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America's Health Care Problem: An Economic Perspective

Health care expenditures in the United States are expanding rapidly. Real per capita expenditures on health care more than doubled over the period 1970–90.¹ Real expenditures for health care are now growing nearly 4 percent per year, while real expenditures on other consumer goods are growing only 2.5 percent per year.² Furthermore, health services grew more than twice as fast as any other major industry during the recent recession. If expenditures continue to grow at the current rate, health care will represent a larger share of the United States' gross domestic product (GDP) than manufacturing by 2000.³

The explosive growth in health care expenditures concerns many Americans. Citizens fear that they will be priced out of the market for health care. Business people worry that rising health care costs will reduce the international competitiveness of U.S. corporations. Politicians worry that rising bills for health care programs like Medicare and Medicaid will force the government to raise taxes or run increasingly large deficits.

The widespread concern has led to demands for substantial reform of the U.S. health care system. Some groups call for controls on health care prices. Others want to reform the insurance industry. There are plans that call for managed competition and plans that eliminate competition by making the government the sole provider of health services. There are almost as many plans as there are interested parties.

However, before we can fix the system, we have to know what parts of it are broken. If the increase in health expenditures reflects distortions

in demand, then we should focus on reforming consumer incentives. If distortions in supply fuel the expenditures increase, then we should respond with policies that affect suppliers. If the increase in health expenditures reflects shifts in market fundamentals—for example, the increasing health care demands of an aging population—then economic analysis suggests that the system does not need fixing, and we should leave it alone.

Why is everyone so concerned?

Until recently, health care costs were not a major concern of most Americans. Surveys on the top problems facing the United States in 1984 did not even mention health care.⁴ Today, however, reforming the health care system is one of the primary objectives of state and federal governments.

A look at health care prices suggests one reason for this change in perspective. As Figure 1

Our thanks to Zsolt Becsi, Steve Brown, and Mark Wynne for their comments and suggestions.

¹ Levit et al. (1991).

² Based on data from the U.S. Department of Commerce, Bureau of Economic Analysis.

³ Based on data from the U.S. Department of Commerce, Bureau of Economic Analysis.

⁴ For example, see the reader survey in Tift (1984).

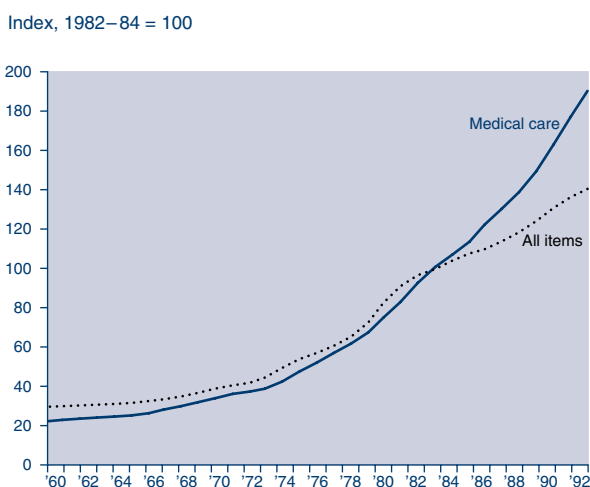
indicates, health care prices increased at roughly the same rate as the general price level until the early 1980s. After the mid-1980s, however, the medical care component of the consumer price index shot upward. By 1992, medical care prices were increasing at more than twice the rate of inflation.⁵

This sharp increase in health care prices has led consumers to fear that they are being priced out of the market for health care. Publicity on the 35 million uninsured Americans lends credibility to those fears.⁶ Because many Americans view health care as essential, the prospect of being unable to afford it frightens them.

Rising health care prices also concern business because employers pay a large proportion of the Medicare and Medicaid taxes and 64 percent of private insurance premiums.⁷ Wage and price controls during World War II encouraged employers to provide fringe benefits such as health insurance in lieu of wage increases. The tax-exempt status of fringe benefits led many employers to continue the practice after the controls were removed. Therefore, much of the increase in health care expenditures is a drag on the balance sheets of American employers.

Furthermore, government is concerned about increasing health care costs. Federal expenditures for Medicare, which finances health care services for the elderly, and Medicaid, which finances health care services for the poor and disabled, have been growing more than 10 percent per year since 1985.⁸ The Congressional Budget Office estimates that health spending consumed 15 percent

Figure 1
Consumer Prices



SOURCE: U.S. Bureau of Labor Statistics.

of the federal budget in 1992 and will consume 28 percent of the federal budget by 2002.⁹

Ultimately, however, consumers bear the burden of increases in health care spending. Much of the increase in employer health costs is passed along to employees in the form of lower wages (see the box entitled “Health Care Costs and Profitability”). The increase in government health costs is passed along to citizens in the form of higher taxes or fewer alternative services. Therefore, consumers would be the primary beneficiaries of health care reform.

Sources of increasing health care expenditures

It is possible to determine the best way to reform the health care system using the basic principles of supply and demand. If no distortions exist, the health care market achieves the optimal resource allocation for a given income distribution. The increase in health care expenditures then reflects either an increase in the public’s desire for health services or an increase in legitimate costs. Under these conditions, if society is unhappy with the allocation, the best solution is to redistribute income without meddling in the health care market.

⁵ The medical care component of the consumer price index may mismeasure medical inflation somewhat, because it is difficult to adjust properly for changes in medical technology and the quality of care. However, it undoubtedly influences the public’s perceptions of health care prices.

⁶ Garrison (1990).

⁷ Levit and Cowan (1991).

⁸ Levit et al. (1991).

⁹ Burman and Rodgers (1992).

Health Care Costs and Profitability

Businesses pay most of the nation's health bills, but the effect of increasing health care costs on profits is not straightforward. Although increases in health costs for retirees would have a negative effect on firm profitability, increases in health costs for current employees can have a positive effect on firm profitability.

The health care costs of current workers are part of a total compensation offer that is determined by the worker's contribution to the firm's output. As long as the worker's productivity is unaffected by increases in health care costs, the amount of total compensation the firm is willing to offer is unaffected by increases in health costs. Therefore, increases in health costs should be offset by decreases in wages to keep the total compensation package unchanged.

Furthermore, the increase in health care costs increases the value to employees of the tax exemption for fringe benefits. The advantages of being employed by a firm that offers health benefits increase, so more workers are attracted to such firms. As the supply of labor offered to firms that provide health benefits

increases, the total price those firms must pay for it decreases, and those firms' total compensation costs can fall. Therefore, firms that offer health insurance as a fringe benefit to their employees can be made better off—not worse off—by the increase in health costs.

Unfortunately, the savings on total compensation for current employees can be more than offset by increased costs for the health care of retirees. After all, the increases in health costs for retirees cannot be offset by decreases in wages. The problem has become particularly evident recently as accounting rule changes have forced firms to indicate their commitments to retiree benefits on their balance sheets. For example, General Motors was forced to record a \$22.2 billion charge in 1992 for retiree and future retiree health costs.¹ Firms that respond to the increase in health care costs by modifying or eliminating health care coverage for the retired may face increased wage demands by current employees who fear being treated in a similar way when they retire.

¹ *Dallas Morning News* (1993).

However, if the health care system is distorted, reform is needed to eliminate the distortions.

We have identified several distortions in the current system of health care. First, tax subsidies for employer-provided health insurance lead to excess demand for health insurance and, consequently, to excess consumption of health care. Second, regulations and industry practices restrict the supply of health care professionals, leading to higher prices for health services. Finally, the structure of the health insurance industry promotes inefficiency. These distortions of both supply and demand lead to excessive expenditures on health care.

Expenditures also are increasing for several reasons that are nondistortionary. These reasons include uncertainty about causes and appropriate

treatments for health problems, changes in population demographics, and society's reluctance to place limits on the value of human life.

The implicit tax subsidy for health insurance

For nearly fifty years, employer-provided fringe benefits have been exempt from both personal income taxes and payroll taxes such as those for Social Security. Thus, employees avoid taxes by taking some of their compensation in the form of health insurance. If the combined marginal tax rate is 28 percent, an employee can receive \$1's worth of health care instead of 72 cents' worth of after-tax take-home pay (*Table 1*). The difference represents an implied tax subsidy. As *Table 1*

Table 1
The Subsidized Price of Health Care

Wage	Income tax (percent)	Effective marginal tax rate* (percent)	Price of health care in terms of take-home pay
\$1	0	14	\$.86
\$1	15	28	\$.72
\$1	28	40	\$.60
\$1	33	45	\$.55

*Effective marginal tax rate equals share of the last dollar of monetary compensation paid in federal taxes and includes both payroll and income taxes.

indicates, those in the highest tax bracket receive the largest tax subsidy, while those in the lowest tax bracket receive a much smaller subsidy.¹⁰

Because employees will naturally buy more health insurance at 72 cents than at \$1, excluding health-related fringe benefits from taxable income increases expenditures on health insurance by those receiving the subsidy. Burman and Rodgers (1992) estimate that the subsidy costs the federal government \$65 billion per year in foregone revenue and increases private health insurance spending by roughly one-third.

Excessive consumption of health insurance has a number of disquieting consequences. First, because health insurance leads to increased consumption of health care, excessive consumption of health insurance produces excessive consumption of health care. (For a discussion of the ways in which health insurance increases health care consumption, see the box entitled “The Relationship Between Health Insurance and Health Care Consumption.”) Second, overconsumption of health insurance by those receiving the implicit subsidy increases the insurance premiums of the unsub-

sidized and may cause some consumers to be underinsured. Finally, excessive health insurance distorts medical research in favor of technologies that extend or improve life at any price rather than technologies that reduce the costs of treatment.

By its nature, health insurance makes consumers less sensitive to health care prices, thereby generating more expenditures on health care than would otherwise occur. Given this relationship, excessive insurance consumption necessarily leads to excessive health care consumption. Phelps (1992) estimates that annual health care expenditures are between 10 percent and 20 percent higher because of the subsidy.

By leading to excessive health care expenditures, the tax subsidy also can exacerbate the problem of the uninsured. Because the subsidy increases demand for health care, health care prices rise, putting upward pressure on health insurer costs. Higher payouts result in higher insurance premiums. Thus, the subsidy distorts the distribution of health insurance so that higher income households overconsume health insurance, while lower income households can be priced out of the market for health insurance and health care.

Overconsumption of health insurance also plays a role in directing technical progress in health care and has reinforced the development of costly technologies. Contrary to conventional wisdom, technological improvements in health care generally have not lowered costs. Rather, technological innovations have brought about a higher quality

¹⁰ Residents of cities and states with income taxes receive additional subsidies because their fringe benefits are also exempt from local income taxes.

The Relationship Between Health Insurance and Health Care Consumption

Substantial research indicates that as the price to consumers decreases, health care consumption increases (Long and Rodgers 1990, Phelps 1992, Keeler and Rolph 1988, Manning et al. 1987). According to the Rand Health Insurance Experiment, the price elasticity of demand for health care is -0.2 (Keeler and Rolph 1988, Manning et al. 1987). In other words, every 1 percent decrease in consumer prices for health care increases health care consumption by 0.2 percent.

Insurance reduces the consumer's effective price of health care in two ways. First, because health insurers typically pay for health treatments rather than for health losses, insurance lowers the marginal price of treatment. If a consumer is fully insured (and, therefore, pays none of the billable costs of treatment), then the marginal cost of health care becomes the opportunity cost of the consumer's time. If a consumer is co-insured, then the marginal cost of treatment becomes a predetermined fraction of the treatment cost, plus the consumer's opportunity costs. For example, with a copayment of 20 percent, a \$10 prescription antihistamine costs the consumer only \$2. In either case, health insurance effectively reduces the consumer's marginal cost of health care.

Second, because health insurance premiums are only loosely connected to claims, insurance insulates people from some of the costs of their decisions. Theoretically, insurance premiums, which reflect expected losses, are a function of health risk and the extent of

claims. In such a case, consumers have incentives to limit their health care consumption and submit only those claims that are worth the resulting increase in premiums. In practice, however, an individual in a large health insurance plan pays an average premium that is almost independent of the individual's risk or health care consumption. Hence, consumers do not bear the full costs of their decisions about the extent of claims.

Furthermore, the loose connection between premiums and claims in health insurance exacerbates problems of moral hazard. Moral hazard arises when insurance changes the insured's behavior in a way that increases claims. For example, people who are insured and who, therefore, know that they will bear only part of the cost of illness, may not be as careful of their health as people who are not insured. Individuals will have no incentive to curb unhealthy behavior if increased claims are not reflected in higher premiums, especially if behavior cannot be easily monitored.

Thus, health insurance increases expenditures on health care. In the Rand experiment, fully insured individuals spent 30 percent more on outpatient services than individuals with a 25 percent copayment. In turn, individuals with a 25 percent copayment spent 28 percent more than individuals with a 95 percent copayment (Manning et al. 1987).¹

¹ Both co-insurance programs had an annual cap on out-of-pocket expenses.

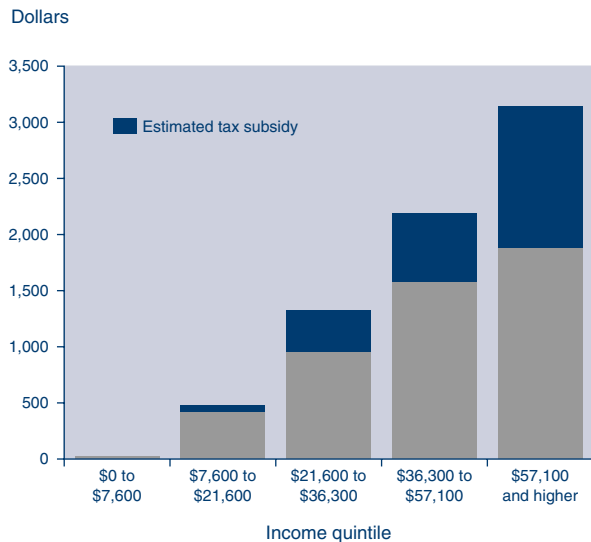
product, which is most often more expensive than the older product. Weisbrod (1991) finds that our system of pricing (that is, paying the health care provider based on costs incurred or on a fee-for-service basis) has led the research and development sector to develop new technologies that enhance the quality of care irrespective of cost

rather than the cost-effective technologies that probably would develop if consumers were more sensitive to health care prices.

One could argue that the tax subsidy is necessary because without it, poor people would receive less medical care and there would be greater public health risks from communicable



Figure 2
Average Employer-Provided Health Benefits



SOURCE: U.S. Department of Commerce, Bureau of the Census.

diseases such as tuberculosis. However, the progressive nature of the income tax code negates those arguments. As Figure 2 indicates, high-income households receive a greater health insurance subsidy than low-income households. Households that fall in the lowest income tax bracket receive a small subsidy because health benefits are exempt from Social Security and other payroll taxes. Meanwhile, some of the households in the highest income tax bracket receive a federal subsidy of nearly 50 percent when both income and payroll taxes are considered. In combination with an exemption from state taxes, high-income households in high-tax states receive an even larger subsidy. There is little risk that high-income households will not be able to afford insurance and no obvious consensus that these groups deserve public assistance.

Supply constraints

Numerous restrictions on entry to the health care profession distort health care supply and lead to higher consumer prices. These restrictions include limits on access to medical training, licensing and certification requirements for doctors, and work rules that exclude paraprofessionals from

performing many medical tasks. The restrictions are ostensibly designed to protect the consumer by increasing the quality of the health care product. Studies have shown, however, that regulations that limit supply do not always lead to higher quality and tend to increase expenditures because they increase incomes in the profession.

People who want to become doctors must first gain entry into an accredited U.S. medical school. Doctors who train at nonaccredited schools or in other countries frequently are not permitted to practice medicine in the United States. The market for medical training is monopolistic, and the number of medical school applicants greatly exceeds the number of openings at accredited schools. Each year since 1960, medical school applications have exceeded classroom openings by at least 50 percent (Association of American Medical Colleges 1993, Table B–1). In the 1992–93 school year, there were two applicants for every opening. Restrictions on the supply of medical training necessarily restricts the supply of physicians. Assuming that those students who were not accepted into medical schools were only 50 percent as likely to complete their education as those who were accepted, the restriction reduces physician supply by approximately 30 percent.

Once physicians have graduated from medical school, they face additional restrictions imposed by state and local agencies. States have licensing and regulatory agencies or boards that regulate the medical profession. The agencies establish the minimum level of education and experience required to practice, define the functions of the profession, and limit the performance of certain functions to licensed professionals. Restrictions include the use of trade names, restrictions on branch offices and location of offices, and, until 1977, a ban on advertising (Haas–Wilson 1992).

Many studies have shown that occupational licensing leads to lower consumer welfare and higher incomes in the licensed profession. Economic theory suggests that self-licensing by the medical profession leads to economic rents (Friedman 1962 and Stigler 1971). Leland (1979) finds that although minimum quality standards may be desirable in markets in which suppliers have more information than consumers, the minimum quality standards set by the medical industry may be too high. Chan and Leland (1982) show that when both price and quality are hard to observe, uninformed

consumers may pay a higher price and receive a lower quality of goods. Haas–Wilson (1986) finds that increasing the restrictiveness of optometrists' licensing examinations increased the price of eye exams and eyeglasses significantly but had an insignificant effect on the quality of the eye exams.

Whenever entry into a market is artificially constrained, either through restricted access to medical training or through obstacles such as licensing and certification, consumer prices are inefficiently high. Therefore, restrictions on entry into the health care profession, together with work rules that prevent competition within the profession between physicians and less-expensive paraprofessionals, increase medical costs.

Relaxing some of the restrictions on entry into the medical profession should make consumers better off. Shaked and Sutton (1981) show that granting monopolistic powers to the self-regulating profession is likely to be welfare-reducing and that the entry of paraprofessionals would be welfare-improving. Moreover, the size of the paraprofession that leads to the greatest improvement in welfare is the size that leads to the greatest income loss for members already in the profession. Evans and Williamson (1978) estimate that in Ontario, Canada, a dental care system that made optimal use of paraprofessionals could reduce the cost of care by 30 percent to 40 percent. More recent studies on restrictions in the dental profession (Liang and Ogur 1987) estimate that state restrictions on the number of auxiliaries a dentist can hire and the functions they may perform cost consumers \$700 million in 1982.

Counter to the principles of supply and demand, there are some who assert that an increase in physician supply would, in fact, cause higher prices. They cite the phenomenon that doctors charge higher fees in communities with high physician-to-patient ratios than they charge in communities that are less well supplied, even after adjusting for input cost differences.

However, there is no need to suspend the laws of supply and demand to explain this phenomenon. Where there is a greater density of physicians, there also may be a greater degree of specialization and nonprice competition. Physicians segment a large market and respond to a greater variety of needs and preferences by treating fewer patients but charging higher prices.¹¹

Inefficiencies in the insurance industry's structure

Another distortion in the health care system arises from the structure of the insurance industry. The market for health insurance is dominated by noncompetitive firms. Medicare and Medicaid, which represent 57 percent of the insurance market, are government entities.¹² Furthermore, much of the private market for health insurance is dominated by not-for-profit groups like Blue Cross and Blue Shield. Only 30 percent of the health insurance market is served by for-profit commercial insurers. Without the discipline of competition, the market for health insurance is inefficient and encourages higher health care costs.

Considerable economic research indicates that government agencies are, in general, inefficient (Breton 1974, Downs 1967, and Tullock 1965 and 1967). According to Niskanen (1971), government agencies are more likely to try to maximize the size of their budgets than to maximize profits because budget size is a mark of the power and prestige of the agency. Among other bureaucratic goals are salaries, office perks, and patronage. Weatherby (1971) cites the expansion of personnel as a goal pursued by bureaucrats. Borcharding's (1977) and Spann's (1977) findings on the growth of government and lack of productivity growth are consistent with Niskanen's theory. Since agencies have to return any unused moneys to the U.S. Treasury, they are not residual claimants on cost savings in the budget and have few incentives to cut costs. There is no reason to believe that Medicare and Medicaid administrators behave differently than other bureaucrats.

Like government agencies, not-for-profit firms also face incentives to behave inefficiently. (Alchian and Demsetz 1972, Eisenstadt and Kennedy 1981, and Sindelar 1988). Nonprofit health insurers have incentives to dissipate any potential profits through excess payments to doctors and

¹¹ Phelps (1992, 2002).

¹² U.S. Bureau of the Census (1992).

hospitals, unusually generous insurance coverage, or artificially low insurance premiums. Sindelar (1988) finds that, unlike for-profit insurers, Blue Cross and Blue Shield plans (the Blues) do not respond to market forces by changing the price of health insurance (measured as the ratio of premiums to benefits). In particular, Sindelar finds that administrative costs for the Blues increase as the size of the typical insurance claim increases, suggesting that the Blues do not take advantage of economies of scale that are exploited by commercial insurers.

In most industries, the existence of a competitive fringe of efficient firms would discipline the inefficient nonprofit firms (Baumol, Panzar and Willig 1988; Caves and Christensen 1980). However, in the insurance industry, inefficient nonprofit insurers receive tax advantages not available to for-profit insurers. Most states tax the insurance premiums of for-profit insurers, while they exempt the premiums of nonprofit insurers or tax them at lower rates. Eisenstadt and Kennedy (1981) find that Blue Shield plans were less efficient in states where the plans had a tax advantage than in states where they did not.¹³ According to Eisenstadt and Kennedy, “the regulatory advantages given to the ‘blues’...allow inefficient behavior to be maintained.”¹⁴

One could argue that nonprofit insurers should receive tax advantages because they generally accept customers with preexisting conditions that other insurers consider uninsurable. However, society could subsidize insurance for individuals with preexisting conditions without requiring that the insurer be a nonprofit organization. For example, the government could provide Medicare and Medicaid recipients with the resources to purchase private insurance rather than providing the insurance itself. There is no need to finance an inefficient market structure.

¹³ Inefficiency is measured by the ratio of administrative costs to premiums. Both administrative costs and premiums are expressed as net of premium taxes, if any.

¹⁴ Eisenstadt and Kennedy (1981, 27).

Nondistortionary sources of increasing expenditures

In addition to the distortions, a number of nondistortionary factors lead to higher health care expenditures. Uncertainties on the part of both physicians and consumers as to the nature and causes of health problems lead to more health care consumption than would occur if all information were freely available. However, information is not free, and some of these expenditures are the natural result of optimization under uncertainty. Other nondistortionary factors that contribute to higher expenditures include changes in the demographic composition of the U.S. population and the nearly infinite value placed on human lives.

Uncertainty has a major influence on medical decision-making. Doctors and patients have incomplete information about causes and cures for many health problems. Phelps (1992) shows that there is substantial disagreement and uncertainty within the medical profession about the marginal productivity of alternative medical treatments. Uncertainty about the optimal course of action for various health problems, together with consumers' distaste for taking risks with their health, leads to increased testing and treatments and, therefore, higher health expenditures.

Further, because patients lack the information to reliably judge medical care quality, they must rely on their doctor's advice and judgment. But much like an auto mechanic, the doctor has incentives to provide (and bill for) more services than absolutely necessary and to provide those services with less than maximum effort. Economists refer to these situations as principal-agent problems. The usual solution to such problems is a contract that provides the agent (in this case the health professional) with incentives to behave optimally and a mechanism for monitoring the agent's compliance with that contract. The mechanism to monitor doctors' behavior and provide incentives for optimal performance is the malpractice suit.

Unfortunately, asymmetric damages make malpractice suits more effective at inducing careful care than cost-effective care. After all, if the doctor orders too few tests and a patient is injured or killed, the potential damage is huge. However, if the doctor orders too many tests, the damage is

limited to the cost of the tests. Whenever there is uncertainty about the appropriate number of tests, the risk-averse doctor will prescribe more tests. Thus, malpractice laws and asymmetric damages create incentives for defensive medicine—procedures designed to ward off lawsuits rather than diseases. According to the American Medical Association, defensive medicine and malpractice insurance add \$36 billion to the nation’s medical bills each year.¹⁵

In addition to uncertainty, the changing demographics of the U.S. population also contribute to increases in health care expenditures. Per capita health care expenditures increase with both age and income. For example, consumers 65 and over consume more than three-and-one-half times as much health care as consumers ages 19 to 64 (*Figure 3*). The aging of the population is expected to explain one-seventh of the increase in health care expenditures over the 40 years from 1990 to 2030.¹⁶ Furthermore, real U.S. income per capita has grown 2.2 percent per year over the past three decades, and as populations grow wealthier, they consume more of all normal goods, including health care. Simple regression analysis suggests that one-quarter of the increase in per capita health expenditures over the period 1960–90 can be explained by these two demographic factors.

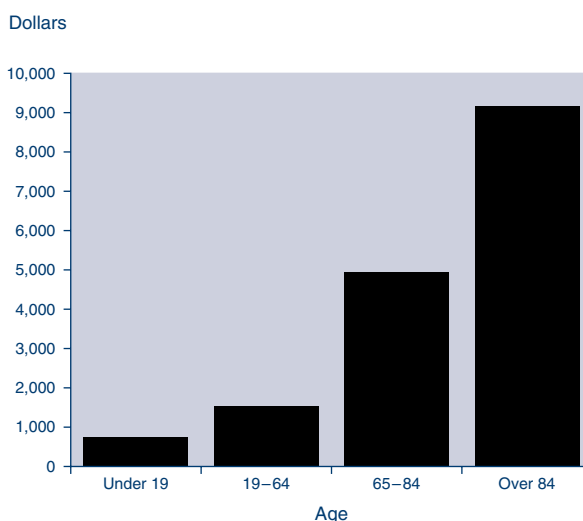
Finally, the high value we place on human life leads to higher expenditures in the health care system. Because most consumers would be willing to spend huge amounts to avoid dying, insured consumers will demand any treatment, however costly, that will prolong a patient’s life. The Council of Economic Advisers (1993) estimates that the 5 percent of beneficiaries who are in the last year of their lives consume 29 percent of the Medicare budget.

Summary and conclusions

Health care expenditures in the United States have expanded rapidly in the past twenty years. This growth in expenditures concerns business people, politicians, and individual consumers of health care, although most of the burden falls on the consumer. Hence, health care reform has become a primary objective of policymakers.

Increasing expenditures for health care are not a problem when they reflect consumer demands for health care in an undistorted market, and

Figure 3
Per Capita Health Care Expenditures by Age, 1987



SOURCE: U.S. Bureau of Labor Statistics.

some of the recent increases clearly represent the demands of an aging and increasingly wealthy population. However, we have identified a number of distortions in the health care market that have a substantial impact on health care expenditures. The personal income tax code subsidizes health insurance consumption, thereby fostering excessive consumption of health care. Tax exemptions for nonprofit insurers and restrictions on the supply of health services also lead to higher costs.

To be effective, health care reform must address these distortions in the health care system. Eliminating the tax subsidy for employer-provided health insurance, reducing the tax advantages of nonprofit insurers, and reducing the restriction on health care providers would go a long way toward eliminating America’s health care problem. Only after these distortions are removed can the economy achieve an efficient allocation of health resources.

¹⁵ Felsenthal (1993).

¹⁶ Council of Economic Advisers (1993).

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