



Is a Paradigm Shift in US Healthcare Reimbursement Inevitable?

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American medicine remains, at least arguably, the best in the world. The United States leads the world in laboratory and clinical research, producing far more new scientific discoveries than any other country. Americans continue to lead the world in Nobel Prizes in medicine. People come from all over the world for education and to train in leading American centers of excellence.

Despite the excellent quality of American medicine at its best, there are tremendous areas of concern over the quality of medical care as delivered in the United States. A substantial proportion of the American people remain uninsured. There is concern that many people—perhaps most—are not meeting guidelines for control of blood pressure, serum lipids, and diabetes. There is concern that we as a society have not done a good enough job at seeking value. We fail to provide adequate care in some areas while lavishing resources in others. Finally, there is concern over the ability of society to continue to afford the care that is being offered. The Institute of Medicine has called for a medical care system that offers care that is safe, effective, patient centered, timely, efficient, and equitable.¹ These various goals should be mutually achievable, but we seem to be a long way from realizing them.

The Scale of the Problem

A major problem that our society faces is the increasing cost of medical care. Since 1980, the percentage of gross national product devoted to medical care has increased from <9% to >13% and is expected to reach 17% by 2010 (Figure 1).² There are multiple drivers of this problem,

including the aging population and technological advancement. These twin drivers will place an increasing burden on Medicare, the principal form of insurance for the elderly.³ Medicare is composed of two parts: part A, or Medicare Hospital Insurance (HI), and part B, for physicians. The Medicare HI trust fund is in positive balance but will go into deficit in about 2016.⁴ The Medicare HI trust fund is held in United States Treasury securities.⁵ Medicare part B is paid out of the general fund.⁵ Although the deficits will increase, Medicare should remain solvent until 2029.⁶

There has also been increasing concern over pharmaceuticals, which are consuming an increasing portion of the healthcare dollar. Drug costs are placing an increasing burden on the elderly. Pharmaceutical expenses have been rising at a greater rate than inflation because of greater use and higher prices (Figure 2).² Consumer groups and advocacy groups for the elderly have been voicing increasing concern about the ability to pay for prescription drugs and complain that drug prices are higher in the United States than in other advanced countries, such as Canada. However, pharmaceuticals have been a major area of technological advance, and demand for life-saving therapies will certainly continue.

Although outpatient pharmaceutical costs are not currently covered by Medicare, they will be partially covered sometime in 2004. The Medicare Prescription Drug and Modernization Act has passed Congress and was signed into law by President George W. Bush.⁷ Beginning in 2004, Medicare beneficiaries with an income under \$12 124 per year or married couples with an income less

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National Health Expenditures as a Share of Gross Domestic Product (GDP)

Between 2001 and 2011, health spending is projected to grow 2.5 percent per year faster than GDP, so that by 2011 it will constitute 17 percent of GDP.

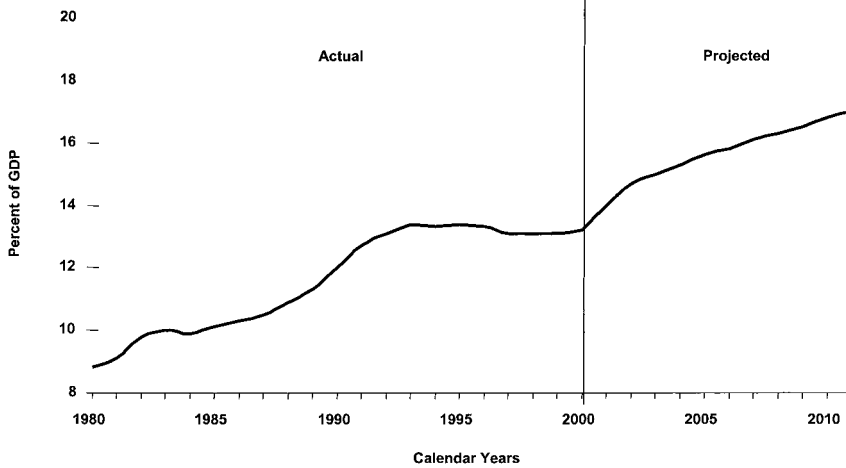


Figure 1. National health expenditures as a share of gross domestic product (GDP), with historical data and projections into the future.

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

than \$16 363 per year may qualify for \$600 toward prescription drugs. Beginning in 2006, all Medicare recipients will be eligible for a voluntary prescription drug benefit.⁸ There are serious disadvantages to this law.⁹ Medicare beneficiaries whose prescription drug bills are between \$2250 and \$5100 per year will have no coverage

but must still pay monthly premiums. In addition, more than 6 million “dual eligibles,” currently enrolled in both Medicaid and Medicare, will be moved to Medicare but may lose Medicaid drug coverage. In addition, the low-income protection may not apply to all with low incomes because of a “personal assets” test.

Factors Accounting for Growth in Prescription Drug Spending per Capita, 1980-2011

Growth in spending is projected to return to 1980-1993 levels.

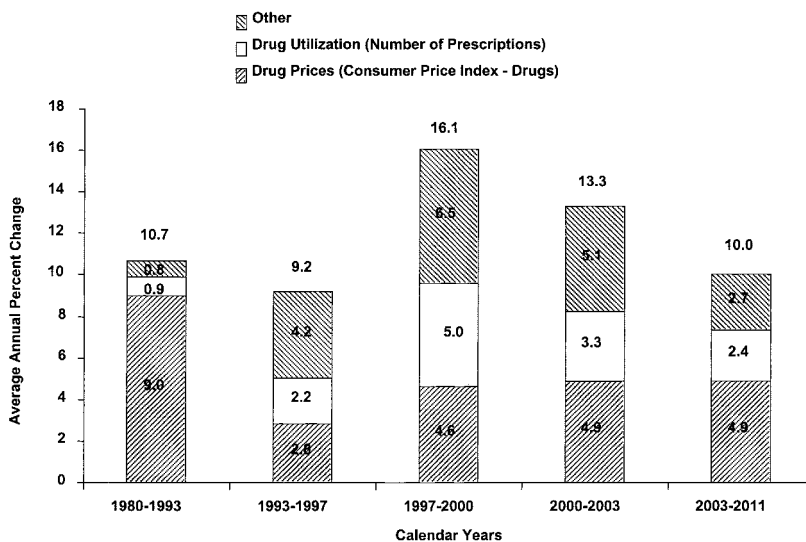


Figure 2. Factors accounting for growth in prescription drug spending, with historical data and projections into the future.

Note: Data for 2000-2011 are projections. “Other” includes quality and intensity of services, and age-gender effects.

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



Problems in Reimbursement

There are significant problems in the way that medical care is reimbursed. In principal, all goods and services should be priced and paid for by the market mechanism of willingness to pay, governed by supply and demand. However medicine lacks this type of mechanism because the payers are disconnected from the consumers. We have come to see this as the way it should be for 2 interrelated reasons. The first is that very few in society could afford care for catastrophic conditions, such as bone marrow transplantation. The second is that many, perhaps most, people in our society view medicine as a right, much like grade school education or clean water, rather than as a commodity to be bought in the marketplace. This is not an indictment but rather a reflection of a realistic choice, and almost certainly the proper choice for society to make.

The lack of a market mechanism, coupled with the aging population and technological advancement, is certainly a recipe for escalating costs. This situation is made worse if incentives for providers of care, both physicians and hospitals, are not in alignment with society's goals. Society's goal could be viewed as seeking value, ie, good medical care that is worth what we pay for it. The primary goal of care providers should be to offer the best possible quality of care, but this may conflict with the goal of maximizing reimbursement. Consider the case of a large healthcare system that spends a lot of money to develop facilities and salaries for a group of interventional cardiologists and cardiothoracic surgeons to move from across the city, but cancels a money-losing preventive cardiology program. The health system, charged with enhancing the public good, acted rationally in enhancing its own revenue but not in society's overall interest. A lot of money was spent, but society lost a preventive cardiology program. In contrast, the Department of Veterans Affairs, whatever its apparent inefficiency as a government institution, clearly has its incentives in alignment as a health maintenance organization, which aims to maximally improve the health of veterans within the constraints of available funding.

This does not mean that health maintenance organizations are the answer. Patients distrust them for seeking to withhold care, while indemnity insurance may lead to unnecessary care. Somehow, we need to develop a payment mechanism that provides care for all and in which the incentives are in alignment among providers, patients, and society. This should go a long way toward achieving the Institute of Medicine's goals of a healthcare system that is safe, effective, patient centered, timely, efficient, and equitable.

At least in major markets, indemnity insurance largely has been replaced by managed care, in which the payer tries to control resource utilization, but often has little understanding of medical decision-making. Every year, the rules seem to change. Sometimes, we need precertification; sometimes we don't. Sometimes, patients need to see a primary care physician before being referred to a subspe-

cialist; sometimes they do not. Pharmacy plans sometimes recommend one drug in a class; sometimes they recommend the competition. These are attempts to limit resource use where a market mechanism does not exist, and where the payers, knowing that incentives are not in alignment, try to limit medical care they deem unnecessary and develop competition over price for pharmaceuticals. However, it is illogical that insurance companies, removed from the problems at hand in the care of a particular patient, can have the knowledge to improve decision-making. The history of such bureaucratic attempts to control supply and demand without a market-driven mechanism governed by willingness to pay is dismal indeed.

It is hard to imagine how the current medical insurance system could meet these goals, with its bewildering array of options, bureaucratic tangles, paperwork blizzard, and general lack of ability to discipline the provision of care. In fact, there are excellent data that reveal that administrative costs are considerably higher in the United States than in Canada.¹⁰

Suggestions for a Better System

How then can we begin to organize a responsive reimbursement system that will meet the standards of the Institute of Medicine—ie, provide a medical care system that offers good value. One approach would be to pay for quality.¹¹ Reimbursements for care should reward high quality when adequate measures of quality exist. Providers and organizations that provide measurably higher-quality care deserve higher payment. However, quality measures alone will not define the final cost structure for health care. The National Committee for Quality Assurance has quality measures for care of patients with coronary artery disease, which include advising smokers to quit, prescribing β -blockers after a myocardial infarction, screening for cholesterol in patients with coronary disease, controlling cholesterol in patients with coronary disease, and controlling hypertension.¹² These are reasonable goals but hardly set a means for setting payment for quality of care. For instance, how could payment be tied to quality for percutaneous coronary intervention when agreed-on measures of quality do not yet exist? Risk-adjusted mortality might be an appropriate quality measure, but the variance will be great, especially for lower-volume operators and institutions, and risk-adjusted mortality may not be a sufficient measure of quality, which should also include concerns over access to care, appropriate case selection, emergency surgery as a complication of the procedure, and subsequent relief of angina. Even if all measures of quality could be agreed to for any service, it is not yet clear how to integrate them into a score that could be used as an overall benchmark. Furthermore, it is not clear how the relative quality of care for various services could be weighed. For instance, how could a payment system tied to quality

evaluate the quality of care for coronary intervention on the one hand and preventive cardiology on the other?

Another approach would be to structure reimbursement by cost-effectiveness. Using such a scenario, all services could be rated for cost-effectiveness, and then services could be paid for according to the amount of money available. All services would be rated in cost per quality-adjusted life-years gained. Then, anything above the line would be paid for, and anything below the line would not. If there were adequate, generally agreed-on data, then this strategy could work. Furthermore, there would not have to be concern over pricing. However, there are multiple problems with this approach. Most obviously, for services well “above the line,” care providers would be inclined to increase the price. Although there are published standards for cost-effectiveness analyses, many available studies do not meet these standards. Thus, methods may vary considerably between studies. Cost-effectiveness studies are also only as good as the underlying data on cost and effectiveness, which may be inadequate for policy-making purposes. Furthermore, a particular service may appear particularly cost-effective compared with the “control” service, especially if the comparator is either not particularly effective or high in cost. Another problem in comparing cost-effectiveness analyses is called “the rule of rescue.” That is, people will spend anything to save the little girl who fell down the well, but they will not pay to build fences around the wells. The idea of tying payment to cost-effectiveness analysis has been tried in the “Oregon experiment.”¹³ This effort was rapidly abandoned because of inadequate funding as well as concerns over data quality and the demand for high-cost services for the severely ill—ie, the rule of rescue. It is more reasonable to expect cost-effectiveness analyses to help inform reimbursement policy than to set it.

Another issue relates to the way that benefits are paid for. For most working people, health insurance is part of a benefit package. Increasingly, however, small businesses do not offer such benefits. Where such benefits are offered, employers contract with insurance companies, which then may offer a bewildering array of health maintenance or preferred provider plans, dental plans, and pharmacy plans, with varying levels of copayment for services. Although some employers offer employees several types of plans and coverage, others offer only a single plan with limited provider and premium choice. Working people without benefits can purchase individual health insurance plans, but these can be prohibitively expensive. An alternative to leaving working people without insurance or buy it independently is to develop a “pay-or-play” approach, which has been adopted by several states and which mandates that employers either provide insurance or contribute to a general fund.¹⁴ The indigent have government coverage through Medicaid¹⁵ and the elderly through Medicare.¹⁶ Medicaid provides a relatively meager level of reimbursement and may not be accepted by many physicians or healthcare systems. The economic downturn in recent years

has led not only to more uninsured people but also to major cuts in Medicaid and State Children’s Health Insurance Program (SCHIP)¹⁷ funding by the states. Whatever the type of coverage, increasingly, it will include a copayment scheme for many or all services, especially pharmaceuticals, often with an increasing scale of copayment for services or ethical drugs judged to be less important. Out-of-pocket payments may result in patients making more cost-effective decisions but at the risk of depriving the poor of needed care.¹⁸ The bottom line remains that there are millions of people who are underinsured or entirely without health insurance. Furthermore, it is difficult for people with medical conditions to obtain insurance. This has, in theory, been addressed in the Health Insurance Portability and Accountability Act,¹⁹ although it remains unclear how well this provision is working. Most people who have insurance benefits at work or through government programs appear largely protected. Protection is less certain for those people with individualized private insurance plans. Insurers can also drive individuals with severe illnesses out of their programs, leaving them uninsured. One way this is done is referred to as the “death spiral.”²⁰ When a person obtains individual insurance, they join a pool of other people, which will then at some time in the future be closed. Insurance is set by rates and payments in the pool. If a specific pool has numerous people who consume a lot of services, the rates will rise. Individuals who do not consume a lot of services may then leave the pool and find new insurance. Those people with severe medical problems who may not be able to obtain other insurance must remain in the pool until they can no longer afford insurance.

The problem of the uninsured reflects lack of social equity.² As shown in Figure 3, the percentage of the population that is uninsured increased from 13% to 16% between 1987 and 2000. However, among people living in poverty, 33% are uninsured, compared with only 11% of those 200% above the poverty level. Figure 4 reveals that minorities are more likely to be uninsured than whites. The uninsured are far more likely to not receive necessary medical care than the insured (Figure 5).²

This complicated healthcare insurance and payment system outlined above is unique in the world. No other country ties health insurance to benefits through employment. This phenomenon evolved in the aftermath of the Second World War, when there was a desire on the part of employers to obtain workers, and health insurance was seen as a relatively inexpensive means of recruitment, especially in the presence of wage freezes. The growth of indemnity insurance during the same period provided for payment and thus growth of expensive, procedurally based care. Health care is certainly no longer seen as inexpensive, and now the system is approaching what appears to be a crisis. For some people, high-technology care is widely available, but many do not have access to the basics of preventive care. If we are to have effective, efficient, and equitable care, things have to change.



Income and Prevalence of Uninsured, 1987-2000

Lower-income groups are more likely to be uninsured than higher-income groups.

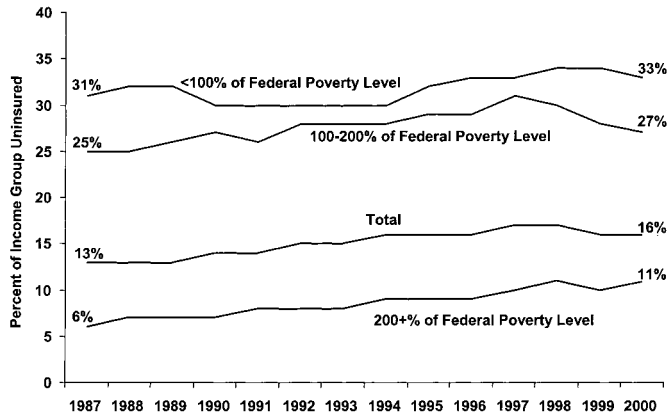


Figure 3. The relationship of income to the prevalence of lack of insurance.

Note: Under 65 population.

Source: Tabulations of the March Current Population Survey files by Actuarial Research Corporation, incorporating their historical adjustments.

An often-suggested approach is the development of a single-payer system.²¹ This sounds attractive, as it would permit the alignment of incentives, much like the Department of Veterans Affairs. The payer would have a set amount of money to spend, and incentives would be aligned to offer the best care with those dollars. Cost-effectiveness could then help to guide policy. This is the path taken by the rest of the developed world. A single payer could be a whole new system (either governmental or private) or an expansion of Medicare or another government program such as the Federal Employees Health Benefits Program. Although this strategy sounds appealing, considerable problems remain. It has been

said that a single-payer system would have “the efficiency of the Post Office and the charm of the Internal Revenue Service.” It is also not clear how we could evolve toward a single-payer system from the current multitude of healthcare insurance companies. Presumably, there would be considerable resistance to such a plan. There are also cultural issues to consider. Americans are generally distrustful of large governmental or quasi-governmental programs. Such a system would likely entail major tax increases, although net discretionary income need not change and may actually increase if efficiency improves. People may also be concerned that a single-payer system would offer the lowest common denom-

Race and Prevalence of Uninsured, 1987-2000

Minorities are more likely than whites to be uninsured.

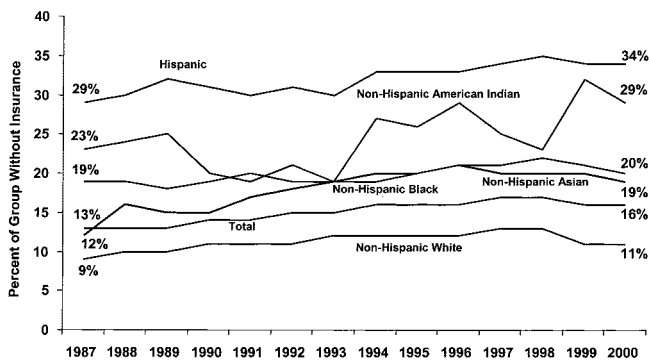


Figure 4. The relationship of race or ethnic group to the prevalence of lack of insurance.

Note: Under 65 population.

Source: Tabulations of the March Current Population Survey files by Actuarial Research Corporation, incorporating their historical adjustments.

Impact on Non-Elderly Adults of Being Uninsured, 2000

The uninsured face financial and other barriers to health care.

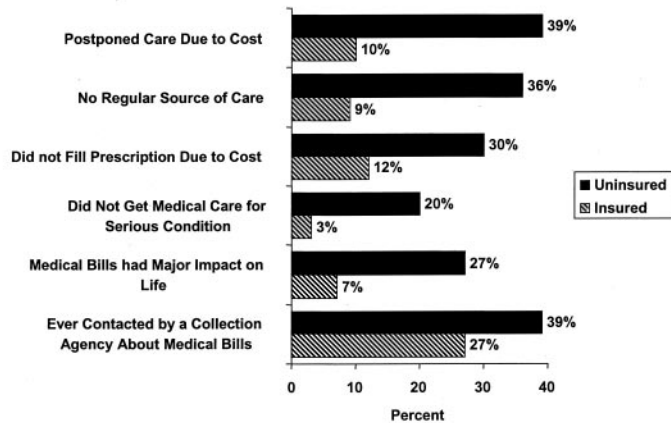


Figure 5. The impact of lack of insurance on healthcare choices.

Note: Among adults under age 65.

Source: NewsHour with Jim Lehrer/Kaiser Family Foundation, National Survey on the Uninsured, April 2000.

inator of care. This limitation could be overcome, as it is to an extent in the United Kingdom, through supplemental insurance plans. This would create a system of care with 2 or more tiers. However, our current system is already multitiered, the difference being that a single-payer system with the ability to buy supplemental insurance would make the several tiers more explicit, raising the issue of inequity, even if that system would in reality be more equitable than our present morass.

How Will the Future Look?

If a single-payer system with supplementary insurance were adopted and the political and financial difficulties were overcome, what might it look like? There would be some sort of a "tax," which could be applied at the "before-tax" level, ie, paid in pretax dollars. The aim in transition could be to make this as seamless as possible for employers and employees, such that employers' contributions could go toward this tax instead of to insurance companies. "Take-home pay" would, ideally, be little affected. Coverage would be available to all. How would payments be structured? Hospitals are currently used to getting paid a set amount from Medicare by type of service according to a diagnosis-related group (DRG). Single-payer systems in other developed countries either already have DRG systems or are moving toward them. One area of success in our current system is a formula for hospital bills called the UB-92, which is a summarized version of the line-item hospital bill, which includes all major areas of charges and a DRG. Somewhat surprisingly, this unified billing system appears to be unique in the world. The UB-92 is used by all fee-for-service hospitals, as well as by Medicare. Hospitals must also submit a yearly "hospital cost report" to the Centers for Medicaid and Medicare Services

(CMS). The hospital cost report contains the cost-to-charge ratios for the institution overall and by individual hospital department, such as the operating room or pharmacy. Thus, by using UB-92s and the hospital cost report, it is possible to estimate the cost of services by DRG. The hospital cost report must be formulated according to the American Hospital Association guidelines. The force of law and the potential for sanctions have largely checked attempts by hospitals to submit dishonest cost reports. This information allows CMS to more accurately estimate hospital costs and to structure payments, which can be tailored to whether a hospital is urban or rural, teaching or nonteaching, etc. Although clearly imperfect, this strategy could be extended to a single-payer system. Furthermore, a single-payer system for hospitals could include many of the ideas developed above, including paying for quality and using cost-effectiveness to help inform which procedures should be paid for. A single-payer system that represents all of society and pays for services will more naturally have incentives in alignment with outcome, which may help foster paying for value.

Payment for outpatient pharmaceuticals will certainly have to be part of any payment scheme of the future. Indeed, some Medicare coverage is going to be available starting in 2004. A single payer would have tremendous bargaining power with the pharmaceutical industry, which could help lower prices, ideally without stifling innovation. The Medicare Prescription Drug and Modernization Act will specifically bar the federal government from negotiating lower drug prices, leaving this to private pharmacy benefit managers.²² Within many current drug plans, there are efforts to steer physicians toward prescribing or patients toward requesting generic drugs, which are off patent protection. Clearly, a

patient copayment scheme will likely continue to be a part of this, but it is hoped that it will be structured to make sure that all patients can receive life-saving therapy. A single payer may also be positioned to help foster the development of pharmaceuticals that serve the public good but in the current environment would not be profitable for the pharmaceutical industry.

Physician payments could be the most challenging part of a single-payer system. When Medicare was created, physicians charged their "usual and customary fees." That is, they could get paid whatever they billed, which amounted to whatever they wanted. To limit abuse while trying to also pay physicians fairly, CMS, in conjunction with the American Medical Association, developed a scale called the Resource-Based Relative Value Scale (RBRVS), which considered all current procedure terminology (CPT) codes for services.²³ An organized approach for assigning relative value units (RVUs), both work and administrative, for services was devised. CMS could then pay for services by multiplying the RVUs by a conversion factor. The current strategy could be maintained in a single-payer system. In addition, payment for quality could be instituted by developing mechanisms for paying for procedures if they are performed within guidelines. How this would be accomplished is far from certain.

How will supplemental insurance fit into this scheme, and how could services be provided? Will hospitals offer 2 tiers of services, or would there be 2 tiers of hospitals? Would the 2 tiers amount to fancier rooms and meals or more rapid and aggressive treatment for medical emergencies such as acute coronary syndromes? The former (amenities) would be palatable, whereas the latter (processes of care) would not.

The development of Medicare in the 1960s led to concerns about "socialized medicine," often from physicians and physician organizations. Such concerns are rarely heard today from within organized medicine. The development of a single-payer system would still not be socialized medicine, as the providers and industry would remain organizationally independent of government. The advantages to come from this should include a tremendous decrease in administrative burden and alignment of incentives. Most importantly, it may provide much greater social equity than currently exists. One downside could be the potential for inefficiency due to lack of competition.

The development of a single-payer system alone will not resolve concerns over cost, and just how a single payer could best control costs is uncertain. One approach would be capitation. This most likely would involve part of the system, perhaps for certain types of tertiary care, but not for more routine or primary care. Another approach would be to empower patients through education (perhaps via the Internet) to make better-informed and perhaps less costly choices. Although there will never be enough money to pay for everything that everybody wants, at least a single payer can have incentives in alignment, such that the limited dollars


available can be directed, as well as possible, toward achieving the greatest value.

So What Does the Future Hold?

That the current healthcare reimbursement system is in trouble and not adequately providing for the American people is clear. That Medicare will not survive indefinitely in its current form is also clear. Although it is relatively straightforward to paint the picture of a functioning single-payer system with the options for supplementary insurance, how this could evolve is not clear. A process of small steps, rather than a revolutionary change, would seem preferable. However, it is unclear that such a benevolent approach aimed at helping all in society is where we are going. An alternative approach to the current Medicare crisis would be to decrease benefits or increase copayments, leaving the elderly poor with inadequate services. The recently passed Medicare Prescription Drug and Modernization Act contains a provision called the Medicare Advantage Plan, which will allow Medicare beneficiaries to enroll in private health plans.⁷⁻⁹ There is considerable concern that this provision will undermine Medicare. The uninsured, being largely poor, do not have the organized political power to change the current system. The middle class and wealthy may continue to complain about expense but for now remain largely complacent. So, is a change in reimbursement inevitable? Definitely, but the exact form is not at all clear. Whether changes occur that will be of benefit to society and take care of those who cannot take care of themselves remains to be seen. Clearly, we must continue to call for society to safeguard the care of the elderly and the poor and those who cannot care for themselves.

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