massive electoral shift of 1964 held a lesson for future reformers. A fully sufficient condition for reform proved to be the two-to-one Democratic majority in the House of Representatives, a margin sufficiently large to contain within it an issue majority on Medicare. In retrospect, Medicare might well have emerged a bit later from the narrow defeats of the early 1960s; the outcome of the election of 1964 prevents us from knowing definitively whether, and, if so, how long, such a counterfactual development might have taken.[8]

The Nixon Years: Seeming Consensus, Undeniable Disappointment

By 1970, the topic of health reform had shifted back from Medicare to national health insurance once again. Though it is difficult for many to remember, the striking feature of the 1970–74 years was the intense competition among proponents of different forms of universal health insurance. In addition to the catastrophic proposal that Senators Long and Ribicoff advocated, there was also the Kennedy-Corman bill that so closely exemplified Canada's national program as of 1971. And there was the Nixon Administration's plan to mandate health insurance for employed Americans known then as the "Comprehensive Health Insurance Plan," or "CHIP."

The lessons of this period are surely relevant to American circumstances today. Reform failed because shifting coalitions defeated every attempt at compromise—"cycling negative majorities," we might say in political science jargon. The majority that agreed on the need for reform consisted of factions committed to different proposals. The more modest proposals—like the Long-Ribicoff catastrophic bill—seemed too limited to those who wanted to translate the negative consensus into broad, universal coverage. The proposal for employer-mandated insurance—similar in financing to what President Clinton later proposed—seemed too indirect, incomplete, and incapable of cost control to those favoring more straightforward forms of national health insurance. And even Senator Kennedy, who moved from the more ambitious version of national health insurance (the Kennedy-Corman bill) to a compromise plan that he and the powerful Wilbur Mills could accept, was incapable of generating majority support among a coalition of liberal and conservative Democrats.

It is no wonder that so many from that period were anxious to act in the early 1990s and that so many now are pointing to the need for reform. But the caution here is that the lessons of the 1970s are multiple, not simple. What might well have made sense then—namely, mandated, employment-based coverage—need not define the limit of what is possible 30 years later. Indeed, figuring out the impact of three decades of frustration with partial reform is the major task facing reformers today.

The Contemporary Task: Daunting but Doable?

The lessons of history are never simple. What worked once may not, under changed circumstances, work again. What failed may succeed, but some constants in American politics are always relevant to lesson drawing.

First, compulsory health insurance—whatever the details—is an ideologically controversial matter that involves enormous symbolic, financial, and professional stakes. Such legislation does not usually emerge quietly or with broad bipartisan support, either here or elsewhere. The playing out of the politics of national health insurance not only expresses ideological and partisan differences, but also gives visible form to what political groupings represent; and, in that sense, policy convictions and values shape the politics of the issue.

Legislative success in this arena normally requires active presidential leadership, the commitment of an administration's political capital, and the exercise of all manner of persuasion and arm twisting. President Roosevelt was unwilling to do this in the New Deal, and President Nixon refrained from doing so in the early 1970s. President Clinton gave enormous attention to health reform, but proceeded as if he were negotiating with an Arkansas legislature and could make a sufficient number of private deals to secure a majority. As we are well aware, he famously failed.

President Johnson was fully willing to use all his legendary legislative energy in 1965, but the composition of the Congress then hardly made it necessary. Giving priority to the Medicare bill (with H.R.1 and S.1 as the numerical symbols) represented President Johnson's determination as well as his concentration on Medicare as the centerpiece of his first year's legislative campaign.

Second, the limits of political feasibility are far less distinct than Beltway commentators seem to recognize. Political constraints are real, but they do not submit to estimates as precise as the budgetary work of the Congressional Budget Office. For example, the Johnson Administration, anxious to make sure its first step would be overwhelmingly acceptable in 1965, requested hospital benefits under Medicare only, but the oddest thing happened. A combination of liberals eager to make the Medicare program broader and conservative Democrats wishing to head off step-by-step expansion later agreed to a wider reform than Johnson had requested. Not only was physician insurance (what we know as "Part B") added to Medicare by the Ways and Means Committee, but Medicaid emerged as part of an unexpected "three-layer cake." No one should assume that the substantive and ideological package sent to the Congress is fixed in stone. And no one should treat such "resultants" as the purposeful work of skillful entrepreneurs. Resultants emerge, and the lesson is not that anything is possible, but rather that feasibility estimates must acknowledge considerable uncertainty.

Third, the role of language and emotive symbols in this policy world cannot be overestimated. How the president reaches out to the public, what counts in the evening news and the morning newspapers as the central reform themes, and whether the Congress faces a determined grass-roots movement—all shape the legislative outcome and, even more important, determine whether the resultant is sufficiently coherent and implementable to satisfy the expectations for reform. Pressure groups that can prevail in quiet politics are far weaker in a context of mass attention, as the American Medical Association regretfully learned in the Medicare battle of 1965.

But the central lesson of the past—of both defeats and victories like Medicare—is cautionary in a different sense. It is wise to wait if what is acceptable is not workable. It is foolish to hesitate if what is workable can be made acceptable. If the central elements of a workable plan are acceptable, the pace of implementation can be staggered. But American political history in this area shows that the opportunities for substantial reform are few and far between, precious enough to make squandering close to a sin.

The Search for Common Ground and Feasible Reform

My suggestion for reform now is that we seek a truce among the health policy analysts and make a serious search for a different strategy. I propose that we first organize a special commission of seasoned, gifted, but not expert members. Their major task would be to fashion a set of proposals for American health financing reform that ought to command broader support than the failed efforts of the last decades.

A starting point would be to lay out a common set of goals that any one of, say, the five most prominent approaches to health reform might plausibly be said to share. Below is my initial list, but I have not elaborated their character in any detail. All I want to accomplish here is the enumeration of what appears to be common ground and to exclude purposes that fall outside this set.

(1) Universal Coverage: that is, protection for all U.S. citizens and legal aliens against the catastrophic expenses of illness and injury.

(2) Coverage of Universally Understood Medical Care: that is, hospital, physician, and pharmaceutical expenses, ordinarily defined.

(3) Avoidance of Fostering a Raid on the National Treasury: that is, including program features that mitigate any expected explosion of health care outlays as a consequence of the reform.

(4) Portable Coverage: that is, protection when outside one's state, possibly outside the country, for catastrophic expenses.

(5) Public Accountability: that is, an institutional provision for answering the question of to whom and to what organization violations of the above standards would be addressed.

From this starting point, the task of review would be to select perhaps five prominent proposals for universal health insurance and sort out the common ground among them. As examples of well-known reform ideas, I have in mind the following: (l) tax credit reforms to extend health insurance, a position associated prominently with Mark Pauly; (2) competing health finance institutions with universal financial support, a conception identified broadly with Alain Enthoven; (3) Medicare for all, an extension of the present program, a proposal made, for example, by James

Morone of Brown; (4) health savings accounts, with catastrophic backup insurance, a version of which was in the Medicare Modernization legislation of 2003; and (5) extensions of Medicaid and Child Health insurance, which are basically incremental steps from where reform has been recently.

The next phase is to take up fears, not common ground.

Another Perspective: Serious Concern for the Worst Fears of Other Proponents

The worst fear each advocate has for the other four models of universal insurance coverage is, from the standpoint of increasing consensus, an important topic. Very few, if any, of the reform proposals of the past 30 years have addressed this matter. Yet, if one wants to increase the likelihood of reform, attending to fears is as important as highlighting common ground. But attending to these fears is not a matter of listing objections or excluding disputed ideas.

Rather, the proposal here is to provide a serious answer (not concession) to the fear. So, for instance, if the greatest fear of a proposal for extending Medicare to all citizens is that it will produce extraordinary increases in total health expenditures, the staff would have to present means by which that could plausibly be avoided. Such attention to fears is not meant to produce agreement on what is best. Rather, it is to force attention to the problems that each reform proposal highlights for critics. And it further suggests means by which the opposition to reforms can be lessened where the "answers" given are well informed and are organizationally, as well as politically, "feasible." The question of what would count as a well-informed and feasible policy response to fears is precisely the job of the commission and its staff.

Conclusion

The idea of a commission is hardly new in American politics. Indeed, it is important to note the American frustration with commissions, which are viewed as sources of delay rather than initiative. But the fact of

disappointment does not mean that a useful commission is impossible. It would be worth reflecting on the fate of the Canadian Royal Commission of 1964–66, which served as a vehicle for deliberation, careful research, and the promotion of an operationally and feasible form of national health insurance. Chaired by Justice Emmett Hall of the Saskatchewan Supreme Court, the body produced a set of documents that brought together Canada's history of financing medical care with the experience of other rich democracies regarding the topic. The commission then crafted a model bill that surprisingly passed a Canadian national legislature, despite the substantial opposition of the Canadian Medical Association and its ideological allies across Canada.

Political judgments on particular reform proposals are products of personal experience, political ideology, and local economic and social conditions. As one moves about the United States, these factors change substantially. If change is to be workable and acceptable, however, it must take into account the real differences between New York and Idaho, Wisconsin and Louisiana. Moreover, what is operational varies less than what is politically acceptable and financially plausible at any one time. Simply considering the following four-fold combination of political and economic circumstances alerts one to this consideration. Vary the economic conditions, for example, between two states: high rates of economic growth and recession or near-recession rates. Combine those two criteria with two states of the distribution of political and ideological dominance: for example, Democratic or Republican control of the executive and at least one of the legislative bodies. The resulting four-fold table does not exhaust the possibilities. Political stalemate (or, if you prefer, a more balanced power situation) could obviously produce two more cells. But the main point should be obvious: what is likely to win majority support would not be the same under all four conditions. And the point of the effort, therefore, is to have available a version of a plausible health system reform that would command wider support than otherwise because of its commitment to common ground and answering serious objections. That, at least, is what this political and policy analyst would urge others to consider.

Box 2.1
Reform and Political Science

The role of political scientists (and political science) in the twentieth-century battles over universal health insurance is not a subject to which much attention has been paid. That, of course, is no reason to ignore it.

Until the Truman period, political scientists did not play a prominent intellectual role in the debate over what form, if any, government health insurance should play in the American version of a welfare state. The social insurance reformers of the Progressive Era took their cues from Europe, especially Germany, and included in their numbers lawyers, public health figures, insurance experts, and what were then known as "political economists." By the New Deal, there were two major streams of intellectual commentary: one that included those such as I. S. Falk from public health, and another that included those such as Abraham Epstein, Selig Perlman, and Edwin Witte from the specialized academic field of social insurance. At that time, many American universities, particularly those with land grants, had within their economics, sociology, and history departments prominent experts in social insurance. At the University of Wisconsin, in particular, the expertise of these academics was transferred to state reform action (in unemployment insurance, for example) and to the New Deal reforms, where Professor of Economics Witte became the executive director of the Committee on Economic Security.

The persistent clash over the Murray-Wagner-Dingell proposal for national health insurance between 1939 and 1948 brought health politics to countrywide media attention. And, in the wake of that, political scientists concerned with public opinion and the operation of pressure groups in American politics came to address national health insurance more directly. The American Medical Association, then the leading critic of "government medicine," expended considerable resources trying to defeat the Truman reform plan and became a prominent example of interest group exertion of power in America's fragmented political system. Stanley Kelley's *Professional Public Relations and Political Power* (1966) directly addressed this phenomenon, supplementing what had become the conventional explanation by journalists for why the United States, unlike most other industrial democracies, had rejected national health insurance.

Kelley's interest in the battles of the 1940s was followed by considerable attention to the long struggle over Medicare. Books by political scientists Feder, Feingold, and Marmor addressed the origins, enactment, and early implementation of this controversial program of the Kennedy–Johnson years. But, for all the attention that Medicare's legislative struggle generated, political scientists have largely ignored the administrative experience of that program.[9] The analysis of subsequent disputes over America's so-called "health crisis" was largely ceded to other fields.

There are exceptions to be sure: Larry Brown's writing on the politics of the HMO movement, Jim Morone's work on health planning, Mark Peterson's book on the health politics of the 1970s and 1980s, and Larry Jacobs's book comparing the political struggle over the National Health Service and Medicare. More recent examples are Larry Jacobs and Robert Shapiro's *Politicians Don't Pander* (Jacobs and Shapiro 2000), Jacob Hacker's *The Road to Nowhere* (Hacker 1997), Jon Oberlander's *The Political Life of Medicare* (Oberlander 2003), and Jim Morone's *Hellfire Nation* (Morone 2003). But the general point remains: political scientists have paid relatively little attention to the administrative experience in the United States regarding sweeping health care programs.

Economists, particularly, expanded into the health policy arena in the 1960s, following, not surprisingly, the expanded market for research on this growing industry. Whether this market development has illuminated our policy issues is a controversial matter, but it would be surprising to find an essay—like Dan Fox's (1979) critique of modern health economics—written on the role of political science in the past 20 years of health policy disputes.

The irony, however, is this: as we contemplate substantial health reform in the twenty-first century, assumptions about political feasibility are central to the policymaking arguments. Those who most regularly voice opinions about this matter tend not to be professional political scientists. Economists like Henry Aaron, Uwe Reinhardt, and Mark Pauly—among many others—seem reasonably sure that they know American politics well enough to evaluate the prospects of particular reform proposals.

What is striking about such commentary is the thinness of the evidence on which such judgments are made. None of the economists I have cited have themselves studied the changing constraints of American politics. None of them have systematically investigated the role of public opinion in policymaking in ways that are illustrated, for example, by the work of Jacobs, Page, or Shapiro. But none of them appear to doubt that their judgments are more than conventional wisdom applied to an arena of politics that has confused even the most meticulous of scholars. I leave it to historians to wonder why this should be the case.

There is, however, another side to the current story. A number of political scientists in the early 1990s joined forces to comment on the claims and counterclaims about reform. Organized in reaction to the Jackson Hole Group and known informally as the "No Holes Group," these policy commentators were, in fact, largely political scientists. Their names will be familiar to those interested in the place of medical care in American political studies: Christa Altenstetter of CUNY, Larry Brown of Columbia, Larry Jacobs of Minnesota, Jim Morone of Brown, Tom Oliver of Maryland, Mark Peterson of the University of Pittsburgh, Deborah Stone of Dartmouth, Joe White at Brookings, David Wilsford of Georgia Tech, and myself.

This group, augmented by a number of other sociologists, economists, and lawyers, represents the culmination of a development dating back to the late 1960s: the initiation of a Committee on Health Politics. From that beginning emerged *The Journal of Health Politics, Policy, and Law* as well as a considerable amount of scholarship. What the No Holes Group illustrated is the movement from academic inquiry to a more politically active role, one evidenced not simply by published work, but also by congressional testimony, media appearances, and other forms of policy participation. Whether that shift in effort will be influential is something no one can be sure of at this point. However, it is interesting that in 2005, the No Holes Group is being revived.

Notes

1. These generalizations hold up even if everything David Cutler and Bill Nordhaus assert in their chapters about the benefits of medical improvement is true. In comparison, our mix of cost, quality, and access leaves a majority of Americans spending more and feeling bad about the mix.

2. See Marmor (1994). See also generally Starr (1982, history of medical care from colonial times to the present), Anderson (1985, general history of health services from 1875 to the present), and Ginzberg (1990, analysis of social factors influencing the development of health care systems since World War II).

3. While substantial change took place in the United States in the decades 1980–2000, most of it was privately generated. What is called the "managed care" movement altered the way most American physicians practice and are paid, and had a lot to do with the changing ownership and shape of American hospitals. These changes stand in contrast to the publicly organized reforms in the United Kingdom (internal markets in the 1990s) or in Canada (national health insurance in the period 1957–71). For more on health reforms, especially "nonpublic change," see Tuohy (1999).

4. Readers should not be misled by controversies about the precise meaning of a medical care "crisis." In the 1993–94 period, for example, the media first seized on the ambiguously worded doubts that Senator Daniel Patrick Moynihan expressed about the relative importance of welfare and health reform in the Clinton Administration's priorities. The media made the issue front-page news. Senator Robert Dole, sensing the opportunity to challenge the ambitious scope of the Clinton reform bill, questioned whether the nation's medical problems were of "crisis" proportions. Soon thereafter, all of the major political leaders agreed that the problems were serious enough to justify debate about reform, and the semantic duel quickly ended. The whole episode typified the muddled state of commentary about American medical care, but did not seriously challenge the consensus that substantial change is necessary. The same applies to 2005 disputes about the scale of America's problems; they exist at a level more than enough to warrant reform.

5. For more on the public desire for substantial change in health care, see Blendon and Benson (2001).

6. See Derickson (2005), pages 52–71, for elaboration on this episode.

7. The American development of social insurance—and the character of the legislative initiatives of the 1930s—is illuminatingly (and briefly) discussed by one of Social Security's most illustrious administrators, Robert Ball, in Ball (1988).

8. This interpretation is drawn from my own writing on the topic (Marmor 2000).

9. The clear exception is Jonathan Oberlander's book, *The Political Life of Medicare* (Oberlander 2003).

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3

Defining the Health Care Challenge

What Is Good Care, and What Is Bad?

David M. Cutler

Introduction: The Story of Sal

I would like to tell you about a fellow named Sal. Don't worry; I made him up.[1] But imagine he is real.

Sal is a 60-year-old white male. He is slightly overweight, is borderline diabetic, and smokes half a pack per day. But otherwise Sal is in good health. Aside from minor ailments, Sal has never been very sick. Sal's doctor periodically advises him to lose weight, take medication for his diabetes, and stop smoking, but Sal has always felt fine.

Increasingly, however, Sal feels chest pain when walking up stairs or running to catch the subway. After some nagging, Sal visits his primary care physician. The doctor suspects angina and refers Sal to a cardiologist, who does a variety of tests. The results are not great. Sal has probable heart disease.

Cardiac catheterization, a procedure to measure how well blood flows to the heart, is performed. Significant narrowing is detected in one of the arteries supplying blood to Sal's heart. A heart attack won't happen next week, but will in the next few years. The cardiologist recommends angioplasty, a procedure to open the clogged artery and insert a mesh tube to keep it open. The procedure is successful, and the artery is reopened. Fortunately, insurance pays the $20,000 bill.

The cardiologist sends Sal back to the primary care physician, along with some recommendations: nitrate pills for periods of intensive pain; aspirin and beta blockers as well; more regular use of diabetes medication; absolutely no smoking; switch to non-fat milk instead of whole milk; use salt only in moderation; and exercise regularly.

Sal has the best of intentions. He starts taking the medications more regularly, and switches to a salt substitute. After years of his wife's entreaties, he finally gives up cigarettes. He walks 30 minutes a day, three times a week, for two weeks. But life soon catches up. The medication needs refilling, and there is no time. Sal's weight, which fell at first, increases again. It is hard to exercise in winter, Sal tells himself; when the weather is nicer, he'll begin the exercise program.

Come time for his annual physical, Sal feels ashamed of his lack of progress. He grudgingly goes to the doctor a half-year later than he should. The doctor repeats the unfollowed advice. Sal again tries to comply. Walking is resumed and red meat consumption is lowered, at least for a time. Medications are back in use. But old habits are hard to break. In just a few months, most of the progress is gone. This cycle continues for a few years: recommendations are given, acted on for a while, and then discarded. Sal's visits to his doctor become progressively less regular.

Five years later, Sal pays the price. He has a massive heart attack. Sal is rushed to the hospital and stabilized. Bypass surgery is performed two days later, at a cost of $50,000 (thank God for insurance!). The surgery keeps Sal alive, but there are complications. Sal's heart doesn't pump that well anymore, and fluid builds up in his lungs. Over the next three years, Sal is in and out of hospitals with pneumonia, heart, and respiratory complications. At age 68, Sal dies.

Did Sal Receive Good Care?

Considering everything, how do we evaluate this story? Did Sal receive good or bad medical care? Could things have gone better? If so, how?

Since this is a participatory conference, I want to take a survey. How many of you believe that Sal received good medical care? How many believe that Sal received bad medical care? I would say about three-quarters believe that he received good medical care, and one-quarter say that he received bad medical care.

Sal is interesting because he shows how the medical system works—the good and the bad. I want to use this case as an example of the kinds of things that go right and wrong to illustrate the challenges that Cathy Minnehan correctly raised.

The correct answer is that Sal received both good and bad medical care. All the medical procedures that Sal received, if I understand correctly what my physician friends have told me, were appropriate. They either alleviated the immediate symptoms or they saved his life. Angioplasty alleviated his immediate symptoms, bypass surgery saved his life, and the medication and lifestyle recommendations he was given were appropriate. This is state-of-the-art medical care.

But was it worth it? Did the benefits exceed the costs? The golden rule of economics is that you do something if the benefits are greater than the costs. In this case, if you consider the time when Sal had his heart attack, the costs are the up-front treatment, including all those spiffy things that he got in the hospital, plus the downstream costs of caring for him after he survived. The primary benefit is the expectation of longer and higher quality of life. There is also a personal dimension: whether people were satisfied with the care they received. Finally, there are some financial implications that may be either positive or negative. In this case, they are mostly negative. For example, keeping Sal alive means that he collects Social Security and other benefits. So these costs represent a reduction for everybody else in the amount of money (resources) they have for goods and services, and these costs offset the benefits to him and to us of Sal's living a longer life.

Totaling up the benefits and the costs, the balance sheet looks as shown in Table 3.1, below:

Table 3.1
Benefits and Costs of Sal's Treatment

Benefits	Costs
• Expectation of longer and higher-quality of life • Patient/family satisfaction with care • Financial implications for others of keeping a person alive and/or healthy	• Upfront treatment costs (tPA, aspirin, primary angioplasty, beta blockers, etc.) • Downstream treatment costs • Financial implications for others of keeping a person alive and/or healthy • Other downstream costs

We can think about asking whether care is worth it or not in the case of Sal—or in the case of the medical system as a whole—by trying to take account of the costs and the benefits of care. Sal's case is actually emblematic of the medical system as a whole.

Weighing the Evidence: The Net Gain from Recent Medical Advances

The discussion below is based on a decade of research on changes in treatment standards over the past half-century in three important areas: cardiovascular disease, low-birth-weight babies, and care for the mentally ill. Many more details can be found in my recent book, *Your Money or Your Life* (Cutler 2004).

Changes in Medical Care for Severe Heart Disease

If you go back a couple of decades, to, say, 1950—Sal's therapy would have been bed rest. The 1950 standard of care for severe heart disease (myocardial infarction, or MI) was bed rest for six months or more. So rather than getting all those fancy procedures in the hospital, they would have put him in bed for at least six months. The direct cost of this care was minimal (although the opportunity cost to the patient and his family may have been high). One can think about other costs, like the fact that the person is not working and that he is perhaps supported through some other programs. Conceptually, I include the reduced value of transfer payments on the benefit side. Here, I just want to think about the medical costs.

In contrast, the 2000 standard of care for MI involves technologies such as thrombolytics and revascularization—procedures whose direct cost is high. Just to give you a sense of the magnitude, the direct cost of cardiovascular disease care per 45-year-old rose from about $0 to about $30,000 in present value terms over the last half of the twentieth century. The reason we spend more in caring for heart disease today than in the 1950s and 1960s is that we do more. And that is true across the board. As Cathy Minnehan mentioned, medical spending currently represents 15 percent of the economy. It's going to be 18 percent. And the reason for this is that we can do more.

Changes in Medical Care for Low-Birth-Weight Infants

The 1950 standard for treating low-birth-weight infants was to use the first generation of incubators and to experiment with warming and other intuitive actions. These treatments were available at a very low cost. But again, they were not very effective. In 2000, low-birth-weight infants can be treated in sophisticated neonatology units, employing ventilators and artificial "surfactant."[2] These treatments are quite costly: the cost per low-birth-weight infant rose from about $0 in 1950 to about $70,000 in 2000.

Changes in Medical Care for People Suffering from Depression

The 1950 standard of care for people suffering from depression involved institutionalization in a mental hospital for the very ill, with very little care for those with milder symptoms. Procedures for treating the severely ill in institutions included lobotomy, electroconvulsive therapy, and insulin therapy. Two of those, thankfully, have been laid to rest. The 2000 standard for treating depression includes selective serotonin reuptake inhibitors (SSRIs), antidepressants, and advances in psychotherapy such as cognitive behavior therapy and other techniques. The advances in treatment options for depression over the past half-century enable more people to be treated more effectively. However, as a price to be paid for this progress, spending on depression has doubled in the past 20 years, as many more people are diagnosed with depression than were in the past.

Net Gains

One cares not just about what is spent, but about the return on spending. As I said, there are a number of components to this reform. The most important is how long a person lives. In this case, Sal probably lived about five years longer because he had the care, much of it of reasonably good quality. Actually, there's a whole industry of people who go out and measure the length of life and quality of life. Let me tell you a little about what they have found.

As Figure 3.1 shows, cardiovascular disease mortality has declined by over 50 percent since 1950. Put in terms of years of life, the average 45-year-old will live another four and one-half years because cardiovascular

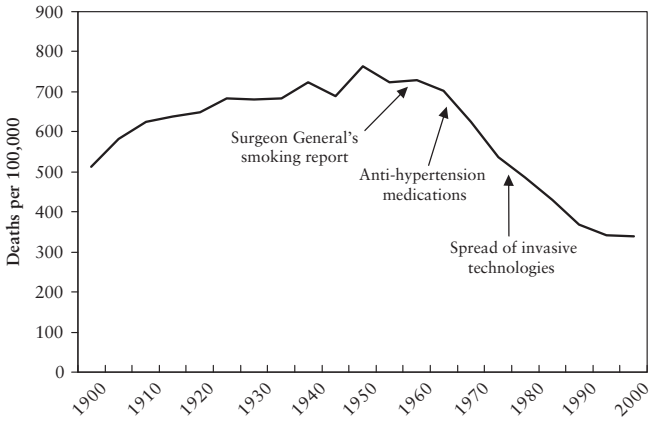

Figure 3.1
Mortality from Cardiovascular Disease
Source: Vital Statistics of the United States (2000).

disease mortality has declined. Several factors have been important in this trend, among them the marked decline in mortality rates that followed the release of the Surgeon General's report on the dangers of smoking, the wide adoption of anti-hypertension medications, and the spread of invasive technologies to treat cardiovascular disease. My estimate is that about two-thirds of the increase in longevity—or roughly three years of increased life—results from medical intervention, with most of the remainder due to smoking cessation.

Let me now combine the costs and benefits of medical care. Since 1950, we have spent about $30,000 per 45-year-old and obtained in return about three years of longer life. And so your second quiz question is, is it worth it? The correct answer is, yes, it is worth it. In case you're wondering, the present value of the benefits calculated by a methodology I won't go through—it will be familiar to most of the economists here and is based on valuing risks to life and using that information to infer the value of traditional life years—is about $120,000, yielding a rate of return of four to one. Let me know when banks start paying that return on their deposits, and I will sign right up. Indeed, when you look at quite

a number of medical interventions, they have benefits that are substantially greater than the costs, as Figure 3.2 shows.

What is going on in Figure 3.2 is that people value their health highly; two-thirds of Americans rank health care as a top item for an expanding economy. Most Americans are willing to pay the equivalent of $100,000 to save a year of life. Most of us have enough money to provide for the basics in life: food, clothing, shelter, and basic medical care. And so, as we get richer, we want to extend the quantity and improve the quality of our lives. Medical advance costs a lot, but is worth it. That is why the "R" word (rationing) cannot be uttered in polite company in the United States.

Let me come back to the big picture. Why do we spend more now on medical care? In part because we are well insured, and in part because the technology is worth it. Now, that does not mean we can afford to keep doing it; but as an approximate matter, what is going on with medical spending is that we spend a lot more because we get a lot more. At least

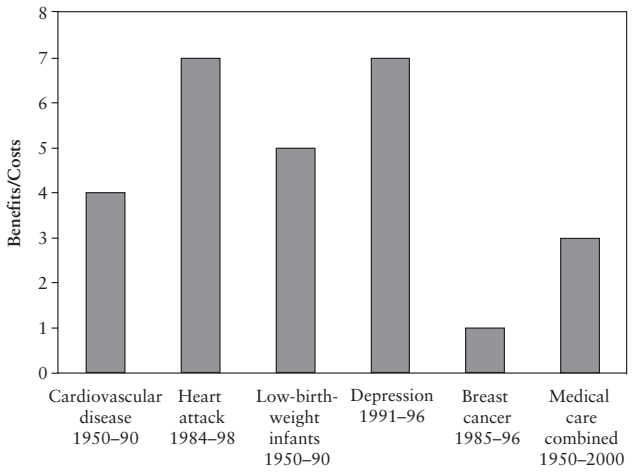

Figure 3.2
Benefit/Cost Ratio of Medical Care in America
Source: Author's calculations.

by my estimation, on the whole it is worth it. So, Sal, and we, as a whole, are actually doing fairly well. Why shouldn't we spend our money on being healthier?

The Glass Is Half-Empty

Sal: The Sad Part of the Story

So, that's the good side. The bad side is what was *not* done for Sal. Although medical care bought Sal years of life, many things that should have been done were not. No one followed up on his adherence over time to the recommended lifestyle changes. This, too, is state-of-the-art medicine. No one helped Sal with medications, side effects, or any other complicated issue of managing disease.

Consider poor old Sal. He was told, "Change your life." So, here he is, a 60-year-old man who all his life has been obese and has not taken care of himself. He goes to the doctor and the doctor says, "You know what, Sal? You really ought to make these major lifestyle improvements. Why don't you go away and do that?" Well, of course, he's going to have difficulty doing that. Every one of us has difficulty doing that. Next week, I'm giving up cookies. I promise. So, the single biggest problem in Sal's story is that Sal's chronic disease was not well controlled. We could have saved a lot of money, at least in the short term, and extended his life by many years, had we controlled it better.

We Know We Can Do Better

What would good prevention look like? I will give you just one example, that of HealthPartners, an HMO in Minneapolis that decided a few years ago that it was going to focus on improved care for diabetics like Sal. The primary components of diabetes management programs are the dissemination of guidelines, provider education, member education, screening programs, performance feedback to physicians, patient reminders, case management, and at-risk lists. The HMO went to the doctors and said, "We're going to give you profiles of how well your diabetic patients are doing compared with other doctors' diabetic patients. Then we're going to contact the patients and make sure they come in, to see whether they are taking their medications and, if they are not, why not." This is not

very intensive stuff. Still, the HMO showed significant improvements in the care for diabetics, all as a result of low-tech care. This is not inventing a spiffy new way to treat people once they have kidney failure. This is figuring out ways to get people to do what's best for them. A study of the outcomes of this program showed a dramatic decline in patients' mean HbA1c levels[3] from 1994, when the program began, to 2000 (see Figure 3.3 below).

There are other similar examples—Kaiser Permanente in California, for instance—where people have shown that it is, in fact, possible to do much better in managing chronic disease.

The real question is, why is Sal's case so typical? Why isn't more being done to control chronic disease? My answer is: money. The kinds of information technology that you would need in order to work with patients are not reimbursed at all. There's no reimbursement for anything other than a doctor seeing a patient. Take the simplest example: what share of doctors communicate regularly by email with their patients? I can email virtually everybody in my life with the exception of my doctor. The share of doctors who communicate regularly with their patients by

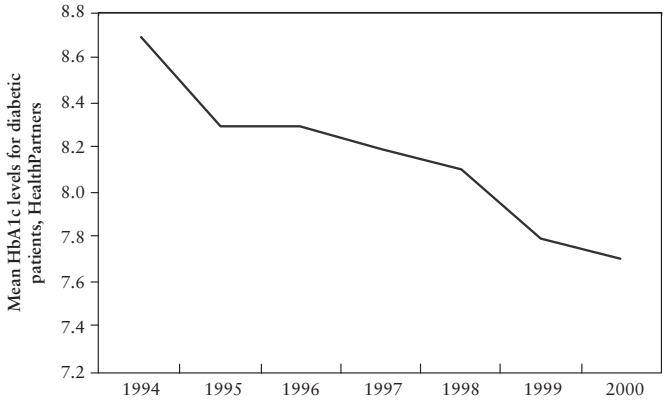

Figure 3.3
Improvement in Diabetes Management from Low-Tech Care at HealthPartners, Minneapolis
Source: Beaulieu et al. (2007).

email is 3 percent, which is smaller than the share of priests who are on email. I think it's even smaller than the share of people who communicate with the Lord by email.

And, by the way, if you ask any doctor why they don't communicate via email, the reason is because they are not paid for it. I once knew an HMO that was trying to figure out whether it could set up email for only those employers that agreed to pay for it, even though there was no additional cost to provide it to everybody.

One result is that we spend a lot more than we need to on people when they get sick. We also substitute intensive care for lifestyle chronic disease care. If you ask, "What is the single biggest difference between care in, say, the United States and care in Canada?" the answer would probably be that in the United States, Sal got his angioplasty when he was feeling chest pain; while in Canada, they would have told him to take his statin drug, exercise more, and try to lose weight. The net results are that our health care system is much more expensive than Canada's. Both could be effective. Indeed, if you look at Jack Wennberg's work at Dartmouth (Wennberg, Fisher, and Skinner, 2002), areas of the country that spend more don't have sicker patients going in, and probably don't have healthier patients coming out—although I must admit, I'm a bit less convinced of that—and, on the whole, don't have more satisfied patients. What happens when you spend more is that doctors do more. Sometimes, it is needless stuff, that is, testing that doesn't need to happen; at other times, it is substituting intensive testing for lifestyle changes that people could make.

The net impact is mixed. Figure 3.4 shows the division of medical care along two axes: should the care be provided—a statement about whether the care has benefits greater than costs—and whether the care is provided. The happy situations are where appropriate care is provided and inappropriate care is not provided.

Unfortunately, what we get is too much of the other boxes. In Figure 3.4, those other boxes represent the two kinds of mistakes that are made. The box on the top right represents things that are done that should not be done. This includes intensive procedures that are used when simpler interventions would do, and unnecessary testing that happens because doctors are paid for it. There are different guesses as to how much money that represents. Twenty percent seems like a lot. Actually, Jack Wennberg

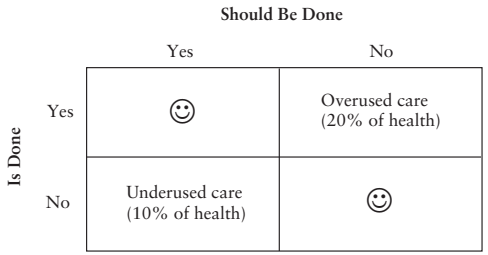

Figure 3.4
Overall Assessment of the Level of Care Being Provided
Source: Author's calculations.

at Dartmouth says it is 30 percent. My colleague Michael Porter at Harvard Business School thinks it is even higher (Porter and Teisberg 2006). There's a fair amount of money in there. And, this does not even include administrative expenses. This is just medical care that is provided, but is probably not doing much good beyond what we could accomplish otherwise. So, you could save that 20 percent, at least.

On the other hand, there is the bottom-left quadrant, where things that should be done are not being done. Nobody has a great guess as to what it would cost to do these things. My own personal guess is that we could spend about 10 percent more on medicine by, for example, dealing better with Sal and his chronic disease. What would that involve? Having him come to the doctor, get tests, and take medication. Similarly, uninsured people should get more care. After all, if we didn't want them to get more care, why would we want them to have insurance? My rough guess is that if we waved a magic wand and started doing all the right things, and stopped doing all the needless ones, we might save about 10 percent of our medical care spending on a net basis, but we would actually have remarkably improved health.

Getting to the Promised Land: Three Strategies

So, how do we get there? The Holy Grail of health care reform is cost, access, and quality. People want costs to be lower, access to be higher, and quality to be better. And so, how does one deal with this analysis that suggests that while we are doing pretty well on the whole, there are some very

gross errors? There are three strategies that are out there. I will try to give you a very brief overview of them and tell you a bit about how I lean.

The first strategy is consumer-directed health care, which entails making health care more of a market. This strategy includes greater cost sharing, more information provision, and related interventions. This solution comes out of the literature that worries a lot about the overuse of medical care. And, indeed, everything that we know from the RAND Health Insurance experiment (Newhouse et al. 1993) suggests that increasing cost sharing by people will lead to less use of care, and that would be good on the overuse dimension. What people worry about is whether this will exacerbate the problem of underused care. When people give up care, who is to say that the care that is saved is only the low-valued care? Some evidence suggests that it is not (Huskamp et al. 2003).

The second strategy is the single-payer system: lower fees, restrictions on what is done, and lower administrative expense. This approach is also, to a great extent, designed to address the issue of care overuse, since the United States spends more on health care than other countries do. But will the single-payer approach do anything on the prevention side? Most of the evidence we have from other countries—some of them single-payer—is that they actually don't do much better on prevention than the United States does. All medical systems are geared towards high-tech treatment. Some just do more of it, while others do less of it. So, I worry that health would not improve in a single-payer system.

The third broad direction is payment reform—paying for performance, not quantity. This strategy is primarily designed to address underused care, by paying doctors to do things that they ought to do. The primary concern that people have with respect to this strategy is: will it actually save money or will it just lead to more care, and will providers game this system in some way? There is enormous debate about this, which other speakers will address. My personal belief is that this is the best way to go, since both underuse and overuse are significant problems.

I cannot resist ending on a cautionary note. In the past few decades, there have been any number of "magic cures" for health care. The prospective payment system was going to be great. Managed care was going to be great. Provider integration was going to be great. Provider disintegration was going to be great. Having insurers provide medical care was

going to save the world. Having providers and insurers be separate was going to solve our problems. We have gone through various fads, and we need to be cautious about all of these ideas. In fact, this is where I want to leave things: in the religious world, they have been searching for the Holy Grail for 2,000 years. In health care, we have only been searching for 100 years, so we have quite a way to go. That is not to say we shouldn't try these approaches, but just to say that we should be a bit skeptical about our ability to work wonders.

Notes

1. For the curious, Salus is the Roman god of health.

2. "Surfactant" is a fluid secreted by the cells of the alveoli (the tiny air sacs in the lungs) that serves to reduce the surface tension of pulmonary fluids and thus keep the lung from collapsing.

3. The test measures the amount of glycosylated hemoglobin (hemoglobin molecules that have become chemically linked to glucose) in the blood. The test gives a good estimate of how well diabetes is being managed over time.

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The Health Care Challenge: Some Perspectives from Behavioral Economics

Richard G. Frank

Introduction

Health economists, led by David Cutler, have brought into question the long-held proposition that most of the increases in health care spending consist of waste and inefficiency. Cutler makes a strong case that, on average, the growth in spending has been used to purchase care whose value exceeds the value of the outlays. Advances in medical technology and knowledge have produced these gains. At the same time, it is widely acknowledged that the U.S. health care system operates some distance from its efficiency frontier. The point of departure for economists seeking to address such issues is to consider the traditional incentive problems in health insurance markets that stem from adverse selection and moral hazard, which are clearly important.

However, rapid increases in medical spending and dissatisfaction with quality of care appear to be nearly universal in Western nations that operate under vastly different health care rationing arrangements. David Cutler's analysis of health care delivery in the United States consists of two main parts. The first assesses empirically whether, on average, the gains in health over time are comparable in value to the rise in spending on medical care that has produced them. The second part begins with an acknowledgment that we are unlikely to be on the efficiency frontier and argues for a "pay-for-performance" approach to improving health care delivery in the United States. In this essay, I focus on a few behaviors related to medical decision-making that may help to explain why the health care system operates at some distance from the efficiency frontier. I also concentrate on aspects of the psychology of decision-making that

may be important to the design of pay-for-performance schemes. My aim is not to provide a comprehensive review of issues, but rather to highlight a few fundamental ideas from behavioral economics that may offer some insights beyond those provided by the traditional mode of health economics analysis regarding why the health care delivery system performs the way it does.[1]

My remarks are organized into three additional sections. First, I offer a cursory review of the performance of the U.S. health care delivery system. Second, I identify two behavioral economics concepts that may have particularly strong power to explain some of the observed patterns of performance: "status quo bias" and "unrealistic optimism." I then apply a third idea from behavioral economics that is related to some proposed supply-side remedies to the cost and quality problem: the "psychological response to complex pricing schemes." The final section of the paper offers some concluding observations.

Health Care Spending and Value

The United States spent roughly $1.99 trillion or 16 percent of gross domestic product (GDP) on health care in 2005.[2] Health care spending is also growing at an annual rate of 7.8 percent, a rate that is 2.7 percentage points higher than the rate of growth in GDP for that period (5.1 percent). These trends are a return to historical patterns that were interrupted briefly during the late 1990s (1996 to 1999), the era of managed care. The popular press and many policy analysts view the growth in health care spending as unsustainable. Students of the federal budget note that the share of the federal budget accounted for by health expenditures, currently about 16 percent, is expected to rise to 21 percent in 2017, and will equal the size of all current federal outlays by the year 2070 (CBO 2007, Table 3-1).

David Cutler and others have noted that deciding whether health spending is too low or too high requires considering the value of what health expenditures purchase (Cutler 2004). Dramatic advances in medical science have produced cures where none previously existed—treatments that allow people to function effectively in society where previously they

would have been disabled and dependent, as well as procedures that can be administered in a physician's office that would have required many days in a hospital just a few years ago. Thus, the technical frontier of medicine has expanded enormously over the past 20 years. Cutler's analysis uses changes over time in medical spending and health outcomes to assess whether the gains in health have been worth the extra outlays on health services. Using case studies on infant health, cardiovascular disease, and depression, he offers persuasive evidence that average productivity of spending on medical care has been rising. This is very important because it has shifted the debate from the idea that most additional medical care spending in the United States stems from price increases and produces little in the way of increased health.

Cutler's insights have encouraged other analyses that point in similar directions. For example, Thorpe and colleagues decompose the source of expenditure growth for the 15 medical conditions that account for the highest rates of nominal growth in health care spending (Thorpe, Florence, and Joski 2004). They decompose changes in spending into changes in the cost per treated case, number of cases treated, and population (growth and composition). For 7 of the top 15 conditions, they show that changes in treated disease prevalence account for 40 percent or more of the increase in spending, an indication that more people are getting some treatment for important illnesses. In addition, for several of the disease categories for which spending growth is being driven by the cost per case, there is evidence of important gains in health outcomes; this is the case with heart disease, as discussed by Cutler.

Cutler's analysis recognizes features of health care delivery that suggest inefficiency. He notes a variety of troubling reports that suggest that the health care system does not operate on the technical frontier and that there is, in fact, a great deal of poor quality in American health care (Institute of Medicine 2001; McGlynn et al. 2003). Research has also established that there is vast variation in the costs of providing health care to various patient populations located in different regions of the country. For example, in 1999, it cost 103 percent more to provide health care to Medicare beneficiaries living in Miami than to those in Minneapolis. The difference cannot be accounted for by demographic

differences, health care prices, or health status (Wennberg and Cooper 1997). Together, these reports suggest that the health sector does not produce on the production frontier and often does not minimize the cost of producing health or health improvements.

What Cutler's analysis does not say is either (1) how health care is not efficient, or (2) whether efficiency is improving over time. This then leaves open questions of how one might want to change the organization and financing of health care. Cutler's prescription for improving the value of health care spending or efficiency is based on his observation that health care payment systems in the United States do not typically reward the outcomes that we want. Hence, he sees pay-for-performance (P4P) schemes as a step towards paying for the kinds of outcomes that efficiency dictates and Americans want. Cutler is not alone in his enthusiasm for P4P. There has been a recent rush by payers to implement such policies (Rosenthal et al. 2004; Institute of Medicine 2007). I believe that it is worth stepping back to consider how doctors make decisions and whether the "rationality" that is behind P4P is present to a sufficient degree to warrant the current enthusiasm. This raises two specific questions:

(1) If physicians are rational and money oriented, how do they respond to P4P schemes?

(2) If physicians are not entirely rational and money oriented, how do they respond to P4P schemes?

Below, I focus mainly on the second question and leave most of the first question for another time.

Inertia, Optimism, and Complexity

In this section, I concentrate on the inertia of professionals, or what has been termed status quo bias in decision-making and unrealistic optimism by professionals, in the context of a highly complex and uncertain decision-making environment. I will also examine the psychology of responses to complex payment environments. These concepts will be applied to help explain the inefficiency in health care delivery and the possible difficulties with P4P as a remedy.

Inertia or Status Quo Bias

Thaler has identified a general tendency of people to exaggerate the value of an item they possess (selling price) relative to how they would value the same item if they did not own it (buying price) (Thaler 1980). This has been termed the "endowment effect." Samuelson and Zeckhauser make some related observations regarding the tendency of people to exaggerate their preference for the current state of affairs (Samuelson and Zeckhauser 1988). This occurs in the context of more complex circumstances (choices over multiple goods or complicated attributes) and has been termed status quo bias. These apparent anomalies in decision-making have been linked to reference points and strong loss aversion. A number of experimental studies have provided evidence that status quo bias occurs under a variety of circumstances in which decisions are made under uncertainty.

For example, a test of status quo bias was conducted among electric power consumers in California. Consumers were asked to indicate their preferences over different combinations of service reliability and rates. The respondents came from one of two groups, one with much more reliable services than the other. Each group was asked to indicate preferences over six service-rate combinations, where one was the status quo. The results showed that 60.2 percent of the high-reliability group chose the status quo, and 5.7 percent chose the low-reliability option, which came with a 30 percent decline in rates. In the low-reliability group, 58 percent chose the status quo, and 5.8 percent selected the high-reliability option, which came with a 30 percent increase in rates (Hartman, Doane, and Woo 1991). The results suggest that people are reluctant to adopt a new service or to even-handedly evaluate new choices.

The departure of everyday medical practice from recommended evidence-based medical practice has been widely documented. A recent study examined the quality of care for 30 chronic and acute conditions as well as for some preventive practices (McGlynn et al. 2003, Note 3). They found that, overall, people seeking care received about 55 percent of recommended care. Many of these practices have been recognized for some time in published research and by professional medical societies as forming the basis of high-quality treatment. A recent example of off-frontier production was examined by Skinner and Staiger who found

that economic incentives and budgets did not explain departures from frontier production (Skinner and Staiger 2005). Thus, the advances in medical treatment techniques that Cutler and others identify as driving the health system to deliver more health care also require physicians and other providers of medical care (hospitals and nurses) to modify treatment approaches that in numerous cases appear to have met with success for many years. In other words, these advances require providers to alter the status quo. The puzzle for economists is that the "costs" of adopting these new practices are generally quite low for physicians, while the prospects for improving health outcomes are quite high. Why, then, would professionals focused on treating the ailments of those who are most often well-insured people not adopt these new practices?

In the context of medical decision-making and studies of diffusion of medical knowledge and practice, status quo bias may offer a foundation for developing a new model that explains the tendency of medical practice to cling to older methods of treatment. Prescription drug decisions furnish an important choice to study this issue. Since physicians generally do not gain financially based on the drugs they choose, one would expect them to behave as "perfect agents." For example, physicians have been shown to favor pharmaceutical products that they were introduced to in medical training even if newer products have been shown to be superior (Scherer 2000). One recent study conducted in Germany examined the characteristics of psychiatrists most likely to adopt the new generation of anti-psychotic medications. The analysis found that the age of the psychiatrist (as a marker of how long he or she had been in practice) was the most important variable explaining the adoption of the new drugs. Patient characteristics had no significant effect on prescribing patterns (Haman et al. 2004). Hellerstein (1998) studied a very simple decision, whether to prescribe a generic drug, using U.S. data from 1989. She found that most of the variation in the prescribing of generics was unexplained by patient, price (insurance), and regulatory factors. As in other research, she found that older physicians were less likely to prescribe generic products than were younger physicians. These studies offer evidence on patterns of prescribing that are consistent with status quo bias.

The implication of status quo bias in medical decision-making is that, while innovation in medical care will result in improved health outcomes over time, even at levels where the benefits exceed the incremental expen-

ditures, the distance between average practice and the efficiency frontier can be substantial and will grow ever larger during times of accelerating innovation. In terms of consequences for P4P, status quo bias will likely attenuate any response relative to what one might expect from a "purely" rational, money-oriented doctor. It also implies that the rewards needed to "move practice" may be larger than expected.

Unrealistic Optimism

People tend to be overconfident. Studies of drivers and entering students all suggest that large majorities of people believe that they are better than average. That is, they believe they are more accomplished drivers than the average or that they will achieve a higher grade in a course than the average student. For listeners to National Public Radio, this is the "Lake Woebegone" phenomenon, where all children in the community are above average. Holding these beliefs does not mean only that one moves through life with a more positive outlook, but rather that decision-making is potentially distorted. Such distortion in decision-making under uncertainty has been termed unrealistic optimism (Weinstein 1980).

In the business context, overconfidence by top management (CEOs) has been associated with the wave of mergers that took place between 1998 and 2001. During that period, about $2 trillion was spent on acquisitions. Yet, shareholders of the acquiring companies lost about $250 million as a result of those deals. This raises the question of why there was so much enthusiasm for mergers if the deals were unfavorable for the acquiring companies (Moeller, Schlingemann, and Stulz 2003).

In the context of a model of physician decision-making in which the physician is treated as a Bayesian information processor, the establishment of priors and the updating of priors with new information may be subject to distortions by unrealistic optimism.

Experimental research on optimism reveals that key among the characteristics that explain the degree of unrealistic optimism are the desirability of the anticipated event, its perceived controllability, experience with the event, and the perceived probability of the event (Weinstein 1980). Research also shows that having detailed information on experiences of comparison groups attenuates, but does not eliminate, unrealistic optimism.

Physicians are trained and function in environments that are consistent with the conditions that breed unrealistic optimism. Because they

are trained to take control, physicians frequently believe that they have considerable ability to stave off the consequences of illness. Physicians are also charged with taking a central role in making decisions about life itself and about the ability of individuals to function and engage in basic human activity. Thus, the outcomes they aim to influence are highly emotionally charged and valued by their patients. A physician has frequently dealt with particular cases on a number of occasions, in many cases with a positive outcome. Finally, it is seldom the case that physicians have detailed information on comparison groups to help them judge the likely incremental outcomes of their efforts.

The consequences of unrealistic optimism in physician decision-making may be several. First, physicians may have gained confidence in their choices as they have received additional information about a case, even when their accuracy in, for example, making a diagnosis has been unchanged by the information (Oskamp 1965). Thus, optimism in the presence of clinical information will generate more testing and diagnostic procedures. Second, unrealistic optimism may make physicians overestimate the expected benefits from administering additional treatment—possibly because they overestimate both their own abilities and the potential impact of their preferred technologies. This can result in the provision of excessive levels of care. Finally, the physician may imbue patients with an overestimate of the benefits of receiving more treatment.

Data on the experience of caring for people at the end of life illustrate these possibilities and direct us towards hypotheses about optimism in medical care. The experience of patients at the end of life offers a disturbing reflection of medical decision-making and resource allocation that reflects larger issues in health care delivery. Specifically, the majority of terminally ill patients state a preference to die at home, but frequently do not actually do so (Buntin and Huskamp 2002). Spending for care at the end of life accounts for a large share of Medicare expenditures, estimated at about 25 percent over the past two decades. There is considerable disagreement regarding how much this level of spending can be reduced. However, Skinner and colleagues compare regions with the highest and lowest deciles of physician utilization during the last six months of life. They report utilization of diagnostic tests that differ by factors of between 2 and 3.5. In addition, they note differences in high-

intensity treatments (feeding tubes, dialysis, and ventilators) that differ by factors of 3 to 8 (Skinner, Fisher, and Wennberg 2001). These figures suggest potential for savings even if there are some differences in patient preferences across regions. Strikingly, patterns of end-of-life care do not vary substantially according to insurance arrangements (Experton et al. 1997). Thus, spending levels and the ability to deliver care consonant with people's preferences do not appear to be driven primarily by payment incentives.

Unrealistic optimism appears to play a central role in clinical decision-making at the end of life, as physicians tend to overestimate the duration of survival. Lamont and Christakis studied the prognostication abilities of physicians treating cancer patients in hospices (Lamont and Christakis 2001). The median physician estimate of survival time was 75 days after admission to hospice, while the median actual survival time was 26 days. In addition, physicians then communicate more optimistic prognoses to patients than they actually believe. In the Lamont and Christakis study of cancer patients, for instance, physicians reported optimistic outlooks for patients to their colleagues about 12 percent of the time, whereas the same physicians reported optimistic outlooks to the same patients 41 percent of the time (Christakis 1999). The true prognosis was communicated to only 37 percent of the cancer patients. The unrealistic optimism potentially affects both the physician's decisions about the therapies to pursue and the patient's demand for care. Optimism has been posited to lead physicians to overprescribe intensive interventions aimed at cure, while under-referring to hospice (Lamont and Christakis 2001). Some research has observed that terminally ill patients who overestimate their expected survival time are far more likely to demand intensive "curative" care relative to palliative treatment (Weeks et al. 1998). Optimism therefore drives care towards high-intensity treatment that is unlikely to generate many clinical benefits, and away from the use of hospice, an arrangement that may better serve the desires of well-informed patients.

Unrealistic optimism is likely to be important in medical decision-making in a range of other areas as well. It probably contributes to the emphasis on high-intensity medical care in the United States and for off-frontier performance of the health care system. Clearly, other economic and professional influences are also at work in this case, but it is likely

that unrealistic optimism about technology and the ability to apply it have played a key role. Unrealistic optimism may result in a diminished response to P4P schemes, since physicians may be hard to convince that they are not currently doing "the right thing." In addition, physicians may be resistant to schemes that "undervalue" their efforts. Corporate CEOs have responded in an analogous fashion when capital markets have tended to undervalue their investment and acquisition decisions.

Complexity and the Limits to Supply-Side Fixes

Policymakers in the health sector have moved quickly in recent years to adopt measures that aim to address quality and cost problems by the implementation of P4P schemes (Rosenthal et al. 2004). Under these arrangements, health plans implement various types of payments that reward achieving levels of performance on quality indicators (in some cases, performance is relative—for example, top 20 percent—in others, it is absolute). One health plan, for instance, used data on physicians with respect to whether they screened for breast, cervical, and prostate cancer as well as for high cholesterol, and whether they managed diabetes and instituted other prevention programs. The plan paid $20 per patient to those doctors in the top quartile of performance, and $10 per patient to those between the 50th and 75th percentiles. Hundreds of such payment arrangements are being adopted around the country. The appeal is clear. Demand does appear to be very sensitive to quality or performance differences. Prices of health care are generally administered so that higher-quality providers cannot charge more than others, and so there are incentives to underprovide quality if improvement is costly. Such schemes tend to assume that market participants (doctors and hospitals) exhibit a high level of economic rationality.

Even standard economic models that assume rationality raise cautions regarding the enthusiasm for P4P schemes. Principal-agent models, for example, lead to concerns with multi-tasking or "teaching to the test," whereby the outcomes upon which one pays will improve, while other outcomes that are valued but not well measured or not rewarded will be neglected and may decline. Recent research on P4P offers some evidence to suggest that multitasking behavior takes place among physicians (Mullen, Frank, and Rosenthal 2007). Other institutional features and

behavioral phenomena may also be important in determining the impact of P4P.

The health care delivery system is very complex, with each provider typically serving 10 to 15 different public and private payers. Thus, payment methods, quality guidelines, level of care criteria, formularies, and coverage arrangements for patients will differ from payer to payer. Within each plan, payment arrangements are complicated, and the benefit designs facing individual patients are typically highly nonlinear and frequently dependent on prior treatment choices. This complexity requires that physicians be able to process large amounts of information in the context of strict time constraints to make optimizing choices. Recent theoretical and empirical analyses suggest, however, that the ability to do so may be quite limited.

If we consider layering P4P schemes on top of existing payment systems—which for most physicians consist of mixes of capitation, fee for service, and case rates, and also frequently include productivity bonuses, pharmacy performance bonuses (sometimes related to generic prescribing), and some straight hourly payments for a set of 10 to 15 payers—the typical physician faces a very complicated price schedule. Liebman and Zeckhauser (2004) argue that complex price schedules have the potential to confuse physicians and patients and to increase the market power of the organizations establishing the pricing schemes. They postulate that people respond to the complexity in pricing schemes by adopting simple rules to govern behavior. The design of the pricing schemes in anticipation of the psychological response to the complexity is key to determining whether the pricing schemes enhance or harm social welfare.

The health care system has had a variety of experiences with complex payment methods. A recent paper by Glied and Zivin (2002) examines physician behavior in the face of multiple incentive systems. They find that observed physician behavior does not respond to the incentives associated with the marginal patient in the way that simple profit maximization would predict. Instead, their empirical results show that the response to one category of incentives depends on the composition of payment schemes for other patients in their practice. This suggests an alternate rule to profit maximization that governs response to supply behavior, such as a response to the modal incentives. During the 1980s, Medi-

care and some state Medicaid programs instituted a hospital prospective payment system. That payment system had two parts: a prospective part that paid for an admission as stratified by diagnostic category and a part where supply-side cost sharing obtained after a specified level of spending was reached. Frank and Lave studied the effect of changing the payment system from cost-based reimbursement to per-case prospective payment for psychiatric care (Frank and Lave 1989). They showed that the response was a reduction in both long-stay and short-stay cases. The expected pattern was for a reduction in long-stay cases and an increased density of short-stay cases. Interviews with physicians suggested that they treated the prospective payment based on an average hospital stay for a case as if it were a target, and so the density of cases increased around the mean stay.

The implication of these ideas and the experience with complex payment schemes is that, in a fragmented delivery system, P4P will not automatically elicit the expected behavioral responses. Very little is known regarding the most effective design for such policies.

Conclusions

David Cutler's work has stimulated health economists to think in different ways about the performance of the health care delivery system. He emphasizes that assessing the performance of the health care delivery system is an empirical matter that requires careful and detailed analysis of spending and outcomes. The next step in that research program is to understand more about where we are relative to the efficiency frontier, and why. I have offered some examples of ideas that might be useful in putting behavioral economics to work on that task. This is a big job, but it is one that Cutler's work clearly points to as unfinished business.

Cutler's call for P4P is well reasoned and sensible. However, whether one begins with the rational, money-oriented doctor or the optimistic person with limited ability to respond effectively to complex economic environments, theory will probably be of limited use in predicting responses to P4P schemes. Thus, Cutler suggests that some of these schemes be tried and that we begin to learn from these experiences. While I agree completely with that proposal, I also believe it is quite likely that the rational,

money-oriented physician may not be the best starting place. If this is correct, then there are some useful implications from behavioral economics for how to design P4P schemes. I will conclude by mentioning three. First, use relatively simple payment schemes so that attention is easily focused on the key outcomes that will be rewarded. Second, implement these schemes on a large scale to diminish the complexity (number of payment schemes) and to increase the share of business affected, so that it pays to change. Finally, make the rewards large enough to overcome inertia, reluctance, and intrinsic motivational concerns.

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Notes

1. For a complete review of such issues, see Frank (2004).

2. See National Expenditures at www.cms.hhs.gov/statistics/nhe/default.asp (Accessed May, 2005).

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Costs, Benefits, and Rationing of Health Care: Comments on Cutler's "What Is Good Care, and What Is Bad?"

William D. Nordhaus

A Very Hard Problem

To put health care in perspective, it is useful to consider some of the major economic problems facing the United States today. These include: (1) the budget deficit, (2) global warming, (3) the current account deficit, (4) Social Security, (5) dependence on imported oil, and (6) health care. After some study, I believe that we could fashion a reasonable solution that would resolve the first five problems, at low cost and with relatively little inequity and economic dislocation.

For the sixth one, health care, I do not believe that an obvious solution exists. Henry Aaron called health care "the problem that won't go away." I wonder whether it is the problem that cannot be solved, or that cannot be solved in a simple and efficient way. This is perhaps the message of the papers prepared for this conference by David Cutler, Alain Enthoven, and Henry Aaron; it is the message from the dozens of presentations and papers I have read over the years. Most experts believe that they have a solution to the American health care problem—whether this-or-that kind of competition or this-or-that kind of payer—but it is not obvious to me that any of these plans will actually resolve the problems of the American health care system today.

What are the barriers to fixing health care? There are many, but some that seem particularly important to me are the following. First, the economic stakes are huge in terms of the incomes of the providers (doctors, insurance companies, lobbyists, and the rest).[1] Health care is too large to tuck into an omnibus bill. Second, the welfare stakes are enormous for patients. People have benefited greatly from improved medical care, and

they, particularly the elderly, see health care as a basic right. Reducing benefits or entitlements among powerful groups will not be easy. Third, medical care is seen as a special kind of good and not as a normal economic good. The idea that medical care should be "rationed" the way we ration food, shelter, and automobiles is unacceptable not only to patients but also to many physicians. Clearly, some kind of rationing must occur, and the major questions are how it will be done, who are the losers and winners, and whether it will be efficient or inefficient.

The Costs of Health Care

Our economy has a very large stake in both the costs and the benefits of our health care system. I will begin with the familiar terrain of the share of health spending in the economy. There are clearly some ambiguities in estimates of spending on health care, such as whether to include spending on research and development, the environment, automobile and mine safety, and even health economists' salaries. Standard estimates from the U.S. Department of Health and Human Services (HHS) indicate that the share of health expenditures rose from 8.8 percent of gross domestic product (GDP) in 1980 to 15.3 percent in 2003.

Figure 3.5 shows the share of medical care in personal consumption expenditures (PCE), with a share under 4 percent up to around 1950, then rising sharply to 17 percent of PCE in 2004. The share of health in government direct purchases (which exclude transfer payments), shown in Figure 3.6, has been stable at between 4 and 6 percent of the total. Figure 3.7 shows the estimated relative inflation rate of health care, according to the U.S. Bureau of Economic Analysis (BEA), compared with all personal consumption expenditures. Health care prices have been rising more rapidly than all prices by about 1 percent per year, although it is quite likely that medical care inflation has been overestimated because of measurement issues.

The Benefits of Improved Health

On the benefit side, there is evidence that the improvements in health status over the last century have caused substantial improvements to eco-

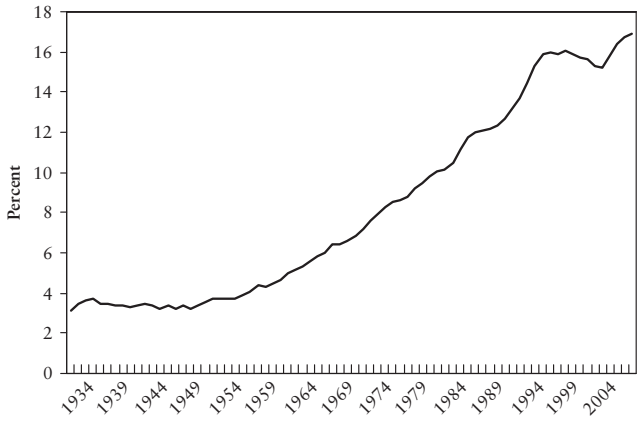

Figure 3.5
Medical Care as a Share of Personal Consumption Expenditures
Source: U.S. Bureau of Economic Analysis.

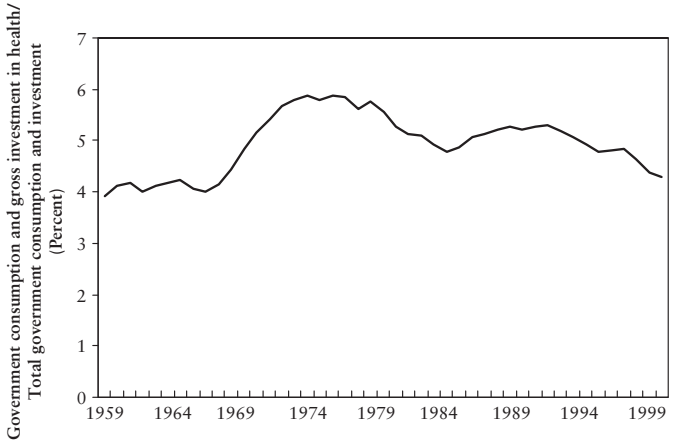

Figure 3.6
Health as a Share of Government Consumption and Gross Investment
Source: U.S. Bureau of Economic Analysis.

Figure 3.7
Relative Inflation of Medical Care to All Personal Consumption Expenditures (Three-Year Moving Average)
Source: U.S. Bureau of Economic Analysis.

nomic welfare. This result emerges from several studies that value health improvements at conventional values of life extension. Studies by David Cutler and Elizabeth Richardson, as well as by Kevin Murphy, Robert Topel, and myself, have examined the economic equivalent of the extensions to life saving.[2]

My own conclusion from this exercise, based only on changes in life expectancy, was that the value of improvements in life expectancy is about as large as the value of improvements in all other consumption goods and services put together. Figure 3.8 shows an illustrative calculation from my study on "The Health of Nations" (Nordhaus 2003). This demonstrates that the growth of income from health improvements (shown as the first three bars in each group) is about as large as the growth in conventionally measured incomes.

Over the period from 1975 to 2000, for example, conventionally measured per capita income grew at an average rate of 2.0 percent per year. Over this same period, the annual average improvements in life expectancy had an economic value of between 1.0 and 2.1 percent of income (depending upon the discount rate and other assumptions).[3] Over the entire period

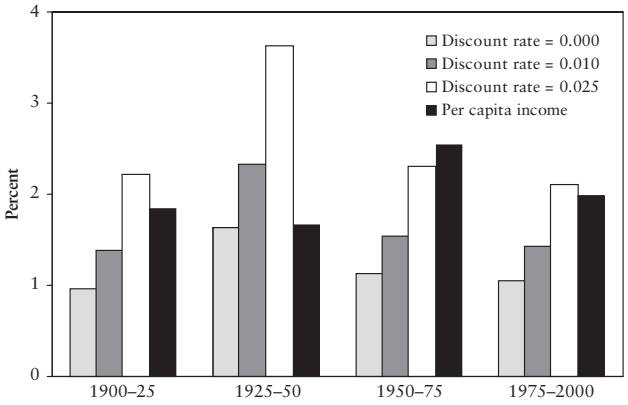

Figure 3.8
Growth in Health Income and Conventional Income, 1900–2000
Growth in health income is equal to the change in the value of improved health status divided by income and is shown for three different annual discount rates. The fourth bar shows the growth in per capita income. All figures are annual average percent per year.
Source: Nordhaus (2003).

from 1900 to 2000, the value of improved health or health income grew at between 1.2 and 2.5 percent of consumption (again depending upon the exact assumptions), whereas income grew at a rate of about 2.0 percent of consumption. Looking at the entire twentieth century, the contribution of the increase in life expectancy was between 59 percent and 126 percent of the contribution of income from all sources combined.

Specific Egalitarianism and the Need for Rationing

Among the public and many health care practitioners, it is widely accepted that everyone has a right to basic medical care. In a recent survey, 84 percent of respondents agreed that, "Health care should be provided equally to everyone, just as public education is" (Kaiser Family Foundation 2004). This strong sentiment is usually tempered by concerns about costs and restrictions to access. However, with respect to health care, it is striking how many people believe in "specific egalitarianism," meaning

that specific programs or services should be distributed "equally" among all people. Some examples of this include the vote for citizens, the draft in time of major wars, as well as primary and secondary public schooling among children.

While there is general agreement that basic health care should be universally provided, this poses serious economic issues. First, as James Tobin pointed out, specific egalitarianism can be used most efficiently when goods are inelastic in supply.[4] We do not worry (with the obvious exceptions) about inefficiencies in the "production" of votes in proclaiming "one person, one vote." Similarly, there has generally been but a small response in the supply of citizens to the presence of a universal military service in most countries. By contrast, because much of health care is elastic in supply, particularly in the long run, mandating equal provision is likely to lead to major inefficiencies.

Two polar examples can serve to illustrate this point about elasticity. First, there is little in the health care sector that is truly fixed in supply in the long run (in the sense of being completely price inelastic). Perhaps the supply of organs for transplantation comes close to fixed supply. If these organs are allocated purely based on medical need, then the absence of a market signal will not reduce the number available and will not keep transplants from those who need them. If we desire specific egalitarianism, a parallel market in this case would be harmful. If a market in organs is allowed, those with higher incomes can bid some of the fixed supply away from those who need them most. This is one example where the Canadian model of prohibiting a private market to run in parallel to the comprehensive public system can be justified.

The opposite, however, would hold for medical drugs, the second polar example. Suppose that the government system includes payments for an expensive drug like Taxol for treatment of cancer. Like the majority of manufactured products, most drugs are close to perfectly elastic in supply (and may even have some positive learning effects). In this case, it would not be sensible to prohibit a parallel private market, because there is no crowding out of the public supply by increased private demand.

A second difficulty with specific egalitarianism in health is the definition of the bundle of goods to which equality should apply. Many people would agree that access to medical care for a life-threatening illness, such as a ruptured spleen or tuberculosis, should not be denied to anyone.

However, it is not clear that people would agree that everyone should have free and immediate treatment for removal of corns and calluses. Where to "draw the line" is a vexing problem—one that will not go away and indeed is likely to worsen as more conditions are classified and more treatments are discovered.

One of the results of poorly designed specific egalitarianism is the general view among health care experts that the allocation of health care in the United States is highly inefficient. The general view, expressed differently in the papers by Cutler, Enthoven, and Aaron, is that many critical conditions are untreated, while others with high costs and close to zero medical benefits are receiving substantial resources. Although this is self-evident to specialists, it is also a very difficult research issue. David Cutler's presentation showed a number of illnesses for which the benefit-cost ratios for some treatments are quite high (cardiovascular disease, heart attack, low-birth-weight infants, and depression), with some suggestions of areas where the benefit-cost ratio may be low (such as Sal's angioplasty). More than one-third of Medicaid spending goes to long-term care, and it is not clear that this qualifies as a high-benefit activity. It would be interesting to see whether a more comprehensive approach could be taken, using a nationally representative sample that matches treatments and conditions, to flesh out the larger picture.

Whether or not a country provides equal health care for all its residents, there must be rationing of health care. While rationing might be a jarring word, it reflects the reality that, in a world of scarcity, every need and desire cannot be fully satisfied. Until we get to the point where every symptom of every hypochondriac can be extensively examined, probed, tested, and treated, it will be necessary to leave some perceived medical need unsatisfied. Rationing is not an option. However, it is not obvious *how* we are to ration.

Most goods and services are rationed by the purse. Prices ration out the limited supply of fancy cars and mansions, as well as not-so-fancy gasoline and land, to those whose incomes and tastes lead them to want them most. In many areas of health care, we do not allow prices to ration out services to the highest bidders. The results are sometimes longer waits for care as a surrogate price (as is the complaint in many HMOs and in Canada), rising expenditures as the demand for services rises sharply (as for Medicaid and Medicare), or lack of coverage (for the rising number

of uninsured). One way of interpreting the fiscal crisis facing the United States is that the country is unwilling to ration health resources by price or by trimming the benefit package.

So long as we continue to seek some form of specific egalitarianism in health care, there will be no easy solutions to the rationing problem. For my tastes, I would prefer some type of explicit selection of covered benefits along the lines of the Oregon prioritized list of covered services. The philosophy of the Oregon plan is that all citizens should have access to care, and that there should be an open and reasoned process for determining the list of covered treatments. One initial component of the ranking of the prioritized list was a cost-benefit test, although that appears to have generated such disagreement that it was either dropped or demoted in favor of cost-effectiveness tests together with expert and public views.[5]

While not without shortcomings, this approach has several attractive features. First, it does allow a budget constraint to operate in the sense that a "line" can be drawn to fit treatments into available resources. So, for example, the funding line in 2004 just included simple and social phobias and just excluded acute conjunctivitis.

Second, while we might complain about the priorities, there appears to be little disagreement about the general rankings. Treatment of diabetes and appendicitis are covered, and few would probably disagree here. Below the line are elective dental services and several conditions for which there are either no effective treatments or no necessary treatments. There are also some brave exclusions, such as the decision not to treat cancers with five-year survival probabilities of less than 5 percent.[6]

It would be useful to have more study about the implicit valuations of different conditions along with treatment costs for the prioritized list to see whether, in fact, the cost-benefit calculations are reasonable. It would also be interesting to compare the cost-benefit calculations in the health care arena with those that have been done for environmental, health, and safety regulations. As Table 3.2 shows, results in the regulatory area indicate extremely disparate cost-benefit ratios, depending upon the regulation and agency. The regulations shown here range from highly cost-beneficial with large benefits and negligible costs (for the tobacco regulations for youths) to others where the costs per fatality prevented are in the billions

Table 3.2
Estimates of Cost of Life Saved by Major Federal Regulations

Rule (Agency)	Net cost per discounted life (millions of 1995 $)
Toxicity characteristics to determine hazardous wastes (EPA)	–8,300.0
Underground storage tanks: technical requirements (EPA)	–350.0
Manufactured home construction standards on wind (HUD)	–37.0
Process safety management of highly hazardous chemicals (DOL)	–3.3
Regulations of cigarettes and smokeless tobacco for youths (HHS)	–0.5
Medicare and Medicaid programs, miscellaneous (HHS)	0.2
Quality mammography standards (HHS)	0.3
Food labeling regulations (HHS)	0.4
Childproof lighters (CPSC)	0.
Standard for occupational exposure to benzene (DOL)	7.1
Occupational exposure to methylene chloride (DOL)	8.5
Occupational exposure to 4,4′ methylenedianiline (DOL)	18.0
Asbestos prohibitions, total (EPA)	19.0
National primary and secondary water regulations—phase II (EPA)	25.0
Occupational exposure to asbestos (DOL)	27.0
Hazardous waste management system—wood preservatives (EPA)	50.0
Sewage sludge use and disposal regulations, 40 CFR pt. 503 (EPA)	190.0
Land disposal restrictions for "third third" scheduled wastes (EPA)	190.0
Hazardous waste management system, solvents (EPA)	200.0
Occupational exposure to formaldehyde (DOL)	390.0
Prohibit the land disposal of the first third of scheduled wastes (EPA)	400.0
Land disposal restrictions—phase II (EPA)	910.0
Drinking water regulations, synthetic organic chemicals—phase V (EPA)	9,600.0
Solid waste disposal facility criteria (EPA)	36,000.0

Source: Hahn, Lutter, and Viscusi (2000, pp. 16–17).

of dollars (such as some drinking water regulations). Are cost-benefit ratios also this disparate under current programs like Medicare and Medicaid, and in current HMO and insurance benefit packages?

Third, a prioritized list, in principle, allows adjustments of treatments and coverages in response to changes in medical technology and clinical studies. One of the major difficulties with most approaches to coverage is "contractual stickiness," whereby benefits are easy to add but difficult to remove.[7] A prioritized list provides a mechanism for adding and removing services that legitimizes the process rather than politicizing the process from the very start. In this arena, the process of changing the list cannot be an easy one, any more than weaning people from their SUVs by high gasoline prices is painless in a market arena. Still, we clearly need mechanisms to substitute for a market mechanism when we decide, as in much of health care, not to allow the price mechanism to operate.

A prioritized list is not the only mechanism for selecting covered services, however. Every HMO and insurance contract must somehow make similar choices all the time. One major advantage of the prioritized-list approach is that, in principle, it uses a cost-benefit philosophy (ranking on the basis of the benefit-cost ratio) rather than a medical necessity philosophy (whereby procedures are included if their proven benefits are positive) or the results of litigation (whereby something is included to prevent legal action). Perhaps the most important advantage is that by excluding medical services that are low priority, particularly those that receive public funding, we make room for extending high-priority services to those who currently do not qualify or who are crowded out by market or bureaucratic forces.

Notes

1. This point was amply shown in an insightful set of essays in Aaron and Armacost (1995).

2. See particularly Cutler and Richardson (1997), and the chapters by William D. Nordhaus, Kevin M. Murphy, and Robert H. Topel, and David M. Cutler and Srikanth Kadiyala in Murphy and Topel (2003).

3. The single most important assumption in these studies is the value of extending the lifespan by a year. Most studies, including my own, value a life-year at around $100,000 per year, or $12 per hour, at income levels of the 1990s.

4. Tobin (1970). Tobin discusses several policies that are good targets for specific egalitarianism.

5. A description and the list are available at http://egov.oregon.gov/DAS/OHPPR/HSC/current_prior.shtml. A particularly useful discussion is by Bodenheimer (1997a, 1997b).

6. This is an interesting calculation for those in health economics. Assuming that the value of one year of life extension is $100,000, then the value of such procedures would be less than .05 × 5 × $100,000 = $25,000. The cost of a course of treatment is probably in the same order of magnitude as the upper limit of benefit, so this seems reasonably well grounded in the underlying cost-benefit calculation.

7. Contractual stickiness is the health care analog to downward wage rigidity that macroeconomists analyze in such detail. The two syndromes arise from the same underlying source, the costs of negotiating changes to existing understandings.

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Comments on Cutler's "What Is Good Care, and What Is Bad?"

Kieke G. H. Okma

With the fateful ending of the life of poor Sal, David Cutler presents a case of failure to modify a patient's behavior. He takes that case as the base for his conclusion about the need to fundamentally change the American health care system, particularly in the way that health care providers are paid. He also concludes that we need more financial incentives to change the behavior of patients and professionals.

In his presentation, as well as in other publications, including his recent book, *Your Money or Your Life* (2004), Cutler raises many interesting and relevant issues: poor quality, overtreatment and undertreatment, low efficiency and cost-effectiveness of health care services, and unmet goals of health care policy. He claims that these issues are not solvable by gradual adjustments within the current system. Rather, his premise is that we need major system change.

To someone like me, who has spent several decades studying health care systems in the industrialized world, it is surprising to see how such a generalized conclusion can be based on narrow evidence, without much historical or international evidence to substantiate that claim. In fact, most U.S. health policy studies seem to be focused on national experience, and they ignore international evidence on change in social policy and health care. Perhaps that somewhat parochial bias is due to the size of this country. For smaller countries like those in Europe, it is much more natural to look across the border to see if they can learn from their neighbors. After all, for small nations, the "rest of the world" is much bigger than for the United States. Another factor in explaining the gap between Cutler's one-person case and the systemwide conclusion may be

his economist's frame of thinking, one that supports generalized conclusions across different countries or systems.

Let me present a brief sketch of some similarities and differences of health care systems and health policy issues to illustrate why an international perspective can be helpful in assessing options for U.S. health policy. Moreover, my academic background in economics and political science, as well as my long career in government, has convinced me that we need to look not only at core *economic characteristics*, but also at *institutional and cultural features* of health care systems in order to understand better how those complex systems work, as well as how they may or may not change.

Studies of the early 1990s by the Organisation for Economic Cooperation and Development (OECD) summarize *policy goals* in health care that are common across the industrialized world: universal access to good-quality health care services (including funding that does not impose undue financial burdens and other barriers), cost control, patient satisfaction, and professional autonomy. As Cutler observes, there is a trade-off between such goals, and there is never just one that plays a role in social policy decisions. Furthermore, as the ranking of the importance of policy goals varies across countries, the trade-off can be different, too. For example, populations and policymakers alike in most Western European countries attach great importance to universal access and solidarity in the distribution of the financial burden; next come cost control and quality; and then the goals of consumer choice and professional autonomy. In the United States, consumer choice seems to have a higher ranking, followed by quality concerns and cost control. In both continents, the improvement of health is another oft-mentioned policy goal; but, as Cutler rightly observes, in actual fact, we do not really do much to realize that goal.

Furthermore, the OECD claims that every single health care system in the world can be characterized by a particular country-specific mix of *funding sources*, *contractual relations*, and *provider status*. All industrial nations combine public funding (out of general taxation, earmarked taxes, and social health insurance) with private insurance and out-of-pocket payments. In most countries, private insurance and direct patient payment play only a minor role.

There are three main forms of contracting relations: the integrated model of the British National Health Service (NHS), the reimbursement model of private insurance, and the long-term contracting model of social insurance systems. Most countries, including the United States, have a mix of public and private providers of health services.

Closely related to those economic characteristics that basically determine the *allocation of financial risks*, we see a variety of country-specific governance structures that determine the *decision-making powers* of the different actors in the health care arena: patients, health professionals and institutions, third-party payers, and others. In fact, the allocation of decision-making powers and financial risks represents two of the main and most contentious issues of health policy. Thus, economic and political science need to merge their sets of instruments to study system structures and the options for system change, and, importantly, the potential speed of implementing change.

After the oil crises of the mid 1970s, most if not all industrial countries faced similar problems of fiscal and budgetary pressure to rein in public spending and to deal with changing demography, increased intensity of medical treatment, technological innovation, changing consumer demand, patient and provider dissatisfaction, as well as shifting ideological views about the proper role of the state. Several countries engaged in extensive debate over health reforms to fundamentally adapt their systems. But, in the 1980s, something interesting happened on the road between plans and reality: in almost all cases, those systemic reforms did not really take off, but faded out of sight. The attention instead shifted from wholesale system overhaul to incremental policies to improve the quality, efficiency, and cost-effectiveness of health services.

In the 1990s, consumer choice, information technology, and new management models gained importance on the policy agenda. And, in the early 2000s, we are seeing the revival of old market ideas, including the expansion of cost-sharing arrangements.

Interestingly, those are the very issues that David Cutler mentions and elaborates upon in his book. However, his conclusion that they require fundamental system change does not match the actual experience in other countries.

What I am trying to argue is that this experience in reform debate, failing efforts to completely overhaul health care systems, and the shift towards incremental policy adjustments that occurred in many OECD countries is relevant for the United States. As we have seen, policy goals and external pressure for change are similar across many countries, even while the basic programmatic characteristics of health care systems vary. We should not be surprised, therefore, that particular policy measures work out differently in different cases. Still, there is ample reason to look across borders to conclude that wholesale change does not occur often ("windows of opportunity" do not occur that frequently), and that incremental change is much more likely to be implemented.

Likewise, international experience has shown that implementation does not take place overnight. As Cutler rightly observes, health care is a complicated area, with many different stakeholders who can veto or slow down change. Policy ideas need time to mature, it seems; but they also require time to be fully accepted and implemented by patients, health professionals, and other stakeholders; and finally, they need time to show actual results.

As an example, for over a decade, the Netherlands discussed the need to change its legislation regarding quality in health care. In the early 1990s, parliament passed a law that basically shifted the responsibility for the assessment and monitoring of quality and implementation of health care systems from government to the providers of health care. But 10 years later, according to a report by the Health Inspectorate, fewer than 10 percent of all Dutch health institutions had actually implemented such systems. We all remember the high hopes raised by the benchmark movement—the basic idea that we would improve health care by measuring and comparing. It now seems less certain that such activities—while in themselves certainly worthwhile to consider—have helped much to rein in the growth of health expenditures.

We can find similar examples in the areas of information technology (IT). Many countries have announced plans for nationwide IT systems for the prescription of drugs, the storage of medical records, or the transfer of medical information between health professionals and institutions. Canada announced its Health Infoway; the European Union ministers

agreed to develop a Europe-wide electronic patient card (even though there is no European country that has such a card on the national level); and President George W. Bush announced in 2005 that he would spend $50 million for the development of nationwide electronic technology to transfer medical data across the health care system.

However, the common feature in the development of such large-scale IT plans seems to be the large gap between expectations and reality. That experience should serve as a caution to countries that also embark on a trip along the info-highway, and should perhaps scale down the expectation of short-term solutions. Many initiatives are high on expectations, but somewhat vague about implementation—in particular, on important issues like the protection of privacy, the lack of authority to impose standards, the ownership of the data, and the organizational changes required. Moreover, the experience with large-scale IT projects in several countries has shown that these elements can create high barriers to change.

These three examples underline my three main comments: first, in the complex world of health care, change takes place in many areas and many different ways, but mostly within the basic structure of the existing systems. Cutler advocates fundamental reform, but perhaps some of his useful ideas will stand a better chance of realization by working within the world as it is. Second, such an approach requires more than the economists' box of tools. A better understanding of the policy environment and the way government interacts with the many players in the policy arena requires the tools of political science, too. Third, change takes time, and some changes take more time than others. This meeting should reconvene in 10 years to see what has actually happened with the plans that are currently on the table.

4

The U.S. Health Care System under Managed Care: A Case Study

The U.S. Experience with Managed Care and Managed Competition

Alain C. Enthoven

Managed Care Defined

To understand "managed care," one needs to understand the traditional model of health care organization and finance that managed care was intended to replace. That model was aptly characterized "Guild Free Choice" by Charles Weller to indicate that "free choice" was being used as a restraint of trade to block the emergence of any form of economic competition among doctors (Weller 1983). Its principles were: free choice of doctor at all times, free choice of treatment, that is, nobody interferes with the doctor's decisions and recommendations, fee-for-service payment, direct doctor-patient negotiation of fees, and solo (or small single specialty group) practice (Weller 1983). The model was widely accepted because of the pre-Wennberg view of most people that "the medical care they receive is a necessity, provided by doctors who adhere to scientific norms, based on previously tested and proven treatments" (Wennberg 1984). In combination with well-insured patients, there was no way that employers or insurers could control health spending in this model. Organized medicine is still fighting to hold on to parts of it.[1] Some people say that managed care is "anything other than Guild Free Choice."

For purposes of this paper, I divide managed care into two types, while recognizing that the boundary is not clean. The first is the "integrated delivery system" (IDS), or "delivery system HMO," that is, systems that are built on the core of a large multi-specialty group practice, often with links to hospitals, labs, and pharmacies, and usually with a significant amount of revenue based on per capita prepayment. Prominent examples include Kaiser Permanente, HealthPartners of Minnesota, the former

Harvard Community Health Plan, and medical groups such as the Leahy and Mayo Clinics. What is important about these systems is that the physicians accept accountability for quality and per capita cost, and are committed to work together to improve them.

The second category includes what I call "carrier HMOs," that is, entities in which the chassis is an insurance carrier and the providers are large numbers of otherwise unaffiliated doctors, mostly paid on a fee-for-service basis (Enthoven and Tollen 2004). These carrier HMOs often serve as the sole source of health insurance for employers; therefore, in order to enable the employer to assure every employee insured access to all the doctors he or she might want to see, these HMOs are typically very large, often nearly all-inclusive, networks (Robinson 2004). Once the providers know that they must be included in the network, the bargaining power of the carriers is weak. Also, such arrangements are usually only a part of a doctor's practice, and are unlikely to change practice patterns. Such arrangements can be a useful adjunct to an employer's cost containment strategy, and possibly a useful transition device. But for purposes of this paper, they are not considered to be very effective at care management or cost containment. Indeed, fee for service (FFS) points doctors in the direction of resolving all doubts in favor of providing more, and more costly, services, whether or not more is beneficial to the patient.

From the point of view of the long-run prospects for an economical health care system, it makes a world of difference whether or not physicians work in a framework that rewards economical decisions.

What Happened in the 1990s?

In the 1990s, the market shares of all sorts of managed care increased greatly. The shares of these entities are difficult to discern, because the data are not reported in terms that I consider significant. Surveys usually report in the categories of conventional (that is, traditional fee-for-service indemnity insurance), HMO, PPO, and Point of Service (POS) [see the Kaiser Family Foundation (KFF) and the Health Research and Educational Trust (HRET) 2004]. (For the shares of these categories among employment-based insured people nationally, see Table 4.1.) As

Table 4.1
Market shares

	1988	1993	1996	1998	2001
Conventional	73%	46%	27%	14%	7%
HMO	16	21	31	27	24
PPO	11	26	28	35	46
POS	0	7	14	24	23

Source: The Kaiser Family Foundation and the Health Research and Educational Trust (2004).

Table 4.1 shows, the market share of conventional insurance plummeted, while the combined market shares of HMOs, PPOs, and POS providers nearly tripled, mostly without much fundamental transformation in the underlying delivery system. Most of the HMO members were not in integrated delivery systems. On the other hand, the members of the American Medical Group Association, which are actual or potential integrated delivery systems, care for more than 50 million patients, some through PPOs and POS plans (American Medical Group Association 2005). Most, but not all, are doing some care management. There are 468 multi-specialty group practices in the United States with over 100 physicians (Shortell and Schmittdiel 2004). Under appropriate market conditions, most of these could partner with network model HMOs and become integrated delivery systems, as many in California have done.

Victor Fuchs presented the historical health care expenditure (HCE) data in a way that illuminates the impact of managed care. Using deflated, per capita data and three-year moving averages, he showed that health expenditures were growing nearly 6 percent in 1990, while GDP was growing by less than 1 percent. Between 1990 and 1995, the growth rate of HCE fell to 2 percent, while GDP's growth rate picked up to 2 percent and more. "Both private and public payers demanded restraint of HCE. [These data show] that managed care dramatically answered that call" (Fuchs 2000).

The growth rates in health insurance premiums over the 1990s are shown in Tables 4.2 and 4.3. Briefly, health insurance premium rates were growing in double-digit rates in the late 1980s and early 1990s. Then the

Table 4.2
Increases in Health Insurance Premiums in the 1990s

1989	18%	1995	3.5%
1990	14	1996	0.8
1991	12	1997	2.5
1992	11	1998	4.0
1993	8.5	1999	5.3
1994	6.0	2000	8.2

Source: The Kaiser Family Foundation and the Health Research and Educational Trust (2004).

Table 4.3
Percentage Change in Premiums from Previous Year by Plan Type

	1988	1993	1996	2000
Conventional	12.4	9.1	1.9	9.5
HMO	8.4	7.7	–0.2	7.6
PPO	20.3	7.2	1.0	8.5
POS	–	5.2	1.1	7.8
All	12.0	8.5	0.8	8.2

Source: The Kaiser Family Foundation and the Health Research and Educational Trust (2004).

growth rate fell sharply, down to 0.8 percent in 1996, but started rising back up to double digits in 2001. HMO premiums generally grew less rapidly than conventional insurance and PPO rates.

When the Clinton health plan collapsed in 1994, employers became desperate and herded many of their employees into HMOs without much explanation or choice and without visibly sharing the savings. Some 20 percent of insured employees were assigned to HMOs *as a single source of health insurance*. From 1993 to 1996, HMO market share rose from 21 percent to 31 percent. Employees were shifted to less costly HMOs, and the carrier HMOs took advantage of excess supplies of providers. They drove hard bargains on price, and also picked some of the low-

hanging fruit by driving hospital utilization rates down to approximate those of the delivery system HMOs.

Driving employees into HMOs without a choice was a most unwise policy. It is not surprising that it produced the managed-care backlash, that is, strong expressions of dissatisfaction and complaint by some consumers and patients (actually a minority) who felt that their access to care had been restricted by managed care, and by some (but not all) physicians who felt that managed care had limited their autonomy (and cut their fees). All these sentiments were expressed energetically to politicians, who felt pressure to respond, often with legislation restricting managed care. The media smelled blood in the water, fabricated some horror stories, exaggerated isolated incidents, and added to the general dissatisfaction (Blendon et al. 1998).

Research showed that dissatisfaction was concentrated among people who had no choice (Davis and Schoen 1998; Gawande et al. 1998; and Enthoven, Schauffler, and McMenamin 2001). This should not be surprising. People want to be able to choose their own doctors; therefore, in a world of selective managed care, they must be allowed to choose their managed care. The problem was, and is, that this conflicts with employer and insurer preferences for the single-source model. Further evidence that lack of choice was the key factor is that employers such as Stanford and those affiliated with CalPERS, most of whose employees were in HMOs by choice, experienced no backlash. A recent article reported that the backlash was not followed by a mass exodus from HMOs (Marquis, Rogowski, and Escarce 2005).

One of the ironies was that surveys found that in California about 10 percent of members were actually dissatisfied with their managed care (The California Managed Health Care Improvement Task Force 1998). Of course, even 1 percent of Californians still represents over 300,000 people. What should have happened is that employers should have told their employees, "We can no longer afford to pay the full costs of your traditional fee-for-service insurance and still raise your pay; so we will continue to offer it, but we will pay only up to the costs of the HMO, and then let you make the choice."

The backlash led to weakened managed care. Restrictions on managed care triggered a "feeding frenzy" among state legislators, who passed

laws against "drive-through babies" in the absence of any evidence that the policy of 24-hour maternity stays (with exceptions for cases of medical need) were harmful to anyone's health. In addition, some states passed "any willing provider laws" that destroy the bargaining power of managed care and prevent it from trading volume for price (Caroll and Ambrose 2002; Martinez 2002). Perhaps worse, however, the backlash led employers to reinvent "any willing provider" on their own, by insisting on very wide, all-inclusive networks to ensure that each employee could find his or her favorite doctors in the network. In most cases, this took the form of the wide-access PPO, a model incapable of really managing health expenditures.

Managed Care and Managed Competition Did Not Happen

One important thing that did *not* happen in the 1990s was *managed competition* on a large scale (Enthoven 1993). The employers of 77 percent of employed, insured Americans did not offer their employees a choice of carrier (Marquis and Long 1999). (Offerings of two or more plan designs from the same carrier, with each design offering mostly or entirely the same providers, is not managed competition.) Of the employers that do offer a choice, most contributed more on behalf of the employees who chose costlier health insurance programs (KFF and HRET 2004). These employers subsidize inefficiency, and tax efficiency. A frequent pattern is for the employer to pay a fixed percentage, such as 80 to 100 percent of the premium of the employee's plan of choice. Such policies originated in the open-ended tax break for employer-provided health insurance and union demands, and may persist if they are seen as a crude form of risk adjustment. These policies deny managed care the opportunity to market its superior efficiency. The survey evidence points to the fact that fewer than 10 percent of workers at Fortune 500 companies have a choice of health insurance program and receive from their employer a fixed-dollar contribution (risk-adjusted or not), allowing them to keep the savings (Maxwell and Temin 2002). This combination is a minimal condition for the success of effective managed care.

It is a great irony that, contrary to the widespread belief that we have a market-oriented health system—a belief reflected in the announcement for this conference[2]—we do not have much of a market for effective man-

aged care. In most places, the market available for competing integrated delivery systems is just too small. So the answer to the brochure's question: "How has the U.S. health care system adjusted to the introduction of market-oriented medicine?" is that, for the most part, we have not introduced a market for effective managed care.

Someone might object that we see a great deal of "competition" among managed care organizations seeking to contract with employers. The problem is that this is a crippled competition. Effective managed care must *select* providers. But such selective managed care cannot (or should not attempt to) serve as a single source of care for an employment group because people want to be able to choose their own doctor, and many people will have good reasons for not wanting to belong to any particular delivery system HMO, or any HMO at all. Their reasons may include that they do not see their favorite doctors there, the facilities are not conveniently located, they do not like the institutional style, or they do not trust the incentives in risk-adjusted per capita prepayment. Since the choice of a managed care organization must be at the individual employee level, an effective market must be based on responsible choice at the employee level.

A local example of the effects of faulty market structure is the experience of Harvard Community Health Plan, a highly regarded "flagship" of the prepaid group practice movement. In the decades from its early 1970s startup to the mid-1980s, its membership grew very rapidly. Then in the mid-1980s, it hit a "glass ceiling" and growth practically stopped. I interpret that to be the result of the fact that they got as much market share as they could from the choice-offering employers, and most employment groups were not available to them.

Creating a Competitive Market

How might we create a truly competitive market in which effective managed care can compete to serve everyone? I have written about the possibilities, essentially building on limited but demonstrated practical successes. As one example, some large employers offer their employees several choices and a fixed-dollar contribution toward the plan of their choice: the University of California, Stanford, Harvard,[3] Wells Fargo

Bank, Hewlett-Packard, and the State of California. At Stanford last year, the university saved $44 million compared with what it would have cost if everyone had been in the PPO (Enthoven and Talbott 2004). Many others could convert to a market model simply by changing their fixed-percent-of-premium contribution to a risk-adjusted, fixed-dollar amount. But that would still leave out three-quarters of insured employees.

Another possibility is exchanges. For example, in California, the program that brokers care for state employees, CalPERS, was opened to local government agencies, and more than 1,000 belong. So, a California state agency is running an exchange for more than 1,000 employers. Employees are offered a multiple choice, including HMOs and PPOs. At least at last report, state employees received fixed-dollar contributions (alas, not risk-adjusted), below the price of the low-priced plan, toward the purchase of health insurance. (Some local agencies contribute more on behalf of costlier plans, so the whole of CalPERS is not a pure model of managed competition.) In California, we also have PacAdvantage, a nonprofit exchange for small employers, and California Choice, a model created and run by brokers for small employers that offers employees a choice from among six or eight delivery systems. California Choice is growing and now covers about 165,000 lives. (Unfortunately, employers are not required to offer fixed-dollar contributions in these exchanges.)

Another approach to exchanges is offered by BENU, a new company that offers employers the simplicity of a single source, while employees have a choice of two carriers and several plan designs (Closs 2004). BENU uses software to achieve administrative simplicity, and state-of-the-art risk adjustment to deal with biased selection. BENU has contracted with Kaiser Permanente and CIGNA in Portland, Oregon, and Washington, D.C., to be offered through their model.[4] The carriers have agreed on the risk-adjustment model for post-enrollment allocation of premium revenues. Because the carriers are protected from adverse selection, employers can use a fixed-dollar contribution strategy.

I see no compelling or fundamental reason why the private sector cannot create exchanges of their own, to parallel CalPERS. There are significant barriers, such as the need for upfront investment; for employers to understand and be persuaded of the benefits of competition; for a willingness to accept standardized benefit designs offered to many employment

groups instead of designs particularized to each group; and for a long-term solution to appeal to a very short-term-oriented community. Perhaps this would be too much of a public good to expect private employers to fund the startup. However, software does exist to make risk-adjusted payments to each health plan and to require risk-adjusted contributions from each employer, so that employers would not have to subsidize one another in the exchange.

A legitimate and serious concern is that there will be adverse selection in a multiple-plan offering, leading to death spirals, to significant profits and losses that are attributable to risk selection rather than to quality and efficiency, and to such outcomes as failure to develop expertise in treatment of costly chronic conditions. Managed competition theory rests on the expectation that predictive modeling tools can be developed that will permit risk adjustment of premiums, enabling employees to see risk-neutral premiums and health plans to be rewarded for caring for bad risks. This is a very complex issue; this is not the time or place to review it.[5] There are commercially available models that address it.[6] A recent study sponsored by the Society of Actuaries found that some of these models get an R-squared fairly close to the 20 percent that Newhouse requires of an ideal risk adjuster.[7] There will be inefficiencies from imperfect risk adjustments. The judgment on which all of this rests is whether or not the efficiency gains that result from competing integrated delivery systems are likely to be greater than the inefficiencies induced by imperfection in risk adjustment, or in any other payment system we might adopt.

Large regional exchanges could offer many advantages: people could retain membership in the HMO of their choice as they switched from one job to another—reducing wasteful turnover; large parts of the market could be opened up to real competition; and economies of scale could be great. The costs of administration in CalPERS are less than one-half of 1 percent of premium because they cover 1.3 million people. And carrier administration costs are also low: Kaiser Permanente signs one contract to cover some 400,000 people. A large regional exchange could accomplish risk adjustment, reinsure very-high-cost cases, and manage COBRA continuity for employers. And government could create subsidized groups (for example, poor people) and buy their way into the exchange. Also, such exchanges could greatly reduce the costs of market

entry for new managed care organizations. Without exchanges, a new HMO today faces a formidable barrier to entry, that is, the need to make a sale to and contract with hundreds of thousands of employers. A large regional exchange could cut though this. In fact, CalPERS played a major role in easing market entry for many HMOs in California in the 1970s and 1980s. The existing market entry barriers are another important reason why we cannot say that we have a functioning market for managed care in this country.

Did Managed Care Work as Expected?

Did managed care work as its advocates expected? Not as I expected. My first proposal for managed competition was for universal coverage in which government would pay a risk-adjusted amount set at the low-priced plan for everybody, the tax exclusion for employer-paid health insurance would be repealed, managed care would compete on a level playing field, and every person would have to make a responsible, cost-conscious choice (Enthoven 1978). I developed this proposal as a consultant to Department of Health and Human Services Secretary Joe Califano and the Carter administration, in response to Jimmy Carter's campaign promise to bring us universal health insurance.

Subsequently, I expected that the advantages of managed competition would become apparent to private-sector employers who were complaining that health expenditures were running out of control, and who, for a time, seemed to be embracing HMOs. I did not anticipate the scope and extent of employer unwillingness or the inability to create a competitive market at the employee level.

The Employment-Based System Is Failing

It is now apparent that the employment basis of health insurance is hopelessly flawed (Enthoven 1979). There are too many reasons why employers are incapable of being good sponsors of health insurance, although I do recognize the small minority who do a good job. For most, the reasons include their lack of understanding of health insurance and health care (after all, they are not in that complex business), their short-term

orientation in the face of problems that need long-term solutions, and their use of health insurance to further company (or union) goals, rather than to contribute to a rational and equitable overall health care system. Problems follow from the fact that some managed care companies see the employer, rather than the employee, as their customer. In the employment-based system, market forces work to undermine cross-subsidies of the costly patients. High deductibles are a step in that direction. Employers can outsource services provided by low-wage people (for example, janitors) to companies that do not provide health insurance.

The need for health insurance companies to deal with millions of employers and individuals creates market entry barriers and adds to administrative costs. The employer-based model has left out 45 million people under the age of 65, and the financing is regressive. This is becoming a very serious problem as the costs of health insurance become large relative to the earning power of many workers. People typically lose their health insurance when they lose their jobs (mitigated by COBRA, but still a problem)—just when they need it most, and are quite likely to have a difficult time paying for it—or when the breadwinner dies or becomes unable to work. Others lose their health insurance (Medicaid) when they get a job, creating a work disincentive and a very high implicit marginal income tax rate. Some people are locked into jobs that do not represent the best use of their talents, "job lock"; others become trapped in unsatisfactory marriages because they depend on their spouse for health insurance, "wed lock." Many are forced to change their HMO when they change jobs, which may mean changing their doctors, or to make a new start on their annual deductibles. Many people simply do not fit into the employment model: pre-Medicare widows, many of whom are not poor, but who may become so as a result of medical costs (Himmelstein et al. 2005); the self-employed, including professionals and domestic helpers; and entrepreneurs starting new companies.

Implications for Reform

We need reform that replaces the employer-based model, which is failing (Enthoven 2003), with universal coverage based on managed competition in the private sector (Enthoven 1978). Ezekiel Emanuel and Victor Fuchs

recently pointed the way with publicly financed risk-adjusted vouchers for everyone (Emanuel and Fuchs 2005). Every person should have a wide choice,[8] a responsible choice,[9] an individual (or family) choice, an informed choice, and multiple choice where possible. Short of such universal coverage, we could approach a universal competitive market or transition to market-based universal coverage by creating large regional exchanges and encouraging the majority of employers (possibly with tax incentives), particularly small firms, to buy coverage for their employees through these exchanges. Compared with conventional insurance and wide-network PPOs, IDS HMOs do very well in such environments, even under present tax laws that subsidize employee choice of costlier coverage. For example, 75 percent of Stanford employees are in such HMOs; 78 percent of Wells Fargo California employees and 80 percent of University of California employees have chosen HMOs that are mostly "California delegated models," based on multi-specialty group practices and individual practice associations. It matters little if some 20 percent want the costlier care that goes with PPOs if the extra cost is paid by the employee, and not by his or her employer or by taxpayers. In fact it is a good thing that non-HMOs exist. Nobody should be in an HMO against his or her will.

What could we expect to happen if we had a model of universal (managed) competition to serve cost-conscious consumers? All I can offer is speculation, because this would be a radically different environment from today's.

The most important players on the field, at first, would be wide-network PPOs and integrated-delivery-system HMOs. However, we can be sure that a host of innovative models somewhere in between would emerge. Particularly, there would be selective network models created by insurance companies. There is little that wide-access PPOs can do to control cost. They can't select providers; they can't do much to influence care patterns; and they would have little influence on the deployment of new technologies. If and when they tried to negotiate lower fees, they would learn what CMS (the Centers for Medicare and Medicaid Services of the U.S. Department of Health and Human Services) knows about fee-for-service Medicare: that a fee cut intended to save $100 would be followed by increased utilization that would take back $30. As a result,

we would see doctors running around faster and providing more services to protect their incomes (Volume-and-Intensity Response Team 1998). Knowing that the doctor visit is very compressible, we would see a great number of very short follow-up visits.

On the other hand, there is a long list of actions that IDS could take, in response to long-term competitive pressures, that could reduce cost and expenditure and improve care.

To begin with, in the Health Insurance Experiment, RAND found that the Group Health Cooperative (GHC) provided high-quality care while generating 28 percent fewer relative value units than the fee-for-service sector in Seattle (Newhouse 1993). This does not give them credit for lowering total cost by better personnel utilization, or by more effective purchasing, as such an organization could do, relative to the performance of the fragmented fee-for-service sector. I think the importance of this result is that it was produced in the absence of cost-conscious customers (Seattle was a union town) and competition in kind.[10] Here is a list of 12 actions that IDS could take to improve quality and cut cost:

(1) Emphasize primary care, disease prevention, and early detection and treatment, practices that would generate positive externalities for our whole society.

(2) Create or share in institutions like Minnesota's Institute for Clinical Systems Improvement, Kaiser Permanente's Care Management Institute, and the Veterans Health Administration's Quality Enhancement Research Initiative that form physician teams to translate science into up-to-date clinical practice guidelines (Committee on Quality of Health Care in America 2001).

(3) Carefully select and train physicians and other health professionals for quality and willingness to work in teams. Have programs to ensure that they are proficient, well informed, and up-to-date. Train nonphysician personnel to maximize the services that they can perform appropriately, reserving physicians for where they are needed. Deploy health professionals in the appropriate numbers and specialties needed to care for enrolled populations. [Prepaid group practices use physicians and nonphysician professionals more efficiently than does health care in general (Weiner 2004).] Pay physicians both salaries and bonuses based on measured patient satisfaction, indicators of productivity, quality, and

teamwork, in order to align provider incentives with the interests of patients in high-quality, affordable health care.

(4) Deploy health information technology (HIT). Use it for electronic medical records, with diagnostic test results and procedures recorded and conveniently available for all doctors, so that they have a complete picture of the patient's medical history before seeing the patient. Also, use IT to create convenient caregiver support tools, such as reminders, alerts, and summaries of relevant guidelines, so that the value of each encounter can be maximized (Halvorson 2004). McGlynn et al. recently published an important study documenting that Americans are receiving barely half of recommended care. Errors of omission are widespread (McGlynn et al. 2003); this could be ameliorated greatly by computerized caregiver support tools.

(5) Continually evaluate and redesign work processes to improve efficiency and take full advantage of IT. It is worth noting that the IDS practices are far ahead of the solo-practice sector in the deployment of HIT (Shortell and Schmittdiel 2004). It will be far more difficult for solo doctors to have comprehensive patient records. Information technology is the nervous system; to realize its potential, there needs to be a "brain," that is, a person or a team to regularly review and analyze the information and then feed the results back into practice improvement. Solo doctors are having a difficult time deploying HIT because they have not generated the capital to do so, and they lack a business case for it because they do not share in responsibility for total system cost and quality.

(6) Select and deploy equipment that has been evaluated for safety and effectiveness, in appropriate numbers for proficiency and economies of scale. Create training programs to be sure personnel are well trained in its use.

(7) Concentrate complex procedures in regional centers of excellence. Delivery systems may either create their own centers or subcontract the work to centers outside their systems, based on rational "make-buy" calculations.

(8) Back away from "flat-of-the-curve" medicine, that is, practices in which the marginal benefit in health outcomes is very small relative to the cost. There can be little doubt that today there is a great deal of "flat-of-the-curve" medicine, such as the large numbers of specialist visits of patients in the last months of their lives, as documented by Wennberg in Florida (Fisher et al. 2003a, 2003b).[11]

(9) In general, IDS practices can, and do, practice "Continuous Quality Improvement" (Berwick and Jain 2004) to review and redesign care processes and to innovate with better practices (Enthoven and Keston 1998). Donald Berwick and Sachin Jain have written: "Prepaid Group Practices (PGPs) have the potential to deliver greater health care quality than is provided in the more prevalent, disaggregated, fee-for-service care system" (Berwick and Jain 2004).

(10) Integrate services through the continuum of care—at home, at the doctor's office, and in the hospital inpatient and outpatient settings. Deliver care in the least costly, appropriate setting, taking into account total system costs, not just costs and revenues associated with one setting. IDS practices can engage in such planning in a way that is impossible for disaggregated providers. Also in the IDS sector, resources can be transferred smoothly from one setting to another within the system's total budget. Some IDS practices own hospitals, while others develop close contractual relationships with hospitals. An important source of efficiency gain is the alignment of physician and hospital incentives, all oriented to the best total result.

(11) Improve care management for chronic disease; train and deploy teams of nonphysicians for this work. In the fee-for-service sector, insurers are now contracting with disease management companies that work separately from doctors. Integration of disease management into the whole medical care program must offer opportunities for greater efficiency as well as improved alignment of incentives.

(12) IDS practices can evaluate new technologies and use them only where beneficial to patients, and not otherwise. [For example, Kaiser Permanente has saved millions of dollars by using Cox-2 inhibitors and low osmolality contrast agents only where needed (Crosson 2005 and Eddy 1996).] Efficiently deploy new technologies to assure proficient use. IDS practices can deploy cost-saving technologies faster than the traditional sector, despite the fact that such technology use would not be in the economic interest of fee-for-service solo-practice doctors.[12] In general, salaried doctors have far less incentive than fee-for-service doctors to demand technology deployment to further their own economic interests. Genomics offers exciting opportunities for better care and also large challenges to the health care system. There are hundreds of genetic tests now available, some quite costly. Genomics offers opportunities to diagnose people at high risk for disease and to develop targeted therapies. To use these resources wisely and effectively, there will be need for organized

systematic approaches, including evaluation of who should be tested and what prevention strategies and therapies they should be offered. Thus, there will be a great need to educate and inform physicians and genetic counselors. The Kaiser Permanente Northern California Region genetics program already has more than 250 employees and performs more than 20,000 genetic tests a year (Arp 2005). It is difficult to see how the fragmented solo-practice sector will be able to deal effectively with this situation.

The total economic environment would contrast sharply with what exists in American health care today. Today's health care economy rests on inflationary incentives, dominated by the cost-increasing incentives of FFS, the tax code, employers who subsidize more and costlier care, and barriers to market entry by efficient alternatives. In the model that I am describing, market entry for innovative, cost-effective, organized systems would be eased greatly, and everybody would be in a model of cost-conscious choice. The general standards of care would move in the direction of greater consideration of marginal cost versus benefit. The environment would legitimize cost-conscious medicine. Most people would no longer see cost reduction as unworthy, because it would be in their obvious personal interest. We could expect to see a large cultural change.

In its effort to moderate expenditure growth, this truly competitive market would be up against the relentless force of expanding medical technology. National health expenditures are rising because more and more people want and receive the benefits of costly technologies such as joint replacements and invasive cardiology (Fuchs 1999). And now, very costly drugs are emerging to correct enzyme deficiencies and to fight cancer. A *New York Times* article recently reported that Genentech's new drug, Avastin, would be priced at $8,800 per month; and for that, so far, it offers life extension of only a few months for some patients (Berenson 2006). Also, the benefits of competition will be attenuated by provider monopolies in many areas, and a vigorous anti-trust program will be needed.

But I also think that it is not unreasonable to believe that national health expenditures in a truly competitive market of the kind I have described would be half what they will be if we stay with the present system, a nontrivial difference. We cannot stay with the present system

much longer. Fundamental reform of some kind will happen. And it is reasonable to think that the reform most compatible with American culture would be a decentralized, competitive market model.

Notes

1. "Any willing provider" laws, for example.

2. Wanting It All: The Challenge of Reforming the U.S. Health Care System, June 15–17, 2005, Wequassett Inn, Chatham, MA. The announcement for this session says, "How has the U.S. health care system adjusted to the introduction of market-oriented medicine?"

3. Harvard converted from employer payment of 85 percent of the premium of the employee's plan of choice to a fixed-dollar amount set below the price of the low-priced plan in 1995, without any risk adjustment. This put the Blue Cross Blue Shield PPO into a death spiral, and it was withdrawn in three years (Cutler and Reber 1998). Other managers of health plan competition have mitigated or prevented death spirals by plan design (for example, by raising the deductible). The Health Insurance Plan of California rescued its PPO by using diagnosis-based risk adjustment (see Shewry et al. 1996). Recently, practical, diagnosis-based risk adjustment has become available.

4. They also offer a combination of Group Health Cooperative and CIGNA in Seattle.

5. For what is probably the best analysis in depth, see Newhouse (2002).

6. The list includes Diagnostic Cost Groups from Boston University, Ambulatory Care Groups from Johns Hopkins University, and Episode Groupers produced by Symmetry.

7. See Newhouse (2002, p. 151). The actuaries' results are for cases truncated at $100,000. Dealing with very-high-cost cases is complex if one wants to maintain appropriate incentives to manage those cases efficiently and to keep people out of that category. See Cumming et al. (2002).

8. That is, not just IDS HMOs, but also PPOs, POS, or indemnity plans, if enough people want them.

9. That is, if one wants a plan that costs more than the base plan, one must pay the full difference with one's net after-tax dollars.

10. GHC ran into the same glass ceiling of non-choice-offering employers that HCHP ran into in Boston: like HCHP, they had to establish an individual-practice network to be able to compete for single-source business. In the process, they lost their cost advantage.

11. David Eddy (1996) documented an example in which Kaiser Permanente, in Southern California, developed guidelines to identify patients who really needed low osmolality contrast agents, so that they could stop using them on

most patients who did not need them. A similar process took place for Cox-2 inhibitors. Kaiser Permanente used them sparingly and also followed the Cox-2 patients.

12. An example of such a technology is uterine artery embolization (UAE), which costs less and is less invasive than hysterectomy and works well for many women. OBGYNs do not tell their patients about it as an alternative to hysterectomy, perhaps because it is done by interventional radiologists (see Helliker and Etter 2004).

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Comments on Enthoven's "The U.S. Experience with Managed Care and Managed Competition"

Michael E. Chernew

The consensus among policymakers, business leaders, employees, and virtually anyone who has thought seriously about the issue is that the American system of financing health care suffers from serious deficiencies. Costs are high and growing, many Americans lack insurance coverage, and there is a pervasive sense that there are serious inefficiencies and quality deficiencies associated with the delivery of care.

The paper by Dr. Enthoven provides insight into these issues and traces the rise (sort of) and fall (sort of) of one proposed approach to improve the situation: increased competition in health care. I caveat the "rise" and "fall" with "sort of" because the system of managed care and competition that arose during much of the 1990s did not conform particularly closely to the system advocated by Dr. Enthoven, and therefore it is a bit unfair to assert that this system was tried and has failed. In any case, the premise behind Enthovenian competition is that consumers are not able to make appropriate economic decisions at the point of service because they do not have the necessary information, and because insurance distorts the incentives they face by reducing the price they must pay for care. To remedy this, competition is pushed to the point of health plan choice. Consumers choose health plans that, in turn, influence the care they receive (and the prices they pay for that care).

This competitive solution is not new. In fact, Dr. Enthoven has been associated with this approach for decades. So why has this system not come to pass? Dr. Enthoven focuses on the failure of employers to provide employees with the appropriate financial incentives at the time of health plan purchase, a situation that is exacerbated by the tax code, which subsidizes coverage and reduces the incremental costs of more

expensive plans. I agree with the fundamental premise of his work: the system would be better off if employees had a broad choice of plans and faced the incremental costs associated with more expensive plans.

Yet Dr. Enthoven believes (or, more accurately, I believe he believes) that, in such a system, the entities that would "win" in the marketplace are "delivery-system HMOs," which rely on relatively exclusive provider networks to organize and deliver care.

In the current system, many HMOs are "carrier HMOs" that have broad physician networks and less ability to manage care. Dr. Enthoven would likely trace these carrier HMOs and broad networks to the muted financial incentives put in place by employers. Yet I think that we cannot be so quick to dismiss the possibility that consumer demand for broad networks is high. What they will pay for this breadth is not really known, but clearly consumers seem to desire this breadth.

Breadth of networks offers three main benefits. First, it allows consumers to delay their choice of physician, particularly for specialist care, until they need a specialist. They may not want to commit at the time of health plan purchase because their preferences for physicians are unknown to them before they become ill. Second, closed networks require individuals to choose physicians from the system they selected for all types of care that they may need. They may prefer physicians in one delivery system for one type of care and physicians in another system for another type of care, and broad networks reduce the chances that their preferred physicians will be out of network. Third, in many markets, travel times might have to increase dramatically if providers were exclusively in one system. The density of many markets might not support competing delivery system HMOs.

Of course, the complaints about "carrier" HMOs and broad networks are not tremendously damning for a model of managed competition. Plans can and do have provisions for allowing out-of-network care, and much of the care delivered currently is in-network; so the demand for broad networks may not reflect a strong desire to see out-of-network physicians, but rather a demand to have the option to do so.

Moreover, in a dynamic setting it is not clear that premiums would be lower in a system of competing delivery-system HMOs relative to a

system of competing broad-network plans, even if the delivery system HMOs enjoyed a cost advantage. Although competing delivery system HMOs with relatively distinct provider networks would have a strong incentive to compete in a static model, the extent to which such a system would enhance competition in a dynamic model is unclear. Consumers are hesitant to switch physicians. Distinct physician networks could yield a system in which the elasticity of demand facing any given plan could be low because of this inertia. The system could resemble markets for durable goods in which there is extensive competition for the initial sale, but little competition for post-sale parts or service. The extent to which this inertia would result in higher premiums would depend on the willingness of consumers to switch physicians. With exclusive provider networks and meaningful travel costs, in some settings local monopolies may arise, further contributing to reduced competition among plans.

Ultimately, the premium differential between a system of competing delivery-system HMOs and one of competing carrier HMOs (or any other type of broad-network plans, for that matter) will depend on the cost advantages of an exclusive network of providers relative to any increase in premiums associated with inelastic demand facing closed systems. In any case, if the financial incentives were correct at the time of purchase, we might not be discouraged if broad-network plans "won," because the premium advantages may not be as great as the cost advantages, and because such an outcome could be interpreted as reflecting consumers' preferences regarding their care systems. With heterogeneous tastes, we might expect a range of plan types to survive, and more analysis is needed to understand better how the different systems affect one another and the market overall. Offering appropriate financial incentives at the time of plan purchase does not guarantee that there will be no inefficiencies in the functioning of the plans or the system overall.

Two other aspects of a managed competition model are worth mentioning. First, it is unlikely that a managed competition model, even if it worked as Dr. Enthoven envisions, would eliminate health care cost growth. Imagine the outcome from a competitive health care system if the main goal were the optimal delivery of care. Most observers would agree that such a system would be less expensive at any point in time

than the current system that contains incentives for excess consumption (although there is also evidence of underconsumption of certain services with the current system).

However, the optimal amount of health care spending rises over time as medical technology progresses; so even if we achieve optimal spending, we can still expect cost growth. This is depicted in Figure 4.1. Optimal care at time *t* is bundle *A*, and optimal care at time *t*+1 is bundle *B*. Inefficient care at time *t* is bundle *C*, and inefficient care at time *t*+1 is bundle *D*. Cost growth in an inefficient system is represented by movement from *C* to *D*. Cost growth in an optimal system is represented by movement from bundle *A* to bundle *B*. Which cost growth will be greater depends on the manner in which technology shifts demand. Movement from an inefficient system to an optimal one is represented by cost savings (movement from *C* to *A*), followed by cost growth (movement to *B*).

Of course, cost growth in an optimal system (from *A* to *B*) should be viewed favorably because, by the definition of optimal spending, the benefits would justify the expenditures. Yet policymakers and purchasers should not expect cost growth to disappear. Whether or not cost growth slows will depend on how medical technology progresses. While it is certainly true that a system of more-conservative health plans would encour-

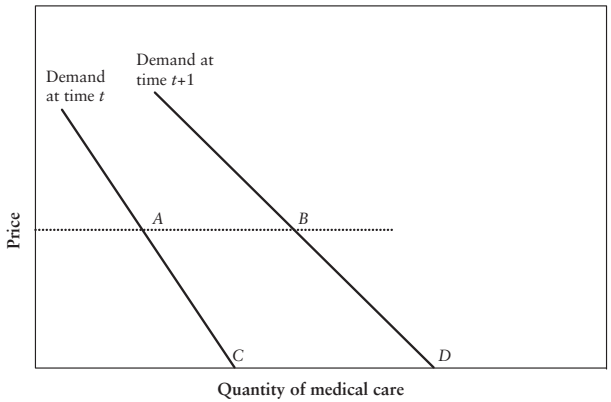

Figure 4.1
Cost Growth in Inefficient and Efficient Systems

age medical innovations that are less cost increasing, evidence about how the nature of technological progress would change in a managed competition system is scant.

For this reason, although the savings associated with a more efficient system may represent a downward shift in health spending, it may not alter the trajectory of health care spending over time. This is depicted in Figure 4.2. The trajectory of spending in an inefficient system is higher than that in an efficient system, but the slopes are not necessarily different. The rates of spending growth could be similar in both settings. Because we have not experienced an optimal system of care, we cannot assess easily the spending trajectory that we would experience in such a system. Existing evidence suggests that the introduction of managed care has reduced spending and lowered the rate of spending growth, but the reductions in spending growth have not been sufficient to stem the rising share of GDP devoted to health care (see Chernew et al. 1998 for a review).

Second, as we introduce a greater level of competition into health care markets, we may achieve greater efficiency. It is reasonable to expect more explicit tiers of care, with some individuals paying for plans with fewer restrictions on care (and maybe better outcomes), and other individu-

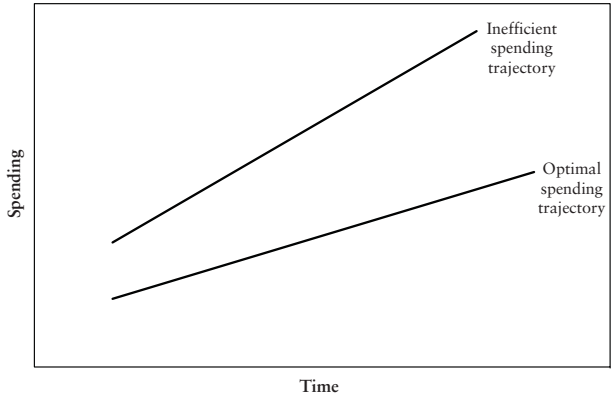

Figure 4.2
Spending Levels versus Trajectories

als enrolling in plans with less access to certain services. Such a system might not be worse than our current system, which exhibits considerable inequality in access, and evidence that the variance in costs is associated with meaningful variation in quality is not strong. Even if current variation in costs is related to inefficiencies, so that less expensive plans are not inferior, we should expect the possibility that as technology advances and costs grow, variance in costs will increasingly be related to quality differences. This is illustrated in Figure 4.3. When the system is inefficient (at bundle *A*), consumers could get more health and more of everything else if the inefficiency were eliminated by moving to a bundle on the production possibility frontier (such as bundle *B*). However, once on the production possibility frontier at bundle *B*, the only way to get more health is to give up some nonhealth consumption, by moving to another point of the production possibility frontier, such as bundle *C*. Thus, in an efficient system, the tradeoffs between health and nonhealth goods will be more salient, and different individuals will make different choices. Those choices will be based in part on preferences, and in part on income. Concerns about tiers of care that might arise by income group could be addressed with income subsidies or vouchers, but this raises a whole new level of policy response that would need to be defined.

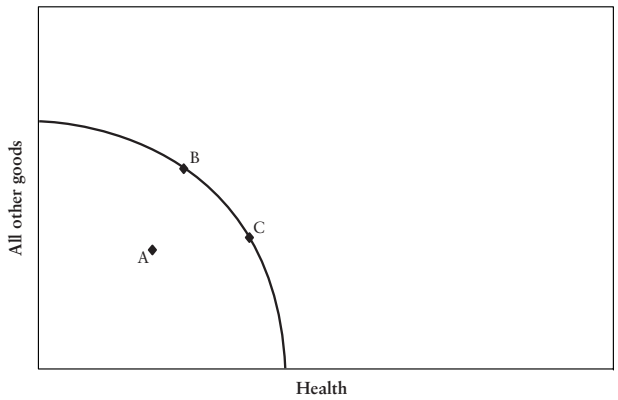

Figure 4.3
Production Possibility Frontier

There are several takeaway messages from this discussion. First, a system of competing delivery system HMOs, even if working as Dr. Enthoven envisions, would still be characterized by cost growth and tiered levels of care. From an economic perspective, these may not be suboptimal outcomes, but they will likely be important aspects of the system that policymakers will need to address. Second, a richer understanding of why such a system has been slow to take off is needed. If imperfect risk adjustment is part of the explanation, more work is needed to improve risk adjustment methods. Similarly, if information imperfections are part of the explanation, additional research regarding information needs and dissemination approaches is particularly important. In this regard, I should note that Dr. Enthoven has been a strong advocate for informing consumers about the "quality" of care delivered in different systems.

Third, considerable uncertainty exists regarding the outcomes that would arise from a system of Enthovenian competition. I think it is likely that multiple types of plans would arise, and greater understanding is needed regarding how they might both impact and compete against one another. This requires more thorough knowledge of the connections between financing and delivery systems, including an understanding of how consolidation among providers might affect the desired outcomes. Connections between the commercial financing and provider systems and the analogous public systems must also be evaluated, and we must assess how the availability of charity care will affect the behavior of key players. Finally, as information systems evolve, new benefit design packages that combine the traits of integrated delivery systems and financial incentives for patients and providers will become more commonplace. If we can develop a system that encourages adoption of value-promoting benefit packages, which is the essence of what Dr. Enthoven proposes, we will at least be moving in the right direction.

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Comments on Enthoven's "The U.S. Experience with Managed Care and Managed Competition"

Sherry A. M. Glied

Alain Enthoven argues, as he has for three decades, that a carefully structured system of "managed competition" would be the best solution to the problems of cost and quality that continue to beset the U.S. health care system.

Managed competition offers an extraordinarily compelling picture. At its heart, the model would transform today's complex and fragmented health care system into a marketplace of branded integrated delivery health plans. These plans would compete for customers in the familiar way that producers of other complex products, such as computers or automobiles, do. The plans themselves would figure out which inputs—that is, doctors, nurses, hospitals, pharmaceuticals, and devices—they would purchase, how those inputs would be compensated, and how the production of services would be organized. The quality of plans would be measured, and information would be made available to consumers. Individual consumers would each face a broad choice of plans, and would trade off cost and quality according to their own preferences.

It is important, in the context of the other directions now being considered for the health care system, to recognize how fundamental this shift would be. In this reconfigured marketplace, the plan or firm would entirely internalize—and hence eliminate as a matter of public policy concern—notions such as "pay for performance," "consumer-directed health care," and "disease management." These concepts would become worthy of no more policy attention than the "Intel Inside" or "fuel injection" advertised by computer or automobile companies. Consolidating the health care marketplace into a finite set of discrete, competing plans

would also address a variety of other problems, not least of which would be to offer a handy solution to the recurring malpractice crises (Sage, Hastings, and Berenson 1994).

Enthoven further argues that developing this system need not be complicated. All the model requires is that purchasers of care be offered a variety of choices and face the full (risk-adjusted) marginal cost of those choices. He describes a number of employers who have implemented models consistent with the managed competition design and notes the existence of private firms that have offered to assist purchasers in putting these preconditions into place.

This vision of an ideal system is elegant and eminently sensible. If, as we often state, our goal is to have a health care system that offers high-quality care at the lowest possible cost—one that maintains private care delivery and offers consumers meaningful choices—managed competition must be the way to do it.

Yet 30 years have passed since Enthoven first put forward the model, and we are not appreciably closer to it. The examples in this paper are depressingly well known. Kaiser Permanente, the Mayo Clinic, and the Leahy Clinic—these integrated delivery systems have offered consistently top-quality medical care for generations. Stanford, UCLA, and CalPERS—these have been vanguards of managed competition in California since the late 1980s. Managed competition is a model of revolutionary transformation of the health care system—but its exemplars, while worthy, are antiques.

I have no substantive criticisms of the managed competition scheme itself. But something has to be wrong here—either the forces that keep managed competition from happening are much stronger than Enthoven assumes or the goals of the system that many of us—not just Enthoven—have stated must be mistaken. Understanding the absence of managed competition can be instructive in thinking about the future of the health care system as a whole.

Conditions for Achieving Managed Competition

Enthoven identifies several impediments to managed competition. First, he argues, the tax treatment of employer-sponsored health insurance leads

people to select overly costly coverage and to shun less costly integrated delivery system models. The favorable tax treatment of health insurance surely encourages overpurchase of health insurance at the margin. This incentive to overpurchase discourages the growth of both managed care and of plans that use higher cost-sharing to limit service use. However, the evidence suggests that the tax treatment of health insurance simply cannot explain the absence of lower-cost health plans.

We know that consumers do respond to the employee share of health insurance premiums and deductibles. They also increasingly choose to forgo altogether the health coverage offered by their employers (Cutler 2003). Declines in the take-up of employer-sponsored coverage have occurred even among workers in large firms where a choice of coverage is the norm (Glied, Lambrew, and Little 2003). An overwhelmingly important role for the favorable tax treatment of health insurance is difficult to reconcile with this behavior. These marginal consumers ought to have plenty of reasons to opt for lower-cost plans, rather than dropping coverage altogether.

Second, he complains, employers continue to charge employees a fixed share of the cost of plans, effectively subsidizing higher-cost plans. The idea of having employers contribute a fixed amount to all health plans has been around for a long while, most recently resurfacing as the so-called "defined contribution health plan model." In 1978, the introduction of Section 125 of the Internal Revenue Code (IRC) made this option much more palatable, by permitting employees to shelter their contributions for health insurance from taxes, or to transfer health insurance spending to other benefits. In 1985, the Department of Health and Human Services assumed that every employee in the nation would soon have a cafeteria plan incorporating health plan choice (Fox and Schaffer 1985). Relatively few employers have taken advantage of IRC Section 125 plans, however. The share of employers contributing a fixed share of the cost of each plan offered has remained quite stable over time. A few firms, most notably nonprofits, government purchasers, and universities, have switched to the defined contribution model. They have faced problems because of the disappearance of high-cost plans favored by sicker, older, perhaps more-influential employees (Cutler and Zeckhauser 1998)—and their savings have been too modest to entice a rash of followers.

Third, Enthoven suggests that employers have not been able to offer a sufficient choice of plans, and he proposes the development of public or private health purchasing arrangements. This idea has proved quite popular among policymakers, both at the state level and, more recently, in the federal government. Several large health insurance purchasing cooperatives have been opened and, as Enthoven predicts, they have been successful in increasing enrollment in HMOs. In other respects, however, they have not been particularly successful (Long and Marquis 2001). Purchasing alliances have had considerable trouble signing up participants, increasing insurance coverage overall, or even saving money for those firms that do elect to participate.

Fourth, Enthoven argues, plans need to compete on price and quality, a theme that resonates with today's focus on pay for performance. For plans to compete effectively on quality, consumers need to pay attention to quality information. Unfortunately, most studies find that consumers do not pay much attention to the quality information available in making their health plan choices (Chernew and Scanlon 1998). They pay equally little attention to information on provider quality in making provider choices (Schneider and Lieberman 2001; Marshall et al. 2000). Even if consumers did pay attention, it is simply not clear that managed care plans have been more successful than traditional insurers in improving quality while containing costs (Miller and Luft 2002).

The disappointing reality of the health insurance landscape has been the failure of true managed care to thrive in most areas of the United States. Nearly half of all Californians are enrolled in HMOs, but Massachusetts and Connecticut are the only two other states with penetration over one-third (Kaiser Family Foundation 2005). The evidence suggests, however, that this failure to thrive is a consumer behavior problem, not a policy problem.

Health Care Consumers and Managed Competition

The managed competition model supposes that consumers can and will buy health insurance the way they do other products (after fixing the risk adjustment problems). At least two aspects of health care consumer behavior, however, work against this vision.

First, most Americans are not convinced that the quality of health care is an attribute of a system rather than of a provider (Shaller et al. 2003). They view the interaction between a patient and a provider as the most salient aspect of health care (Goldfield et al. 1999). They do not trust quantitative measures of provider quality to reflect their needs accurately, but instead continue to rely on referrals from friends and acquaintances (and from their trusted primary care physician) to identify sources of good care.

This dependence on referrals, combined with the many separate components of medical care delivery (multiple specialists, hospitals, procedures, etc.), creates an underlying dynamic against the development of integrated systems. Until a large fraction of your physicians, friends, and relatives are already enrolled in a particular integrated health plan, you are more likely to prefer out-of-plan providers. These "network externality" effects suggest that the spread of integrated delivery systems is not simply a matter of demonstrating cost savings and quality, but also a difficult "path dependence"—or "chicken and egg" problem. Some evidence of this path-dependence problem is provided by the difficulty of well-established and successful integrated delivery systems, including Kaiser and the Mayo Clinic, to thrive when they expand into new markets.

A second problem has to do with the difficulties consumers have in processing population-level information about quality, even when that information is made available to them. Consumers may recognize the existence of both subjective and objective elements of quality, but the research on plan and provider choice suggests that they have an easier time using personal, subjective information (the same is often true of providers).

Even in well-functioning consumer markets, purchasers often make inefficient choices. Studies suggest, for example, that about half of all new-car buyers fail to choose the model that best meets their subjective preferences (Gupta and Ratchford 1992). Likewise, about half of purchasers of consumer durables do not choose the most "efficient" model in a category (Hjorth-Andersen 1984). The difficulty of making efficient choices appears to be greatly increased in purchasing intangibles, such as pension investments (Madrian and Shea 2000; Choi et al. 2001). In

the pension market, employers play a critical role in directing employees, particularly younger employees who are far from retirement age, toward plans that are relatively efficient.

Employers or other plan purchasers are ideally placed to make population-level decisions balancing costs and quality, because they are always making choices about populations. Rational employees, recognizing their own bounded ability to make such choices, may prefer institutional structures in which their choice sets are constrained. Optimal choice may occur when a sponsor first takes into account objective, population-based, cost-quality trade-offs, and then individual purchasers make subjective choices within this set. This preference may explain why the move toward purchasing alliances offering a broad range of choices has been so limited and why a majority of American workers continue to prefer employment-based coverage to either government or individual market alternatives (Duchon et al. 2000).

Conclusions

The managed competition model offers a promising view of a market-based, quality-driven, health care system, but it appears very difficult to realize within the marketplace. A better understanding of consumer behavior may help to develop variants of this model as well as sets of employer and public strategies that could move the health care system closer to one characterized by efficient cost and quality trade-offs.

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5

How the U.S. Health Care System Affects U.S. Labor Markets

The U.S. Health Care System and Labor Markets

Brigitte C. Madrian

Introduction and Motivation

There is no universal provider of health insurance or health care in the United States. Rather, a patchwork system of institutions exists, each covering different subgroups of the population. Certain types of health insurance are provided as a condition of employment, while other types of health insurance are more readily available when individuals are not employed or not fully employed, and still others are available regardless of employment status. The two most significant sources of health insurance coverage in the United States are employers, who collectively insure 63 percent of the non-elderly (below age 65) population, and governments, who collectively cover 16.8 percent of the non-elderly population. Other types of insurance, such as individually purchased policies, or coverage obtained through an educational institution or other organization, provide the remaining 6.7 percent of the non-elderly population with health insurance coverage. However, a nontrivial fraction of the population, 17.7 percent or 44.7 million individuals, is uninsured.

As its title suggests, this paper considers the relationship between the U.S. health care system and the labor market. The second section describes some of the salient features of and facts about the system of health insurance coverage in the United States, particularly the role of employers. Much academic and media attention has been focused on the presumption that the relationship between the labor market and the type(s) of health insurance coverage available to individuals may motivate some individuals and firms to make different labor market decisions than they would otherwise, in ways that adversely impact overall labor market

performance. The third section summarizes this empirical evidence, examining how health insurance impacts labor market outcomes, such as wages, labor supply (including retirement, female labor supply, part-time versus full-time work, and formal versus informal sector work), labor demand (including hours worked and the composition of employment across full-time, part-time, and temporary workers), and job turnover. But the implications of the relationship between employer-provided health insurance and the labor market are not limited to labor market outcomes. The fourth section discusses the implications of having a fragmented system of health insurance delivery—in which the employer plays a central role—on the health care system and health care outcomes. The paper concludes with some thoughts on the long-run sustainability of this system.

Health Insurance Institutions in the United States

The most prevalent type of health insurance, covering 62 percent of the non-elderly U.S. population, is employer-provided health insurance coverage (Kaiser Family Foundation and Health Research and Educational Trust 2004). About half of those covered receive this type of insurance by virtue of their own employment, while the rest receive it as dependents of a spouse or parent who is employed. Employers in the United States who provide health insurance do so voluntarily, and many individuals (17 percent of those not self-employed) work in firms where such benefits are not offered (Fronstin 1999). Even in those firms where health insurance is provided as a benefit, not all employees are necessarily eligible, and those who are eligible must generally elect coverage in order to receive it. Indeed, only 62 percent of wage and salary workers are eligible to receive health insurance benefits through their own employment, and 17 percent of those individuals decline the coverage that is available to them (although they may receive health insurance from another source) (Fronstin 1999). Some employers also provide health insurance to former employees who have retired, so-called "retiree" health insurance. At present, about 29 percent of firms employing more than 500 workers offer health insurance to current and future retirees (Fronstin and Salisbury 2003, citing the Mercer/Foster-Higgins *National Survey of Employer-Sponsored Health Plans 2002*); the fraction of firms offering

this coverage, however, has been declining quite substantially over time, and is likely to continue to decline.

Various types of government insurance programs cover most, but not all, of the population who are not covered by employer-provided insurance. It is interesting that, even at the governmental level, there is no single unified health insurance program. By far the largest government health insurance program is Medicare, which was implemented in 1965 to provide health insurance coverage to individuals aged 65 and over, many of whom were left uninsured or underinsured upon their retirement when coverage through their former employers ceased.[1] Medicare also covers some individuals under age 65, specifically those who are disabled and eligible for Social Security Disability Insurance. Currently, Medicare covers more than 96 percent of those over age 65, and 5 percent of those under age 65.

Medicaid is a state-run health insurance program funded jointly by the federal and various state governments. (Some states call the program by different names; for example, in California the program is referred to as "Medi-Cal.") Historically, this was a health insurance program for public assistance recipients, primarily low-income single mothers and their children, and also a source of supplemental insurance for the low-income elderly. In recent years, it has been expanded to provide coverage to non-welfare-eligible families with modest incomes, particularly those with children. There is great heterogeneity across states in the eligibility requirements for Medicaid and in the benefits that are actually provided. Overall, 9 percent of the elderly are covered by Medicaid, as are 12 percent of the non-elderly (Fronstin 2003). The federal government also provides health insurance to members of the uniformed services and their families. About 3 percent of the non-elderly population are covered by this type of health insurance (Fronstin 2003).

Various other types of private insurance cover about 7 percent of the non-elderly population, and perhaps as much as one-third of the elderly population. These include individually purchased policies from private insurance companies such as Blue Cross/Blue Shield, insurance provided through membership organizations such as a trade union or professional association, university-provided health insurance for college students, and supplemental insurance for the Medicare-eligible elderly, often referred to as "Medigap" coverage.

This patchwork system of health insurance coverage leaves many people uninsured: those who do not have health insurance through their own or a family member's employment, those who are not old enough or disabled enough to qualify for Medicare, those who are not eligible for or decline to participate in Medicaid, and those who either cannot afford or choose not to purchase health insurance in the private market. The estimated 43 million uninsured individuals in the United States represent about 17 percent of the non-elderly population (Fronstin 2003). Thanks in large part to Medicare, only a small fraction of the elderly (65+), about one percent, are uninsured.

It is interesting to consider why the United States, in contrast to most other developed countries, has a health insurance system in which employers, rather than the government, are the primary providers of insurance, at least for the non-elderly.[2] The United States has repeatedly rejected broad attempts to "socialize" the provision of either medical care or health insurance. The first such initiative, during the 1930s, failed despite the concurrent genesis of so many other government social programs (including Social Security, Unemployment Insurance, and the Aid to Families with Dependent Children program, the precursor to contemporary public assistance programs for low-income families). The most recent initiative was the failed Clinton administration attempt at national health reform in 1993, although there were other unsuccessful attempts in the interim.

Even though there are some limited examples of U.S. companies' providing health insurance coverage before World War II, employer-provided health insurance, as an institution, really came into being during the two decades following the war. In the absence of universal government-provided health insurance coverage, market forces pushed employers into their role as the primary providers of insurance. These market forces are several, and include: a substantial price advantage given to employers through the tax code, since firms' health insurance expenditures on behalf of their employees are not counted as taxable income to either the firm or the employees; significant economies of scale that derive from providing health insurance to a large group of individuals; and the ability to pool individuals into insurance groups in a way that largely overcomes the problem of adverse selection, which plagues the individual market for health insurance.

Empirical Evidence on Health Insurance and Labor Market Outcomes

With this understanding of how the various U.S. health insurance institutions work, we can now consider the relationship between health insurance and labor market outcomes. This section describes some of the key empirical estimates of the relationship between health insurance and labor market outcomes, including retirement, employment, full-time versus part-time work, and job turnover. It does not, however, go into great detail on the strengths and weaknesses of the various empirical studies that are cited. Currie and Madrian (1999); Gruber (2000); and Gruber and Madrian (2004) provide greater detail on the data and methods used in the studies cited in this paper (and many others), and offer opinions on the relative merit of the different empirical approaches.

Retirement and the Labor Supply of Older Workers

Perhaps the most important labor market outcome to consider is employment itself—how does health insurance affect individual participation in the labor market? The potential impact of health insurance on labor force participation derives from the fact that, for some individuals, being employed is the cheapest (and perhaps even the only) way to obtain health insurance, while for other individuals, *not* being employed is in fact the cheapest way to obtain health insurance. In the decision about whether or not to be employed, health insurance will be a more important factor for individuals who place high value on health insurance—those with high anticipated medical expenditures either for themselves or for their dependents. Because medical expenditures tend to increase with age, individuals approaching retirement should be particularly interested in maintaining their health insurance coverage.

It should not be surprising, then, that the most widely studied facet of labor force participation that has been examined in the literature on health insurance and labor market outcomes is retirement: to what extent does health insurance determine when and how individuals choose to withdraw from the labor force? Health insurance is a potentially important determinant of retirement outcomes because some types of health insurance are more portable across the transition from work to retirement than are others. Employer-provided health insurance is typically

lost upon retirement, for example; in companies that provide retiree health coverage, however, employer-provided health insurance is portable—individuals retain their coverage even after they retire. Health insurance that comes from a source other than one's own employment would also be portable, including individual health insurance purchased in the private market or employer-provided coverage obtained as a dependent through one's spouse, so long as the spouse does not lose coverage.

If health insurance is not portable across the transition from work to retirement, the potential loss of health insurance coverage associated with leaving the workforce creates a deterrent to retirement. Thus, we would expect retirement rates to be higher among those with portable health insurance. Once individuals reach age 65 and are eligible for Medicare, completely losing health insurance coverage is no longer a concern for those workers previously covered by employer-provided health insurance. Thus, after age 65, retirement rates among those with nonportable insurance will no longer be lower, and, indeed, may increase, if individuals have postponed retirement until becoming eligible for Medicare.[3]

The empirical evidence on health insurance and retirement largely concurs with these theoretical predictions. Several studies have found consistent evidence that individuals whose employers provide retiree health insurance leave the labor force earlier than individuals whose employers do not. For example, Rust and Phelan (1997) estimate that retiree health insurance increases the probability of retiring before age 65 by 12 to 29 percent (the effects vary with age); Karoly and Rogowski (1994) and Rogowski and Karoly (2000) estimate effects ranging from 47 to 62 percent; while Blau and Gilleskie (2001) estimate effects ranging from 26 to 80 percent. Madrian (1994a) finds that individuals with access to retiree health insurance leave the labor market between 6 and 18 months earlier than individuals who do not have access to retiree health insurance, and they are also much more likely to retire before the age of 65.

Individuals who are covered by non-employment-based health insurance, for example, through policies purchased individually in the private market, through trade associations, or through Medicaid, also have a type of health insurance coverage that is portable across the transition from work to retirement. Rust and Phelan (1997) extend their analysis to these other types of portable health insurance, and find that as with

retiree health insurance, individuals with such coverage also have higher retirement rates than individuals who would lose their health insurance coverage upon retirement. Johnson, Davidoff, and Perese (2003) look at the health insurance-related costs of retiring more generally, and find that the higher these costs are, the less likely individuals are to retire.

One set of institutions designed to increase the portability of employer-provided health insurance, both across the transition from work to retirement and for other labor market transitions as well (for example, job change), are state and federal "continuation of coverage" laws. These include two well-known federal laws that go by the acronyms "COBRA" (for the Consolidated Omnibus Budget Reconciliation Act) and "HIPAA" (for the Health Insurance Portability and Accountability Act). COBRA and other similar state-level continuation of coverage laws mandate that employers must allow employees and their dependents the option to continue purchasing health insurance through the employer's health plan for a specified period of time after coverage would otherwise terminate, even if the employee is no longer employed by the firm.[4] HIPAA restricts the ability of insurers to impose pre-existing condition exclusions on individuals who change their health insurance coverage.[5] Both of these laws reduce the costs in terms of potential health insurance coverage loss associated with either retiring or changing jobs.

Although no research has yet been done on the impact of HIPAA on retirement, Gruber and Madrian (1995) examine the effect of COBRA and its state-level precursors on retirement. They find that among those with employer-provided health insurance, these continuation of coverage laws increase the probability of retiring by 30 percent; in contrast, among those without employer-provided health insurance, for whom the laws provide no benefit, continuation of coverage has no effect on retirement. These results, using a relatively exogenous source of variation in the portability of health insurance, confirm that retirement is very sensitive to health insurance availability.

An interesting thing happens at age 65 when individuals become eligible for Medicare. Even for those individuals with employer-provided health insurance that does not continue into retirement, leaving the labor force no longer implies a loss of health insurance, because individuals are covered by Medicare. Thus, Medicare eligibility should provide a strong

retirement incentive for those individuals not eligible for retiree health insurance. And indeed, a substantial fraction of 64-year-olds do retire at age 65, when they become eligible for Medicare. Empirical research has to date been unable to quantify the magnitude of this Medicare effect because age 65 also happens to be the Social Security normal retirement age and the age at which many pension plans provide full retirement benefits. With so many other factors motivating retirement that are coincident with Medicare eligibility, it is difficult to quantify exactly how big each of the respective effects is. But the evidence on how other types of health insurance affect retirement suggest that Medicare eligibility should be very important as well.

One idiosyncratic feature of Medicare relative to other types of health insurance, and one that also generates interesting variations in retirement behavior, is that Medicare covers only individuals and not spouses or dependent children. As a result, the retirement decisions of two individuals without retiree health insurance who are both about to turn 65, one with a spouse who is younger and the other with a spouse who is older, could be quite different. For the individual with the older spouse, retirement at the age of Medicare eligibility will result in a loss of health insurance coverage for neither spouse—both will be covered by Medicare (the older spouse already is). In contrast, retirement at the age of Medicare eligibility for the individual with a younger spouse will result in a loss of health insurance coverage for the spouse if the spouse was covered as a dependent on the employee's plan and not through his or her own independent coverage. Interestingly, Madrian and Beaulieu (1998) find that men with younger wives are less likely to retire than are men with older wives, until their spouses also become eligible for Medicare. Thus, retirement is affected not only by one's own Medicare eligibility, but also by the Medicare eligibility of one's spouse.

Health insurance also impacts the nature of the transition from work to retirement. Some individuals move from full-time work to full-time retirement, while others pursue a more gradual transition from work to retirement, moving from full-time work to part-time work (so-called bridge jobs), and then eventually to full-time retirement. Although many older workers, when asked, express a desire to make a gradual transition from work to retirement, it may be difficult for many actually to do

this before becoming eligible for Medicare while also maintaining health insurance coverage. This is because employer-provided health insurance in the United States is typically contingent upon full-time employment; very few employers provide health insurance benefits to part-time employees. Individuals with retiree health insurance, however, can retire from their full-time job and move to a different part-time or self-employment job while maintaining health insurance through their former employer. Research has shown that individuals with retiree health insurance are indeed much more likely to make a gradual transition from work to retirement than are individuals without retiree health insurance (Quinn 1997). Thus, health insurance that is portable across the transition from work to retirement appears to be an institution that enables individuals to retire both when and how they desire.

Health Insurance Eligibility through Government Public Assistance Programs and Labor Supply

While much of the research on how health insurance affects labor force participation has been directed at the issue of retirement, older individuals are certainly not the only ones whose employment decisions are impacted by health insurance. Another margin along which health insurance might affect labor market outcomes is through the labor supply decisions of potential public assistance recipients. A key feature of the two primary public assistance programs in the United States (TANF, or Temporary Assistance for Needy Families, and SSI, or Supplemental Security Income) is that, in addition to qualifying for cash and other benefits, recipients qualify for Medicaid—health insurance provided by the states to public assistance recipients and potentially to other low-income individuals. Because the groups who qualify for these types of programs—low-income families headed by single mothers and the low-income disabled and elderly—tend to qualify for low-wage, low-skilled jobs without health insurance, the coupling of Medicaid with public assistance encourages individuals to sign up for and remain enrolled in public assistance programs.

Overall, the literature suggests that health insurance availability, and Medicaid in particular, has either no effect (Meyer and Rosenbaum 2000; Blank 1989; Montgomery and Navin 2000; Decker 1993; and Ham and Shore-Sheppard 2005) or only a small effect (Yelowitz 1995; Moffitt and Wolfe 1992; and Winkler 1991) on the labor force participation of low-income single mothers. This is somewhat surprising, given the potential importance of health insurance for this population and their children. On the other hand, there is some evidence that the decision to participate in welfare programs, conditional on labor supply decisions, is fairly responsive to the availability of health insurance (Ellwood and Adams 1990; Moffitt and Wolfe 1992; Decker 1993; and Yelowitz 1996, 1998a, 1998b, and 2000), an interesting finding in its own right, and one with important public policy implications.

The Labor Supply of Married Women

Married women, and to a lesser extent married men, are another group whose labor force participation is likely to be impacted by the availability of health insurance coverage. Although most of the interest in the effect of health insurance on labor force participation in both policy and academic circles has been focused on older workers and public assistance recipients, the potential impact in terms of the aggregate effect on total hours worked may very well be largest for prime-aged workers, particularly married women who are typically estimated to have a large labor supply elasticity. Given the responsiveness of married women to wage changes, one might expect sensitivity to the availability of health insurance coverage as well.

Because most companies that offer health insurance make it available to both employees and their spouses, many married women receive health insurance coverage through their spouses. Whether or not a married women has health insurance through her spouse turns out to be a very important factor in whether and how much married women work. Married women with health insurance through their husbands are 7 to 20 percentage points less likely to work than are women without health insurance from their spouses (Buchmueller and Valletta 1999; Olson 1998; Schone and Vistnes 2000; and Wellington and Cobb-Clark 2000). Among those who do work, they are much more likely to be employed in part-time jobs that typically do not provide health insurance than in full-time jobs (Buchmueller and Valletta 1999; Olson 1998; Schone and Vistnes 2000; and Wellington and Cobb-Clark 2000). Thus, for married

women, the lack of health insurance from a spouse's employment seems to have a strong influence in motivating married women to find jobs with health insurance themselves.

In one of the few studies of health insurance and the labor market using non-U.S. data, Chou and Staiger (2001) examine the effects of health insurance on spousal labor supply in Taiwan. Before March 1995, when Taiwan implemented a new national health insurance program, health insurance was provided primarily through one of three government-sponsored health plans that covered workers in different sectors of the economy. Historically, these plans covered only workers and not their dependents. Thus, own employment was the only way for most individuals to obtain health insurance. However, there was one exception—coverage for spouses was extended to government workers in 1982, and subsequently to children and parents as well. By exploiting this variation in the availability of dependent health insurance coverage, Chou and Staiger (2001) are able to identify the effect of health insurance on employment. They estimate that the labor force participation rate of women married to government employees declined by about 3 percent after they were able to obtain coverage as spousal dependents relative to the labor force participation rate of women married to private-sector workers. They estimate similar declines in labor force participation for the wives of private-sector workers following the 1995 implementation of the National Health Insurance program, which made health insurance available to all individuals. Their results are largely corroborated in an analogous study by Chou and Liu (2000), using a different data set on labor force participation in Taiwan.

A recent study of married women's labor supply in Spain uncovered another interesting link between health insurance finance and female labor supply (De la Rica and Lemieux 1994). In Spain, health care is provided by the government and financed out of a mandatory payroll tax paid partially by the firm and partially by the employee. Payment of the payroll tax entitles workers and their spouses and dependent children to health care, as well as to a pension and sick leave. Among men, compliance with the payroll tax is nearly universal. Among married women, however, over one-quarter of those who are employed work in the "underground" economy where "required" taxes are not paid.

Only two studies have examined empirically the effect of health insurance on the labor force participation decisions of prime-aged men. The first, by Wellington and Cobb-Clark (2000), examines the effect of spousal health insurance on the employment decisions of both husbands and wives. As noted earlier, they find large effects of husbands' health insurance on the labor force participation of married women. They also find an effect of spousal health insurance on the labor force participation of married men: having a wife with health insurance reduces husbands' labor force participation, although the effect is less than half the size of the effect estimated for married women.

The only other study of health insurance and employment among prime-aged men, Gruber and Madrian (1997), exploits the continuation of coverage mandates discussed earlier in the context of retirement, to consider the impact of health insurance on the transition from employment to nonemployment and on the subsequent duration of nonemployment. This study finds that the availability of continuation of coverage increases the likelihood of experiencing a spell of nonemployment by about 15 percent and also increases the total amount of time spent nonemployed by about 15 percent.

Overall, the body of empirical literature on the effects of health insurance on the labor supply of married women and other prime-aged workers gives strong and consistent support to the notion that health insurance affects individual labor supply decisions. When there is a ready source of health insurance available that is not attached to one's own employment, individuals (particularly married women) are much less likely to be employed. This suggests that the institutional link between health insurance and employment may be a significant factor in the employment decisions of individuals.

There are many other, less studied avenues through which health insurance is likely to impact labor supply. The link between Medicare coverage and the receipt of Social Security Disability Insurance for disabled individuals under the age of 65 could act as a deterrent to work among the disabled, or at least to work that would be sufficient to disqualify them from further disability payments and the health insurance (Medicare) that accompanies these benefits. University-provided health insurance to students operates in a similar way. Individuals can participate in

student health plans if they maintain their student status, which typically involves registering for a certain number of credit hours and maintaining satisfactory grades. Employment, or at least full-time employment, may jeopardize an individual's ability to maintain status as a student. Thus, some students who value their health insurance may be deterred from entering the labor market. Anecdotally, this tends to take the form of delaying graduation.

Health Insurance and Job Choice

Beyond the full-time versus part-time dimension of labor supply, health insurance also has the potential to impact the initial choice of where to work and subsequent decisions about whether to change jobs, including the choice about whether or not to become self-employed. Economists are interested in the issue of job turnover because it is the process by which workers are reallocated away from jobs where they are less productive and into jobs where they are more productive. Impediments to productivity-enhancing job turnover are thus a barrier to economic growth.

Why does health insurance impact job turnover? One obvious reason is that not all employers offer health insurance. Individuals who have employer-provided health insurance and place a high value on it will be reluctant to switch to a company that does not provide health insurance. In addition, individuals who do not have employer-provided health insurance and who place a high value on it may attempt to find jobs at companies that do provide health insurance. An interesting piece of evidence on this front comes from the behavior of married men who are working in jobs without health insurance. If these men have pregnant wives, they are twice as likely to change jobs as are married men without health insurance whose wives are not pregnant (Madrian 1994b). The impending birth of a child clearly increases the value of health insurance, and these men clearly respond by changing jobs, presumably in an attempt to find a position with health insurance.

A second reason that health insurance affects the job turnover decisions of individuals is that not all employer-provided health insurance plans are equal, at least not for an employee who contemplates changing jobs. In addition to variation across employers in the generosity of the health insurance package in terms of co-payments, deductibles, and what

is and is not covered, there are two additional subtle issues to consider. The first is that many employers exclude pre-existing conditions for a certain period of time. So, even though a new employer and one's current employer may appear to provide identical coverage, the coverage of the new employer may, in fact, be vastly inferior for families with medical problems if these problems are not covered under the terms of a pre-existing-condition exclusion restriction. The second issue is that employers do not generally offer their employees free choice among the universe of medical providers in the health insurance plans that they provide. Thus, an employment change that is accompanied by a health insurance change may also necessitate a medical provider change. Individuals who value relationships with their current doctors may be averse to changing health insurance plans even if pre-existing conditions are not an issue.

My own research on the relationship between health insurance and job turnover suggests that health insurance is, indeed, an important factor in the decision to change jobs. One interesting finding is that among individuals who have employer-provided health insurance, those who also have coverage through the employment of a spouse are much more likely to change jobs than those who do not (Madrian 1994b). In essence, health insurance coverage through a spouse's employment is portable across the transition from one job to another, and is one way to skirt the pre-existing-condition exclusions that may be in place at a new employer. Another interesting finding is that COBRA, in addition to motivating retirement among older workers, also motivates job turnover among younger workers (Gruber and Madrian 1994). COBRA makes the health insurance from one's former employer portable across jobs, at least for a limited time, but long enough to avoid pre-existing-condition exclusions.

Beyond my own work, the broader literature on health insurance and job choice is more divided. About one-third of the papers studied find that health insurance significantly impacts the job choice decisions made by workers, with a potential loss of health insurance as a result of job change acting as a deterrent to job turnover, and a potential gain in health insurance leading to increased mobility (Cooper and Monheit 1993; Madrian 1994b; Gruber and Madrian 1994; Anderson 1997; and Stroupe, Kinney, and Kniesner 2001). Another one-third of the papers find no significant relationship between job choice and health insurance (Mitchell

1982; Holtz-Eakin 1994; Penrod 1994; Holtz-Eakin, Penrod, and Rosen 1996; Slade 1997; Kapur 1998; and Spaulding 1997). And the remaining one-third find evidence that varies by empirical specification or subgroup analyzed or find effects that are not statistically significant at standard levels (Buchmueller and Valletta 1996; Brunetti et al. 2000; Madrian and Lefgren 1998; Berger, Black, and Scott 2004; and Gilleskie and Lutz 2002). It is interesting to note that a fair number of the studies that find a significant effect of health insurance on job choice obtain estimates that are fairly similar in magnitude—the potential loss of employer-provided health insurance associated with job change reduces job mobility by 25 to 50 percent (Cooper and Monheit 1993; Madrian 1994b; Buchmueller and Valletta 1996; and Stroupe, Kinney, and Kniesner 2001).

It is also interesting to consider the relationship between health insurance and job turnover from the employer's perspective. For an employer that offers health insurance coverage, a sick employee is costly in two ways. First, a sick employee may be less productive. Second, a sick employee (or a healthy employee with sick dependents) is likely to generate higher insurance claims. Because of their medical expenditures, these employees may be relatively more attractive targets for layoffs. The link between health insurance and employment may thus have an adverse impact on families with medical problems if these problems lead to claims-based layoffs.

Health Insurance and Labor Demand

In addition to its impact on the employment and job choice decisions of individuals, health insurance may also affect the labor demand decisions of employers. There are two features of health insurance provision that are particularly salient in this regard. The first is that health insurance is a fixed cost of employment. Expected employer expenditures on health insurance do not increase when the weekly hours worked by their employees increase, and they do not increase when compensation increases. They increase only when more employees are hired. This fixed-cost feature of employer-provided health insurance gives firms an incentive to economize on the costs of providing health insurance in two ways. The first is by hiring fewer employees but at longer weekly hours—this is one way to maintain production while reducing the overall costs of

providing health insurance. The second is by hiring fewer but more productive employees—those who can produce more than the average employee would. Cutler and Madrian (1998) provide partial evidence that firms have substituted using long weekly hours of fewer workers for employing more workers as health insurance costs have increased over recent years. Moreover, the effects are nontrivial. The increase in weekly hours associated with the increase in health insurance costs between 1980 and 1993 resulted in a change in average weekly hours among those with health insurance equivalent to roughly half the change in labor input that is observed in a typical recession. Baicker and Chandra (2006) examine the impact of rising health insurance costs on employment and find that a 10 percent increase in health premiums reduces the aggregate employment rate by 1.6 percent.

The second feature of health insurance that is salient to the labor demand decision is the distinction between full-time and part-time workers in the tax treatment of employer expenditures on health insurance. These expenditures are usually not subject to taxation—with one caveat: employers must satisfy a set of Internal Revenue Service nondiscrimination rules, which stipulate that if a firm is to provide health insurance, it must make it widely available to substantively all employees. In essence, employers cannot selectively decide that they will provide health insurance to some employees and not to others, either because of favoritism or as a cost-saving measure. However, certain groups of employees, namely part-time, temporary, and seasonal workers, are exempt from the requirements of the nondiscrimination rules. Thus, employers can deny health insurance coverage to part-time, temporary, and seasonal workers while still obtaining favorable tax treatment for their health insurance expenditures on full-time permanent employees. As health insurance becomes more expensive to provide, the nondiscrimination rules give employers an incentive to hire part-time and temporary workers in lieu of full-time workers as a way to economize on insurance expenditures. This could account for some of the phenomenal growth in the temporary services industry over the past two decades.

More concrete evidence that employers substitute from full-time to part-time workers in the face of higher health insurance costs comes from the state of Hawaii. In 1974, Hawaii mandated employer provision of

health insurance to full-time workers but not to part-time workers. Thurston (1997) finds that those industries most affected by the mandate, namely, industries in which relatively few full-time workers were initially covered by health insurance, saw large increases in the fraction of workers employed in part-time jobs. In contrast, industries in which almost all full-time employees were already receiving health insurance saw little shift in the fraction of full-time versus part-time workers. Baicker and Chandra (2006) also find a shift to part-time employment as a result of recent increases in health insurance costs.

Thus, health insurance affects both the size and composition of the workforce that firms employ. As health insurance becomes more costly to provide, employers have an incentive to reduce their health insurance costs by substituting overtime for employment, skilled labor for unskilled labor, and part-time and temporary workers for regular full-time employees.

Health Insurance and Wages

A final labor market outcome of interest is of wages, which are determined jointly by the labor supply decisions of individuals and by the labor demand decisions of employers. From the firm's perspective, providing health insurance imposes an additional compensation cost on the employer and will reduce the level of wages it is willing to offer for a given level of labor input. From the worker's perspective, employer-provided health insurance is simply another form of compensation and will reduce the level of wages required to supply a given level of labor input. In a competitive labor market, the level of total compensation received by employees will be determined by worker productivity. The composition of that compensation between wages and fringe benefits will be dictated by the value that employees place on having employer-provided health insurance relative to the cost to the employer of providing it. If employees value employer-provided health insurance at less than the cost to the employer of providing it, the firm will not be able to pass on to workers the full cost of offering the insurance in the form of lower wages and will opt not to provide health insurance. That employers do provide health insurance would seem to indicate that at least some employees are willing to accept a wage reduction at least equivalent to the cost to the firm of providing the insurance.

Given the inherent risks of being uninsured, risk-averse individuals should value having some sort of health insurance, although as noted above in Section II, there may be more than one way to obtain this insurance. The value to employees of having *employer-provided* health insurance has already been mentioned: the tax deductibility of employer expenditures on health insurance, the economies of scale from providing health insurance to a large group of individuals, and the ability to pool individuals into insurance groups in a way that largely overcomes the problem of adverse selection, which plagues the individual market for health insurance. These advantages of employer-provided health insurance are potentially large, and we should expect many employees to be willing to accept a wage reduction at least equivalent to the cost to their employer of providing health insurance. However, some individuals have cheaper health insurance available from another source (for example, the government or a family member), and they may place a very low value on having employer-provided health insurance from their own employer.

Despite the strong presumption of a trade-off between wages and health insurance, the early literature on this topic was focused not on the magnitude of the wage-health insurance trade-off, but rather on the reasons why researchers could not find evidence that there is a trade-off (Currie and Madrian 1999). The fundamental problem was a lack of appropriate data for estimating the magnitude of any such relationship. More recent studies that have been careful to find suitable data and to specify carefully the empirical relationship have found evidence of a trade-off. Gruber and Krueger (1991) and Gruber (1994) exploit exogenous changes in the cost of benefits offered to workers and find that essentially the full amount of these cost increases is passed on to workers in the form of lower wages.[6] Royalty (2005) examines the choices that workers make among health plans within a given firm when those plans receive different employer subsidies and require different employee contributions, and finds evidence of an incomplete trade-off between wages and health insurance. Baicker and Chandra (2006), exploiting variation in health insurance costs driven by variation in medical malpractice payments, similarly find an incomplete trade-off between wages and health benefits. These recent studies all concur that there is a trade-off between wages and health benefits, but the magnitude of this trade-off, that is,

whether workers are willing to accept a dollar-for-dollar reduction in wages in exchange for receiving health benefits or a lesser reduction, is still open to question.

Health insurance may also affect wages through mechanisms other than a direct trade-off between wages and fringe benefits. For example, health insurance has the potential to affect the job matching process. As discussed earlier, the costs of relinquishing health insurance upon job change may lead individuals to remain in their current jobs even if higher productivity job alternatives are available. This productivity loss would presumably result in lower levels of compensation as well. Gruber and Madrian (1997) find evidence that unemployed individuals who have access to continued health insurance coverage while out of work spend more time unemployed (presumably searching for better jobs) and are subsequently reemployed at higher wages. This evidence is at least suggestive that health insurance may impact the process through which workers are sorted into the jobs where their productivity is greatest.

The U.S. Health Insurance System and Health Care Outcomes

Despite a large and growing body of literature on the impact of U.S. health insurance institutions on labor market outcomes, surprisingly little attention has been focused on the effect of U.S. health insurance institutions on health outcomes. As Levy and Meltzer (2004) noted in a recent survey of the literature on health and health insurance: "Literally hundreds of studies have documented the fact that the uninsured have worse health outcomes than the insured…. Very few of these studies establish a causal relationship between health insurance and health, however." Beyond the question of whether health insurance as a general proposition impacts health is the question of whether, or how, the U.S. health care system impacts health.

The U.S. system of health insurance provision is anything but stable for most individuals. Although some people may never experience a spell without health insurance, the type of health insurance coverage that individuals have is likely to change several times over the course of a lifetime as they change jobs or move between different types of public, private, or other coverage. And many people will experience not only changes in the

source of their health insurance coverage, but also intermittent or sometimes lengthy spells without any coverage. What implications does the patchwork-quilt nature of the U.S. health care system have for health?

One way in which the system can impact both health and medical care expenditures is through its effect on the incentives to invest in socially efficient preventive care or disease management. Some forms of preventive medicine have both short-term costs and short-term benefits (for example, a flu vaccine). Others, however, have short-term costs but much longer-term benefits (for example, weight control, smoking cessation, diabetes management). Under the current system of health insurance provision in the United States, no one may have the appropriate incentives to make socially efficient investments in preventive care if the costs accrue in the short term (or on an ongoing basis), but the benefits (lower costs in the future) accrue only many years hence.

Any investments in health that yield a payoff beyond an insured's expected tenure with the insurance provider (either an employer, a public insurer, or a private insurer) will not be cost-effective for the insurer to provide. And individuals, who are largely insensitive to the price of medical care by virtue of being insured, will also have little incentive to make personal investments today that lead to reduced social costs in the future. Moreover, to the extent that some types of preventive measures involve investments that are not specific to the insurer or the insured (for example, investments in computer systems to help doctors monitor patient conditions that are not specific to the patients covered by a particular insurer), the large number of agents in the current system will result in a free-rider problem and the underprovision of socially valuable preventive investments.

Beaulieu, Cutler, and Ho (2003) discuss these problems for the specific case of diabetes management. They analyze monitoring systems that reduce the long-run costs of diabetes, but that yield a payoff only over the time span of several years. They note that from a social perspective, the long-run benefits of these monitoring systems far exceed the costs. But, from the perspective of a profit-maximizing insurer, the private benefits to the firm are negative for the first few years, and the firm only begins to break even after a decade. As a consequence, firms with high levels of turnover are unlikely to invest in such systems, because other insurers are the ones who will reap the benefits.

Another way in which the system can impact health is through disruptions in the continuity of care as individuals move between different health insurance providers or between spells of insurance and uninsurance. The "startup" costs of interacting with the health system following a change in health insurance (for example, finding a new doctor) may lead individuals to delay getting treatment. Or, individuals who lose health insurance coverage may delay getting needed treatment, hoping to obtain insurance coverage before things get "too bad." Individuals who are transitioning from one doctor to another as a result of a change in health insurance coverage may also generate increased medical expenditures through the duplication of tests or diagnostic procedures done to generate measures of baseline health status or to determine an appropriate course of treatment. Their health may also suffer if there are miscommunications between the old and new medical care providers about the nature of an individual health condition and/or its treatment.

Conclusion

There is an important relationship between labor market outcomes and the institutions and rules governing health insurance provision in the United States. Health insurance is an important factor in almost every labor market decision made by individuals: whether to work, where to work, and how much to work. It is also an important factor in the human resource decisions made by employers: how many workers to hire, whom to hire, and how to structure the terms and conditions of employment.

An important lesson to be learned from the experience of the United States is that, while employer provision of health insurance is a convenient way to finance insurance benefits without involving the government budget directly, not everyone is tied to the labor market. Reliance on and encouragement of employer provision of health insurance will invariably result in government programs to fill in the gaps—to cover the otherwise uninsured either in whole or in part. But it is the interplay between these various institutions, some tied directly to the labor market and others not, that results in distortions of the labor market decisions of individuals and firms.

■ *This paper draws quite extensively on three previously written papers: "Health Insurance Portability, Labor Supply, and Job Mobility," July 2004, written for the Inter-American Conference on Social Security; "Health Insurance and the Labor Market," in The Political Economy of Health Care Reforms, edited by Huizhong Zhou (Kalamazoo, MI: Upjohn Institute for Employment Research, 2001); and "Health, Health Insurance, and the Labor Market," (with Janet Currie) in Handbook of Labor Economics, Volume 3, edited by Orley Ashenfelter and David Card (Amsterdam: Elsevier-North Holland, 1999).*

Notes

1. At the time that the federal Medicare program was implemented, individuals were not eligible for Social Security benefits until age 65.

2. It is also interesting to consider why employers are the primary providers of health insurance, but not other types of insurance.

3. If individuals value their current health insurance coverage more than Medicare, which is not implausible, there may still be some deterrent to retirement from having nonportable health insurance coverage even after individuals are eligible for Medicare.

4. Minnesota, in 1974, was the first state to pass a continuation of coverage law. Several states passed similar laws over the next decade. See Gruber and Madrian (1995, 1996) for more detail on continuation of coverage laws.

5. See Berger et al. (1999) for more detail on the health insurance portability aspects of HIPAA.

6. Gruber and Krueger (1991) exploit changes in the cost of offering workers' compensation insurance across states largely driven by changes in the medical component of workers' compensation; they estimate the impact on wages of changes in the value of workers' compensation benefits. Gruber (1994) exploits the widespread adoption of maternity benefits following the Pregnancy Discrimination Act of 1978, to estimate the impact on wages of this type of additional health insurance.

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Comments on Madrian's "The U.S. Health Care System and Labor Markets"

Henry S. Farber

Brigitte Madrian did a wonderful job summarizing the reasons why linking health insurance to employment is just a terrible idea. Her paper reminds me of a trip I took to China in 1990 to work on Chinese labor market reform. In theory, I was there to advise the Chinese government on that issue. One of the rigidities in their market is that housing is linked to employment; so, in order to change employers, workers actually have to find new housing. Now, you can imagine what that does to mobility and the proper allocation of workers to jobs. In the United States, health insurance plays a similar role, and Brigitte is a pioneer in looking at job lock and the effect of health insurance on flexibility in the labor market. She reminded me yesterday that, when she first suggested this idea, I said, "Oh, you'll never find anything." Well, I was wrong.

Linking health insurance to employment is not a good idea, even aside from the problems of adverse selection. As Brigitte established, however, employer-provided health insurance is the modal source of insurance in the United States for the non-elderly, and this link has important consequences for both the labor and product markets. To take the example that Brigitte used, the health insurance costs of General Motors (GM) are more extreme than those of Wal-Mart—and, indeed, more extreme than the health insurance costs of most other companies. This is largely because the United Auto Workers (UAW) union was able to negotiate very, very generous health insurance benefits for pensioners, and GM has more pensioners than active employees right now. That set of circumstances has led to real problems, as international product market competition has made it difficult to sustain generous health insurance coverage and remain competitive. In a sense, it is not surprising that GM's bond status

has been downgraded.[1] Of course, there are many differences between GM and Wal-Mart other than how they treat their health insurance.

Looking more generally at employer-provided health insurance, Figure 5.1 shows data from tabulations of workers between the ages of 20 and 64 from various *Current Population Survey*s that asked what fraction are covered by health insurance offered by their own employer. That is, leaving aside the possibility of getting insurance from someone else, you can see that the fraction of the population covered by own-employer-provided health insurance between the late 1970s and 2005 has fallen from around 72 percent to 64 percent.

This decline has important distributional consequences that have not yet been mentioned. Not everyone has the same access to employer-provided health insurance; nor is it the case that all employed workers have the same access to employer-provided health insurance. I think these equity considerations alone are an important argument for universal coverage and for disconnecting health insurance from employment.

I agree with Brigitte that the linkage of health insurance with employment can skew labor market decisions. The need for health insurance can

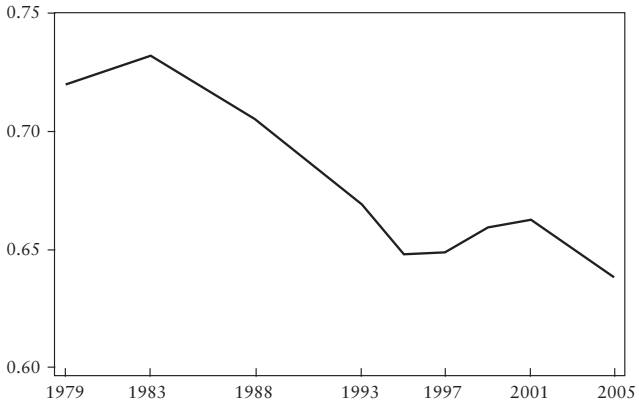

Figure 5.1
Fraction of the Labor Force Covered by Own-Employer Health Insurance
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

certainly tie workers to jobs. Workers who lose jobs may find themselves without health insurance coverage, and there is a lot of job displacement going on. The hallmark of the American labor market is its dynamism: jobs are destroyed, jobs are created, and we have an enviable record of employment growth over the last 30 years compared with European countries. Since 1980, annual employment growth in the United States has averaged about 1½ percent; in Germany, it has averaged approximately one-third of one percent. Part of the reason for the faster pace of growth in the United States is that we do not penalize employers for laying off workers. Also, workers can move freely from one firm to another. This is all good, but if health insurance were not tying people to jobs, we could have even more dynamism. Something that was not mentioned is that workers may be reluctant to move into self-employment because of the difficulty in finding affordable insurance. One would think that the George W. Bush White House would be very interested in an initiative that could rekindle the entrepreneurial spirit in America, and universal health insurance coverage might do just that.

Now, to build on some work that I did with Helen Levy (1998) a number of years ago, it turns out that not all jobs are created equal. It is well known that part-time workers are less likely than full-time workers to be covered by employer-provided health insurance, as is allowed by Internal Revenue Service rules. In order for employee benefits to be tax-deductible, they cannot be awarded on the basis of wages. That is, employers are not allowed to give benefits only to their high-wage employees. However, they are permitted to discriminate on the basis of hours worked and to deny benefits to part-time workers. This is the game that Wal-Mart plays very, very well. They define a high threshold for full-time work in terms of minimum hours and, as a consequence, only a small fraction of their workforce is covered by insurance provided by Wal-Mart. For example, in Maryland in 2005, less than 8 percent of Wal-Mart's wage bill came from employee benefits.[2] Workers who are new to their jobs are also less likely to be covered by employer-provided health insurance. This is the result of waiting periods, which employers have increasingly used to their advantage.

Figure 5.2 decomposes the labor force into four groups. The top line represents what I call "old full-time jobs": workers who have been in their job for more than a year and who are employed on a full-time basis.

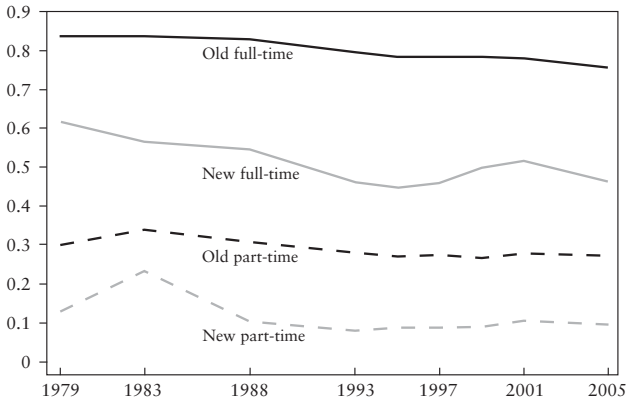

Figure 5.2
Fraction of the Labor Force Covered by Own-Employer Health Insurance, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

A large, though declining, fraction of these workers (from 84 percent in 1979 to 76 percent in 2005) are covered by employer-provided health insurance. The bottom line represents "new part-time workers": people in a part-time job who have been in that job for less than a year. Only about 10 percent of these workers are covered by employer-provided health insurance. The second line from the top—the middle group—represents "new full-time workers": those who just started a full-time job, and coverage for these workers fell from 61 to 47 percent between 1979 and 2005. The third line from the top is for "old part-time workers" who have been at their jobs for a while, and about 30 percent of these workers are covered by employer-provided health insurance.

Coverage is the result of decisions by employers regarding whether or not to offer health insurance and, if so, which workers are eligible. What is the fraction of workers who are in firms that actually offer health insurance coverage? Ninety percent of full-time workers who have been in their job for more than a year work in firms that offer health insurance (see Figure 5.3). That does not necessarily mean that they are eligible for health insurance, only that their firms offer it. At the other extreme,

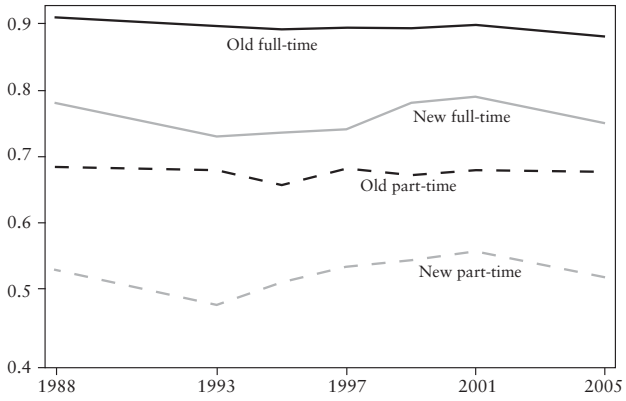

Figure 5.3
Fraction of the Labor Force in Firms Offering Health Insurance, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

only 50 percent of workers in new part-time jobs work in firms that offer health insurance. Here, "offer health insurance" means that a firm offers health insurance to at least one employee.

Figure 5.4 shows, for each part of the employed labor force, the share eligible for employer-provided benefits. This is the fraction of workers who both work for an employer that offers health insurance and are eligible to receive that insurance. Again, full-time workers who have been at their jobs for a while are much more likely to be eligible than other workers. Part-time workers are much less likely to be eligible for employer-provided health insurance. All four groups registered declines in this measure from the late 1980s through the mid 1990s, although the situation has generally stabilized since then.

Figure 5.5 shows, again for each part of the employed labor force, the fraction of workers eligible for employer-provided health insurance among workers in firms that offer health insurance. That is, conditional on being in a firm that offers health insurance, Figure 5.5 shows the fraction of employees who are eligible for that insurance. Almost all full-time workers who have been at these firms for a while are eligible, but rela-

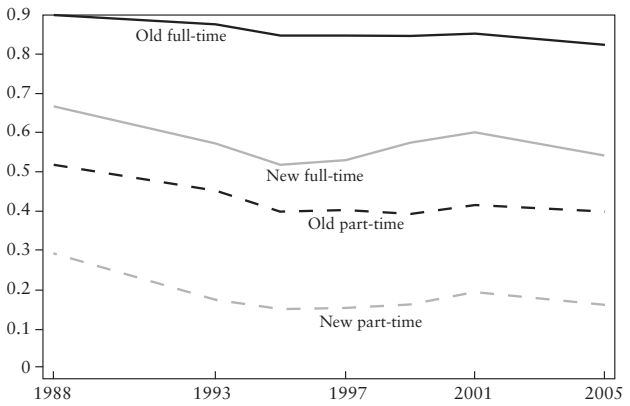

Figure 5.4
Fraction of the Labor Force Eligible for Own-Employer Health Insurance, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

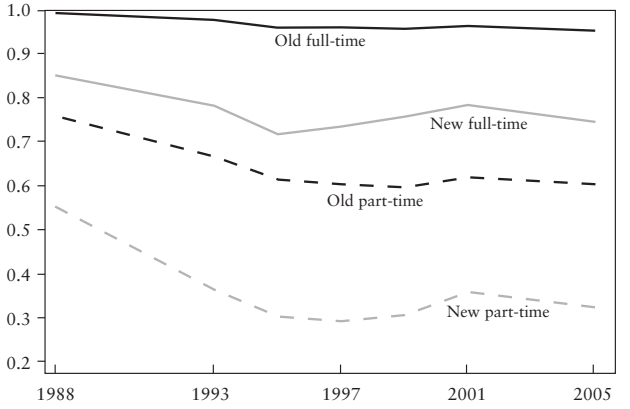

Figure 5.5
Fraction of Employees in Firms Offering Health Insurance Who Are Eligible, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

tively few of the part-time workers are eligible for coverage. This reflects the exclusion of part-time workers in many firms from eligibility, as well as the introduction of waiting periods for new employees.

Table 5.1 presents tabulations of health insurance status by sex and marital status. These tabulations provide strong evidence for the effect of health insurance on labor markets. The lesson I want to draw from these data is that single men and single women do not differ all that much from each other, but there is a huge disparity in employer-provided health insurance coverage between married men and married women.

The health insurance status of unmarried workers does not vary substantially by sex. In contrast, married women, relative to married men, are (1) more likely to work for firms that do not offer health insurance, (2) less likely to be covered by employer-provided health insurance, (3) more likely to decline coverage, and (4) more likely to be ineligible for coverage. These differences survive multivariate analyses that control for other differences across workers.

It seems clear that workers systematically choose different jobs based, at least in part, on demand for health insurance. The linkage of health insurance to employment is neither the best way to utilize talent nor the best way to allocate labor. The prescription obviously is to provide health insurance independent of firm-specific employment.

Table 5.1
Health Insurance (HI) Status by Sex and Marital Status, 1979–2005

HI Status	Unmarried Male	Unmarried Female	Married Male	Married Female
Not Offered	21.40	17.90	12.89	16.80
Covered	63.97	65.82	74.44	54.72
Declined	2.54	3.45	7.48	17.36
Ineligible	8.71	9.97	3.74	9.74
Waiting Period	3.37	2.86	1.45	1.37

Source: *Current Population Survey* (May 1979, 1988, April 1993, February 1995, 1997, 1999, 2001, 2005).

Notes

1. Since the June 2005 conference, health care costs have continued to have an adverse effect on GM's earnings. In October 2005, General Motors announced an agreement with the UAW reducing the cost of health care for union members, retirees, and their families by $1 billion a year. They have also continued to close U.S. plants and lay off workers. As of January 2007, the UAW was in talks with GM, Ford, and Chrysler about the possibility of the union's assuming responsibility for billions in retiree health care costs in the future. The UAW proposed these talks as a way of assuring that retirees' health care coverage would not be lost in case of a bankruptcy filing, and as a way of helping the automakers to compete.

2. Wal-Mart has come under fire for its labor practices, and in 2006 Maryland passed a law forcing Wal-Mart to extend health insurance coverage to a greater share of its workers in Maryland. Later that year, the law was overturned in federal court on the grounds that it violated the Employment Retirement Income Security Act (ERISA). In early 2007, Wal-Mart and the Service Employees International Union (SEIU) stood together and agreed on a series of goals for achieving universal health coverage. Wal-Mart and the SEIU are calling for universal coverage by a specific date—around 2012—and have said that this is a shared responsibility, emphasizing that individuals, businesses, and government all play a role in financing health care and expanding coverage.

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Employer-Funded Health Care and Labor Markets: An Insider's View

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I am not here to defend employer-sponsored health care but rather to give an insider's view of several important issues related to the role of employers in the U.S. health care system. My perspective comes from my role over the past 10 years of being responsible for managing the health care costs of the General Electric Company (GE). These total about $2.5 billion annually and increase by a couple of hundred million dollars a year. Even for a firm like GE, that is serious money. The five issues that I will touch upon rarely make it into the literature about the impact of employer-funded health benefits on labor markets.

Medical Innovations

An issue that I think merits more attention is the role of employer-based funding in supporting and enabling medical innovations. Although this relationship is not explicit, nor part of the original intent of the system, it is still the case that the unique funding and controls (or lack thereof) that characterize our system allow for unparalleled access to new technology. As much as employers are concerned about how much they spend on health care and how that impacts other business decisions, such as wage increases or the location of new facilities, it is also the case that one person's cost—or one company's cost—is another company's revenue. Any attack on health care costs engenders fierce resistance because of this cost-revenue relationship, and the resistance is intensified under circumstances in which a company is itself in the health care space or has important customers that are.

In our employer-based system, we expect the market to control costs in a manner that other countries handle by relying on central government-directed global budgeting. But as Alain Enthoven, Mark Pauly, and others have taught us, the market is particularly imperfect in health care, due to both price distortions and information asymmetry. It has been hoped that employers, as sponsors of health benefits, might view it to be in their interest to try to ameliorate these shortcomings. To the extent that we have tried, we have failed. As a result, the strong incentives for employees and providers to use more services has led us to our current state, in which the high-tech suppliers to the health care industry—pharmacy, device, and imaging companies—derive about 50 to 60 percent of their profits from the United States, despite the fact that our country represents only about 5 percent of the world's population. By way of full disclosure, although I do not work for the health care business at GE, and, in fact, frequently frustrate them with ventures like the Leapfrog Group,[1] GE does have a business in the health care technology field, and it is doing very well.

The Boston health care market provides a good illustration of the tension between costs and revenues. In the early 1990s, I was head of the Massachusetts Business Roundtable Health Care Subcommittee, where the number one issue was the high and rapidly accelerating cost of health care. The prevailing wisdom then, as now, was that the overabundance of expensive tertiary care beds in the Boston market is a major contributor to high health costs. You can imagine my surprise when, as a newcomer to this area, I found myself at the first meeting, chairing a subcommittee composed largely of the CEOs of these same academic medical centers and their suppliers. However, the experience provided a good education concerning the complexity of addressing costs in health care, as it turned out that health care was also the economic engine of the metropolitan area. Controlling health care costs without adversely impacting employment and overall economic growth is no easy matter.

Table 5.1, which Jeff Immelt, GE's CEO, and I put together, summarizes the situation as it plays out at GE. Jeff likes to call this "the perfect hedge": a $15 billion business growing at 10 percent a year alongside a corporate health care cost of $2.5 billion, also growing at 10 percent a year. Jeff likes to say that, unlike most of his competitors, at least GE has

Table 5.1
GE in Health Care: The Perfect Hedge

Health Care Business	Corporate Health Care
$15 Billion in Revenue	$2.5 Billion in Cost
Growing at 10%	Growing at 10%
• Diagnostics	• Founder of the Leapfrog Group
• Services	• Fastest-Growing Expense
• Information Technology	• Driving "Consumerism"

revenues from health care to "hedge" the several hundred million dollars of new spending that he knows he is going to have every year.

Although having employers as directly engaged in health care funding as they are is a historical accident, decoupling them will be no accident—it will probably take something like the Jaws of Life to pry those two apart.

Labor Unions

A second issue that I would like to address has to do with labor unions and what I believe is an underestimation of their impact. Although unionized workers represent less than 10 percent of the private labor market, their influence extends beyond their numbers, and it does so in at least two ways. The first way is through their continuing political clout. The Medicare Modernization Act (MMA),[2] passed a couple of years ago, includes a large employer subsidy for companies that continue to offer drug benefits for retirees. Though the government had its own reasons for the subsidy, namely, to give employers a reason to continue to offer retiree benefits, there was a time late in the development of the bill when no such subsidy existed. That an employer subsidy ultimately ended up in the bill was largely due to the successful lobbying efforts of businesses with very large union populations and very, very large retiree health obligations. If you look at the ripple effect of this subsidy on taxpayers, and how all employers covering retiree health care are benefiting from it, you can get a feel for how the impact of unionization is far greater than what you would expect from its 10 percent share of the labor market.

The second unappreciated fact is the amount of time companies spend on union avoidance. For the past several years, health care has been an issue of some tension between companies and their workforces. With increased cost sharing has come unhappier employees, and with unhappier employees comes the threat of unionization. To the extent that employers would rather not have unionized workforces, the time and resources spent on union avoidance subtract from resource allocation in areas more germane to the company's core products or services.

Positive Impact on Employees

In a health care system that is notoriously unresponsive and difficult to navigate, those employees lucky enough to obtain their insurance through midsize or large employers generally have a support system unknown in countries with more centralized systems. I do not know how many people remember the cover of *Newsweek* from November 8, 1999, but it showed a very frustrated-looking patient in a hospital gown and the headline: "HMO HELL." Employers know that unhappy employees are less productive; so, although managed care was saving them a lot of money, employers ultimately backed off because of this employee unhappiness. At GE, you could walk around any of our sites, and it seemed that at least half of the people were on the phone, either on hold with their HMOs or standing at the water cooler complaining about the call they had just finished. So, a major reason for the death of managed care was employee unhappiness. I think that you can read this phenomenon as evidence that "the market worked." It is unlikely that a government bureaucracy could be this responsive, this fast.

Another impact on employees is the fact that employers are beginning to believe in the connection between health and productivity. Although the literature is still immature, big-name companies like Johnson & Johnson and Procter & Gamble are starting to invest in health promotion. Although I will not go into this phenomenon any further today, I suspect that we will see a big increase in interest in this area in the near future.

Catalyst for System Innovation

Large employers have been a catalyst for system innovation. Although very few companies invest in a health care staff capable of creating these innovations, when successful efforts do occur, all employers (and their labor forces) benefit. One example of this is seen in the attempts to apply industrial quality approaches, like Continuous Quality Improvement or Six Sigma to health care. I do not know how many of you have heard of the Leapfrog Group (Galvin et al. 2005), but the mission of that group is to drive into health care the kind of transparency around product and service performance that exists in the majority of markets. In this case, it called for the public release of information around clinical hospital performance. The Leapfrog Group, which was founded in 2000, now comprises 175 companies, and the majority of hospitals publicly disclose information about their quality.

The Leapfrog Group started from an experience I had with an employee. As a physician working in industry, I get calls from employees looking for help with their medical problems. One such call was from an employee who needed heart bypass surgery. He said, "I have a surgeon who is in my parish who is a nice person, and someone in my neighborhood said they had had a really good experience with this surgeon at our local hospital. I have a date scheduled for my surgery. Am I doing the right thing?" I looked everywhere that I could think of for information on quality to try to help this employee, but I could not find the data about which doctors did this procedure the most, or who had the best outcomes. Since I am on the Yale faculty, I called a professor of medicine there who I knew had a contract to maintain data on clinical performance in Connecticut hospitals. I explained the situation to him and asked whether he could tell me what the morbidity and mortality data were. His answer was, "I have the data, but I can't tell you. I've signed contracts with the state medical and hospital associations committing me to silence." So I said, "That's a tough situation for me, because I'm trying to do the best for this employee. I'll tell you what. If I mention the three hospitals he could go to, would you cough once at the best, and twice at the next best?" And he did. The employee ended up changing hospitals to the one with the best performance; and, when I investigated further, it turned out that

the hospital he went to also had lower costs. So, the idea of demanding transparency has been driven by the private sector; and, as this initiative has taken off, we now see the Centers for Medicare & Medicaid Services in lockstep with this approach.

Future Directions

My final point has to do with the direction that employer-funded health care may take in the future. From an insider's point of view, the enthusiasm around high-deductible, or what are called "consumer-directed" plans, is palpable, and unlike anything I have seen since the excitement around managed care 15 years ago. I think that the piece, "Hello HSA, Goodbye HMO," (Boorady 2004) by one of the two or three most highly respected Wall Street health insurance analysts, Charles Boorady, which I have up as a slide, makes a persuasive case as to why the time may be right for this kind of product. The argument is that HSAs, or health savings accounts, are going to be to health care benefits what 401(k)s became on the retirement side, that is, a way of shifting from a defined benefit to a defined contribution model, a move that transfers much of the responsibility for decision-making from employer to employee. Although there are only a couple of million people covered by HSAs today, I think the prediction that 30 percent of the market will adopt this kind of product might not be too high. Since 160 million people get their insurance through employers, 30 percent of this number paying the first several thousand dollars of their health care bill out of pocket would mean a very big transition in both the delivery of health benefits and the flow of health dollars. Many of the dollars that in today's model flow from employer to health plan will, in the high-deductible model, flow from employee to provider.

The reason that I think HSAs may take off is because the product meets two major needs: ideologically, it appeals to those who believe that a rationalized health care system will never exist unless something is done about today's third-party payment and price distortions; and, practically, it might represent the first step in an eventual exit for employers from the burdens of administering health benefits in the way that they do today. Employers are interested in this kind of exit but they do not want to abandon their employees, and they do not want to lose valuable labor

to their competitors. HSAs may offer a way for employers to maintain competitive benefits, have better control of their health costs, and spend less administrative resources overall. HSAs would make health insurance more portable, which in turn would have a positive effect on labor markets. These plans will also impact providers; at the very least, they are likely to drive up the receivables of doctors and hospitals. I know that there is much controversy about this type of benefit design, and hopefully we can discuss it further.

Notes

1. The Leapfrog Group aims to have information about the performance of hospitals and doctors made available to the public.
2. The full name is "The Medicare Prescription Drug, Improvement, and Modernization Act of 2003."

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The U.S. Health Care System and U.S. Fiscal Stability

It's Health Care, Stupid! Why Control of Health Care Spending Is Vital for Long-Term Fiscal Stability

Henry J. Aaron

As the United States looks ahead to the fiscal challenges of population aging, two facts stand out. First, the United States faces far smaller pension problems from population aging than do most other developed nations. Our combined fertility and immigration rates are higher than those of all other developed nations, and life expectancy is lower and projected to remain lower than in most other developed nations. Our pension system is less generous than those of nearly all other developed nations.[1] As a result, meeting the added costs of pensions, public and private, is not technically difficult. The added costs of Social Security benefits—a bit more than 2 percent of gross domestic product (GDP) over the next 35 years—is less than past increases in pension costs, which have accrued over many fewer years.

Second, total health care spending in the United States is vastly higher than in any other nation. It is so much higher, in fact, that although the U.S. government is responsible for a smaller share of total health care spending than the government of any other developed nation, government-financed health care spending in the United States approximates that of other nations as a share of GDP (Reinhardt, Hussey, and Anderson 2004). Furthermore, the U.S. government bears fiscal responsibility for the parts of health care spending that will increase because of technological change and population aging. These two forces are multiplicative, one pushing up per capita expenditures and the other pushing up the number of "capitas." Of these two forces, increases in per capita spending resulting largely from advances in medical technology (see Murphy and Topel 2003; Cutler and McClellan 2001; and Berndt et al. 2000) are by far the more powerful. As a result of these two trends, health care

spending financed by governments—federal and state—is projected to rise by roughly 12 percent of GDP over the next 35 years if the historical gap between growth of health care spending and income persists. Total health care spending would rise even more—by 20 percent of GDP under the same assumptions (Congressional Budget Office 2003, 2005).

Such projections call to mind the famous quip of the late Herb Stein: "If something can't possibly happen, it won't." But that quip should not be allowed to obscure a far more serious issue: How can such increases be avoided without seriously eroding the protections that the nation provides to its most vulnerable citizens—the aged, disabled, and poor? Indeed, how can such increases be avoided without seriously limiting access to enormously beneficial emerging technologies for the well insured?

I wish that I could promise to answer these questions, but I cannot. I can, however, indicate why we cannot escape the need to make some very hard choices, and why some commonly advanced ways to painlessly avoid those hard choices will not, in fact, succeed in doing so.

What the Future Holds

Health care spending has grown faster than income in the United States for the past half-century by an average of 2.5 percentage points annually—not every year, but with few extended interruptions. It is generally agreed that the major source of this gap has been the particularly rapid advance of medical technology, although population aging and the extension of health insurance coverage have also been significant factors.

Studies of past medical advances indicate that the welfare gains from improvements in health care rival those from all other advances in productivity combined. The vistas opened up by recent advances in molecular biology, aided by advances in computation, promise future welfare gains that are at least as important. Cures for major killer diseases and ways of forestalling the causes of physical and mental decline have become realistic prospects. But the lax way in which health care is now financed means that people will have every incentive to demand not only care that provides benefits at least equal to cost, but also care that provides any benefit at all, regardless of cost.

To those who are unfamiliar with the tectonic power of compound interest, a gap of "just" 2.5 percent a year between the growth of health

care spending and the growth of income may seem derisory. But a continuation of this gap in total health care spending will generate steady and large increases in the share of incomes devoted to health care. The implications of a continuation of these trends are shown in Table 6.1.

Because Medicare and Medicaid are designed to assure that the elderly, disabled, and poor receive health care similar in quality to that available to those who enjoy decent private insurance, growth of per capita spending on these programs has approximated growth in per capita spending for the rest of the population. If these vulnerable populations continue to enjoy "standard" health care, the divergence between growth of per capita Medicare and Medicaid spending and the growth in per capita health care spending of the rest of the population is unlikely to be large. Table 6.2 shows the implications for spending on these two programs if the 2.5 percent margin persists for these programs as well.

What Should We Do?

Such trends portend major increases in taxes and the diversion of an increasing share of economic growth to pay for health care. A variety of responses to such trends is possible.

Table 6.1
Projections of National Health Care Spending as a Percent of GDP under Two Scenarios

Year	Historical Trend: Healthcare spending grows annually 2.5 percentage points faster than GDP	Reduced Growth: Healthcare spending grows annually 1 percentage point faster than GDP
2005	15.6*	15.6*
2010	17.3*	17.3*
2020	21.6	19.8
2030	27.6	21.9
2040	35.2	24.1

*Estimates of the Centers for Medicare & Medicaid Services (CMS) (2005) and author's calculations; assumed growth rates apply after the end of the CMS projection period.

Table 6.2
Projections of Medicare and Medicaid Expenditures as a Percent of Federal Outlays and GDP

	Percent of Federal Outlays		Percent of GDP	
Year	Historical Trend*	Slowed Growth*	Historical Trend*†	Slowed Growth*†
2005	19.6	19.6	4.2	4.2
2010	32.2	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

*Estimates of the Centers for Medicare & Medicaid Services (2005) and author's calculations; historical trend and slowed growth as in Table 6.1.
†Includes state spending on Medicaid.

Doing Nothing

The simplest response would be to shrug one's shoulders and pay the bill. After all, medical advances have produced benefits worth far more than their cost. This happy relationship is likely to continue. Furthermore, if productivity growth persists at rates similar to those in the past, we will be able to afford to pay the health care bill and still have more consumption of other forms.

This outcome is conceivable, if only because agreement on how to change our health care system in any fundamental way has been so elusive in the United States. But it is neither desirable nor likely. It is not desirable because, as welfare-increasing outlays grow, welfare-reducing expenditures on health care that are not worth their cost also tend to increase. Every well-insured patient has every incentive to seek—and every health care provider paid on a fee-for-service basis has every incentive to provide—all the care that provides any benefits at all, however costly. Furthermore, if health care spending grows at past rates, higher taxes and health care spending will claim half of all economic growth by 2023 and all of it by 2045. This is not likely to happen, because a tax-phobic nation would have to accept huge tax increases to sustain protections for the aged, disabled, and poor; because rising health outlays would put enormous pressure on everything else that government does; and because

workers would assuredly react in a hostile manner to seeing a smaller and smaller share of the fruits of rising productivity available to raise cash wages or other forms of compensation.

General Reforms

The second approach would be to try to find ways to curtail the growth of health care spending that would save money without sacrificing beneficial care or undermining public protections of vulnerable populations. Many studies document that the American health care system, in general, and Medicare, in particular, generate considerable amounts of care that produce few medical benefits, and some that are downright harmful.[2]

The health care system in the United States is not unique, but certain features of our system may encourage inefficiency. As noted, the payment system rewards people for doing more. The threat of litigation may frighten them into doing more. Most procedures have not been subject to careful evaluation. Inefficiencies in hospitals and physicians' offices contribute to medical errors. Modern information technology has not been well exploited. A review of 48 articles that appeared in leading professional journals found that 20 percent of patients received unnecessary or "contraindicated" chronic care, and 30 percent received contraindicated acute care. While the problem of overprovision was serious, the problem of underprovision was worse. Thirty 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 (Schuster, McGlynn, and Brook 1998). And an Institute of Medicine study found that overuse of services is more likely to be detected than underuse, because noticing an error that is memorialized in medical records is easier than pinpointing where more should have been done (Institute of Medicine 2001). Those who allege that waste is rampant are more punctilious in citing statistics on overuse than on underuse. Malpractice reforms that do no more than cap damages may reduce somewhat the incentive, created by the threat of large judgments, to overprovide care. They may also lead some providers to offer less care than they should and thereby reduce needed care.

That medical care is often misdirected is obvious. That expenditures would be lower in a system that accurately delivered care to all who need it, but not to those who do not, is far from clear. Recent research

indicates that Medicare expenditures could be reduced by 29 percent without affecting health outcomes if per capita spending in high-expenditure regions could be reduced to equal per capita spending in low-expenditure regions (Wennberg, Fisher, and Skinner 2002; and Fisher et al. 2004). Such findings hold the tantalizing prospect of major savings.

This research carries two lessons. The first is that it will take time and upfront investments to simultaneously curtail waste and ensure that needed care is provided. Persuading physicians and hospitals in higher-cost cities like New York and Miami to practice medicine the way it is done in lower-cost cities like Minneapolis and Seattle is not easy, and may take many years to accomplish. The second lesson is that precisely because such investments will take time to bear fruit, they should begin immediately. Among these investments should be the immediate revival, with federal support, of an agency charged with evaluating new, as well as existing, medical technologies.

Inefficiencies and inappropriate care could also be reduced by revising payment incentives and reorganizing the delivery of care into competing integrated-delivery networks with limited provider panels. The Medicare Modernization Act of 2003 contained a provision that, with appropriate safeguards, holds some promise of reducing the level of health care spending. Under that provision, people who purchase high-deductible insurance may deposit sums not greater than the deductible into accounts whose balances may be used for health expenses at any time during the account holders' lives without tax liability on deposits, account earnings, or withdrawals.[3] While these health savings accounts (HSAs) have some promise of slowing, at least temporarily, the growth of health care spending, they also carry a number of risks, particularly if they cause employers to drop sponsorship of group health insurance, or if employers fail to use the savings from the premium reductions resulting from increased deductibles to provide financial protection for low-wage employees. If the existence of HSAs tends to shift healthier-than-average people from group plans to individual insurance plans, the average price of traditional group insurance could rise. Should such shifts cause the demise of group insurance, HSAs would force older people and those with chronic illnesses into the individual insurance market, where they would face very high premiums.

Medicare Modifications: Raising the Age of Eligibility

The Medicare entitlement age was set in 1965, when the age for payment of "full Social Security benefits" was age 65. Under current legislation, the "full benefits age" is gradually being raised to age 67.[4] Additional increases might conceivably be part of a proposal to restore long-term financial balance to Social Security. On this logic, some people have suggested raising the age of eligibility for Medicare, in line with (or independently of) the modifications in Social Security, to age 67 or later.

Increasing the age of eligibility for Medicare would save less than many suppose, because the young elderly account for only a small share of total Medicare spending. Raising the age of eligibility to age 67 (68), for example, would currently lower Medicare spending by 5.8 (8.8) percent, given the current age distribution of the population receiving Medicare outlays (see Table 6.3).[5] The case for linking the age of eligibility for Medicare to the age of eligibility for "full Social Security benefits" rests precariously on political history and semantics. The age at which American workers most commonly claim Social Security is 62, not 65 or 67. The median age for claiming benefits is below age 64. Maximum benefits are not paid until age 70, when actuarial adjustments cease. Nothing in current law "justifies" raising the age of eligibility for Medicare to age 67; nor, for that matter, is there justification other than the political inertia of current law for retaining it at age 65. If linkage to the modal or median age at which Social Security benefits are claimed is viewed as controlling, the age for Medicare eligibility should be reduced. In my view, the decision about whether to keep Medicare's eligibility age at 65 or to change it should be based not on history or alleged linkages to Social Security that do not bear scrutiny, but on considerations of medical need, the effects of public policy on labor supply (raising the age of eligibility for Medicare would encourage later actual retirement ages), and fiscal capacity.[6]

Deductibles, Premiums, and Other Cost Sharing

Increasing cost sharing for Medicare services could have a powerful effect on the use of services and on Medicare outlays. The RAND Health Insurance Experiment showed clearly that increased cost sharing significantly deters health care spending—by as much as 30 percent over the range tested in the experiment. Furthermore, the effects on health status were

Table 6.3
Impact on Medicare Outlays of Increasing Medicare Age of Eligibility*

Age of Eligibility	Reduction in Medicare outlays, relative to age 65 eligibility
66	3.0
67	5.8
68	8.8
69	11.9
70	15.1
71	18.6
72	22.3

**Source:* Author's calculations based on data on relative Medicare spending by age of beneficiary for the year 1999, supplied by Tom Bradley of the Congressional Budget Office.

not large among experimental subjects. Whether the savings and small health effects would both carry over to the elderly and disabled populations is unclear, however. Both groups were excluded from the RAND experiment, and their health problems and economic status differ in relevant ways from the population studied by RAND (Keeler 1992).

Furthermore, Medicare already requires considerable cost sharing. Part A, which covers hospital and skilled nursing facility stays, imposes higher deductibles and more cost sharing than do most private plans and provides no protection for very long hospital stays. Enrollees must pay sizeable premiums for Part B—Supplemental Medical Insurance (SMI)—which covers physicians' services, durable medical equipment, and the new drug benefits.

Raising the proportion of Medicare outlays paid by all enrollees would reduce both budget outlays and consumption of medical services. It would also create two problems. First, increased premiums could impose hardship on all but the upper-income elderly and disabled. This risk increases if Social Security benefits are reduced. Second, demand for preventive care, such as screening tests and maintenance therapies to slow the development of progressive conditions, are reportedly quite sensitive to price. For that reason, some analysts recommend providing such services free of deductibles and cost sharing.

Reform of the complex pattern of Medicare deductibles probably makes good sense. Combining the mixture into a single deductible covering all services would be just such a simplification. Cost sharing for various services could be increased, in combination with income-graduated waivers for low- and middle-income beneficiaries. A stop-loss limit should be added to Medicare to preclude the possibly devastatingly large charges that can be imposed on the seriously ill under the current system.

The Medicare Modernization Act took a step toward introducing income-related premiums. However, that step was very small: increased premiums will apply only to couples (single persons) with incomes of $160,000 ($80,000) a year or more, and the maximum is reached only when incomes exceed $400,000 ($200,000) a year. The case for raising premiums for those elderly who can pay them without hardship is strong, as Medicare beneficiaries receive benefits far in excess of the payroll taxes they have paid.[7] The case for redistributing income to Medicare beneficiaries with above-average incomes is hard to perceive. On the other hand, the potential of income-related premiums to offset rising Medicare spending should not be exaggerated. Only 15 percent of those over age 65 in 2002 lived in households with incomes of $50,000 a year or more (Social Security Administration 2001). The degree to which premium increases can offset growing Medicare outlays is, therefore, quite limited.

Pay for Insurance, Not for Care

Medicare now pays directly for services for 88 percent of beneficiaries. Medicare could instead pay a flat sum, adjusted for each patient's age and health status, updated annually by increases in average per capita health care expenditures, to a health plan of the enrollee's choice. This arrangement would be similar to that for the minority of current Medicare beneficiaries enrolled in prepaid group plans. Available choices could include HMOs, PPOs, point-of-service plans, or fee-for-service care. Under one model, similar to the Federal Employee Health Benefit Plan (FEHBP), the federal government could contribute a flat amount equal to a fixed percentage of a weighted average of premiums of the various participating plans. The current FEHBP share is 72 percent.

Because enrollees would pay all of the additional cost of plans that are priced above the federal allotment, advocates of this approach believe that enrollees will shop carefully for cost-effective plans, thereby encouraging plans to compete to improve quality and hold down prices. Critics of this approach fear that Congress will not raise the federal payment as fast as health expenditures increase, thus eroding Medicare coverage. They also point to the fact that Medicare enjoys considerable bargaining leverage in setting prices that no private plan would match and that costs might actually be higher, rather than lower, under this arrangement.

Medicaid

Most of Medicaid expenditures go to support acute and long-term care for the aged and disabled, not for acute care of the non-elderly, able-bodied poor. The aged, blind, and disabled constitute only 27 percent of Medicaid recipients, but they account for 70 percent of program expenditures.[8] For this reason, Medicaid will be subject to demographic pressures similar to those confronting Medicare. The major difference is that Medicaid finances half of nursing home care and 43 percent of all long-term care, while Medicare covers little of these services.

The Medicaid program is jointly financed by the federal and state governments. Most states pay 45 to 50 percent of total expenditures. Federal law requires the coverage of certain services and certain groups, but most Medicaid expenditures are incurred either for people who are covered only at state option or for optional services. Medicaid is the most rapidly increasing component of state budgets. Because states are subject to rating by bond agencies, they cannot run deficits without incurring increased borrowing costs; and states fear that high taxes will drive out the well-to-do. The recent recession put states in a fiscal bind: revenues fell, per capita health care expenditures continued to rise, and enrollments jumped. States responded by curtailing coverage in diverse ways. The current recovery and resurgent revenues provide some relief, but fiscal pressure on the states will intensify as the aging baby boomers require nursing home and other forms of long-term care.

The potential for curtailing Medicaid outlays without denying services to the poor is extremely limited. Few Medicaid recipients have much

capacity to bear increased cost sharing. The only ways to reduce total Medicaid spending significantly are to cut people off the program and narrow the range of covered services, to buy services more cheaply or use them more efficiently, to encourage people to buy long-term care insurance before they are old or disabled, or to reduce fraud. Shifting spending to the states could lower federal outlays.

As noted, states have been using the first approach. They are also trying to buy services more cheaply. The fact that per capita Medicaid expenditures are now below those of per capita private insurance, after adjustment for coverage and patient characteristics, testifies to the success of these efforts. Some additional savings may be achievable if Medicaid recipients can be shifted out of emergency rooms for routine care. Several states have begun to buy health care at discounted prices for low-income populations from one or a small number of providers, under contracts that often include quality indicators to show whether the organizations provide 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 the employer's plan is narrower than the Medicaid benefit package. This approach spares Medicaid the full cost of coverage.

Another way to hold down public Medicaid expenditures would be to encourage people to buy long-term care insurance to protect themselves from nursing home costs. A nursing home bed in a custodial facility currently costs more than $60,000 annually for semi-private accommodations (MetLife Mature Market Institute 2004), and skilled care is even more expensive. The prospect that private insurance will materially improve the budget outlook of the federal or state governments is slight.[9] Insurers have been loathe to provide complete coverage because of uncertainty about cost trends over the many years, or even decades, that long-term-care insurance contracts run. On the buyers' side, demand has been weak, in part, because the quality of insurance products has not been high, and, in part, because of buyer myopia. Large tax incentives could cause sales of long-term care insurance to increase, but these added sales would do little to reduce Medicaid outlays unless the incentives were refundable credits. Nonrefundable credits or deductions would not appeal much to the majority of filers who face low marginal tax rates—

the low- and moderate-income households who eventually become the elderly populations from which Medicaid recipients are drawn. Furthermore, immediate revenue reductions from tax incentives would offset some or all of the hoped-for, eventual reductions in Medicaid outlays for long-term care.

Federal prosecution of fraud by health care providers under both Medicare and Medicaid has intensified in recent years. The targets have been so-called Medicaid mills and "up-coding" under Medicare (whereby providers bill for services that carry reimbursements higher than those for services actually rendered). There is no doubt that such fraud occurs, but it is equally certain that it accounts for little of the growth in program outlays and virtually none of the prospective increases in spending under both programs.

I know of no way to estimate accurately how much all of these measures in combination might reduce the growth of Medicare and Medicaid spending. Potential savings would almost certainly run to many billions of dollars a year. Expenditures on enforcement are well justified, but they are not the answer to the fiscal challenge of rising health outlays. The largest savings would result from increased cost sharing under Medicare. I believe that such cost sharing makes sense for those who can afford it. Raising the age of eligibility for Medicare may also make sense as part of a broad strategy designed to encourage older workers to remain economically active until later ages than now is common. It would also reduce budget outlays, but would threaten problems at least as serious as those it would relieve. All of the measures described above would take years to implement. Meanwhile, the population will be aging, consumption of health care will be increasing, and the range of new, beneficial—and costly—medical interventions will be growing. In brief, painless ways to prevent health expenditures from rising significantly do not exist. Some painful trade-offs are inescapable.

Three Budget Options

I now turn to three broad alternative approaches that would prevent increasing federal health care spending from producing large and sustained deficits. Under the first scenario, the age of eligibility for Medi-

care remains 65. The principal features of both Medicare and Medicaid, including coverage and benefits, are unchanged. In the first scenario, per capita health outlays continue to grow at the historical trend rate of 2.5 percentage points a year more than per capita income and wages. This trend could also continue if some of the expenditure-reducing measures described above were implemented and produced savings that were then used to underwrite improvements in coverage, such as the addition of long-term care benefits to Medicare.

Under the second scenario, new technology and population tend to drive up health care spending by 2.5 percentage points a year more than income. But some combination of increases in the age of eligibility, enhanced cost sharing, or other measures holds the annual growth of Medicare and Medicaid spending to just 1 percentage point above income growth. Alternatively, general health care rationing might become the norm.

Under the third scenario, per capita spending on Medicare and Medicaid is held to the same growth rate as that of per capita income and wages. What sorts of program changes could achieve these outcomes? By how much would growth of total spending on these two programs exceed income growth as a result of increases in the eligible population?

Scenario 1: No Reduction in Growth of per Capita Health Care Spending

The share of total federal spending and of GDP that Medicare and Medicaid would jointly absorb is shown in Table 6.2. On the assumption that other government spending remains an approximately unchanging share of GDP and that taxes return to their historical average of roughly 18.5 percent of GDP, essentially all of the increase in federal health care spending would have to be covered by additional taxes.[10] If payroll and income taxes were used to cover the added outlays under Medicare and Medicaid shown in Table 6.2 ("Historical Trend" columns), it would be necessary to nearly double the Medicare payroll tax and to increase personal income tax collections by more than 70 percent by 2030. By 2040, payroll taxes would be two-and-one-half times higher than they are now, and income tax collections would need to more than double. Alternatively, revenue from a new revenue source, such as a value-added tax, could be used.

Scenario 2: Slowed Growth of Health Care Expenditures per Beneficiary

The tax increases under Scenario 1 are so massive as to seem implausible. The second scenario assumes that growth of health care spending is somehow restrained so that it increases by "only" 1 percentage point a year more than income growth. This assumption is the baseline used in Medicare projections. The results are also shown in Table 6.2 ("Slowed Growth" columns).

Precisely how such a slowdown might be achieved is unclear, although aggressive action would almost certainly be necessary. The menu would most likely include most, or all, of the measures listed in the previous section, including increases in the age of eligibility and increased cost sharing for Medicare, heavy use of information technology, and such other measures as selective purchasing and selective contracting with managed care plans that provide care efficiently and that, perhaps, ration care. Again, one should recognize that seemingly drastic moves save less than one might suppose—raising the eligibility for Medicare to age 70 would reduce spending by about 1.3 percent of GDP by 2030, and by about 1.5 percent of GDP by 2040 (about one-eighth of the projected growth based on historical trends).

A wild card in the preceding story revolves around the possible use of HSAs. The potential for HSAs to have a material effect on Medicare spending depends on two big "ifs"—they could have a material effect *if* these accounts are widely used and *if* enough account holders have enough unspent deposits when they become eligible for Medicare to permit major cost sharing. HSAs are unlikely to have any material effect on Medicaid spending, because few Medicaid-eligible families have had much capacity to build up sizeable financial assets.

If the growth of Medicare and Medicaid spending can somehow be slowed to 1 percentage point more than the growth of GDP, taxes would still have to be increased by 4 percentage points of GDP by 2030, and by 6 percentage points of GDP by 2040, just to cover added federal spending on health care. This increment to taxes does not include any other tax increases to close the current budget gap (about 5 percent of GDP if one excludes current cash flow surpluses being accumulated in the Social Security, Medicare Hospital Insurance, and Federal Employees Pension

Trust funds), to finance long-term care, or to deal with future military emergencies. Still, a reduction of the historical trend growth of per capita Medicare and Medicaid spending from a rate that is 2.5 percentage points faster than GDP growth to a rate "only" 1 percentage point a year faster would be a monumental achievement. Given the dynamics of medical technology, this possibility is very far from certain without seriously compromising the protections afforded by Medicare and Medicaid.

Scenario 3: GDP and per Capita Spending on Medicare and Medicaid Rise at the Same Rate

The third scenario embodies the assumption that sufficient changes are made in Medicare and Medicaid so that per beneficiary spending grows no faster than per capita income, even though trend growth of general health care spending continues to outpace income growth by 2.5 percentage points a year. Even with such a slowdown in per capita spending, increases in the populations served by these two programs would push up total spending from the current 4.2 percent of GDP to 5.7 percent in 2030, and to 6.2 percent in 2040.

Making assumptions about a slowdown in the growth of federal health care spending is easy, but what exactly would it take to achieve such economies? If the slowdown in Medicare per capita spending were achieved solely by raising the age of eligibility, it would take an increase from age 65 today to age 79 by 2030, and to age 83 by 2040. If the spending target were achieved exclusively by increasing cost sharing, it would be necessary to reduce the share of health care spending by people eligible for Medicare who are covered by Medicare from just under 60 percent today to 29 percent in 2030, and to 23 percent in 2040.

These projections are subject to many uncertainties and qualifications. First, the proportions of Medicare spending accounted for by people of particular ages and by Medicare's particular benefit package may change, because both depend on technological change and public policy. For example, advances in technology boosted drug spending from 5.6 percent of total health care spending in 1980 to 12.4 percent in 2003. That technological shift tended to reduce the share of spending covered by Medicare. However, that trend will be partly reversed by the drug benefit that will take effect next year. Second, a continuation of either

trend or any combination of the two would doubtless reduce health care spending in total, but might increase health care spending by other federal programs, such as by the Veterans Administration and Medicaid. Hence, budget savings would be less than Medicare savings. Whether the proportion of total outlays covered out-of-pocket by individuals would rise proportionately more or less than total health care spending would fall is unclear. Whether the total reduction in federal spending would be larger or smaller than current fractions covered by Medicare suggest is also unclear.[11]

Many people will find either of these cutbacks, or a combination of the two, repellant. But unless use of services can be curtailed by more benign means, these modifications, or ones like them, will have to be implemented in order to avoid large tax increases to fund Medicare.

I have so far made no reference to what it would take to hold per capita Medicaid spending to the growth of per capita income. Imposing premiums, deductibles, or cost sharing equal to any significant share of Medicaid spending would effectively deny coverage to Medicaid recipients. Furthermore, little of Medicaid expenditure is incurred on behalf of recipients who would be screened out by the raising age of eligibility. If cuts in Medicaid spending are proportionately smaller than those in Medicare, holding growth of overall federal health care spending to what results from growth of the population served would require even larger Medicare cuts than those I have indicated. Even with such formidable reductions, federal health care spending would increase by 2 to 3 percent of GDP because of demographic forces—about the same as the projected increase in Social Security payments if current benefit formulas remain in force.

The Rest of Health Care Spending

Federal, state, and local health care programs now pay for nearly half of all health care spending (Centers for Medicare & Medicaid Services 2005). The public share will tend to keep rising because of population aging. But the forces driving up per capita spending will operate with similar force on both private and public spending, absent some technological shift that skews spending growth toward a particular part of the age distribution or toward or away from services covered by public pro-

grams. If current trends continue, total health care spending will absorb more than one-fourth of national income by 2030, and more than one-third by 2040. As far as the working age population is concerned, higher per capita private health care spending would be in addition to increased taxes required to support benefits for growing dependent populations.

These circumstances are likely to intensify pressures to ration care, even if, as seems quite likely, the increase in total benefits from added health care spending dwarfs the increase in total spending. Even if every penny spent on health care yielded benefits equal to or greater than cost, the large shift in spending from private to public budgets would create difficult tensions because taxes would have to rise so much that other forms of consumption would be squeezed. But, as noted, many dollars spent on health care yield meager benefits, because our current financing system encourages patients to seek all care providing any benefit at all, however expensive it may be. As the menu of services grows, the potential for low-benefit health care spending is almost certain to grow. Piling the cost of such low- or no-benefit care on top of the growing health care bill carries a serious risk that, in the name of weeding out "waste," private or public policymakers will use blunt instruments to control expenditures. Today, the very consideration of health care rationing offends most Americans. However, intelligent rationing should be seen as a device that curtails the use of services that well-insured patients now have incentives to seek, but that provide benefits worth less than their cost. In this light, intelligent rationing should be recognized as a device for improving welfare.[12]

Any nation can restrict health expenditures in three ways: by limiting demand, by slowing the advance of technology, or by restricting the use of available technologies.

The United States already denies care to those who are not well insured and do not have the means to pay for it. The 45 million people without insurance, for example, are estimated to consume, on the average, about half the health care services that the insured use. Research indicates that the uninsured frequently forgo high-benefit services. Yet, when seriously ill, uninsured patients are likely to receive care according to protocols developed for the well insured, including the intensive use of services, many of which have never been evaluated for efficacy. There is little reason to believe that the denial of care to the uninsured is carried out rationally, in the sense that the services producing the smallest benefit per

dollar spent are eliminated, while those providing the largest benefit per dollar spent are assured.

Many advocates of controlling health care spending by reducing demand wish to increase the proportion of the cost of care for which patients are directly responsible. Exposing patients to a larger share of costs would surely lower the level of spending. How much and for how long is less clear, however. Research has shown that patients should not have to pay for certain services, including inoculations and well-baby care. Furthermore, higher payments should not apply to those, including the poor or the severely disabled, for whom significant charges would effectively preclude care. The largest "wild card," however, concerns the effect of changed economic incentives on the focus of medical research. To what extent would scientists turn their energies to developing cost-reducing, as opposed to quality-enhancing and cost-increasing, technology? The simple answer is that, at this point, no one knows. Scientists already have such incentives from the large markets in health-constrained health care systems throughout much of the developed world. The U.S. market is large and would provide added incentives, but claims that higher cost sharing would shift the focus of research remain just that—claims.

The second approach to controlling growth of health care spending would be to explicitly try to slow the principal engine driving health care spending by curtailing spending for the development of new medical technology or by weakening incentives for its development. Examples include cutting the budget of the National Institutes of Health, shortening patent lives, or mandating the licensing of patented technologies at low prices. I believe that this approach would not work and that, if it did work, it would be a calamitous blunder. The strategy would not work, because not all scientific work is done in the United States; indeed, other nations are fighting hard to reclaim the scientific leadership that the United States has enjoyed for the past half-century. Furthermore, much U.S. research is funded privately and would be difficult for public policy to control. Curtailing the advance of medical technology would be a calamity because abundant evidence suggests that medical research is in the early stages of an era during which it will generate enormous net benefits, even if considerable waste occurs at the margin (see Murphy and Topel 2003; Cutler and McClellan 2001; and Berndt et al. 2000).

The third approach is the most promising—to limit the supply of care based on expenditure limits backed by evidence-based research. The failure of the United States to provide massive financial support for an organization analogous to Great Britain's National Institute for Clinical Excellence is, I believe, a tragic blunder. Such information would have only limited value if it were not backed up by private or public regulation to limit total health care spending.

Such limits are sustainable, in my view, only if steps are taken to assure that essentially all Americans are covered by health insurance that meets certain minimum standards. Without near-universal coverage, the framework of cross-subsidies that enables providers to offer the uninsured large amounts of health care and to recover costs from the well insured would collapse. Such an eventuality would give a whole new, and terrifying, meaning to being uninsured. Put simply, near-universal coverage is becoming essential for cold, dry, cost control, not "merely" as a matter of social justice.

Unfortunately, Congress remains as far from consensus on how to extend coverage as it has been for the past 60 years, as encapsulated in the comment, "the status quo is everyone's second choice." Because national consensus is lacking, it is time, I believe, for Congress to encourage individual states to pursue any of a wide range of approaches to extending health insurance that might win state approval. Some states will likely turn to approaches dear to conservatives, such as tax credits, association plans, or individual mandates. Other states will try out plans that appeal to liberals, such as single-payer plans, employer mandates, or expanded Medicare. Whatever the approach, federal guidelines would require that insurance coverage meet minimum standards and that the numbers or proportion of uninsured be reduced as a condition for receiving federal grants sufficient to defray a large part of the state spending. This federalist approach has been advanced in various forms over the years, most recently by the odd couple of Stuart Butler, research director at the Heritage Foundation, and me (Aaron and Butler 2004). Stuart and I do not agree on much, but we do share the belief that the disarray in U.S. health insurance is too important to wait for the political rapture of Washington consensus around the one true health care plan.

My reasoning is simple: limits on health care spending will be essential for the nation's political and economic health; near-universal coverage is the necessary pre-condition for effective expenditure control; if the national legislature will not or cannot move us to increased coverage, then let the states do it. Things may be a bit chaotic for a while, but we just might learn something; and, meanwhile, we will be making some progress in dealing with the most fundamental fiscal and social policy challenge we are likely to see in the twenty-first century.

■ *This paper draws heavily on the chapter "Health" by Henry J. Aaron and Jack Meyer, in Restoring Fiscal Sanity: 2005—Meeting the Long-Run Fiscal Challenge, edited by Alice M. Rivlin and Isabel Sawhill, Brookings Institution, 2005. The views expressed here are the author's and do not necessarily reflect those of the trustees, officers, or other staff of the Brookings Institution. This paper omits numerous source references, which can be found in Restoring Fiscal Sanity.*

Notes

1. Social Security in the United States replaced an average of 36.5 percent of average earnings, compared with 52.7 percent in France, 42.6 percent in Germany, 77.2 percent in Italy, and 68.5 percent in Sweden (Organisation for Economic and Community Development 2005, Table 7.1, p. 67).

2. See Cutler and McClellan (2001). More generally, see the Center for the Evaluative Clinical Sciences (1999).

3. For a detailed explanation of HSAs, see Aaron (2004).

4. Implementation of this change was delayed, however, so that the first affected workers were those turning age 62 in 2000. They were eligible to receive full benefits at age 65 and two months. Only in 2022 will the full benefits age reach age 67 for workers turning age 62 (Social Security Administration 2003).

5. Whether the savings in the future would be larger or smaller depends on changes in the proportion of Medicare spending accounted for by the elderly (as opposed to the disabled), on the age distribution of the elderly, and on the age-specific distribution of changes in Medicare technology or practice that may occur in the future. If, as seems likely, the age distribution of medical outlays is related more closely to "time until death" than to "time since birth," the proportion of medical outlays accounted for by the young elderly is likely to fall with time.

6. One of the most effective ways to lower the fiscal and economic burdens on working cohorts arising from population aging would be to induce workers to remain economically active until later ages than they now do. Deferral of retirement would run counter to historical trends. In many cases, deferral of retirement would cause significant physical hardship. But public policy should be structured, at a minimum, not to encourage early retirement. This standard is now widely recognized with respect to pensions. But the fact that Medicare health care benefits not claimed at age 65 are lost continues to subsidize retirement not later than age 65. Because Medicare "saves" money when workers remain covered by employment-based insurance and active workers continue to contribute to both Social Security and Medicare, it would "level" the playing field if Medicare defrayed part of the cost of employment-based insurance for workers who remain employed after their 65th birthdays.

7. This statement will not hold in the future for elderly persons who have had very high incomes during their working lives, as the Medicare payroll tax applies to all earnings without limit. One can argue that since Part B is mostly financed by general revenues, the very wealthy have even now paid for their benefits because they bear the lion's share of personal income taxes, representing the large majority of federal revenues other than payroll taxes.

8. Total spending on the aged, blind, and disabled in 2000 was $117.2 billion; of this, $44.5 billion was spent on other identified beneficiaries (Committee on Ways and Means of the U.S. House of Representatives 2004).

9. 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 McNamara and Lee (2004).

10. The long-term budget projections of the Congressional Budget Office assume that government spending, other than that on health care and debt service, will remain approximately constant. Increases in Social Security outlays are just about offset by assumed declines in other mandatory and all discretionary spending (including national defense), all measured as a share of GDP. The tax increase necessary to return revenues to their historical share is 2 to 3 percent of GDP. The additional taxes mentioned in the text are distinct from these increases.

11. Two offsetting effects would be at work. If Medicare paid for a reduced fraction of currently covered services, the effective price to those currently eligible for Medicare would go up and less care would be consumed. This reduction in consumption of health care would lower federal spending more than estimates based on current consumption would suggest. On the other hand, some demand would spill over into other programs financed in total (Veterans Administration) or in part (Medicaid) by the federal government.

12. For a fuller presentation of this line of argument, see Aaron, Schwartz, and Cox (2005).

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It's Technology (and What It Is or Isn't Worth), Stupid! Comments on Aaron's "It's Health Care, Stupid! Why Control of Health Care Spending Is Vital for Long-Term Fiscal Stability"

Mark V. Pauly

Introduction

The answer is almost always 15 percent. By this I mean that, with one notable exception, my judgment is that the answer to almost all empirical normative questions in health economics is about 15 percent. What proportion of the population is insured? About 15 percent. How much will a group-staff model HMO save over conventional insurance with modest cost sharing? Fifteen percent. How much will a plan with catastrophic health insurance and a spending account save over the same plan? Fifteen percent. What fraction of medical care spending is covered by Medicare (before drug benefits)? About 15 percent. What proportion of a physician's patients need to be enrolled in a health plan using evidence-based or other managed care rules before she notices? Fifteen percent. What proportion of medical care resource use is economically wasteful (marginal benefit less than marginal cost)? Fifteen percent. What portion of new technology is similarly wasteful? Fifteen percent. What proportion of Henry Aaron's paper do I disagree with? Fifteen percent.

Let me begin with the complement of the last statement (which is meant to be a compliment). I agree with the great bulk—85 percent, in fact—of what Henry has to say. I could not agree more with the main theme: getting control (or at least a stronger feeling of control) over medical care spending is critical not only to the future of medical provision and insurance, both public and private, but also to the future of the entire public budget and the national economy. By an iron law of arithmetic, if medical

care spending continues to grow more rapidly than real GDP—which it has, with only a few blips, as far back as we have data—the proposition that such spending will hit any ridiculously high share of GDP of your own choosing is not a matter of whether, but only of when.

I agree that Stein's Law decrees that things cannot go on like this forever, so it is absolutely crucial that we start thinking now of how we might make a graceful transition from what we need to stop doing to what we can possibly do, and that we do so in a way that does as little harm as possible to the vulnerable minority of poor and sick, and to the welfare of the remaining population. I also agree that I do not now know either how this transition should take place or how it will take place if we let things ride. But I do know *where* it must take place—that it must be in the rate, form, and composition of beneficial but costly *new* medical technology. I can be as upset as the next management consultant at the overuse of old MRI scans or branded heartburn medicines, or at the underuse of antidepressants, but that is so "last year." More to the point, fixing it is extraordinarily hard and will not make more than an amazingly temporary contribution to the fundamental issue of long-term spending growth.

I certainly agree that moral hazard—here called "the motive for fee-for-service insureds" (which, however, now only exists for Medicare patients and CEOs) "to seek all care that provides any benefit, however costly" (to which I would add only any "*expected* benefit, based on the information available at the time decisions are made")—does not include after-the-fact mistakes (like Vioxx).

I strongly agree that the possibility to "curtail spending growth" while preserving quality and coverage for any but a brief period of time (if that) is quite low. I have been spending a mini-sabbatical looking for evidence of economic inefficiency (not doctors criticizing other doctors) in the system. I may still get a revelation, but at the moment I would put the amount of spending that meets the twin criteria of economic inefficiency—benefits fall short of cost and a feasible plan exists to change things so this stops happening—at 15 percent at most (and maybe more like 10 percent). At historical rates of spending growth, even deleting all of this waste would give us two or three good years of low spending growth.

The futility of "saving" Medicare by expanding the age of dependents, means-testing premiums, or raising cost sharing for conventional medical care also reflects my shared despair.

Disagreements

Now for the discussant's major job: to disagree. I begin with a data point. Comparing the spending levels in the United States and other countries, as Henry does, largely tells us that people who work in or provide products to health care in the United States get paid much better than in other countries. It is useless as an indicator of "efficiency," but it does say that, in a sense, our major tax problem compared to that of other countries is in figuring out how to fund larger transfers to nurses, technicians, and phlebotomists. But the rate of growth of spending is much more similar across countries than the level of spending, so cross-national comparisons tell us little about the major problem.

Another point that is both small and large is that changing the tax treatment of employment-based insurance, now made even more baroque with tax-subsidized spending accounts, would still only give our usual 15 percent savings, but might make insurance more affordable for the lower-middle class (who are the bulk of the uninsured). It might even slow the rate of technological change, though the jury is definitely out on this and may not reach a verdict any time soon.

I have proposed to ameliorate Medicare's funding problem by providing what is essentially a defined contribution plan for future middle-class retirees that will grow fast enough to keep real benefits as they are today, but that will require these beneficiaries to finance their own new technology above today's benefits (if they want it enough) in excess of that level (Pauly 2004). This limitation is not intended for additional cost shifting, although it may require selective cost sharing. I could see using evidence-based medicine to help people decide what they really want to buy with their own money. I am not as sanguine as Henry in believing that evidence-based medicine is "most promising" as a way to limit the supply of care, unless we use evidence in a biased way only to curtail spending on the slightly helpful but not to increase spending on the underused,

and unless the evidence gets a lot better and broader than it is at present. Most "evidence" in medicine is probabilistic anyway and depends on the value people attach to taking or not taking risks; so I am not sure how it could work to limit spending for people with different views on risk. If we assume that we could generate real evidence, it might help to allow the emergence of a variety of health plans with competing, transparent, and lawyer-proof rationing rules (Pauly 2005). I would think that giving a monopoly on generating this information to a group like England's National Institute for Health and Clinical Excellence would be a blunder, however, although public financing for competing technology assessors may be called for.

The Really Serious Issues

One serious consequence of the growth in medical spending is its distributional impact. I expect the share of GDP going to medical care to hit 20 percent or even 25 percent in my lifetime. (That is the exception to the 15 percent rule.) Personally, unless my CREF fund crashes, I will not mind that because I may prefer to spend my wealth on health and still have some left over. But lower-middle-income people already do not have this ability, and therefore are dropping the Lexus-quality health insurance that seems to be the only serious option in the private sector. [I do not think that health savings accounts (HSAs) are really going to change the quality that much.] We do need a cheaper and slower-growing basic policy ("The Prudent Health Plan That Waits a Couple of Years to See How New Technology Pans Out"), and I have written at the Lansdowne meeting on how such a set of plans might work.

The most painful thing about this to me is the need to accept multi-tier medicine, to accompany our multi-tier income distribution. But if, despite my own personal preferences, we are not going to do anything about the latter, we are going to have to accept the former. It will be even worse if government continues to devote its additional funds to health care for old people, who already have the best deal in town.

There is a final, deeper issue involved, as Henry recognizes. The trends showing faster growth of medical spending than of GDP are obviously not sustainable. Even getting the growth rate "down," as he discusses,

so that other spending stays where it is, rather than falling, is not to me that happy a prospect; I would like to step up from rice and beans as my income grows (figuratively speaking).

Maybe the following reflections will help. No good can be a super-luxury good (with income elasticity much greater than one) forever, because eventually it will consume income. But we know that there have been luxury goods in the world and the sun still rises every morning. So, somehow Stein's Law does kick in.

What seems to have happened historically (in my nonexpert review) is two things. One is that the efficiency in production of other commodities has risen dramatically (think agriculture), thus creating room for the relative growth of the services sector, including but not limited to medical care. Indeed, it may be that our country spends so much on medical care because it can, in the sense that the high efficiency in the rest of the economy permits it to do so. The Japanese have a low share of medical care spending, one might hypothesize, because they have a high share of housing spending (although also spending on seafood, which is better for your health than much of medical care). If our housing were as expensive as theirs, we might economize and go for five-minute physician office visits, too.

The other observation is that historically there have been one-time luxuries that ceased to be so. Beefsteaks, air conditioning, and paid child care used to be reserved for the rich, but now the middle class can have them, too. It is surely possible that the real absolute amount of growth in medical spending can continue to rise without necessarily having the percentage rate remain so high (as the base expands). What I have in mind here is a Greenspanish "smooth landing" in which medical spending continues to grow in real terms through new technology, but in which the percentage rate of growth tails off. Maybe we can live healthy and die cheap.

The wild card here is science—what if they do discover a cure for cancer or a vaccine for Alzheimer's? That would be terrible news for cost containment. Recent RAND research says the experts do not see slowing ahead—they continue to see great, but probably expensive, discoveries on the horizon. I am not sure what constitutes optimism here, but I am far from despair. I do think that the best tool we know for muddling

through is going to be the market and not some kind of collective medical-industrial policy, and I do think that we have to be prepared for painful rationing. But maybe we will be lucky, or redefine what it means to be lucky in health.

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Comments on Aaron's "It's Health Care, Stupid! Why Control of Health Care Spending Is Vital for Long-Term Fiscal Stability"

C. Eugene Steuerle

I always find conferences on health care fascinating. Although health care is one of the plushest and fastest-growing sectors of the American economy, it is in health that you always hear the most pessimism about what can be done. Based on my calculations, the tax subsidy for employer-provided health insurance is going to increase by $100 billion annually within about the next five years. Add to that the many hundreds of billions more being spent for Medicare within a few years, and then try to explain why the conventional wisdom is that we can't afford to achieve our major health policy goals. Is it a problem of resources? Or, is it one of an inability to make basic decisions on how to use those resources—an inability derived from a straightjacket we tied around ourselves in the first place in the way we have designed health policy?

As a public finance economist, I get to go to conferences on a variety of policy issues. At the welfare conferences, by comparison to those on health care, the participants often fight over the budget leftovers. For instance, big debates occur over whether the government should spend $300 million on providing marriage advice to young people. That's not even pocket change in the health budget.

We don't need to be so pessimistic about our ability to channel health care spending more productively and fairly. Most of our fiscal constraints in health care are due to politics, not economics. We may achieve many things without ever knowing how we are going to control entirely this huge health share of the U.S. economy—a share bigger than the entire economy of most countries around the world. We don't know what any other major industry is going to look like in 50 years, but that doesn't mean we can't develop an investment strategy. Henry Aaron identifies a

number of things we can do, none of which would solve everything. So what? We should start with his list, and then add to it.

The pressure to act now on rising health costs arises because of implications for the rest of the public budget—including the budget for children, for homeland security, for education, and a whole host of other programs. Health costs are also putting pressure on the nonhealth part of the private economy.

To improve efficiency and equity, we need to make explicit many of the hidden costs in the system. We need to move in the right direction to reduce the bias in our payment system toward costly technology relative to other technological innovations. We need to cut back on the extraordinary shift of costs, especially Medicare, to future generations. None of us, rich or poor, are coming close to paying for the benefits promised to us.

Analysts easily get suckered, when we start talking about policy, into playing the politicians' game of trying to offer only free lunches. Since politicians almost never want to talk about who pays for government, the temptation for analysts is to do likewise. Suggestions get confined to pretending there is some free lunch, like "pay for performance" or electronic health records. Despite being fine initiatives, they don't really drive home that somebody, somewhere, has to make a decision. So, yes, we should work on efficiency improvements, but that's true of every industry. Every industry has efficiency-improving efforts worth pursuing, but it still must decide who bears what costs, what prices it is going to pay, and what it is going to buy and not buy.

My fundamental point is that we must make choices about what services are reasonable at different costs, and we must have processes that place responsibility on different people and institutions to make those choices. Start with government. In Medicare, one must set rules on what is purchased and at what price. Government must also deal with the upside-down design of its tax incentives, which favor higher-income employees, leave out much of the population, and for marginal subsidies probably increase the number of uninsured.

Next consider the consumer. We inevitably have to make decisions about how to implement consumer-driven choices, whatever share of the future health care economy they will comprise. Where should

those choices be made? Are they better made for first dollar or last dollar expenses or at the time of insurance purchase? Are deductibles better than co-payments? Since part of this health economy will be consumer-driven, we must come to grips with a viable decision-making process.

Consider lastly how to enhance the power of a third group of decision-makers—health industry intermediaries. How well can we set up processes for them? Spending can be channeled and controlled in part through the use of vouchers and capitation payments. Alain Enthoven's argument—that people make explicit choices if they understand the costs—is a powerful one. The issue is not whether reform would ultimately create future cost containment, only that it would likely lead to improvement.

Behind many of these tougher choices lies a set of budget principles that no longer can be violated. Simply put, if health care is to adhere to proper budget principles, it cannot be left as an open-ended system. In budget policy today, health care automatically drives out other spending. Most spending under programs like Medicare does not have to go through a discretionary decision-making process every year, as Congress does for other parts of the budget. That bias against discretionary choices, whether in education or in remaining parts of health care or anywhere else, is a crucial, elemental part of the entitlement debate. It's not just the greater permanence granted to entitlements, it's that several of them—mainly health and retirement programs—are scheduled to grow automatically over time faster than the growth rate of the economy. As a result, they are not only affecting how health spending is evolving, but also squeezing out funding for other programs.

Some Empirical Evidence

Empirical evidence backs up my claims. Let's begin by reflecting on the current budgetary squeeze. The top line in Figure 6.1 shows projected receipts of the U.S. government as a percent of GDP. The projected spending line on the bottom is driven mainly by health care, but also by retirement programs like Social Security. That line also adds in defense at an arbitrarily assumed lower percentage of GDP than where it is today

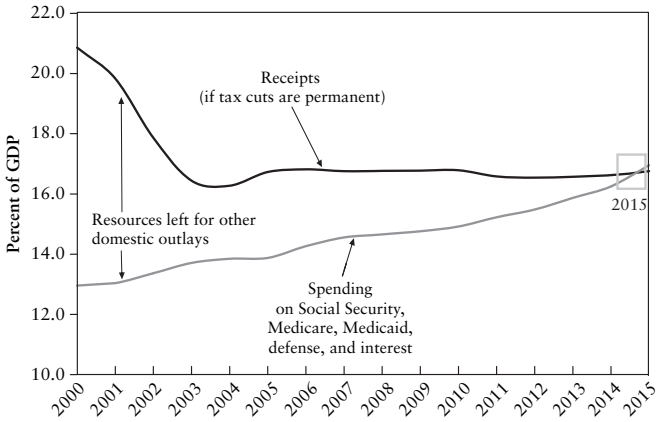

Figure 6.1
The Current Squeeze
Source: C. Eugene Steuerle, Adam Carasso, and Elizabeth Bell, The Urban Institute, 2005. Authors' calculations based on data from the U.S. Congressional Budget Office and The Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.

and adds in interest costs. As you can see, within a few years, these two lines cross, and there's nothing left in the budget for anything else—not for programs for children, not for wage subsidies, not for environmental protection, not even for IRS agents. There's nothing left for the basic functions of government if the United States continues to spend revenues the way it has scheduled them in current law. That squeeze is not waiting for some day in the future. It's occurring now.

Rapid growth of health costs also places a squeeze on the nonhealth part of the economy. Figure 6.2 shows how more of per capita income growth is being spent on health every decade, placing constantly growing pressures on the nonhealth part of the economy. The point is that, if health care is projected to maintain a constant rate of growth greater than the growth rate of the economy, then there cannot be a constant growth rate in the nonhealth part of the economy; but, rather, a constantly declining rate. This is not just an abstraction; health costs can put a squeeze on employees, for instance, when they bargain for higher cash

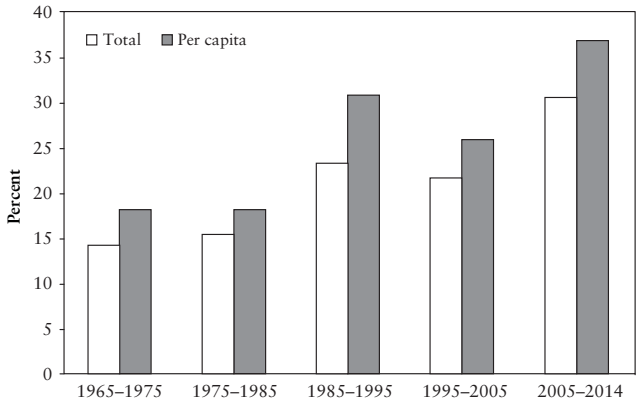

Figure 6.2
Health Spending Growth as a Share of Total Growth, 1965–2014
Source: The Urban Institute, 2005. Based on data from the Office of the Actuary, Centers for Medicare & Medicaid Services, the Bureau of Economic Analysis, and the Bureau of the Census.

wages. The ultimate counter-pressure from these other parts of the economy, including those that arise in wage bargaining sessions, ultimately must reverberate back and put pressure on the rate of growth in health costs and on the institutions—government, employers, insurance companies—that determine what health payments will be made.

We know that efficiency can be improved by having people recognize the cost of their care. Today people recognize very little in the way of that cost. The amount of personal contributions for health insurance is only about 9 percent of the total cost; out-of-pocket payments are about 13 percent. Follette and Sheiner, in a paper that I recommend to you, show that when people actually face costs, these out-of-pocket costs have a much slower growth rate (Follette and Sheiner 2005). Figure 6.3 shows that, between taxes and tax subsidies and reduced wages, most people do not see the cost of health care. Even health analysts, I have found, often do not know the average cost of health care per household. In 2003, it was about $16,000 per household, and it is growing. The government is already contributing about $9,000 per year per household for health

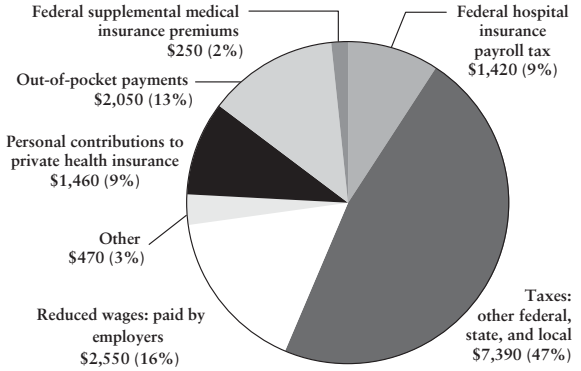

Figure 6.3
Average Health Care Costs per Household by Source, 2003 (Total = $15,590)
Source: C. Eugene Steuerle, The Urban Institute, 2003. Based on data from the Centers on Medicare & Medicaid and the Budget of the U.S. Government, FY 2004.

care, and the amount has been growing much faster than the economy recently. The more we spend and the faster the rate of increase, the more that we proclaim we can't control. A very first step toward reform is simply to make these costs much more explicit.[1]

I also don't accept the excuse made in different ways by Henry Aaron and Mark Pauly—that health costs are driven so high because technology is changing the rules of the game daily. Most rapid growth curves in economics—including growth rates of industries considered advanced at different points in history—eventually convert to sigmoidal or S curves, and often toward relative decline. That is, they do not and cannot forever grow faster than the economy. The issue in health care is not really technology, but how technology interacts with health care financing rules—in particular, that we and the doctor bargain at a zero or very low cost to both of us for what is provided. That type of rule not only opens the door to less valuable technological improvements, but also creates a bias in favor of cost-increasing technology—for instance, for a drug company to investigate drugs for chronic care rather than a cure for AIDS—since the former are likely to be more profitable in an open-ended system.

Figures 6.4 and 6.5 provide partial evidence for the different way this health technology sector operates. These figures are based on Bureau of Economic Analysis (BEA) data that demonstrate quantity and price increases in various sectors of the economy over the half-century from 1950 to 2000. Many people say the quality of what we are getting in health care isn't measured very well, and I agree with this. But I don't think that our conclusions would change all that much if the quality of health care (as well as other goods and services) were measured more accurately.

In these charts, every industry with relatively high quantitative growth has relatively low price growth. The one exception, as you might guess, is health. Even if the measured price increases for medical care were to drop substantially because of improvements in the way that quality is measured, it would in all likelihood still be an industry with much higher relative price increases than other rapidly growing industries. Just by way of anecdote, in case one needs informal confirmation of the formal economic analysis of BEA, a notice on the radio yesterday indicated that the

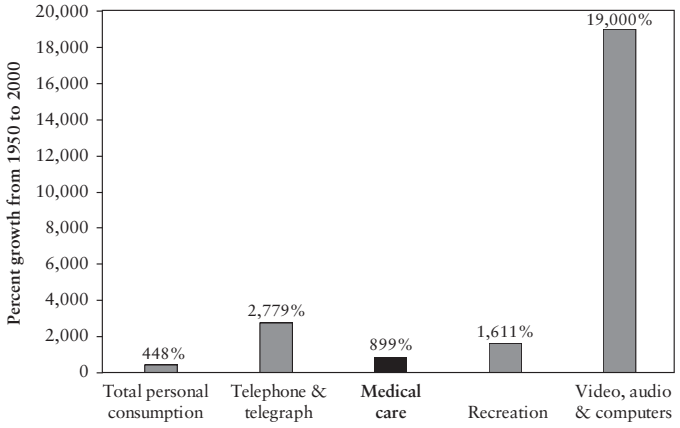

Figure 6.4
Quantity Increases Over Time: Medical Care versus Other Consumption Categories
Source: The Bureau of Economic Analysis.

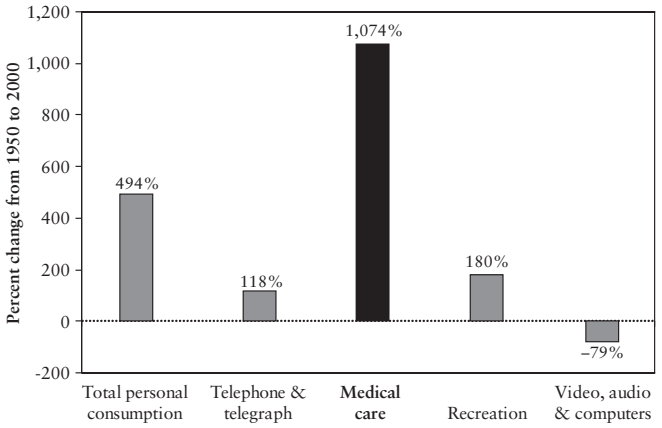

Figure 6.5
Price Increases Over Time: Medical Care versus Other Consumption Categories
Source: The Bureau of Economic Analysis.

prices of some drugs already on the market for two years are going up. I can think of very few cases in other growth industries where the prices of existing technology—computers or anything else—go up for a while for their older, unimproved goods and services.

Figure 6.6 shows the extraordinary extent to which, even in areas like Medicare, almost everyone who is age 30 and over is shifting the cost of health care to future generations. Right now, the 30-and-over set gets some new benefit in Medicare and immediately shifts the cost to other generations. For example, under current projections, everyone who is 40 years old is promised about $1.1 million in Social Security and Medicare benefits, of which they will pay about $600,000. As their personal demand for health care improvements expands, why should they have the automatic right to buy it with their children's money? This shifting of responsibility needs to be tackled, whether by increasing the age eligibility threshold for Medicare and Social Security or through other entitlement reform.

In conclusion, we do know a lot of things that we could and should do to deal with the growth in the cost of health care. In particular, we know a number of things we should stop doing, regardless of how the health sector ultimately evolves. I think the failure to act is in many cases caused

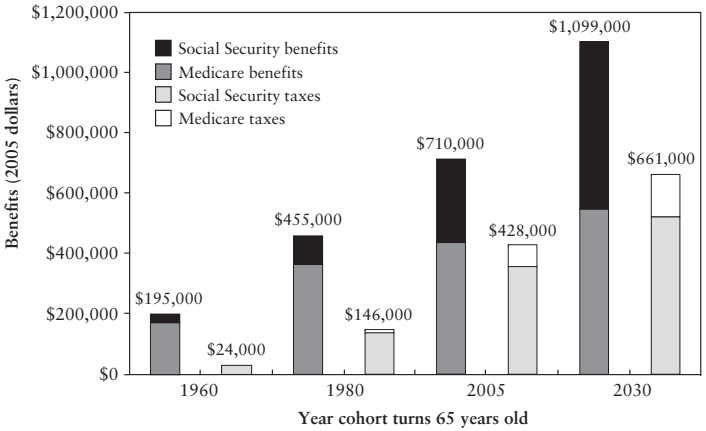

Figure 6.6
Estimated Social Security and Medicare Benefits and Taxes for Average-Wage, Two-Earner Couple ($36,000 each)
The "high" and "average" wage profiles are those hypothetical profiles routinely employed by the Social Security Administration in its analyses. Lifetime amounts, rounded to the nearest thousand, are discounted to present value at age 65 using a 2 percent real interest rate and adjusted for mortality. Projections based on intermediate assumptions of the 2004 Old Age, Survivors, and Disability Insurance (OASDI) and Hospital Insurance/Supplementary Medical Insurance (HI/SMI) Trustees Reports. Includes Medicare Part D.
Source: Adam Carasso and C. Eugene Steuerle, The Urban Institute, 2005.

by a lack of political will, not by a failure of understanding or analysis. At a minimum, good health policy and good budget policy both require creating slack for deciding tomorrow's spending according to tomorrow's needs, not according to some formula derived yesterday—long before those needs were known or fully understood.

Notes

1. My more recent projections have indicated that government subsidies equaled $9,000 in 2006, and are projected to rise to $11,000 in 2010 (in 2006 dollars).

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Comments on Aaron's "It's Health Care, Stupid! Why Control of Health Care Spending Is Vital for Long-Term Fiscal Stability"

Alan R. Weil

Henry Aaron is certainly right that health care costs pose the greatest challenge to the nation's fiscal health. My response focuses on the aspect of his paper that is tied to my area of expertise: the role of the states. States face rapidly growing health care costs for their employees, their retirees, and their prison populations, but the overwhelming share of state health spending is for Medicaid.

While the federal government's fiscal future will be strained by health care costs, the fiscal future of states could be broken by them. There are many reasons states face larger challenges than the federal government. State sales and use taxes cannot keep up with the shift to a more service-based economy and Internet-based, out-of-state sales. Interstate competition for businesses and taxpayers places pressure on states to keep tax rates low. All states except for one must balance their budgets annually, so economic downturns hit the revenue and cost sides of state budgets simultaneously. In those states that have voter-imposed tax or revenue limitations, the growth rates in those limits are substantially lower than projected growth in health care costs. Much of the last few decades of growth in federal health spending has been offset by declining defense spending, but states have no comparable budget area that is shrinking. Indeed, governors and voters are particularly interested in increasing spending on education—a traditional state and local responsibility. So, states are at least as interested as the federal government in attending to the fiscal pressure created by rapidly growing health costs.

Aaron notes that government programs face high rates of cost growth due in part to demographic trends. It is worth noting that demographic and health care trends likely will have a larger effect on Medicaid than

Medicare. Forty-three percent of Medicaid spending is on behalf of people with disabilities, a population that is growing and that relies particularly heavily on new medical technologies.

While all payers face rising health care costs, public policy choices are in part responsible for the fact that the share of health care spending borne by government is increasing, making our fiscal challenges greater than our economic ones. For example, we provide substantial, uncapped tax benefits to employers that provide health insurance, but make no requirements that they do so. Thus, in the most recent economic downturn, fewer employees were in jobs that provided health insurance coverage, and Medicaid picked up much of the slack. Higher levels of cost sharing save employers money, and most of the cost is shifted to employees, but some of that cost is transferred to Medicaid. In recent years, we have also observed the rapid exit of private firms from providing comprehensive retiree benefits, leaving another group of Americans uninsured or dependent upon Medicaid.

Federal law bars states from requiring employers to offer health insurance coverage to their employees or defining the structure of coverage should employers choose to offer it. The federal government shows no interest in taking these steps. I am not arguing that an employer mandate is the best approach for covering the uninsured, but the upshot of these policies is that states are essentially bystanders watching their Medicaid rolls and costs rise as employers cut back on coverage. Thus, our fiscal problem arises from a combination of a health care cost problem and a public policy choice to permit the private sector to shift health care costs to the public sector at will. Aaron notes growing state interest in "premium assistance" programs in which states finance a portion of private coverage for employees of firms that offer coverage. This is an understandable response, but one that portends continued growth in Medicaid costs as private coverage continues to erode.

States also pay for federal policy choices, particularly in the area of Medicare. Forty-two percent of Medicaid's costs are already associated with the "dual eligibles"—those eligible for both Medicaid and Medicare. Medicaid has become the default payer for long-term care services because Medicare largely excludes coverage for these services, and their

cost is so high that even middle-class families become impoverished by them and therefore qualify for Medicaid.

There is a substantial risk that future steps to address the fiscal burden of Medicare will increase the burden on Medicaid, which will then be borne in part by states. Aaron mentions the possibility of increasing the eligibility age for Medicare. Such a change would create a large group of moderate-income people without employer-sponsored health insurance, many of whom would have health conditions that would make purchasing their own coverage either impossible or unaffordable. While Aaron notes that these younger-elders do not account for a large share of Medicare's costs, it is the more expensive of them who would likely end up on Medicaid.

Similarly, proposals to move Medicare to a "premium support" or defined contribution model would impose new costs on Medicaid. Low-income Medicare enrollees are eligible for Medicaid assistance to fill in the gaps in their coverage. Limiting growth in spending on Medicare to less than the increase in health care costs would increase the size of these gaps.

Aaron is certainly right that the opportunity for savings by shifting costs to Medicaid enrollees through premiums, co-payments, and deductibles is quite limited. The reasons for this are straightforward but worth noting. First, because Medicaid is means tested, shifting costs to enrollees places a financial burden on them that they cannot bear—yielding either forgone services or enrollees' inability to meet other basic needs. Second, in order for savings to amount to much, these cost burdens must be imposed on those who use the most services, namely, the chronically ill, for whom reduced service use is likely to have the most dire consequences.

I agree with Aaron that approaches such as Health Savings Accounts (HSAs) combined with high-deductible plans that have been proposed for higher-income people are inappropriate for the Medicaid population. In addition to the reasons he gives, there is a political impediment to their success. I do not believe modest-income taxpayers will look kindly upon the building up of sizeable government-funded savings accounts by poor people while many of the taxpayers themselves remain uninsured.

Aaron places some hope in having the federal government invest in assessing the efficiency and use of technology in health care, since most health analysts ascribe a large share of growing health care costs to technological advances. Such an investment certainly makes sense—and the federal government is the right level to make that investment—but even here a role for states may be necessary. Despite their mechanistic-sounding names, efforts such as technology assessment and evidence-based medicine are infused with value choices. As Aaron illustrates, the goal is to identify the point of diminishing returns, not zero returns; but how far must those returns diminish before we deem them to be not worth making? This is squarely a choice of values—values that should be informed by information—but values nonetheless.

While it had its flaws, Oregon undertook such an effort to define social values in its Medicaid program. When I speak about Medicaid around the country, I am almost always asked about the status of the Oregon model, despite the fact that the experiment began more than a decade ago and I do not bring it up in my remarks. Despite this interest, no other state has replicated the Oregon approach, and I attribute that in large part to the challenge of having a serious conversation about values in general, and value in health care in particular. A national technology assessment initiative would be valuable, but only if it occurred in conjunction with a much more local discussion of the results.

Absent from Aaron's prescription are some other steps the federal government could take that might have similar positive consequences. How about a national initiative on price transparency? Such an endeavor is particularly important if we are moving to a more consumer-directed system of purchasing health care. But even if not, all purchasers would benefit from better information on the actual prices being paid in the health care system. Transparency should extend to the pricing of all health care services and insurance products. While technological advances may account for the rapid rate of growth in American health care costs, high prices play a substantial role in the difference between health care spending in the United States and such spending in other countries.

Aaron proposes a major role for states in helping the nation move forward on insurance coverage. In a paper he wrote with Stuart Butler, he proposed a new covenant between the federal government and the states

to enable states to move forward in a variety of ways that federal officials would be unwilling to consider for the nation as a whole. While I have been a longstanding advocate for states, I do not consider this approach likely to succeed. My work has led me to the conclusion that states have a great deal to offer in the way of experimentation and innovation when it comes to how we deliver health care. They are also the right locus for true experiments involving modest variations in a well-defined policy, such as insurance regulation or tort laws. But these positive roles for states do not apply equally in the area of expanding insurance coverage. State variation on the basis of political values, fiscal resources, and the starting point of private coverage is so great that allowing each state to go its own way does not yield experimentation, but a jumbled mess that leaves millions of Americans without health insurance coverage. We have myriad examples of coverage initiatives that work but that are not replicated. As eager as I am to embrace Aaron's (or almost any) creative idea designed to move the country to universal coverage, I do not believe a state-led approach is realistic.

7

Reform Options: Matching the Tools with the Goals

Will the United States Continue to Allocate a Growing Proportion of Its GDP to Health Care?

Stuart H. Altman

In 1971, having absolutely no experience with or knowledge about the economics of health care, I became the deputy assistant secretary for health policy at what was then the U.S. Department of Health, Education, and Welfare. To this position, I brought a strong belief in the free market, having trained at a University of Chicago farm school, UCLA. Many of you know that there were no such things as health economists back then. So, being almost as arrogant as a surgeon, I thought: Why shouldn't an economist be in charge of American health care policy? But as you will see as my presentation progresses, I no longer believe that private market forces alone can really help to improve coverage and lower the rising trend in health care spending.

In August of 1971, Richard Nixon, our conservative Republican president, imposed wage and price controls on the American economy. I was then asked to come to the White House and explain why health care spending was growing so rapidly. All the president's men were there. Herb Stein, the chairman of the Council of Economic Advisors, turned to me and said, "Dr. Altman, do you know how much money we're spending on health care?" And before I had a chance to say anything, he said, "We are spending 7.5 percent of our gross national product on health care, and if it reaches 8 percent our whole way of life is going to deteriorate." Stein said, "It's going to be your job to make sure that doesn't happen." Clearly, the growth in health care costs did not stop at 8 percent of GDP, and we are still being told that if we don't stop the growth in spending, our health care system could collapse. My current thinking on this matter reflects my being a two-handed economist.

On the one hand, I listened to Gene Steuerle, I listened to all the numbers mentioned at this conference, and I heard many of you say that the level of spending for health care in general, and for Medicare in particular, cannot keep going up. It is just too high! On the other hand, I keep looking at the rate of growth that we have had over these last 30 years, and I respond with two observations. One, health care costs just keep going up; and two, our American way of life has not totally deteriorated. Of course, maybe in the future it will be different.

In theory I agree, as some of you argue, that there are things that we can do. But the reality is also what we have discussed: Do we have the political will to do these things? And if you look over the decades since the mid-1960s, you will see that we had two periods when we did lower the rate of growth in health care spending. One was in the 1970s, when we regulated the growth in health care spending. We peppered the country with planning agencies, and we put in place several forms of price controls and supply constraints, and these changes did slow the rate of growth in spending, at least for a while.

I am sure many of you would say that it was inevitable that health care spending would resume its upward growth and return to its normal pattern. And, in fact, that is surely what happened in the 1980s. Well, it may or may not have been inevitable, but our political will was such that we could not, or would not, support those whom we asked to keep spending under control. And, by the way, for those of you who do not remember history, it was the Democrats who took the power away from the Nixon administration in 1974 to control wages and prices. By that time, the administration had limited the wage and price control system to only limit health care spending.

The reason the Democrats took it away was that they were concerned that the Nixon administration was primarily regulating the wages paid to health care workers and not the prices paid by patients or insurance companies. But, be that as it may, the reality was that when the United States entered the 1980s, we had what I call halfway competitive markets and ineffective regulation in the health care sector. "Katie, bar the door!"—you could spend anything and get anything you wanted—the actual growth rate of health care spending in the 1980s was really phenomenally large. Then in the early 1990s, the United States greatly expanded

the use of managed care, particularly by private companies that were trying to slow the growth in their health insurance premiums. Some people, particularly health providers and patients, called it "damaged care," but the reality is that managed care did exactly what we wanted it to do. It lowered the rate of growth of spending to the rate of growth in our national income, and generated a zero rate of growth in health insurance premiums. And then, we said we did not want what we had asked for. Whose stupid idea was this in the first place? Anybody who was in managed care was immediately shot and they were gone. Now they are again called insurance executives.

By the end of the 1990s, these same insurance companies said, "Why should we regulate health care use or prices? No one else wants us to regulate. We will just raise premiums." And so, now we are back to the 1980s' situation of escalating health care costs, and premiums have been growing at close to double-digit rates since 2000. So, the question today, in the first decade of the twenty-first century, is: Can we or do we have the political will to introduce something to stem the tide of these rising costs? If we don't make some major changes in the system, there is no question that we are going to see a continuation of the current trend in escalating healthcare spending—for some very good and for some not-so-good reasons that we have heard about in other sessions. Having better medical technology to improve health status and having an aging population are both good reasons to spend more on health care.

What is not so good (or at least is harder to justify) is that we have surprisingly little information to help patients and health professionals decide what types of treatments really benefit patients. Additionally, it is against the law for any federal agency to take the cost of care into account when deciding whether to approve a new drug or medical procedure. The work of the group under Dr. Jack Wennberg at Dartmouth Medical School has demonstrated repeatedly that, as a result, the United States wastes billions of dollars each year for care that is worthless or close to worthless.[1]

Where is all of this increased spending going to lead us? Well, you have heard the numbers. Health care expenditures as a percentage of GDP flattened out in the 1990s. But since 2000, health care spending has been growing rapidly; and today, it is over 16 percent. According to the most recent estimates, the growth in health care spending will continue to exceed the growth in the national income; and by 2014, it is likely to reach 18 percent of GDP.

Somebody said that we in the United States should never compare ourselves with other countries in the world. However, there is a lot of discussion about how much more we spend on health care than any other country, even in comparison with our higher GDP. But we are very sophisticated in rationalizing this disparity. It has been argued that simply comparing the share of GDP devoted to health care in each country is not the right way to analyze international differences. We should recognize that health care is a positive good; and, therefore, it is appropriate that as a country's GDP grows, it should spend a greater proportion of its income on health care. But even when you correlate per capita spending on health care and per capita GDP, as shown in Figure 7.1, the United States is still spending substantially more than the rate that would correlate with our per capita income. In other words, we would have to reduce our spending by over 30 percent in order to be similar to other industrialized countries in terms of per capita spending on health care.

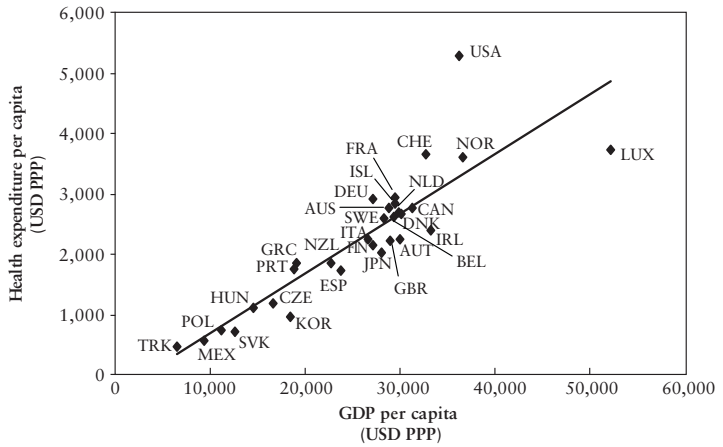

Figure 7.1
International Comparison of per Capita Spending: Health Care versus GDP
Source: OECD, 2002.

What is fascinating about this international comparison is that other countries are using exactly the same language about their health care systems that we are using about ours. I cannot go to another country—for example, Australia, Germany, France, or South Africa—where they do not claim that they are spending too much money on health care. If you look at Germany in comparison with that line, they are about as high above it as we are. Of course, they are at a different point. So, there is something we can learn from other countries. It is that we are *all* messed up. And for very good reason: the pressure to want *more* exists in all countries. The sobering difference between the United States and most other countries is that their health care spending rates include full coverage for all their citizens. In contrast, about 16 percent of the American population under age 65 still has no health care coverage—which is not what one would expect in the world's richest nation.

Everyone at the conference has raised the issue of whether the United States will be willing to continue to increase the proportion of its national output spent on health care. While I agree with David Cutler—that we are not going to cut back substantially on health care spending in the United States—I do believe that it will be imperative to control the growth of these costs in the future. This will necessitate some changes to the current delivery system.

I happen to be a believer in the employer-based health insurance system, with all of its warts. It is a uniquely American system, complex as it is, and one with roots in the free market. In my mind, the only viable alternative to an employer-based system is a single-payer system. All of the other ideas for developing universal health care coverage—such as reversible tax credits, or a mandate that all individuals purchase private coverage, or a federal subsidy combined with a voluntary system—sound nice, but these solutions could ultimately lead to an increase in the number of uninsured Americans. The reason is that we will not be willing to raise taxes enough to substitute for the loss of the employer contributions, thus leaving individuals to buy insurance in the private market with no, or little, government subsidy. We would also lose the employer-based system's advantages of administrative efficiency and benefits pooling. Of course, in theory there are ways to fix the problems involved in

providing universal coverage, but I think that as a practical matter, we as a nation would not surmount these difficulties.

So, I believe that the United States can and should build upon the existing combination of employer-based health insurance for working Americans, and should also expand the Medicaid program for the poor, as well as the Medicare system for our older population. I would not be against lowering the age of eligibility for Medicare coverage to those aged 60 years and older. For those people who are not working, this change would have major benefits, and it would help to lower the cost of health insurance for employers that provide coverage. An enhanced combination of the employer-based system and government health care programs could result in the United States' effectively having universal coverage for all Americans. Unfortunately, our current employer-based private insurance system is cracking badly. You can look at the numbers between 2000 and 2005: the percentage of working Americans with employer-provided health care coverage has fallen from 65 percent to 59 percent. Were it not for the growth in Medicaid, the number of uninsured Americans would have increased even further. Thank you, Alan Weil, for caring about this issue. It is a particularly serious problem when you see that for small firms, the drop in coverage was even much higher.

We may well develop something that is a cross between a single-payer system and an employer-based system; but to really bring about health care coverage for everyone in the United States, we must make participation in the system mandatory. I have suggested having the federal government help to lower employer-based insurance premiums, by helping to pay for the most expensive patients with a high case cost reinsurance system. If we do not help the employer-based system by lowering premiums soon, we could see it just disintegrate. Look at what is going on at General Motors and the other auto makers. The CEOs from all the U.S. automobile manufacturers took the unprecedented step of going to see President George W. Bush and asking for federal help in paying for the health insurance costs of auto workers. Ironically, instead of helping them, in his 2007 State of the Union address President Bush suggested that workers at companies like General Motors who have very good health insurance coverage should pay an extra tax. Bush's proposal, in my opinion, is not a viable solution.

What is going to happen if the employer-based system continues to deteriorate and, as a result, the number of uninsured Americans increases substantially? If these newly uninsured workers need health care, either they will become part of the uncompensated cost system that is indirectly supported by a hidden tax on those of us who are insured, or they will join the rolls of those covered by government through the Medicaid program. If the latter happens, how will we pay for this expanded program? There are some in the economics community who believe that we cannot raise government taxes. It seems to have become the equivalent of the eleventh commandment: God decreed that the tax rate ceiling in the United States cannot be more than 18 percent or 19 percent of its national income. I have been looking for that eleventh commandment in the scriptures. I have not found it yet. But given the verve with which I hear such assertions, it must exist somewhere. I will keep looking. I must admit that I do not believe in the eleventh commandment nor do I think that most Americans do either. At the end of the day, when Americans are asked, "Do you want to maintain Social Security, Medicare, and Medicaid in their present form, or see them forced to stay within existing revenue (tax rate) constraints?" I believe this country will support raising taxes. But Americans will also question whether all the procedures and services we now, or will, provide are truly necessary.

With that said, I do believe that in the future we will have a problem financing our governmental programs, and, yes, we will need to make changes in these programs that will both rein in spending to some extent and ask wealthier seniors to pay more for their coverage. But I also believe that we will find new money to help sustain the overall mission of these programs. Some believe we can solve our Medicare financing problem by raising the age of eligibility (currently, persons aged 65 years and older are eligible). I am afraid this change will not save the program much money, and will add more problems for those people who retire at age 65 and are no longer covered by employer-provided private insurance. Fortunately, most 65-year-old Americans are relatively healthy. Hence, unlike delaying Social Security benefits, eliminating three or even five years of Medicare coverage will not yield commensurate benefits in terms of cost savings. For the sake of argument, if you want to save the

Medicare program money, eliminate eligibility for those individuals between the ages of 75 and 80. (I do not endorse this solution.)

We now require seniors with individual incomes over $80,000 to pay more for Medicare Part B (physician and other outpatient care) coverage. While this new policy requirement does add some additional funds to the Medicare pool, do not count on it to solve the program's long-run fiscal problems. Nor is there enough "gold in them thar hills" to solve all of Medicare's future financial problems. While there clearly are a number of senior citizens with substantial wealth, the average per capita income of Americans over age 65 is less than $30,000.

Since Medicare began in 1966, the federal government has avoided placing significant restrictions on government payments for health care; to a lesser extent, this is also true for Medicaid. But as the escalating trend in health care costs continues and a larger share of the population becomes eligible for Medicare, I think this will change. These restrictions on government payment and use will have a growing impact on our health system, since, sometime around 2010 when the baby boomers start to retire, more than 50 percent of all health care spending in the United States will come from state and federal governments. This will be true even if there are no further expansions in these programs. What impact will our allocating a larger share of public funds to health care spending have on the health care delivery system?

To begin addressing this question, let me change the subject a bit and focus on the potential long-term impact of technology on health care spending. The key question in my mind is, what will be the influence of technological change on the health care demands of the baby boomers? When I started calling the boomers "the Bill Clinton generation" a few years ago, I did not realize that I was putting a hex on him and that he would wind up having open-heart surgery so quickly. But Clinton is my model of the impact that technology will have on the baby boomers' health care spending.

So what are the baby boomers going to want as they reach retirement age and become eligible for Medicare? Are the new technological advances going to result in cumulative cost increases in the way that previous advances have done, or is technology going to result in more effective preventive medicine that eliminates the need for more costly procedures?

We have seen a lot of what we call "cumulative medical technologies" building on top of one another, as opposed to putting a greater emphasis upon effective technologies that limit spending. It is not clear whether prices have gone down for these newer technologies, but the quantity surely has gone up. Paul Ginsberg wrote about this issue a couple of years ago (Strunk and Ginsberg 2002), and since then we have had an ongoing discussion. Ginsberg believes that during old age, the boomer generation will not use that much more health care than it does now; rather, it is going to be a healthier generation in its elder years than previous generations and one that will therefore need less care. Perhaps the average baby boomer is going to live to, say 85, then find a nice comfortable place and cease to exist, costing the Medicare program nothing.

Maybe this prognosis is correct. But a few years ago, my colleague David Shactman and I played around with some numbers. We looked at the spending pattern on health care by age cohort from 1987 to 1997—at that point the baby boomers were between 31 and 50 years old—and we found that, aside from the neonates, the fastest spending growth among the different age groups was among the boomer age group, particularly when you add in spending on prescription drugs.

Among the boomer generation, by far the fastest-growing expenditure category is prescription drugs. It is not the highest one, but it is growing the most rapidly. There is a reason why the drug companies make sure that many of their commercials are aimed right at the baby boomer generation. The reality is that the boomers are big spenders, and I see nothing that is going to stop this trend as they enter their golden years.

It is now well known and supported by most analysts that hospitals "cost-shift" to other payers when the government reimburses them for less than the costs they incur or when they provide free care to the uninsured. Maybe this is not a dollar-for-dollar adjustment, but wherever possible, they do shift a substantial proportion of the costs that are not fully reimbursed. You can see this relationship in Figure 7.2. If you look back to the early 1990s, the average private payment-to-cost ratio in hospitals was about 130 percent.

In other words, privately insured patients were being charged 30 percent more than the cost of their own care, while at the same time

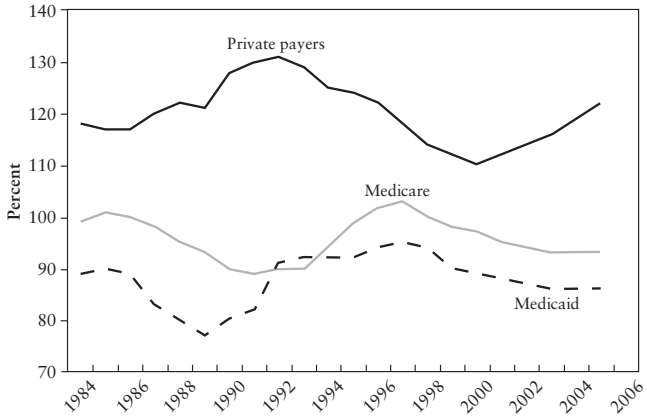

Figure 7.2
Hospital Payment-to-Cost Ratios
Source: The American Hospital Association's Annual Survey of Hospitals.

hospitals were losing between 10 and 20 percent when treating Medicare and Medicaid patients. As we moved into the mid-1990s, all this changed. Medicare and Medicaid payment-to-cost ratios rose while the ratios for private insurance groups fell. I remember hearing all of the managed care industry's bravado about how successful they were in beating up on hospitals. Little did these cheerleaders know that the hospitals were not as concerned about receiving lower payments from the managed care industry, because Medicare and Medicaid were actually paying pretty well at the time. But that halcyon era ended after Congress passed the Balanced Budget Act of 1997. After 1999, we were back to a period where government payments became low relative to the cost of providing care, and hospitals worked hard to extract higher payments from their privately insured patients. As a result, the private payers' payment-to-cost ratio has risen in the last couple of years from 112 percent to around 120 percent (see Figure 7.2).

Given that the future proportion of hospital patient expenses incurred by Medicare recipients will be higher because of the demographic trends we have been discussing, suppose hospitals want to maintain the same margins in 2025 as they earned in 2003. What would the privately

insured payment-to-cost ratio have to be in 2025? Of course, this is a hypothetical exercise, but I think it highlights the financial pressures that hospitals and private insurance companies will face in the future. Stated differently, in order for the hospitals of 2025 to maintain their margins, given their future cost structure and the changing demographics of their patient mix, private hospital payments relative to costs will have to rise to unprecedented levels. If this does not happen, there will have to be big changes in the way hospitals do business or a significant reduction in the utilization of hospital care by all patients, particularly those covered by government programs.

Other countries have restricted their growth in health care spending. How have they done it? It does not just happen. The way they do it is by keeping people from getting access to expensive medical technology that has limited benefits. But not everyone believes that making medical decisions based strictly on the cost-benefit ratio is a good thing. What about the elderly patient who could live a few years longer, but would need a very expensive procedure to do so? I will want access to that technology when I need it. I believe the baby boomers will want it as well.

In the United States, we have this pressure to provide and pay for the health care gold standard, which means doing everything you can for a patient, regardless of whether the benefits are at all commensurate with the cost of the treatment. That is what health care providers are trained to do, what patients expect, and what the present system has paid for providing. In fact, there is growing evidence that in some parts of the country the situation is even worse—the health system is providing care that is actually harmful, and we're doing too much. Dr. Jack Wennberg at Dartmouth Medical School has been studying this issue for over 20 years; you can review his findings, so I won't belabor the point, except to suggest that there must be a happy medium between a strict cost-benefit system of rationing health care and a system that spares no expense and covers every possible procedure.

But we cannot adopt the purely market-oriented solution of opting for insurance policies with very high co-payments and limits on coverage. If we do this, there will be some winners but also some big losers. Who would be the winners? Clearly, healthy individuals: they will pay lower prices. Adopting the purely market-oriented solution would also help

those owners and workers who either operate truly efficient health care institutions or who "cherry-pick" only the most profitable patients.

Who would be the losers? Sick patients who have complex illnesses. No provider or insurer wants expensive patients who incur costs that are higher than their covered payments—such as burn patients, psychiatric cases, or chronic medical conditions. The uninsured would lose out, as well as Medicaid recipients and long-term workers in big, expensive systems. Finally, the many public health services provided to communities at no cost, or at prices below cost, would be hurt. A purely market-oriented solution might be efficient, but it would not be equitable. Americans are increasingly aware that the current system is approaching the breaking point, and the issue of how to deal with health care promises to figure into the 2008 presidential election.

So then, the real question must be: Are there market alternatives to this unpalatable scenario of greater demand and higher costs? I say that the answer is yes. There are four distinctly private-sector forces that could help to reduce private spending levels and keep the United States' employer-based health insurance system from breaking. As I said previously, I believe that if we abandon employer-based insurance, we will face a serious coverage and financing problem, followed by the implementation of some form of a single-payer system that, I suspect, would provide lower-quality health care services. From my point of view, I would rather not see this country move in that direction. Therefore, I think we need to make the employer-based system work by: (1) changing the design of the employer-based insurance system to encourage greater consumer involvement in managing costs, (2) returning to a true "managed care" system, (3) altering provider payments to reward efficiently provided care by paying for performance, and (4) creating an effective, systemwide, high-cost disease management system. We need to change the design of employer-based insurance and incorporate greater consumer involvement. Whether we call these measures health savings accounts, high deductibles, or co-insurance, the forces will have a positive impact on improving the country's current health care system.

In my view, we need to return to managed care. We ought to believe in managing health care in order to manage health care costs. The reality is that managed care is a good thing if it truly manages care and does

not just cut payments without due regard to the value of the services provided. We should be paying health care providers for performance, not just paying them, period. Incentives matter. Finally, we can pursue Willy Sutton's idea—he was the bank robber who said to go where the money is. We can stop concentrating on saving nickels and dimes and see whether we can better control the spending for those patients who cost the system the most—the very sick. Saving money by controlling the cost of caring for the very sick is one way to avoid breaking the bank by allowing health care costs to spiral out of control.

But, at the end of the day, I am with Mark Pauly. Private-sector solutions are all good things, but they are not going to fundamentally change the long-term cost curves of providing health care in the United States, especially as the baby boom generation enters old age. Private-sector solutions are just not strong enough to trigger meaningful incentives to contain rising costs. This brings us full circle to my opening point: I no longer believe that private market forces alone will suffice to improve health care coverage and contain the rising trend of greater costs, but they can be helpful. In the end, we also need government to help guide the system to become more effective, by providing the information necessary to help patients and providers know which services do and don't work. We also need government to stop paying for services that really have little or no benefit.

At some point, we must introduce more aggressive changes in utilization that bring both providers and government into the action. We cannot just rely on forcing patients to bear more and more of the cost of their care. Making these changes will not be easy, and right now I do not see that the United States has the political will to seriously confront such changes. Health care promises to be a topic in the 2008 presidential election, but the difference between debating an issue and taking concrete action is considerable. Nor, at present, do I see a broad willingness on the part of business or government to eliminate coverage. Therefore, at least in the short term, I see spending and medical care premiums continuing to grow at rates significantly faster than the growth in GDP. Government may try to slow its spending on medical services, but it, too, is being pulled along by the public will to provide health care at all costs, not to curtail its provision.

Americans care about equity, and I believe that they will support higher spending if they feel that the money is well spent. But sooner rather than later, we need to have a serious national debate about how the private sector and the public sector can balance the cost of providing health care for everyone in the United States. This is a worthy goal for our nation, both economically and politically. I believe that there are efficient and equitable solutions if we have the will to confront the health care challenge of providing high-quality medical care while controlling costs.

Notes

1. See the work of the Center for the Evaluative Clinical Sciences at http://www.dartmouth.edu/~cecs/. Accessed October 9, 2007.

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Comments on Altman's "Will the United States Continue to Allocate a Growing Proportion of Its GDP to Health Care?"

Judith Feder

Stuart Altman has laid out a full range of concerns about rising health care costs. I will focus my comments on the tie of health care costs to health care access—or, to be more precise—to health insurance coverage. My argument, in brief, is that, although uninsurance does not begin with health care costs, cost increases undermine the capacity or willingness of our public and private financial institutions to assure access to coverage; and, that (like it or not), deterioration in private and public coverage actually constitutes a cost containment strategy—one of growing inequity between haves and have-nots. The argument has five points.

The first point is to remind us that the primary barrier to health insurance coverage is not costs; it's income. An estimated one-half to two-thirds of the uninsured (depending on how we measure income) have incomes below twice the federal poverty level. The uninsured are in low-wage, low-benefit jobs, most of which do not offer health insurance; and the direct price they face for health insurance policies in the nongroup market—in conjunction with these policies' limited benefits—exceeds their willingness or, in my view, their ability to pay. That means that it is subsidies, not cost containment, that are needed to expand coverage.

That takes me to my second point: that cost increases for the insured have, for decades, been a major political barrier to providing subsidies.

- Supporters believed Medicare to be the first step toward national health insurance; but early after its passage, forward movement was derailed, not only by partisan politics, but also by Medicare's rapid cost increases.

- The Carter administration, ostensibly committed to universal coverage, put cost containment first. They never got that, and they never got to coverage.
- The Clinton administration tried to finance coverage with cost containment, and they, too, got neither.

Essentially, over about the last 50 years, the uninsured minority have been held hostage to our unwillingness or inability to slow cost growth for the already-insured majority.

Point three: Cost growth is increasing the numbers of people without health insurance and eroding the benefits (or consuming the wages) of many of the insured. Although income is the primary barrier to insurance coverage for modest-income people, at the margin, higher health care costs (especially in a weak labor market) mean fewer people covered and, for those who are covered, fewer benefits or lower wages, as health care costs consume a growing share of compensation. That means we have a problem not only with the sustainability, but also with the regressivity of our current health financing mechanisms. And, whether through deterioration in benefits or in disposable income, it means we have a de facto strategy for dealing with costs: increasing inequity between high- and low-income people.

Point four: There is a powerful likelihood that this de facto strategy will become de jure. Concern about health care costs in the political arena is largely framed as a problem with our "entitlement" programs and deemed to create a need for "entitlement reform." The target is not health care costs in general, nor is it our tax entitlements (most significantly the tax preference for employer-paid premiums); rather, it is our direct spending on Medicare and Medicaid. And the goal is not to reduce health care cost growth, but to cut public subsidies for these costs. Stuart raised Medicare financing as the first issue around which the Congress will confront this strategy, as general revenue contributions reach the Medicare Modernization Act's newly created "cap." But the strategy's first phase is to target Medicaid—the most politically vulnerable program, where, at the very moment of this conference, the nation's governors are calling on Congress for "flexibility" to increase cost sharing, cut benefits, and eliminate judicial remedies that enforce Medicaid's individual

entitlement. Alongside cuts in private-sector protection may well come cuts in public-sector protection for the low-income pregnant women and children we have so far deemed deserving.

And that takes me to my fifth and final point—that in all likelihood, the "strategy" of increased inequity in response to increased costs will continue. The "haves" will get more; the "have-lesses" and the "have-nots" will get less. And it will all happen without explicit consideration of what we, as a nation, can actually afford. As I have understood David Cutler and others (including participants in this conference), GDP growth can support a more equitable and even a growing health care system. We have policy choices, not immutable laws, about the share of that growth we wish to use for our collective good. And we can choose, like other nations, to promote efficiency and devote less to administrative costs, as well as use care more effectively to stretch those funds.

But the policy path we have followed obscures rather than facilitates explicit choices. Our public/private financing system, which some have properly called "fragmented," is not, as others have claimed, a "historical accident." It is the outcome of a century's worth of political choices and testimony to the stakes and values that reinforce and sustain them. Paths can change, but, at present, it certainly seems that our politics are entrenching, not reversing, the inequitable path we are on.

The Need for Managed Incentives: Comments on Altman's "Will the United States Continue to Allocate a Growing Proportion of Its GDP to Health Care?"

David O. Meltzer, M.D.

Dr. Altman asks whether and how the United States will contain its health care expenditures in future years. He argues that we will have no choice but to do so, and that a consumer-responsible system will likely play a major role in this transformation. He concludes with the remark that physicians will decide the shape and structure of this new system. As the physician among his discussants, I will respond to this last point and discuss examples, both positive and negative, of physician engagement in health care cost control efforts. I believe these show both the promise and challenge of physician leadership in this area. I will also discuss what I think is the failure to this point of physician engagement with patients around cost control, as I think this is a major concern with consumer-driven models for controlling heath care costs that has received little attention. And finally, in discussing both of these issues of physician engagement in cost control efforts, I will try to suggest some ways in which I think health economics as a discipline has fallen short of realizing its promise to produce a more effective and efficient health care system.

Let me start by saying that I am not sure to what extent physicians will be leaders in this process. Surely, they will play an important role, but there are powerful forces, both economic and social, that may prevent doctors from exercising the leadership one might have expected in a previous era. The immense economic burden of modern health care and the deteriorating professional authority of physicians are just two of these forces. But this said, let me touch on two areas where I think the involvement of physicians will be increasingly critical: hospital care and ambulatory care. In these two areas, one sees quite different patterns of physician awareness and involvement in the economics of health care.

As an economist, I think these are not random, but rather the results of the incentives we have created for doctors. In both cases, I think there is a clear lesson: doctors will follow the incentives they are given, but often not as quickly as we might hope they would. My key message will be that, as economists, we need to spend more time thinking about the things we can do along with incentives—for example, offering provider and patient education—to make incentives more effective. In short, we need to better manage incentives by understanding the organizational and human contexts in which they are applied.

In hospital care, which Dr. Altman notes continues to be the largest single contributor to increases in health care costs, a remarkable transformation is taking place in the United States. Specifically, hospital care is being taken over by a much smaller number of physicians than previously practiced in this setting—a group of physicians who are more focused on containing costs than were those they are replacing. One sees this most dramatically in internal medicine, where a new group of specialists called "hospitalists" have taken over more than one-third of all hospital general medical care in the United States only seven years after the term "hospitalist" was defined. Although the data are not unequivocal, there are suggestions that replacing traditional internists focused on ambulatory care with hospitalists can reduce the cost of hospital care by about 10 percent, while maintaining or improving outcomes. Furthermore, our data suggest that hospitalists are doing this while providing care that is technically better. For example, in the care of community-acquired pneumonia, we have found that hospitalists are more likely than traditional internists to follow guidelines for the appropriate timing of discharge relative to clinical stability, reducing the length of stay by discharging more people at the time of clinical stability rather than later, and, at the same time, discharging fewer patients before they are clinically stable. In the language of economists, these doctors are operating closer to the production possibility frontier.

Moreover, recent research by myself and others suggests that these doctors appear not only to improve the cost and outcomes of the patients they care for, but also to improve the care provided by the other doctors with whom they work, whether they are young doctors in training or older colleagues who likewise pick up the practices of the hospitalists. A

great example of this is work that we have done examining the adoption of low-molecular-weight heparin, a blood thinner used to stabilize and dissolve dangerous blood clots that used to require hospitalization of a week or more and now are often treated with this new drug in an overnight hospital stay. At our hospital, the use of this drug began with one of our hospitalists, who saw an opportunity to reduce length of stay and costs for our hospital, while providing care that was as good or better for his patients than the conventional care. Seeing that his job as a hospitalist called for him to seek out and implement changes such as these, he worked out the logistics of using this treatment at our institution and began to use it. But the story did not end there; soon the interns and residents with whom he had used the drug began to use it for the patients who appeared on their service the following month with a new attending physician, and these physicians in turn began to use it and teach it to other interns, residents, and attending physicians. Our data allow us to trace out this learning from person to person until about two or three years later, when the treatment became standard in our hospital. We have also found that the hospitalists make the whole system run more efficiently by addressing systems problems they see, and probably by encouraging physicians who are not as effective in the inpatient setting to direct their activities elsewhere. Hospitalists are also having increasing effects outside of internal medicine, in both subspecialty and co-management models, for example, in providing hospital care for post-operative orthopedic patients. The aggregate cost implications of these effects are not small. If hospital care represents 40 percent of health care expenditures, and if hospitalists can reduce hospital spending by 10 percent, then we are talking about saving potentially 4 percent of health care expenditures, or in Fed terms, one-half percent of GDP. For the United States, that would be $60 billion annually. For General Electric's $3 billion annual health care bill, maybe $120 million per year. Even if the actual savings were a fraction of these, the savings from hospitalists could clearly be substantial.

But my point is not to tell you that hospitalists are a cure-all. In fact, I am known by people who study hospitalists as somewhat of a skeptic, but I think the example is important because several lessons emerge from it. First, doctors can respond to incentives, even when they are somewhat indirect. The pay of our hospitalist who pioneered the use of low-

molecular-weight heparin was not directly tied to saving the hospital money, but he had an understanding that, as someone supported by the hospital as a hospitalist, his role included the general responsibility to contain costs. Note that this understanding contrasts with that of typical medical school doctors, who report to their division chiefs, department chairs, and deans, most of whom care little whether the hospital runs efficiently. While, in principle, the hospital vice president in charge of utilization could have told the hospital president to tell the dean to tell the medical department chair to tell the division chief to tell the attending physician to try to think up ways to save money and then thank him or her for successful innovation, it goes without saying that such complex transmissions of incentives rarely happen, if for no other reason than because of the sheer number of links in the chain. The scope for misunderstanding and information loss is compounded by the complexity and dynamic changes in the links when leaders frequently stay in their jobs for only a few years in modern medicine.

The particulars aside, the point here is that doctors can respond to incentives, but that the complexity of medical institutions often makes it very, very difficult to ensure that such responses occur in a timely fashion. In hospital care, I think it is telling that since the establishment of the Medicare prospective payment system (PPS) more than 20 years ago, the incentives have been aligned for more efficient care for the vast majority of hospitalized patients, but only now are we seeing medical specialties like hospital medicine arising that make it their business to address the inefficiencies of hospital care. If you go to the hospital medicine meetings, I think you will be excited to see sessions on quality improvement methods, such as process mapping, measuring outcomes, the use of new technologies to improve efficiency, and so on. Doctors who attend these sessions are gaining the skills needed to respond to the incentives that have been created. This is all great, and it gives me faith that this is a discipline that will grow to make real contributions to improving the cost and outcomes of the health care system, but I think it is well worth noting that it is arising 20 years after the fundamental change in incentives created by Medicare prospective payment, which I believe, more than anything else, set it in motion.

So, to me, the lesson here is that it is not enough to change incentives alone unless we are prepared to wait a very, very long time for a response. We also need to create the institutional environment to be sure that the incentives are transmitted to the persons who are in a position to act on them, and provide these persons with the skills needed to respond to them. I think this problem is perhaps most evident in academic medical centers, but it is also present in most community hospitals. Alain Enthoven's integrated health systems have been leaders in these approaches, so perhaps those who have been keeping score should have given him credit for that. However, I think that fully integrated systems may not be required. I believe that if hospitals were more frequently managed by leaders who understood how to create the partnerships needed between hospitals and physicians, and that if physicians were trained from their earliest days in the skills needed to accomplish the changes in the system required to improve health care, we would not have had to wait 20 years after PPS to see these changes taking place. The point is that the creation of new incentives needs management, and there is a critical dearth of qualified leaders to manage health care intelligently in this country. If we had implemented PPS and had trained hospitals and doctors more actively in how best to respond to these new incentives, I suspect that we would have achieved greater savings and better outcomes, and we would have developed disciplines like hospital medicine far sooner than we did. If one is a theoretically oriented economist, one can tell stories about why it would have made sense for hospitals to invest in producing these skills in their physician leaders 20 years ago, but the fact is that they did not, and still do so reluctantly. One reason may be that these skills are largely general human capital, which employers are understandably reluctant to invest in; and for physicians, these are not skills that one easily learns in the classroom or that are so trivially mobile across institutions as to be worth investing in themselves.

But, regardless, the point is that we could have done, and can do, much more to spread skills in system change—skills like root-cause analysis, failure mode-effect analysis, continuous quality improvement, process mapping, and so on. If a challenge of pay for performance (P4P) based on outcomes is patient selection, so that P4P based on structural or process

measures of care makes sense, why not help pay for physician training in quality improvement and for physician time allocated to quality improvement efforts? Rather than waiting 20 years for the forces of the invisible hand created through managed competition to nudge hospitals and physicians towards efficient practices, it seems to me better in working with institutions as complex as those in health care to manage the response to incentives more directly. I think the best plan for health care reform cannot be determined from an elevation of 30,000 feet, and economists have had less impact than they might have had because they have too rarely thought about how the incentives that they propose play out at the micro level. I think that we need to learn not only to create incentives, but also to manage them by creating needed co-interventions, such as physician training, so that their impact is realized more effectively.

The second area I wish to discuss, ambulatory care, also illustrates well the importance of economists' not thinking they can understand, no less re-engineer, the health care system from 30,000 feet, but instead investing more effort in this sort of managed incentivization. Discussing ambulatory care is an interesting complement to the discussion of hospital care, because unlike hospital care, which is largely paid for by payers, ambulatory care often has substantial out-of-pocket components that have been created to control utilization.

If any single area has been the focus of health economists, it is the effect of co-payments on the demand for medical care, but I think our conceptual model of how co-payments affect demand remain tremendously primitive. The model essentially is that we vary the price of some aspect of health care, and people decide whether it is worthwhile at that price and make their decisions accordingly, based on a comparison of benefits to costs. But this is not how health care works, and especially if you are not someone who is wealthy and therefore indifferent to costs or are not educated enough to inform yourself. Basically, you get 10 to 20 minutes with your doctor, who talks with you briefly about your health concerns and then tells you what to do and sends you on your way. There is no time to ask many questions about the magnitude of benefits or about alternatives, even if you were self-possessed enough to do so; and if you did ask about cost, it is not clear the physician would know the answer to your question.

In an article that colleagues and I recently published in the *Journal of the American Medical Association* (JAMA), we found that about three-quarters of doctors and patients agreed that they should discuss out-of-pocket costs, but two-thirds of doctors and 85 percent of patients said they had *never* discussed out-of-pocket costs with each other (Alexander, Casalino, and Meltzer 2003). With such statistics, I am frankly amazed that a price elasticity of demand for care is even measurable in health care. But more pragmatically, I cannot help but think that the elasticity of demand would be much different if we could shift the culture to put issues of cost on the table in the encounter between doctors and patients. There are many ways to do this: empowering patients, simplifying benefit structures to be more transparent, and educating or incentivizing doctors to discuss these issues with their patients. How can we expect co-payments to have their full effect on demand if people do not even know about them at the time they are making the decision to go ahead? We get all the financial risk that comes with incomplete coverage, while failing to realize the potential to constrain expenditures appropriately.

Again, as economists we have worked at 30,000 feet and have not managed the human relationships around the incentives that we have created. The fields of psychology, sociology, communication, marketing, and graphic design, as well as human factors, can all contribute here. And perhaps we need the attention of medical educators and even some legislation to ensure that doctors act with basic economic competence in discussing issues of cost with their patients. To me, this sort of attention to the institutional and interpersonal context by which incentives are transmitted is the frontier of health economics.

Concluding, I think that health economics needs to move from merely creating incentives to considering how to manage those incentives in the context of the complexities of health care. Whether it is by helping doctors and hospitals gain the skills they need to respond effectively to prospective payment incentives or by providing patients and doctors with the skills they need to manage out-of-pocket costs, we need to think about how incentives are complemented by noneconomic approaches, such as educating and motivating patients and providers to make changes in response to those incentives. In that regard, it is exciting that so many economists here work in interdisciplinary settings or have developed link-

ages with one or more provider systems. But I think that there is still a great deal of unexploited opportunity to improve health care by bringing interdisciplinary insights into mainstream health economics, and I imagine a conference like this even 10 years from now would find people from an even broader set of disciplines than the diverse set we see here today.

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Comments on Altman's "Will the United States Continue to Allocate a Growing Proportion of Its GDP to Health Care?"

Joseph P. Newhouse

Stuart Altman covers a lot of ground in his paper, and it would be easy to be equally lengthy in commenting on it. But I will limit my comments to three topics: (1) the medical cost paradox, namely, that the increment in benefits from increased medical care spending over time has exceeded the increment in cost, even though at a point in time the marginal benefit of additional spending is less than the marginal cost; (2) the consequences of increasing medical care cost for the financing of Medicare, Medicaid, and the safety net; and (3) the consequences of the increasing cost for employment-based health insurance.

The Medical Cost Paradox

Altman points out that physicians who are reimbursed on a fee-for-service basis, as most American physicians are, have a financial incentive to deliver all or almost all services with a positive marginal benefit. Medical training and culture reinforce this. So do insured patients, who want all services that they believe have a positive marginal benefit. In short, the financial incentives suggest that the marginal dollar spent on medical care should not buy very much.

There is much evidence to support this suggestion. Within the United States, Altman points to the studies of Elliott Fisher, Jack Wennberg, and their colleagues at Dartmouth Medical School. The Dartmouth group has made a strong case that high spending areas in the United States receive little or nothing in the way of observable benefit from their extra spending (Dartmouth Medical School 1999; Fisher et al. 2003a, 2003b).

Reinforcing the notion that the United States does not get value for the money it spends are the numerous studies of deficiencies in the quality of care. They suggest that the American medical care system—and probably every other country's as well—operates well within the frontier of what is possible, given the resources it uses (Institute of Medicine 1999, 2001; McGlynn et al. 2003; Newhouse 2002).

At the same time, David Cutler, Mark McClellan, and I have made the case that the increase in medical spending over time has brought benefits that have exceeded the cost (Cutler 2004; Cutler, McClellan, and Newhouse 1999; Cutler and McClellan 2001; Newhouse 1992). Cutler has argued, persuasively in my view, that the benefits from improvements in the treatment of cardiovascular disease and neonatal mortality alone have been worth the entire increase in cost in the United States over the past few decades (Cutler 2004). In the case of cardiovascular disease, however, these gains appear attributable more to relatively inexpensive, low-tech treatment than to the well-known, high-tech, costly interventions such as bypass surgery and angioplasty (Cutler, McClellan, and Newhouse 1999).

Consistent with the view that, on average, the benefits of the increased share of resources going to medical care have been worth their cost is the similarity of the rate of real increase in medical cost across developed countries, despite those countries' varied financing institutions (Newhouse 1992). My interpretation is that all countries have found the costly new capabilities of medicine worth purchasing.

In sum, the last several decades have seen valuable but costly medical advances. Although no one can know the degree to which these advances will continue, it seems likely that they will, and that medical spending will continue to rise. As each country spends more, the strains on financing institutions will be ubiquitous, although the nature of those strains will differ, depending on the specifics of each country's institutions.

The Strains on Public Financing of U.S. Medical Care

Virtually all observers believe the cost of medical care will continue to increase. As Altman points out, how Medicare will finance its share of the increasing cost is a major public policy issue. And it is not just Medicare that is at issue. Medicaid is an even larger program, and there is also

the cost of direct delivery systems financed by all levels of government. These include the Veterans Administration, the military health care system, and community health centers at the federal level, as well as state and local hospitals at lower levels of government. In FY 2006, medical care will account for around 25 percent of the federal budget, and Medicaid alone will account for over 20 percent of the average state budget (Congressional Budget Office 2005a; Mann and Pervez 2005).

The potential future rate of cost increase, together with the large budget share already accounted for by medical care, implies a substantial shift of resources to medical care in the future. With an assumption about the difference between the future growth of medical cost and the future growth of GDP, one can estimate just how substantial that shift might be. Historically (1960–2002), the annual increase in medical care cost in the United States exceeded GDP growth by 2.7 percentage points; the excess in France, Germany, and the United Kingdom was 2.5, 1.9, and 1.7 percentage points, respectively (Organisation for Economic Co-operation and Development 2004).

One can, of course, reasonably expect the excess growth to diminish because the opportunity cost of medical spending will increase as its share of GDP increases. As an illustration of the forces at play, if one assumes that U.S. medical spending increases by 2.0 percentage points above GDP for several decades, less than the historical U.S. rate, the increment in medical spending takes almost all of each year's increment in GDP by mid-century (Chernew, Hirth, and Cutler 2003).

Long before mid-century, however, the seemingly irresistible force of medical cost increases may meet something of an immovable object. American political institutions have kept the share of GDP taken by federal revenues remarkably constant. Only three times in the 58 years since the end of World War II have federal revenues as a share of GDP gone outside a band of 16 to 20 percent, and only once—in 2000, when revenues swelled from taxes on realized capital gains and exercised stock options did the share exceed 20 percent (Congressional Budget Office 2005b).

How strong a force will act on the apparent ceiling on the federal share of GDP? If access is not to be jeopardized for its beneficiaries, Medicare costs must increase at close to the same rate as private costs, as indeed they have historically (Newhouse 2004). The Medicare Trustees

assume that the annual per beneficiary cost of Medicare will increase by only 1 percentage point more than per capita GDP (The Boards of Trustees 2005). Although the historical difference between medical care cost growth and GDP growth will likely shrink because of the increased opportunity cost, I regard the Trustees' assumption as decidedly optimistic. It is well below what any developed country, let alone the United States, has achieved over a sustained period. Even this optimistic assumption, however, shifts around 3 percentage points of GDP to Medicare over the next two decades (Congressional Budget Office 2003). But given the striking constancy of the federal share of GDP, shifting 3 percentage points of that share to Medicare will create strains, not to mention the additional resources that Medicaid, including long-term care, and Social Security will require over the next few decades.

The Strains on Financing Medical Care Through Employment-Based Insurance

Altman characterizes the employment-based system as "crumbling" and backs that description with numbers on how employment-based insurance has shrunk over the last few years.

I agree with Altman that there is likely to be continued shrinking because of the pressure placed on cash wages by the steady rise in medical costs. An example will illustrate: the 2005 premium for my HMO policy through Harvard University, which covers my wife and me, is over $14,000 per year. Dental insurance brings the total to roughly $16,000. An employer paying 75 percent of these costs would spend $12,000.

Consider an employee with such a policy, earning $35,000 of cash wages. The employer share of Old Age Survivors and Disability Insurance, Hospital Insurance (Medicare Part A), and Unemployment Insurance taxes is 8.5 percent of earnings, or $3,400 for this worker. Suppose the employer also makes a 6 percent pension plan contribution, an additional $2,400. The employer's share of the fringe cost, including health insurance, comes to $17,800 (= $12,000 + $3,400 + $2,400), just over half of cash wages; so total compensation is $52,800.

Now project these numbers forward. Suppose medical care costs go up by 8 percent per year, and productivity and hence compensation go

up 3 percent. Assume that the tax rate for Medicare and Social Security does not increase, surely an optimistic assumption, and that the pension contribution remains at 6 percent. In 10 years, the total compensation of $52,800 will have grown to $70,959. The health insurance subsidy, however, will have more than doubled to $25,907. As a result, cash wages will have only risen to $36,065, or 0.3 percent per year. Modest changes in these numbers, including considering a lower-wage worker, yield a projection that cash wages would fall.

Thus, the pressure on cash wages creates special problems for low-wage workers. At the extreme of the minimum wage, the employer cannot shift the increases in insurance premiums. But as the foregoing example shows, shifting costs may run into problems well above the minimum wage if the employer does not wish to cut nominal wages. This is especially the case when increases in health care costs substantially outrun general inflation (Sommers 2005).

If costs cannot be fully shifted to low-wage workers, the employer can increase cost sharing, reduce covered services, or decrease the premium subsidy. Clearly, employers are utilizing all of these strategies. And sufficient decreases in the premium subsidy could effectively negate the risk pooling that the firm provides, as good risks opt out; that is, such decreases in the subsidy could effectively wipe out employment-based insurance.

Another option for the employer is to redistribute more within the workgroup; that is, to have high-wage workers subsidize low-wage workers to a greater degree. But this disadvantages employers with a relatively high share of low-wage workers when competing in the labor market for high-wage workers. Rather than redistribute, the employer may contract out for services provided by low-wage workers, either to independent contractors or to firms that hire low-wage workers but do not provide health insurance. In turn, such workers shift to a spouse's insurance, to the individual insurance market, or to safety-net institutions. The latter development, of course, places further stress on public budgets and increases the political pressure for universal coverage.

Ironically, increases in the minimum wage exacerbate the problem. Colin Baker has shown that about half of the 4 percentage point decline in those insured through their employer during the 1987–1999 period

was attributable to increases in the minimum wage, especially the $1.80 increase in the federal minimum wage (Baker 2005). And an employer's pulling insurance off the table entirely is clearly the extreme case; most likely many more employers increased the cost sharing, decreased covered services, decreased the subsidy to the premium, or used some combination of these approaches in response to the minimum wage increase.

Will the Cost Increases Continue?

No one can say with any assurance what the increase in future medical costs will be, but the cost of medical care has been increasing faster than GDP for more than half a century in virtually every developed country, at least if one looks at sufficiently long time periods. The principal driver behind this increase has been the increased capabilities of medicine. It seems only reasonable to think that these capabilities will continue to increase, because many of them are highly valued. Still, as the opportunity cost increases, it also seems reasonable to think that the rate of increase will slow down. Just how fast it will slow down and how the financing institutions will accommodate to the increase is anyone's guess. But the safest bet would be for continued strain on financing institutions.

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8

Policy Debate: Reforming the U.S. Health Care System, the Road Ahead

Economic Perspectives on Health Information Technology

David J. Brailer, M.D.

It is well known even to non-economists that the United States has experienced rapidly rising health care costs and an epidemic of inferior health care quality over the past decade. It is now becoming clear that, to some degree, these two phenomena are closely related to each other. In 2004, the United States spent just short of $1.8 trillion on health care. Many are seeking ways to reduce health care spending, but given demographic changes in the U.S. population and the ongoing stream of diagnostic and treatment breakthroughs, the real questions may be about how to get more value for what is spent and how to get a more normal market for health care services. Addressing these questions underlies much of the effort by the George W. Bush administration to deal with health care services in general, and health care information technology (IT) in particular.

The mission of the Office of the National Coordinator for Health Information Technology is to execute the actions ordered by President Bush in his April 2004 Executive Order, which calls for the widespread deployment of health information technology within the next 10 years.[1] The backdrop for that is a variety of reports that health care has been very slow to adopt IT. FedEx knows the location of every package anywhere in the world at any point in time, yet a medical record can be very hard for a doctor to find in a timely fashion. The difference is in the use of modern information technology; hence, the administration's efforts to address this issue.

The Cost and Quality of U.S. Health Care

Consumers bear the real cost of health care through wage offsets or through higher prices for U.S. output. This is obvious enough to economists, but what is obvious to economists may be obscure to others. The United States has enormously high health care costs, but the core issue is that it is hard for economists to demonstrate to the general population the value of what Americans get for those costs compared with what people in other countries can get for their health care spending. Despite obviously superior research and development, obviously superior access to services for those who are in the system, and obviously superior training and development of specialized services and professions, the United States does not necessarily have a superior health care system. Somehow, these core advantages do not translate into population longevity and the quality of life that health care is supposed to bring to our population. In this milieu, the Office of the National Coordinator for Health Information Technology views its role as part of a larger effort to make the U.S. economy more competitive in terms of how well our goods and services perform in a global market, and in terms of Americans' standard of living.

Over the past 10 years, the Institute of Medicine reports have put into the American consciousness the idea that health care does not just go wrong occasionally—it goes wrong all the time. Estimates indicate that up to 100,000 people die each year from inpatient medical errors, and up to two million people are injured annually from ambulatory medical errors. Today, this crisis has become apparent to many Americans—not just as dry statistics, but in the form of their life experiences or the life experiences of their family members—and has brought us into a world where issues of quality and safety resonate with the public. This nation has dealt with some of the small problems of health care, but the topic of health IT has become the catalyst for renewed discussion of big health care policy questions. Health IT is a topic that has captured the imagination of Americans—from the president to the public at large.

The Role of Information Technology in the Health Care System

It is clear that investments in information technology in many industries other than health care have earned substantial payoffs. Dale Jorgenson

and his colleagues recently updated their work on productivity change and found that from 1995 to 2003, average labor productivity grew by 3.06 percent per year. Information technology alone contributed almost half of this, accounting for 1.45 percent per year (Jorgenson, Ho, and Stiroh 2004, Table 1). Moreover, this robust trend, and the role that investment in information technology played in it, is likely to continue for the foreseeable future.

The trend of IT-driven productivity growth has been led by industries like telecom, which clearly derive scale benefits from investment in technology. But even retail, which is an industry much more like health care in terms of its labor intensity and local customization, has seen substantial benefits. So, why not health care? Why is it that this industry has failed to realize similar benefits? It is because health care is not adopting information technology in a purposeful way. There is good evidence that if the United States were to invest in health care IT, it would realize a substantial payoff. Estimates of benefit range quite broadly, as one would expect, given the size of the health care industry and the extrapolations that these estimates require. It is estimated that savings could range anywhere from 7.5 percent of health care costs (Johnston et al. 2003; Pan et al. 2004) to as high as 30 percent (Wennberg et al. 2002; Wennberg et al. 2004; Fisher et al. 2003a; Fisher et al. 2003b). The low numbers represent the core savings that would arise from a reduction of medical errors. These numbers may seem very large, but take medical errors as one example. A medical error costs, in 2003 dollars, about $3,700 (Bates et al. 1997), and early studies indicate that somewhere between 70 and 80 percent of those errors could be eliminated (Evans et al. 1998; Bates et al. 1998). Most of these are prescribing errors, whereby the patient ends up getting the wrong drug, the wrong dose of a drug, or the right drug given at the wrong time. Such errors lead to a variety of consequences, including further diagnostic evaluation of the patient and additional treatments. They can also result in serious complications that require additional interventions and may even result in death. Unfortunately, $3,700 is a lot of money—except in health care, where it buys just a few lab tests and maybe an imaging scan and a half-day in the hospital.

Reducing medical errors can save up to 7.5 percent of our health care expenditures. Going beyond this, up to the 30 percent savings, requires a much more substantial transformation of care delivery that goes beyond

simple error reduction. It requires the industry to follow the best diagnostic and treatment practices everywhere in the nation. For example, cholesterol screening can lead to early treatment, which in turn can reduce the risk of heart disease. Where that has been done, there have been substantial savings on cardiac expenditures. Investments in mammography to detect breast cancer at early stages incur substantial up-front expenditures but realize substantial long-run savings. There are many examples, including asthma, diabetes, and lung disease—some of the major killers of Americans. The transformation of care delivery and the achievement of savings of up to 30 percent represent the potential for what could be realized if health care undertook a large-scale industry restructuring. These are big savings, but they also require remarkable changes in the way the industry operates.

Interoperability

The Center for Information Technology Leadership in Boston recently conducted a study demonstrating that if the health care system were interoperable—that is, if patients' information were shared across health care settings so that personal health information seamlessly followed any patient through various settings of care—$77 billion would be saved annually (Pan et al. 2005). The methods used in this study were conservative, so this is a lower bound for the economic benefits of interoperability.

Interoperability is becoming increasingly important in a world of increasing health care specialization. In fact, most consumers receive care from multiple different health care organizations: a laboratory, a pharmacy, a physician's office, a specialist, a hospital, and more. But the data are held by each one of these organizations and shared only via the manual exchange of paper. There is no concept of portability of an individual's information. People do not really have longitudinal records unless they, like many Americans, keep their own set of records. And The Kaiser Family Foundation reported recently (The Kaiser Family Foundation, Agency for Healthcare Research and Quality, and Harvard School of Public Health 2004) that 32 percent of Americans carry their own version of a personal health record (for example, from the

Henry J. Kaiser Family Foundation, the Agency for Healthcare Research and Quality, or the Harvard School of Public Health) because when they show up in a clinical setting like an emergency room, they do not want the doctor to rely on guesses for decisions: Why was an ambulatory surgical procedure performed last week? What is this little blue pill? And, why is it taken? These consumers also do not like to report to a doctor's office or hospital and fill out the same form multiple times or run the risk of having clinicians fail to understand allergies or other things that have already been tested for or examined. Currently, as soon as a patient arrives at a hospital, a battery of tests is performed regardless of whether they have been done previously, because clinicians have no way of knowing what has already been done.

Eliminating this inefficiency and frustration through interoperability represents a significant challenge. It does not, however, require magical changes in the business processes or culture of health care to be realized. It is really about obtaining data by calling it up on a computer system rather than waiting for medical records to be delivered.

Imagine the circumstance of a physician trying to deal with a complicated, life-threatening condition (such as immune deficiency) that has substantial turnover of knowledge on a month-to-month basis, and sorting through a banker's box of photocopies of physicians' impenetrable handwriting. This is routine health care every day—for every doctor, for every nurse. Thus, it is no big surprise that there are substantial potential savings from interoperability, because what it stands for is the definition of a standardized record and the hardware and software that enable portability—and $77 billion in savings.

Computerized Physician Order Entry

The Center for Information Technology Leadership also did a study on the use of computerized physician order entry (CPOE), which corroborated findings from a number of other studies (Johnston 2003). They estimated that if physicians used computers to order tests in their outpatient practices, our system would save $34 billion per year. Consider the following reasonably likely chain of events: The physician writes a patient a prescription. The patient goes to the pharmacy, which informs

her that the drug is not in her health plan's formulary, so she will have to pay $125. She says that she does not want to spend more than $5 and is sent back to the doctor for a different medication. The doctor gives her a new prescription, but then the pharmacist asks her the magic question that the doctor did not: Is she allergic to this? If she says yes, she has to go through the whole process over again. If they do not ask her, she could have a dangerous episode from a drug reaction, and could be sicker than she was before her treatment. By using a computer to order drugs, a physician can determine which drug is best for the patient, the safe dose of the drug, whether the health plan will pay for it, whether the patient has allergies or potential interactions with other drugs that she is taking, and can transmit the prescription to the pharmacy without handwriting errors—all in real-time while the patient is with the physician.

Prescribing a drug using computerized systems has value. But this is only one example of how value can be realized from the use of information tools in health care. And this value accrues both to consumers, who are safer and less hassled, and to America's employers. The Center for Information Technology Leadership estimates that 89 percent of the economic benefits of computerized order entry accrues to the holder of financial risk for health care—most often the large employer (Johnston et al. 2003). This is why so many large employers are looking at how they can support health IT adoption.

Barriers to Health Care IT

Now, if health care IT is such a great thing—making lives better, lives safer, saving money—why is it not being done already? Why does the president have to appoint someone in an official role to go out and get this done? Why can't the market address this on its own? And why is it that economists and others have meetings about this? The reason is that health care IT faces a very challenging economic milieu, one aspect of which involves the externalities of quality. The benefits of IT accrue to payers, and not to providers who make health IT investments. This is because our system pays for volume and not for quality. It pays for a doctor's seeing a patient, or a patient's stay in a hospital bed, or the performing of a lab test, or the taking of an image. It does not pay for making lives

better, more pain-free, longer, and more productive. It pays for quantity rather than quality, because the payment system in the United States was developed in the 1960s when it was not possible to measure the final economic or health status value of health care investments. There were no data, and there was no theory of outcomes then. Without any of these pieces, reimbursement focused on the intermediate product, which was: "Did the patient see a doctor?" It did not even pay based on whether the treatment was appropriate for a patient's condition. It just paid based on whether a doctor did a test or evaluation or procedure of some type. That payment system is still here today, and it actually preserves incentives for poor quality. One example is hospital reimbursement that is based on "diagnosis related groups" (DRGs), a case-mix classification system that groups together patients who are similar in terms of diagnosis, treatment, and consumption of hospital resources. The intent of DRGs in billing was standardization and efficiency. However, DRGs were also seen, when they were invented in the 1970s, as potentially harmful to tertiary hospitals and other referral centers. These hospitals often receive patients with medical conditions that make their cases more complicated than those of the typical patient. These admissions are paid a higher-revenue DRG. For example, rather than a DRG's paying $17,000 for a heart attack admission, a complicated DRG might pay $32,000 for a more complicated situation. There is a catch, however. There is ambiguity in the definition of complication. A hospital gets paid the higher amount for a patient with complications regardless of whether the patient was admitted with the complication or the case became complicated by a mistake that the hospital itself caused. The patient might start out at a hospital with a simple DRG, and if that hospital caused an error, it would be paid an extra $15,000. This is just one example of how the incentives for quality in our current health care system encourage poor quality.

In today's health care market, high quality and improved patient health status comprise an externality that is not factored into the profit or margin. To develop incentives for quality, this externality must be incorporated into the cost of health care production. This is why pay-for-performance initiatives, which align what is paid for with the value that is realized, are so important. However, the challenge is that for this to work as it should, health IT must be in place to measure health status, so that

pay for performance can be implemented. On the other hand, there is no incentive for IT investment unless pay for performance or a similar incentive program is in place. This is the core of the market failure for health care. Trying to create the economic milieu to make the IT investments that are needed and, on the other hand, making sure that value is derived from these investments is a very delicate policy effort.

A second challenge to health IT is that there is a negative network effect for early adopters. This situation is similar to that of the adoption of the fax machine. The first person to install a fax machine had no one else to whom to send a fax. The last person to buy a fax machine could connect with everyone else. The electronic health record is very similar. There is a significant first mover disadvantage—there is no one else who can exchange and share data, and there is no infrastructure to which an electronic health record can connect. Only a very few, very large, well-financed, high-market-share health care systems can follow a go-it-alone strategy of health IT adoption. Thus, the policy challenge is to get a critical mass of health IT adoption so that this nation can move forward. The reasoning is that once health IT adoption reaches the 40 to 50 percent range, market forces will take over, because health care IT will become a requirement for doing business. Therefore, network economies can work as these challenges are met.

Competitive Threats as a Consequence of Health Care IT

Those are some of the barriers, and they are very large. This economic milieu creates risk for other adverse scenarios as well. One such scenario is a health IT adoption gap. There is strong evidence that very large health systems are adopting electronic health records, bar-code scanning, data mining tools, and various sophisticated IT applications that are on a par with tools in any other industry in the United States. Large systems—hospitals of more than 400 beds or physician groups with more than 50 physicians—have about a 60 percent chance of putting these technologies in place today. However, small groups and small hospitals have about a 10 percent chance of adoption. So this gap is large, and it is very real.

Today, there are examples of completely automated pharmacy systems that extend from the warehouse to the robotic delivery system on the

floor of a hospital, bar-code administration systems for the caregiver, and prescription systems that transmit prescriptions directly to the pharmacy. These are state-of-the-art supply chain management ideas applied to the very complicated health care industry. It is remarkable, and it is also incredibly expensive. Who is doing it? Large, well-financed health care systems. They are often paid the same way as small hospitals and physician offices, on a volume basis, so they have the same negative pro forma that is endemic in health care. However, they get strategic benefits that small health care systems do not. These strategic benefits include better market position, better control of costs, stronger outreach to consumers and physicians, better negotiations on health plan contracts, and many other forms of market power. Thus, a primary concern is that the adoption gap, whereby large health care systems are adopting IT but individual doctors and small hospitals are not, can lead to substantially new forms of pressure on health care costs that arise from lessened competition and even from the potential abuse of market power. This adoption gap, with its potential for concentrating market power, is a threat to the vision of having IT open up new forms of health care competition around quality, which, for the patient and the economy, would lead to a much better, more efficient allocation of resources in the market.

The other challenge is that information on patients is treated as a proprietary good. While federal law suggests that medical information on a patient belongs to the patient, it does not quite say that: policy is unclear about who owns the data. Patients can clearly have access to their data and see the data at any time; they can see who saw the data; they are entitled to privacy protections; and they are entitled to giving consent at some point in the process of determining when their data are shared. However, on a practical basis, when patients try to move from one doctor to another, their information does not necessarily follow them. It is risky for a patient with ongoing medical conditions to change doctors or to come to a hospital. This issue of treating data as a proprietary asset of the health system (as opposed to an asset of the patient) is at the very root of some of these challenges. This is the basis of the need to create interoperability—the need to establish truly portable data flow. Whether through new policies, new infrastructures, or both, the concept is simple: when patients show up in any location, unless they choose otherwise, their data

should be there, too. This is happening in Indianapolis and a few other areas. When a patient arrives in an emergency room in Indianapolis, with a swipe of a card doctors or nurses can see all the relevant lab data, hospital visit data, and pharmacy data. This is only one of many regional projects underway to share information. These health information exchange projects have remarkable life-saving capabilities, and they are reducing the need for preventable hospitalizations. This is the beginning of true consumer portability that will underlie a real consumer market.

Consumers need that same capacity to measure quality. What happened with Doctor X or Hospital Y? Did they do well with their procedures or not? To have a market built around consumer choice, there must be comparative information so that people can make choices. It is not enough to flip a coin or go to a neighbor to ask which is a good health care system. It is important to examine information on treatments (specifically, treatments for people with similar conditions); it is important to ask how well doctors and hospitals have done on metrics (specifically, on metrics that matter to the patient). If a patient is a diabetic, the physician should know to look at hemoglobin A1Cs[2]—as well as eye exams, foot exams, and kidney functions. If a patient is going to be treated for a heart condition, she or he will want to know about mortality rates and other relevant outcome measures.

Today, only a small fraction of consumers change their behavior based on data. Part of the reason is that the data available today are incredibly abstract and very old. They are not state-of-the-art, current, clinical, useful, timely data. For consumers to make informed choices, they need timely, convenient access to improved data on health care quality.

It is clear that this nation has a lot at stake in terms of keeping the health care market from becoming concentrated and proprietary. The experience of other industries has shown how having detailed production data can change industry power and industry structure. Every consumer should be able to have an electronic health record and know how to use it. There should be financing support for this, and a variety of approaches should be considered to make this a reality: top-down, bottom-up, or lateral maneuvers. Some payers are supporting this effort, but not enough. Interoperability must be put in place so that the market can operate in a natural way—around the free flow of information, as directed by

the patient. The federal government is following suit as well. Today, a huge burden is imposed on the private sector by various federal agencies collecting data from doctors, hospitals, labs, and pharmacies—in the name of public health improvement, bio-terrorism, and the monitoring of adverse events. However, these efforts are piecemeal data collection activities that largely collect the same data over and over again using various different formats and standards. Clinicians and providers should be able to send patient data once, and then the government should figure out all the different uses for which those data are valid and ensure that privacy protections are in place to keep the data from being abused.

There is a long way to go, but a lot is at stake. This issue has great resonance, because it is one of the few things in health care for which there is both a well-defined problem and a well-defined solution. This is why there is bipartisan support and why the president is taking leadership on this: because it is a challenge on which everyone seems to agree that there is something positive that can be done.

There are, however, challenges involved. Let me enumerate and address a few of them. One of the challenges is figuring out how we can enable consumer choice in a meaningful way without imposing undue risk. I have to acknowledge that I do not believe that the presence of IT will magically resolve this. We need to recognize that there are two modalities for the market that will probably live side by side. One is that there are incredibly well-informed consumers who want to have the shackles taken away and want the freedom to make their own decisions. I spend time talking with them, and I marvel at how much more they know about medicine and about their treatment options than any doctor they have ever seen. This small group will probably go out and define what a true consumer market in health care is about. But by no means is this modality a mass-market phenomenon. Health care, and the health care system, is too complicated. I think many people live in denial about health care issues. For the people who do not want to be bothered with health care issues, consumer choice will be expressed through an agency-mediated market, the other modality. One of the things that I very much want to see is primary care physicians' continuing to evolve back to where they were in the 1950s, as agents and advocates for patients who are trying to sort out their options. I think that typical patients need an agent

whom they trust to act on their behalf and help them navigate among the options. Physicians are being nudged back in that direction, and I am very encouraged by that. So I think that these two modalities will be successful. However, the main question ultimately will not concern these modalities. Rather, it will be about what we do to protect those who fall into the crevices of this new, high-risk world of health care. That is a policy discussion that is yet to be held.

Another challenge involves successfully implementing health care IT, so that both the implementation phase and the operation phase are cost-effective as well as effective. In many industries and firms, purchase of IT proved to be a waste of money because the technology was not used effectively—what was implemented was the wrong IT solution, was overly expensive, and left users without a clue as to how to use it. How can this be prevented in health care? This challenge involves picking the right product, contracting for it in a meaningful way, implementing it well, and deriving value from it. This is my simplistic summary of the life cycle of business transformation. Health care fails on every one of these steps. For example, there are 300 electronic health record products on the market that I know of, and that does not include all the home-grown products. Health care providers buy the wrong product virtually all the time. There is no price transparency around products, so, literally—particularly for small practices—you spend a lot more per unit feature than you get back in terms of value added. Physicians do not know how to contract for these technologies, so they almost always take unnecessary risks in their contracts. And they do not know how to implement. More important, in the end, most small hospitals and physicians' practices see themselves as purchasing software rather than as making decisions to reengineer their businesses. Now, those of you who have been to a small doctor's office know that reengineering it probably does not make sense, because it is clear that it was never engineered to start with. But still, by investing in IT, these offices are enabling fundamental changes in how decisions get made, how communication occurs, and how the work flows; and they do recognize the potential. This is one of the reasons that we have been trying to raise awareness that implementing IT is about changing the way care is delivered toward a more team-based, collaborative care environment, where the patient is more involved in decision-making and we are

able to be more forward reaching. This is really what is at stake for most practices, not whether the physician keeps notes on a computer.

A third challenge concerns managing the impact of email on health care costs. If you talk to people in payment policy in the federal government, they will tell you that physician-patient email is one of the new ways that health care is going to lose more money. They contend that if physicians would get paid for those email visits, the patient would come in anyway. In the private sector, however, there is pretty good evidence that there is a good substitution between email visits and patients coming in. Moreover, from the perspective of a physician's office, it is great to do email with patients because they substitute for phone calls. The problem of phone calls is that if somebody calls you, you either stop what you are doing and take the call or call them back. You call them back; then they have to stop what they are doing. Phone calls are synchronous; email is asynchronous: we can collect it and do it at the end of the day when we want to. Moreover, the way most of the email systems work for doctors is that whenever the patient's email pops up, so does his or her medical record, so you have everything you need, right there at your fingertips. I am a very strong proponent of physician-patient email, so long as it is secure: it cannot be just general email. However, we have a way to go in terms of convincing actuaries that, in fact, email is at worst a wash and probably a benefit. But I think that a recent article by Milt Freudenheim in the *New York Times* (Freudenheim 2005) is right: this is a wave that you cannot stand in front of, because it is good for patients and it is good for doctors.

A fourth challenge is how to protect massive databases on patients from the threat of abuse. I have strongly advocated that there not be a central database that can be accessed by unknown people. However, making data available electronically to the doctors, hospitals, pharmacies, and laboratories—to people who have access to the data anyway—is one of the key things that we have pushed forward. Right now, every doctor, lab, hospital, and pharmacy is involved in data exchange about you. I do not know if any of you have ever tracked where your data go, and when and to whom, but it is an incredible, astounding experience to realize how much paper flows around the health care system with your name on it. The point that we are raising is that we need to accomplish

that information flow electronically, rather than on paper. We get much more value from it when it is done electronically, and the process turns out to be more secure. For example, if you went to Kaiser Permanente or any of the other major electronic health record implementations that are now paperless, the front office clerk who registers you and does some of the basic administrative work can see only your demographic data—your name and address and some basics. It used to be that the record was sitting there and they could flip through it and see anything they wanted. Second, doctors who are not treating you cannot see anything. It used to be the case that you could go into the medical records room and see anybody's results any time. Third, there is a log file of anybody who looks at your record electronically. So, when a very famous baseball player was admitted for a rotator cuff repair to a hospital in New York a few years ago—I will not say who it was—that person's test results were looked at 7,000 times. Now, you might say that was a horrible failure of electronic health records, but, in fact, 6,940 people were disciplined and a few people were fired over that, because we were actually able to keep track of who had seen the data. So, I think part of the calculus is showing the American people that keeping paper records is a very bad privacy deal, and that electronics give us a hope in this regard. However, I also think there will have to be more beefing up of the privacy infrastructure. Ultimately, we will end up in a world—and this is just my opinion, not a policy advocacy—where we clearly state: these data belong to you as a person, and you decide who gets to see it and when they see it. The data could be held by a trust or something similar by you; and you could, by swiping a card or going online, make it available to people. We are not there yet, but I think that is where we are going to end up.

A fifth challenge is how to store the data so that we preserve important opportunities for research, while abandoning, for reasons of personal security, the idea of creating a giant, centralized patient database. I think there is a legitimate reason to pull together data that have been rendered anonymous, to enable us to judge the efficacy of practice, or to measure physician or hospital performance. However, the people who hold patient data should be obliged to ensure that data going into research databases be made anonymous before it ever leaves their doors. What I do not want to do is create a new entity in the market, with rights and

responsibilities other than health care, that can decide whether or not your data are private. We want to keep the responsibility for the privacy of patient data at the periphery of the network, with the decision-makers who already have the legal obligation to protect your privacy. If the information leaves them via electronic means, it should be either in order to go to someone who has a legitimate clinical reason for having the data or for a research or evaluation purpose, in which case the data would be rendered anonymous before it ever left. Now, will that work? I think society needs to have that debate, but that is my view. If health care data are not privacy-protected from day one, we cannot even convince ourselves—let alone the American people—that an electronic approach is a safe bet.

A sixth challenge is addressing cultural barriers that are likely to impede the meaningful introduction of IT to the health care system. These barriers exist in different forms among the various stakeholders. Let us look first at doctors. While many other physicians and I are enthusiastic supporters of IT in health care, I can find a great number of my peers who are mystified by computers, who do not want to expose the fact that they do not know how to type or hold a mouse, or who have been ordering the wrong dose of the same drug for 20 years and do not want a computer pointing it out to everybody. I am sorry to say this, but there is good evidence that much of this reluctance is basically age based.

Second, in health care we have enormously complicated environments of production in terms of the number of decision-makers who are involved, the number of processes, and the lack of a well-defined process. No other industry could operate in the United States with such a poor definition of what its output is. Moreover, we have economic free-rider problems in terms of how we are paid. So, I think we have organizational, individual, and economic barriers to making the industry efficient and customer-responsive. In many ways, health IT is just the name we give to the policies and the economic conditions necessary to bring the industry into the twenty-first century in terms of having modern business processes. It is not so much about the IT as it is about the economic milieu of the industry and what that means to its culture.

There is an old saying that I learned at the Wharton School: "Culture eats strategy for lunch." Well, I think that culture eats policy for lunch, too; and it is very hard to devise policies that push the industry forward

and do not backfire and turn into mandates. IT-based changes will be unprecedented in terms of the complexity of the industry. On the other hand, in a recent global conference in Australia, it was clear that this push towards computerization is happening in every modern health care system in the world; Australia, Britain, Germany, India, Japan, and South Korea are all dealing with exactly the same issues. Some, such as the countries of Northern Europe, are ahead of the United States; some lag behind. However, all countries are going through the same thing because of a tidal wave of consumer awareness about death from preventable errors. Moreover, the sense that we can now deal with it is not just an American phenomenon. Thus, I think there is something that is a root cause of what is happening here and around the world. This gives me some optimism that, just on a cultural basis, health care is now ready to absorb massive structural change.

Finally, there is the challenge of countering the tendency to use health care information asymmetrically to discriminate against high-cost consumers. My view on this is that health care information is already being used asymmetrically. Your health plan knows basically what it needs to know. Most health plans have now started bringing lab values into their stratification and analysis that feed into their actuarial functions. Most physicians who are at risk take into account population characteristics and may select away from certain types of cases to avoid patients who may be a cost or risk burden. I think we live in a world today that is asymmetric, and the reason is that the paper process favors those organizations that can afford to make intelligent use of an incredibly difficult information asset—paper. Those who cannot, that is, the retail consumer or the simple doctor, are disadvantaged. To me, the value of making health care information electronic and standardized is that it can flow more freely, lowering the transaction cost of using the information so that it becomes more widely available to consumers and health care providers. That is, introducing electronic data flow to the health care system reduces asymmetry.

One way or the other, we are well into a world in which access to information is asymmetric, and I think it is going to get a lot worse with large health systems starting to get a leg up in markets as they negotiate rates. One concern is that big health systems will start to raise prices

because they know that they control a large enough network. I think this is a sleeper issue that will start showing up next year. For me as a physician, I see both value and waste in health care. On the one hand, I see fundamental, wonderful innovations that extend people's lives. And let's be honest, health care is the only industry that can make our lives longer. On the other hand, I cannot be proud of the fact that prices and costs are going up in health care because of oligopolistic pressure resulting from someone's now owning a high share of a market, and that is where I think we are headed. That is Asymmetry 101. We will see how it plays out, but I think that if we do not level the playing field for information access, we are going to face serious negative consequences.

■ *This paper is an adaptation of an address delivered at the NABE 2005 Washington Economic Policy Conference at a session sponsored by the Altarum Institute. A similar version appeared in the July 1995 issue of Business Economics.*

Notes

1. The precise mission statement and executive order may be found at http://www.os.dhhs.gov/healthit/mission.html. Accessed October 9, 2007.

2. A test for A1C, also known as glycated hemoglobin or glycosylated hemoglobin, that indicates a patient's blood sugar control.

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Reforming the U.S. Health Care System: Improving Coverage, Quality, and Efficiency

Karen Davis

The U.S. health system underperforms compared with other countries on multiple dimensions—access, quality, and efficiency (Davis et al. 2007, Schoen et al. 2006, Schoen et al. 2005). The United States spends on health care twice per capita what the average industrialized nation spends, yet fares the same or worse on major indicators of health outcomes and quality of care (Hussey et al. 2004; Schoen et al. 2006). High U.S. health care spending without commensurate gains in health outcomes has led some experts to conclude that the U.S. health system is on the flat part of the production curve for health services, or perhaps beyond the point of diminishing returns.

Yet, a different conclusion could be drawn—namely, that the United States is not even on the efficient production curve. When the unit of care is defined as treatment over a given condition, the cost of providing any given level of care is highly variable (Fisher et al. 2003a; Fisher et al. 2003b). Even within a given geographic area, the cost of care for say, a heart attack, depends on the hospital to which the ambulance takes you. It will affect how many days you are in the intensive care unit, how many doctors are involved in your care, and whether or not you are readmitted to the hospital after discharge. In fact, it will probably determine whether or not you are alive a year from now. Fisher and colleagues at Dartmouth Medical School conclude that the Medicare program could save $900 million a year and 8,400 lives if all hospitals had the same costs and outcomes as the best quartile of hospitals on both cost and quality (Davis 2007).

Dartmouth itself excels at controlling the total cost of caring for patients with back pain by informing patients about surgical and non-

surgical treatment options. The Dartmouth-Hitchcock department of orthopedic surgery requires patients to view a shared decision-making video informing them about the risks and benefits of different treatment options before undergoing surgery. As a result, the area has one of the lowest orthopedic back surgery rates in the United States. The Spine Center at the hospital supports patients with pain management, physical therapy, instruction, and exercise. Ironically, insurers save money on the reduced surgery and hospitalization costs, but don't pay for shared decision-making videos, and don't cover the time the nurse educators spend with that patient.

These examples illustrate that current provider payment methods reward providing more services, not getting good or better outcomes efficiently.

This contrasts with the experience of the budgeted system that faces the Veterans Health Administration (VHA). The VHA has had flat real spending per capita for 10 years. When Ken Kaiser was head of the VHA health system, he made a deal with Office of Management and Budget. If he saved money, they would let him reinvest it in the health care system. He reduced the rate of inpatient care and used the savings to build 300 primary care clinics. As the VHA rate of pneumococcal vaccinations increased, the rate of hospitalizations for pneumonia fell (Perlin 2005). Efforts like this helped make the VHA system the top-performing system in the country at the time in terms of quality, while having no increases in real cost-per-person-served over a decade.

Reforming Fee-for-Service Payment to Reward Excellence and Efficiency

Most U.S. hospitals and health systems are led by extremely capable people. Why aren't they efficient in the way that I have defined it? First of all, there's little information on the quality or cost of care for patients with different conditions. In particular, neither a health care provider nor a patient knows in advance the total cost of care to expect over an episode of illness—the patient's hospital care, his or her physician care, and other services.

Second, with few exceptions, no single firm or entity produces all of the care that a patient receives over the course of a year. Different ser-

vices are provided independently, including those provided by surgeons, anesthesiologists, radiologists, hospitals, physical therapists, and a host of other health care personnel involved in the total care of a patient with a given health condition over a period of time. The same may be true of building a house, but a general contractor typically bids on the job, retains subcontractors to do different tasks, and delivers a finished product—with luck on budget and with anticipated results.

Finally, we pay for those health care inputs separately. We don't pay a single price for total care for a condition. This means that there is no incentive to use lower-cost substitutes, whether that means a diabetes educator or shared decision-making. We don't reward higher quality. Even in integrated health care systems like Partners HealthCare in Boston, we rarely reward greater efficiency, and we have made no systematic effort to identify and spread best practices.

Improving Quality of Care for Low-Income Individuals

Turning to the issue of access to care, The Commonwealth Fund supported a study of seven public hospitals that got together to improve the quality of diabetes care—taking care of the poorest and most uninsured, many of whom are minority patients (Regenstein et al. 2005). These seven hospitals have raised their quality indicators to the national average—not as good a performance as achieved by the VHA—but up to the national average.

But even though these hospitals take people regardless of ability to pay, the uninsured receive substandard care because they just don't come in as often. They don't have their chronic conditions controlled or detected at an early stage. So safety-net providers can deliver high-quality care; but without insurance coverage, delays occur and outcomes are not as good (Institute of Medicine Committee on the Consequences of Uninsurance 2004). To reduce disparities between outcomes of high-income and low-income people, the United States may need to spend more, not less.

We need a multi-pronged strategy of covering the uninsured and improving the quality of care given by safety-net providers. And we simply cannot improve what we do not know. So, not only do we need data on quality and efficiency, but we also need these data by race and

ethnicity, and for different population groups as well. We need to pay much more attention to the Medicaid program, to rewarding performance and quality, and to spreading best practices, particularly for providing care.

Extending Health Insurance Coverage to All

I have published ideas about how we might go about expanding health insurance coverage (Figure 8.1) (Davis and Schoen 2003). Given our mixed public-private system of health care financing, building on group coverage has many advantages—whether it is through Medicare for older adults and elimination of the two-year waiting period for the disabled; by expanding the children's health insurance program to cover low-income adults as well as children; whether it is creating something called a Congressional Health Plan (CHP), modeled on the federal employees health benefit for small business and individuals to buy into; or whether it is by expanding group coverage through employers. Doing this would cost new federal dollars—about $70 billion a year—and would increase total health spending by about $50 billion (Davis and Schoen 2003). Over the long run, people could have a choice among these sources of group coverage with competition among public programs like Medicare, the CHP, and private coverage.

What are some other examples? States could also be a basis for expansion of coverage. Maine has the most interesting experiment going on right now, called Dirigo (Figure 8.2). It involves a sliding-scale deductible and a sliding-scale premium. The state government contracted with Anthem to create some insurance products, one of which has a $1,250 deductible, and another a $1,750 deductible. A small business can buy coverage for workers through Dirigo. The employer pays 60 percent of the worker's premium and the employee pays the rest. But if the employee's income is below the poverty line, the employee pays nothing. If the employee's income is above 300 percent of the poverty line, there is a $1,250 deductible and effectively a $124 monthly premium. Dirigo started in January 2005, and as of December 2006, it covered about 13,290 people. It is very important to watch how this plays out.

A Framework for More Comprehensive Reform

- Establish a new group option for uninsured individuals and small businesses ("Congressional Health Plan"); includes federal reinsurance
- Tax credits for standard plan premium in excess of 5% of income (10% in higher tax brackets)
- Default enrollment through income tax system
- Public expansions:
  - Medicaid/CHIP/Family Health for everyone below 150% of poverty
  - Medicare buy-in 60–64 years old; elimination of disabled waiting period
- Employer COBRA expansions; young adults; "pay or play"

Figure 8.1
Toward Consensus
Source: Davis and Schoen (2003).

Health System Transformation to Improve Quality and Efficiency

There are other initiatives like the Rhode Island Care (RIte Care) program. This program gives targets to managed care plans to improve quality with respect to prenatal care, immunizations, and lead paint screening, and it awards bonuses to managed care plans that improve quality on those dimensions. They decided they would cover pregnant women two years' post-birth. Through their efforts, they slowed down second births and improved the health of the mother and the children. The women had so many fewer pregnancies that the net cost to cover these women for an additional two years' post-pregnancy was negative. In the last four or five years, costs have risen by about 80 percent with their RIte Care managed care providers (Silow-Carroll 2003). To put this in perspective, costs have risen by about 210 percent in commercial business over this period.

While health care costs are of concern to Americans, that doesn't mean they will accept cheap and inferior care. Instead, we should aim for approaches that improve quality at the same cost—maybe eliminating some overuse and reducing cost—and maybe also increasing the use of services that are currently underutilized.

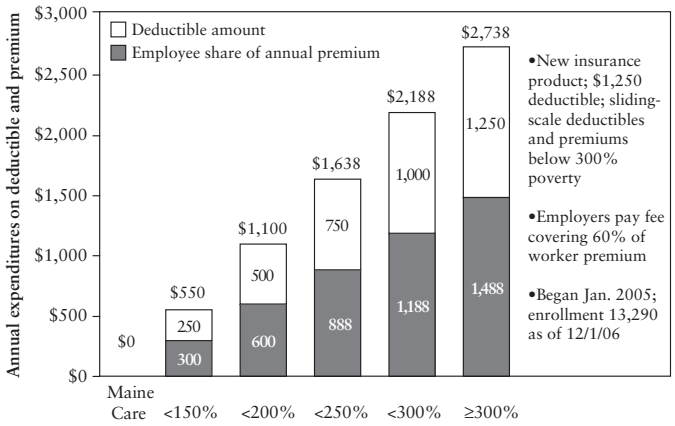

Figure 8.2
Retaining and Expanding Employer Participation: Maine's Dirigo Health
Source: Based on Dirigo Choice Health Plan 1 deductibles and Commonwealth Fund estimates of premium amounts. Employer contribution to premium not shown.

How could we improve quality? We have heard the information technology strategy. I would stress transparency. Let's make information on quality and cost public, and let's hold providers accountable and reward high-quality performance.

We also need to make a greater investment in information on comparative effectiveness. The United Kingdom's National Institute of Clinical Evidence reviews the cost-effectiveness of new drugs and procedures. In the United States, the Institute of Clinical Standards in Minnesota does the same. There is a tendency to equate greater efficiency with lower cost, but if you're not on the curve, you're not efficient—more patients could be cared for at the same cost. What's needed is to examine variations in cost and quality and spread best practices. Baicker and Chandra, for example, find that there is wide variation across states in the average quality of care and the amount of Medicare spending (Baicker and Chandra 2004). The more Medicare spends, the lower the quality. Most of us are used to curves that go the other way, so this is counterintuitive.

States like Iowa use a lot of primary care, so they have low costs and high quality (Figure 8.3). On the other hand, states like Texas and Florida use lots of specialty care, so they have high costs and low quality. If you take 30 percent of the money away from Florida, they will just slide down their curve; they won't go up to where Iowa is. To get the kind of results that Iowa has, you need to change the style of practice and shift the production function outward.

What can be done about efficiency? One strategy is direct contracting with accountable health care systems. There is a lot that can be done to reduce re-hospitalization by paying advance-practice nurses to follow patients home from the hospital. The Commonwealth Fund is funding an intervention that Aetna is doing in Pennsylvania with Mary Naylor, Mark

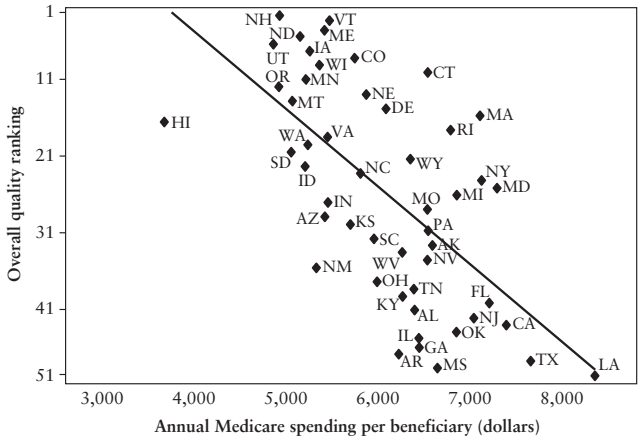

Figure 8.3
Variation in Quality and Medicare Spending Across the States of the U.S., 2000–2001
Quality expressed by percent of beneficiaries with atrial fibrillation who had Warfarin prescribed. For quality ranking, smaller values equal higher quality.
Sources: K. Baicker and A. Chandra, Medicare spending, the physician workforce, and beneficiaries' quality of care, *Health Affairs* Web Exclusive, April 7, 2004, using Medicare claims data; and S. F. Jencks, E. D. Huff, and T. Cuerdon, Change in the quality of care delivered to Medicare beneficiaries, 1998–1999 to 2000–2001, *Journal of the American Medical Association* 289, no. 3 (2003): 305–312.

Pauly, and colleagues that shows promise (Leatherman and McCarthy 2005). Efficiency can also be increased by using Medicare to foster high-performance health care through the use of primary care.

In general, there certainly *is* a way to have it all, in terms of better access, higher quality, and greater efficiency, if we move ourselves from clearly inferior points below the production function, up to the curve, and then have a societal debate about where we want to be on the curve. I think we should recognize that as new technology comes along, it probably is going to take higher spending to get the same, or better, quality care with that new technology. As the population ages, it probably is going to take higher spending to achieve care of the same quality.

It is important that savings be redeployed to improving health care. We cut $1 trillion out of health care with the Balanced Budget Act of 1997 and used the surplus generated to cut taxes in 2001 (Figure 8.4). We cannot continue to cut Medicare and Medicaid and use the savings to extend tax cuts. Funds are needed to help expand health insurance coverage, invest in information technology, and spread best practices.

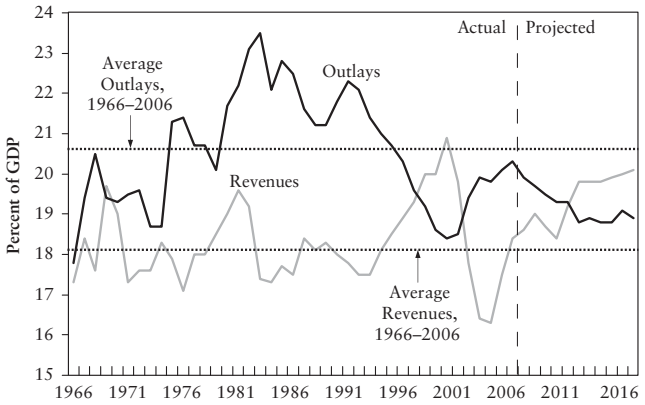

Figure 8.4
Tax Revenues: Currently at the Low End of the Historical Range
Actual 1962–2006; Projected 2007–2015.
Source: Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2008 to 2017*, January 2007.

We at The Commonwealth Fund have created a Commission on a High-Performance Health System. The basic charge to the Commission is to find policies that will simultaneously improve access, quality, and efficiency—whether that means ensuring the affordability of care for those with low incomes through expanded group coverage, high-cost care management, selection of a medical home, and/or more emphasis on primary care, better information, rewarding providers for performance, and/or developing networks of high-performing providers (The Commonwealth Fund Commission on a High Performance Health System 2006).

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Health Financing: Challenges and Opportunities, Coverage and Cost

James J. Mongan, M.D.

Over the past four decades, two issues have driven the health care financing debate: costs and coverage. If you dug a little deeper, I think you would find that the real driver of the debate has been the cost issue rather than the coverage issue, and discussion of the cost issue has focused more often than not on the federal budgetary impact. It has not been an abstract debate about 13 percent of GDP versus 15 percent of GDP. Rather, it has been about the impact of health care spending on the federal budget, and the consequence of that focus has been a skewing of attention towards Medicare, with Medicaid getting beat up the most, and a kind of tip-toeing around the private sector.

Coverage, which I certainly find to be the more morally compelling issue, has been debated broadly and unsuccessfully about once each decade—in 1974, 1980, and 1994—and I will come back to that in concluding, after saying a bit about costs.

You have been hearing about costs all morning. It is my belief also that costs will go up, that the increasing costs of all the blessings of modern medicine—drugs, technologies, devices, pharmaceuticals—will quite likely more than offset any of the vaunted potential savings from administration, information technology, and evidence-based medicine. So, I think we are going to face continued increases in costs.

This puts more pressure on all of us in this sector to implement everything that might impact costs, because the pressure for us to demonstrate value is going to increase exponentially as costs climb beyond 15 percent of GDP. I do not necessarily take this as a message that says we should quit. Rather, I take this as a message that says we are going to have to do

everything we can and then some. Let me start by talking about what we can do, and then I will move to the "then some."

There are real steps that we can take to limit cost increases and enhance value. I will set out three of them here. The first relates to some significant commentary that you have just heard about electronic medical records. I have become a believer that this is real. Many people think this is only about cutting down paperwork in medicine. It is about far more than cutting down paperwork, however. It is really about being able to drive medicine towards evidence-based practice through the use of various prompts, rules, algorithms, and things of that sort. So, there is tremendous potential here.

It is going to be a huge undertaking. The Bush administration budget request was for $100 million, whereas in one large system in one city alone, we are spending $50 million on this issue. Sizing the Bush budget request against what we are spending may not be a fair shot, because it has been made clear by the administration—at least as I understand it—that at present they do not view it as their role to be the primary financier of all this. However, if they are not the financier, then either private payers or the hospitals are going to have to pay, and the medical providers are going to have to wring the rest out of what they do. Somebody is going to have to pay this bill. It is a significant bill, as the spending contrast mentioned above shows. So, it is very significant, although I think that moving to electronic medical records has huge potential for savings.

Pay for performance verges on being a cliché, so I have to be very careful in this area. But it has the potential to cut a middle path between fee-for-service, which arguably emphasizes that there is overprovision of services, and capitation, which arguably emphasizes that there is a potential underdelivery of services. Having said that I recognize that pay for performance can be a cliché, I believe it is a reality in Boston. Our contracts with all three of the major payers—Blue Cross, Harvard Pilgrim, and Tufts—are based on pay-for-performance standards in terms of days of hospitalization, drug trend, and radiology trend. So, I believe that it can be made real.

Finally, another issue that can be an old chestnut is disease management and end-of-life care. Disease management earned a bad name over

the past decade by really meaning not paying bills, particularly in the mental health area. That is not what I mean by disease management. I am driven more by the statistics that many of you have heard: 10 percent of people account for 70 percent of costs, and 1 percent account for 30 percent of costs. It just seems to be tautological that you should be able to gain in both quality and efficiency by putting more emphasis and focus on the management of the care of these very, very sick patients.

Again, we have examples in Boston of real progress with several congestive heart failure disease management programs that have cut down on hospital readmissions. We are working with the state on seeing whether we can put in place some special support services for our 1,000 most expensive Medicaid patients. So, I think there is great promise here. These are among the things that we can, should, and must do as we go forward into the next decade.

However, even having done all that, I think that costs are going to remain a problem, and that there are two ultimate public policy issues for the out years. Frankly, if you are a senator or a congressman, I think that maybe you can dodge this bullet for another five or 10 years. I do not think that you can dodge it for 15 or 20, however. The first question is: Is 15 percent of GDP too much to spend for health care? Certainly, the common wisdom has been that the easy answer is "yes," with facile comparisons to other international systems and commonly held assumptions on waste and abuse.

More recently, there are some developing arguments that it is not necessarily too much, that higher health expenditures yield value compared with the other things we are buying in GDP, and that obviously we have this ever-aging population and the march of biomedical science. So, in fact, if the public as consumers want to consume more than 15 percent of GDP in the form of improved health, we may not have the easy answer we thought we had to this question. However, if health care spending goes up, there are clear tax consequences, as was explained earlier by Henry Aaron and other speakers.

The second and the more pressing public policy question in this out-year period is: If health care spending as a percent of GDP is too high, what can we do about it? And here, so far as I know after 35 years in this business, there simply are no easy answers. The default answer is to let

health care spending rise with GDP. My guess is that we will continue on the path of the default answer because the other answer is so problematic that people are not going to want to embrace it quickly. The other answer, so far as I know, is rationing. (I have not heard the word explicitly used this morning, but we might as well bring it out of the closet.) And, so far as I know—the economists in the audience know more about this than I do—there are two ways to ration. One is by what I call "real market forces," and I do not think we are talking about $20 co-payments here. We are talking about real market pain, which will lead to great disparities between the care of the rich and the care received by the middle class and the poor. Even though this sounds like the politically easy answer, as it plays out it may not appear nearly so politically easy. We are much more ready to accept a society that allows some people to have the resources to stay in a Four Seasons hotel while others stay in a Sheraton, and still others stay in a Motel 6 or no hotel at all, than to accept similar disparities in health care. We have tough free-market rhetoric, but when the consequences are shown on TV, even the most rock-ribbed conservative politician tries to get a liver for Baby Jessica or famously tries to keep Terry Schiavo alive on a feeding tube. So, I think this is going to be a lot tougher than people realize.

Of course, the other path to rationing is the approach taken by almost the entire rest of the world, and that path is rationing by government and private payer limits. But, again, people are grownups and know that that is not an easy answer, and is an approach that often leads to arbitrary consequences—queuing and other things that we have all seen in the much-heralded bashing of the English and Canadian systems.

So, I find no easy answers here in the out years. I think this means that we have to keep doing everything we can do. The default answer will be that costs will grow, but at some point the tax consequences will be so severe that people will start edging up to one or the other version of the alternative or some combination.

At this point, I want to move towards some comments on the coverage issue—the obviously linked, twin issue. I will make three assertions here and then make a few comments about each.

The first assertion is that health insurance coverage is not only about money. It is really about health. Second—and Judy Feder made exactly the same comment—I would say that my reaction after four years of

watching this is that expansion of coverage should not wait until we solve all of these other cost issues. We are holding the uninsured hostage to our inability as a society to deal with these issues. We ought to put everybody on a level playing field and then deal with the cost issues. Also, over four decades, health care issues have always been trumped by the politics and economics of the issues. Specifically, the anti-tax movement, which I believe has been the strongest political force of the past 30 years, has trumped the issue of providing broader health coverage.

I said this is about health, not just dollars. I served on the National Academies' Institute of Medicine (IOM) Commission in 2003, which looked at this. That committee's report on the uninsured found that, compared with the insured, the uninsured were less likely to have seen a physician in past years, more likely to go without care, less likely to receive preventive care, and twice as likely to be hospitalized for avoidable complications of diabetes or high blood pressure. The IOM report led up to the finding that there were about 18,000 premature deaths a year among people under 65 years of age as a result of being uninsured. That finding leads me to the conclusion that everyone who is interested in the "culture of life" should be fighting for, rather than opposing, universal coverage. We need a switch in the political framing.

However, the coverage debate is also about dollars, and, again, this same IOM Commission looked carefully at this issue. I will specifically cite just a few things. The estimated cost of services needed but not received by the uninsured is $35 billion to $70 billion. This amounts to 3 to 5 percent of health spending, or about half of each year's annual increase. The estimated cost of legislation would be a bit higher—$70 billion to $100 billion annually—because such legislation usually has additional aims, like subsidizing employers or giving states fiscal relief.

The estimated return to society from improved health would be somewhere in the range of $65 billion to $130 billion. At this point, you may be asking: If we could do this for the price of one year's increase and if the cost would be offset by the savings, why don't we do it? Well, we don't do it first and predominantly because—as was mentioned this morning—the returns don't go to those who pay. Health care financing involves a huge income transfer from healthy people to sick people, from wealthy people to poor people, and from young people to old people.

We are also blocked because we hope that coverage expansion will be paid for by efficiency savings, but, as I indicated, I do not think that they are likely to occur—at least not in sufficient magnitude. And if they do, they are not likely to be captured for coverage expansion. Nobody is going to give those dollars to me to use for universal coverage. They are going to go back into people's pockets, and people are not clamoring to pay for the health care of others, as was noted this morning.

In the end, it does all come down to taxes. I think the triumphant conservative political movement of the past 30 years has had one major value to which they have stuck tenaciously, and that is an ever-lower level of taxation. We have seen some success in that on their part. Federal taxes in the 1990s, one of the most productive economic eras we have ever seen, averaged 18.5 percent of GDP. They are 16.3 percent of GDP now. That difference amounts to $200 billion. That is twice the amount of money that would be needed to cover the uninsured. There is a fundamental political choice in front of us: Do we want a society that can boast of and have the consequences of the lowest taxes in 40 years, or do we want to see expanded health insurance coverage, which supports people's health, social justice, and the culture of life that we hear so much about?

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