CHAPTER 4

The Economics Of Health Care

AMERICANS ARE LIVING LONGER, healthier lives than ever before. Since 1960, average life expectancy has increased by more than 5 years. American physicians have access to the best technology in the world and more than one-half of the world's medical research is funded by private and public sources in the United States. At the same time, the share of the Nation's income devoted to health care has been growing rapidly, and today more than 35 million Americans lack health insurance. Growing concern about rising expenditures and reduced access to insurance has led to the development of a wide variety of proposals for health care reform, from the Administration's market-based approach to calls for a government-run national health insurance program.

The success of any of these proposals will depend on how well it addresses the reasons behind the increase in expenditures and decline in insurance. Economics is very helpful in understanding these developments. It suggests that most health care in the United States is financed and delivered in ways that give both health care providers and their insured patients many incentives to increase the quality of health care but little reason to be concerned about its cost.

HEALTH CARE IN THE UNITED STATES

In many respects, the health care industry resembles other service industries such as transportation and legal services. It supplies a service—health care—in response to consumer demand. But the demand for health care is different from the demand for many other services because most people do not pay for their care directly. Instead, the government and private insurers pay most health care expenses. The supply of health care also differs from that of many other service industries. Consumers rely on providers for information about health care services and these providers are heavily regulated, primarily by other health care providers. Finally, many people believe that health care is inherently different from other goods and services. They believe that everyone should be entitled to at least some health care, although they may not believe that everyone has a similar entitlement to goods in general.

THE HEALTH OF THE U.S. POPULATION

Americans buy health care to improve their health, but recent research suggests that the connection between health care and health is not a simple one. In fact, increases in life expectancy in developed countries are not strongly related to increases in the number of physicians or hospital beds per capita, nor are they primarily a consequence of increasing utilization of these services. *Studies show that increases in life expectancy are mainly related to changes in behavior and improvements in medical technology.* Between 1960 and 1990, life expectancy at birth, which is strongly affected by changes in infant mortality, rose from 67 years to 72 years for men and from 73 years to 79 years for women. The life expectancy of older Americans, a group that may be more strongly affected by improvements in medical technology, increased by 3 years between 1960 and 1990, a larger increase than occurred between 1900 and 1960.

Changes in Behavior

Changes in behavior offer great promise as a way to prevent disease and preventing disease is often less costly than treating it. Many Americans have adopted increasingly healthy lifestyles. During the 1980s, the rate of smoking among adults decreased from 33 to 26 percent, more Americans exercised regularly, and deaths associated with alcohol abuse declined substantially. Traffic accident deaths per capita have declined by over 30 percent since 1970, in part because of greater use of seat belts.

Medical Technology

Improvements in medical technology (a term that includes drugs, vaccines, and knowledge about treatments as well as medical equipment) reduce the incidence of disease and improve the effectiveness of treatment. For example, over 33,000 cases of polio were reported in the United States in 1950, but polio has been all but eradicated since the development of the polio vaccine. Only 25 years ago, childhood leukemia was nearly always fatal; today the long-term survival rate for children diagnosed with leukemia is about 65 percent. New drugs have greatly improved the well-being of those with ulcers and virtually eliminated the need for surgery to treat this medical problem. Similarly, coronary bypass surgery has greatly improved the quality of life of those with angina.

Continuing Problems

Despite the many medical advances of recent years, cures for many diseases have yet to be discovered and new diseases continue to emerge. For example, the rate of mortality from breast cancer has not improved since 1950 despite the development of new screening methods and new treatment therapies. Acquired immune

deficiency syndrome, or AIDS, has claimed the lives of over 160,000 Americans. Tuberculosis, a disease that had almost disappeared in the United States, has reemerged. Among young people, homicide and drug abuse exact an enormous toll.

A further problem is the persistence of serious disparities in health across income and race categories. For example, black babies are more than twice as likely as white babies to have low birthweight. While many ascribe these differences in health to differences in the ability to pay for care, evidence from the United States and other countries casts doubt on the belief that health insurance alone can greatly narrow these disparities. Studies in the United Kingdom have found that the gap in mortality between rich and poor has actually increased since the introduction of national health insurance. This result is consistent with evidence showing that increased utilization of medical services has relatively little effect on health.

PROVIDING AND PAYING FOR HEALTH CARE SERVICES IN THE UNITED STATES

The U.S. health care industry as defined in government statistics includes services provided in hospitals, nursing homes, laboratories, and physicians' and dentists' offices. It also includes prescription and nonprescription drugs, artificial limbs, and eyeglasses, as well as the services of nontraditional practitioners. But many goods and services that may strongly affect health, such as fitness club services and food, are not included in the usual definition.

The U.S. health care industry employs 9 million people, including over 600,000 physicians; by comparison, the automobile manufacturing industry employs about 800,000 people. Inpatient services are provided by approximately 6,500 hospitals containing over 1 million hospital beds. One-half of these hospitals are private, nonprofit institutions, some 30 percent are operated by Federal, State, and municipal governments, and the remainder are operated privately on a for-profit basis.

Health care expenditures averaged $2,566 per person in 1990 and were divided among health care services in almost the same proportion as in 1960. The largest part of each health care dollar, about 38 cents in 1990, was spent on hospital care, which covers all services billed through a hospital, including those of some physicians, such as medical residents and radiologists. More than 1 in every 10 Americans was admitted to a non-Federal short-stay hospital (a hospital in which the average length of stay is less than 30 days) in 1990, for an average stay of 6 days; over 10 percent of these admissions were for maternity care. Physician services are the second largest category of expenditures, accounting for about 19 percent of health care expenditures. In 1990, the average

American made 5.5 visits to a doctor. Most of the remaining 43 percent of health care expenditures was divided among drugs, nursing home care, dental services, vision products, and home health care services.

In most other developed countries, the government plays a larger part in financing and, in many cases, in delivering health care than in the United States. Boxes 4-1, 4-2, and 4-3 describe the health care systems in Canada, Germany, and the United Kingdom.

Box 4-1.—Canada

Since 1971, all Canadians have been covered by public health insurance plans administered by the Provinces. In Canada, it is illegal to sell private insurance for services provided by the public plans and participating physicians and hospitals may not accept direct payment from patients for those services. While the Provinces differ in the methods they use to finance health care, most funding comes from general tax revenues.

Physicians are paid by the provincial governments on a fee-for-service basis according to a fee schedule negotiated by the provincial governments and physician associations. There have been very substantial increases in the utilization of physician services since the introduction of public health insurance. Attempts to cut total costs by limiting physicians' fees have been partially thwarted by these continuing increases in utilization.

Hospitals receive annual lump sum, or global, budgets that are not tied directly to hospital expenditures. Hospitals cannot purchase new equipment without government approval and many types of high-technology equipment are less common in Canadian than in U.S. hospitals. The global budget reimbursement system and restrictions on the purchase of equipment have led to waiting lists for some nonemergency hospital services.

Financing Health Care

Since 1960, U.S. health care financing has undergone a major change (Chart 4-1). In 1960, most medical care was paid for directly by consumers, but by 1990 only 23 percent of health care expenses were paid for directly by consumers. Thirty-two percent were covered by private health insurers and 41 percent by the government. This change can be traced to three developments: the expansion of employer-provided benefits, the development of medicare (a government program that finances care for the elderly and disabled), and the initiation of medicaid, a program that extended and formalized

Box 4–2.—Germany

All working Germans and their families are required to have health insurance. Those with low and middle incomes must participate in one of the approximately 1,100 not-for-profit health insurance plans known as sickness funds. Most blue-collar workers are assigned to a specific plan, while most white-collar workers may choose among plans. In addition, about 26 percent of the population earn incomes high enough to allow them to opt out of the sickness funds and purchase private insurance; over one-third of those eligible do so. Out-of-pocket payments in the sickness funds are very low. The sickness funds are financed primarily from payroll taxes, and premium rates can vary substantially according to the fund. General revenues are used to fund coverage for the nonworking poor, who are insured through the sickness funds.

German physicians belong to regional associations that negotiate lump-sum budgets with the sickness funds. Individual physicians are then reimbursed by the physicians' associations on a fee-for-service basis, with the fees adjusted retroactively to comply with the negotiated budget. Hospitals are paid operating costs negotiated between the hospitals and sickness funds and pay the salaries of their staff physicians out of these operating costs. Hospital capital investments are mainly paid for by State governments.

Germans make many more physician visits per year than Americans, but the average visit is much briefer. Germans also spend more days in the hospital, on average, than do Americans. The ratio of hospital staff to patients, however, is much lower in Germany than in the United States, and Germany does not have as much high-technology equipment. Physicians spend, on average, more time with privately insured patients than with those enrolled in the sickness funds, and hospitals provide special facilities for these patients.

existing programs to finance health care for the poor. *People no longer bear most of the financial responsibility for their own health care decisions; instead most Americans have relatively little exposure to the cost implications of these decisions.*

EMPLOYER-PROVIDED BENEFITS

Large numbers of American employers first began offering health insurance benefits to their employees during World War II. During and after the war, Federal wage and price controls led businesses to expand nonwage benefits such as health care—which

Box 4-3.—United Kingdom

In the United Kingdom, the National Health Service (NHS) finances and delivers health care. All residents are eligible to receive care through the NHS, although a small but growing private insurance market also exists. The NHS is financed primarily from general revenues and only very low copayments are required for a limited number of goods and services.

Almost all physicians are employed by the government, which also owns most of the hospitals. Office-based primary care physicians who are part of the NHS are compensated in part through payments for each patient, adjusted according to the patient's age. Specialists are salaried and may only see those patients who have been referred by a general practitioner.

Expenditures per person are much lower in the United Kingdom than in other developed countries. Health care in the United Kingdom is characterized by a much lower level of high technology and fewer physicians per capita than in Canada, Germany, or the United States. There are long waiting lines for many high-cost, nonemergency procedures, and physician visits are very short.

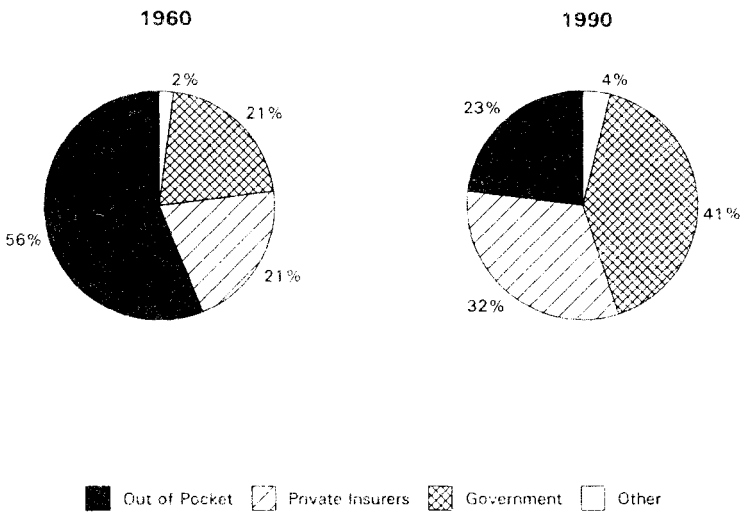
were exempt from the controls—in order to attract workers. By 1960, private employers were paying for about 13 percent of national health care expenditures, and today, most Americans receive health insurance benefits through their employers (Chart 4-2).

Tax Treatment of Benefits

Tax provisions that exempt employer-provided health insurance from Federal and State income taxes encourage the spread of such insurance. Employees do not pay tax on the share of their compensation that comes to them in the form of employer-paid health insurance. This preferential tax treatment is effectively a government subsidy. The amount of the subsidy depends on the worker's tax rate: the higher the tax rate, the greater the subsidy. The greater the subsidy, the more likely workers are to want a larger part of their compensation in the form of health insurance.

Firms can increase the generosity of a health insurance package by lowering deductibles (the fixed amounts that policyholders must pay toward bills each year before any insurance payments are made), copayment rates (the share of medical bills that must be paid by policyholders), or the employee's share of premiums. Employers may also expand the range of services included in policies, as they did during the 1980s, when an increasing proportion began to offer vision and home health care benefits. Between 1972 and

Chart 4-1 **Paying for Health Care Expenditures: 1960 and 1990**
The share of health expenditures paid for out of pocket has fallen substantially since 1960.



Source: Health Care Financing Administration.

1989 the total cost of all deductibles, copayments, and employee-paid insurance premiums remained almost constant as a share of after-tax income, at about 5 percent, despite the sharp increase in overall health care expenditures.

As tax rates have changed over time, so has the proportion of health care expenditures funded by employer payments. In 1965, when the marginal combined Federal tax rate of the median worker (including the Federal income tax and the employee's and employer's shares of the Social Security and medicare tax) was 17 percent, private employer contributions for private health insurance accounted for 14 percent of U.S. national health care expenditures. By 1982, when the combined marginal rate reached 38 percent, 21 percent of U.S. health expenditures were accounted for by private employer contributions for private insurance. During the 1980s, the marginal combined tax rate of the median worker fell (to 30 percent in 1990) and the share of national health care expenditures paid for by private employer contributions stopped rising, remaining at about its 1982 level, although the dollar amount of employer health care expenditures continued to increase.

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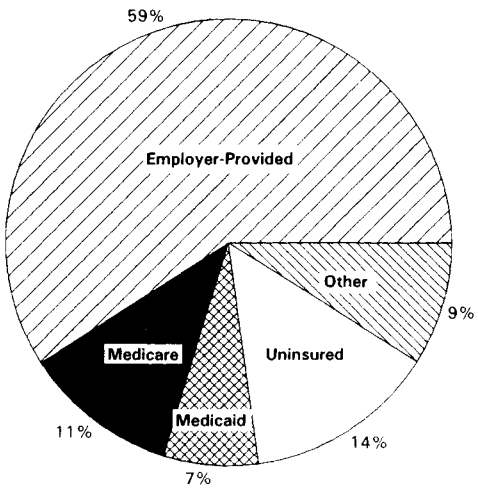
Chart 4-2 **Health Insurance Coverage**
Most Americans receive health insurance through their employers.



Note: Other includes, for example, privately purchased health insurance and the Department of Veterans Affairs.
Sources: Department of Commerce and Congressional Research Service.

Employer-sponsored insurance is also exempt from State income taxes in most States, but these taxes are not included in the above figures. State income taxes currently range between 0 and 12 percent, so that for most people the entire tax subsidy is greater than the Federal subsidy.

By not taxing benefits as income, the government is effectively forgoing revenues that could be used to lower tax rates. If all the health insurance benefits expected to be provided in 1993 were counted as part of Americans' taxable income, the Federal Government would collect approximately $65 billion in additional revenues.

Insurance Costs and Money Wages

A firm's cost of health insurance must be passed along to someone—customers, owners, employees, suppliers, or some combination of these groups. *In most cases, employers are constrained in their ability to pass along these costs to their customers, owners, and suppliers. In general, when health insurance costs rise, firms must raise the cash component of wages less than they otherwise would in order to meet the higher health insurance costs.*

Between 1973 and 1989, employers' contributions to health insurance absorbed more than one-half of workers' real gains in compensation. Much of the growth in compensation reported for the 1980s took the form of higher health insurance premiums.

THE GOVERNMENT'S ROLE

Until the mid-1960s, the government's role in the provision and financing of health care was limited primarily to prevention and medical research. Some government health care spending continues to be targeted to these areas. The Federal Government spent over $22 billion in 1992 on preventive health efforts, including $594 million spent for AIDS prevention and $297 million for childhood immunizations. In 1990 the Federal Government spent about $10 billion to fund medical research. Since the mid-1960s, the government has also taken an active role in providing health insurance.

Medicare

Medicare, a nationwide Federal health insurance program that began in 1966 for people over 65 and for those with disabilities, is comprised of a hospital insurance program and a supplementary medical insurance program. Most Americans over the age of 65 are eligible for medicare hospital insurance benefits, which they receive without paying a special premium. Some disabled persons under 65 and most people who suffer from chronic kidney disease are eligible for medicare hospital benefits.

Medicare hospital benefits cover all reasonable costs for 60 days of inpatient hospital care per year, after a $676 deductible; days 61 through 90 are covered with a daily copayment of $169. In addition, those insured through medicare have a 60-day lifetime reserve for hospitalizations exceeding 90 days, during which they must contribute $338 a day toward the cost of their care. (These deductible and patient payment amounts are for calendar year 1993.) Medicare hospital insurance also provides limited coverage for posthospital nursing services, home health care, and hospice care for the terminally ill.

Participation in the medical insurance portion of medicare is voluntary. For a monthly premium of $36.60, people 65 and over and all others eligible for hospital benefits may purchase medical insurance. When the medicare program began, premium income financed half the cost of supplementary medical insurance but today premiums cover only about one-quarter of the costs of these benefits and general tax revenues cover the remainder. Medicare medical insurance covers physician services, laboratory and other diagnostic tests, and outpatient hospital services. It generally pays 80 percent of the approved amount for each service with an annual deductible of $100.

Many medicare beneficiaries purchase additional private insurance, called medigap insurance, to cover deductibles and copayments that are not paid by medicare. In 1990, 77 percent of medicare beneficiaries had medigap insurance. Of these, some 44 percent purchased such insurance directly; another 40 percent were retirees receiving medigap coverage through their former employers. For medicare recipients below the poverty level, another government program, medicaid (discussed below), provides this additional coverage. A recent change in Federal law requires that all medigap insurance must cover all patient payments for hospital and medical care except the deductibles. Purchasers of medigap insurance have relatively few out-of-pocket expenses for hospital and physician bills. New medicare beneficiaries (those who have just turned 65) are guaranteed the right to purchase medigap insurance at the same rate regardless of their health status.

Medicaid

Medicaid is a Federal-State matching entitlement program that provides medical benefits to low-income individuals including the elderly, blind, disabled, children, adults with dependent children, and some pregnant women. Eligibility for medicaid has been tied to participation in the aid to families with dependent children (AFDC) or supplemental security income program. In 1986, the Congress extended medicaid coverage to pregnant women and children under 6 whose family incomes fall below 133 percent of the Federal poverty level. States may choose to cover all pregnant women and all children under the age of 1 with family incomes of up to 185 percent of the Federal poverty level, and 29 States currently do so. By 2002, the medicaid program will be required to provide coverage for all children under 18 whose families are below the Federal poverty line.

For some senior citizens whose incomes are below the poverty line and who receive medicare benefits, medicaid pays deductibles and copayments for physician and hospital expenses. Medicaid also covers long-term nursing home care: some 25 percent of all medicaid expenses in 1987 were for nursing home care for those over 65.

Each State administers its own medicaid program according to Federal eligibility guidelines. The Federal Government contributes 50 percent of the State's administrative costs and a percentage of the medical expenses based on a matching formula that gives more money to poor than to wealthy States. The Federal share of medicaid costs ranges from a low of 50 percent to a high of 79 percent. Federal law mandates that medicaid beneficiaries can be required to pay only small copayments.

In 1990, 25.3 million persons received medicaid benefits. *Expenditures for the aged, blind, and disabled, who account for only 27 per-*

cent of the caseload, made up about 70 percent of the outlays. Dependent children accounted for only 14 percent of medicaid outlays.

RECENT CHANGES IN THE PROVISION OF CARE

Until the late 1970s, most providers of health care in the United States were paid using a system called retrospective reimbursement that paid for each service provided, encouraging providers to increase their services. Hospitals and physicians had incentives to counsel patients to accept more and costlier treatments, and insured patients had little reason to question these recommendations because services were paid for largely by insurance. Physicians and hospitals competed for patients by improving the quality of their services, driving up prices.

During the 1980s, some attempts were made to control expenditures by encouraging physicians and hospitals to compete in ways that keep costs down. Competition among insurers led to an increase in the use of innovative payment methods that, in turn, have begun to create an environment in which competition among providers may lead to lower health care costs.

Institutional Responses: Capitation and Coordinated Care

Under retrospective reimbursement, insurers paid physicians and hospitals for the costs of services after the fact. There were few restrictions on payments, and providers had little reason to compare the costs and benefits of services for insured patients. Insurers using the retrospective reimbursement system responded to rapidly rising expenditures by reviewing physician behavior more closely. This oversight has taken different forms, including increased monitoring, or case management, for more costly cases (a procedure used by an estimated 67 percent of employers in 1991) and requirements that patients seek a second opinion before undergoing surgery (used by about 49 percent of employers in 1991).

As health care expenditures rose during the 1970s and 1980s, however, insurers also experimented with alternative reimbursement strategies that would create incentives to control expenditures while ensuring quality care. One major innovation was the expansion of coordinated care programs that use capitation-based reimbursement and direct review of the utilization of medical and hospital services (Box 4–4).

Under capitation-based reimbursement, physicians receive an annual payment for each patient in their care, regardless of the services a patient uses during the year. Coordinated care organizations, which include health maintenance organizations (HMOs) and preferred provider organizations, often use the capitation system to pay providers. By 1990, 33 million Americans were receiving care through HMOs, over 5 times as many as had 15 years earlier.

Box 4-4.—Coordinated Care

The term "coordinated care" describes a variety of arrangements that increase coordination and management of health care services. The best-known form of coordinated care is the HMO, which provides its services through a single group of doctors and other health care providers. Individuals enrolled in an HMO pay a specific annual fee, regardless of the services they receive, although a small copayment is sometimes charged for services.

Another popular form of coordinated care is the preferred provider organization, which contracts with a group of providers who are reimbursed for services based on a negotiated fee schedule. Preferred provider organizations usually incorporate programs to monitor the use of services to ensure that physicians do not offset lower fees with increased volume.

Coordinated care programs have been shown to reduce expenditures while maintaining the quality of care. Some studies have found that coordinated care programs reduced the cost of care by as much as 30 percent.

Although coordinated care has become increasingly common in the private sector, it has not been as popular in public insurance programs. Medicare began entering into contracts with HMOs in the mid-1980s. Because medicare beneficiaries have few incentives to join HMOs, however, very few have done so. Congressional restrictions on the use of coordinated care by State medicaid programs have impeded the growth of such arrangements for medicaid recipients and fewer than 10 percent of medicaid beneficiaries currently receive care through these arrangements.

These innovations, which have occurred largely in the private insurance market, have reduced health care expenditures while offering health care that is at least as good as that of traditional retrospectively reimbursed medicine. In fact, capitation-based payment gives physicians a financial incentive to invest in preventive care, because they benefit financially when their patients remain healthy. *Studies show that costs have risen more slowly in health care markets where there is vigorous competition among many coordinated care providers.*

Diagnosis-Related Groups

In an effort to control rising hospital expenses, which make up the bulk of medicare payments, the Federal Government in 1983 replaced the existing retrospective payment system with a prospec-

tive payment system. The new system reimburses hospitals with a fixed amount for each patient based on the patient's diagnosis, rather than on the services provided. A medicare patient admitted to a hospital is now classified as belonging to one of 470 diagnosis-related groups (DRGs) that form the basis for payment.

In principle, hospitals could compete to offer care for a particular DRG at the lowest price. The medicare program, however, has set fees for each DRG, limiting the opportunities for price competition among hospitals. Payment for each DRG is based on the average cost of treatment but may vary according to region and type of hospital. Hospitals that can provide care at less than the average cost profit from this system.

Hospitals have responded to the new incentives the DRG system provides. The length of the average hospital stay has fallen significantly. A study that compared hospital costs under DRGs with estimates of what costs would have been without DRGs suggests that the system led to a one-time decline of about 20 percent of the cost of hospital care paid for by medicare. The DRG system may also slow increases in expenditures by removing the incentive that operated under retrospective reimbursement to add costly services. Finally, a substantial amount of evidence suggests that the DRG system has not reduced the quality of care medicare patients receive, even though it provides hospitals with an incentive to limit the services provided to a patient with a particular diagnosis.

The Resource-Based Relative Value Scale for Paying Physicians

In response to the increases in physician expenditures during the 1980s, the medicare program in 1992 began implementing a new fee system for physicians. The old system had reimbursed physicians the customary fee, a practice that could lead to cost spirals. If one physician raised fees, the average would rise, and this increase could be included in the next fee schedule.

With the new resource-based relative value scale, the Federal Government sets the fee medicare pays for each service according to the complexity and duration of the treatment. The current scale has greatly increased the reimbursement for evaluative functions and reduced the reimbursement for surgery.

Unfortunately, the method used to determine the new fee schedule may not be sound. Theoretically, fees should reflect not only time and effort but also demand for the service and the willingness of physicians to perform it. Unless a fee schedule takes into account these fundamental economic forces, it is likely to lead to shortages and surpluses in particular specialties, especially those with changing technology.

SUMMARY

- Improvements in technology and behavioral changes have led to significant improvements in Americans' overall health. Americans are living longer, healthier lives, free from many life-threatening illnesses. Many serious problems have developed, however, including AIDS and a recurrence of tuberculosis.
- The government's share of total health expenditures has increased and the share of patient out-of-pocket spending in total health expenses has been falling. People have much less responsibility for the financial consequences of their health care decisions than they did thirty years ago.
- Most Americans are insured through their employers. Employer-provided insurance benefits have increased dramatically since World War II, in part because such benefits are excluded from employees' taxable income. Employees pay for increases in health care costs mainly through lower wages. Individual expenditures for deductibles, copayments, and insurance premiums remained roughly constant as a share of after-tax income between 1972 and 1989.
- Insurers have responded to cost increases with innovative changes in the financing of care, moving away from fee-for-service, retrospective reimbursement of independent providers to prospective, capitation-based reimbursement of networks of providers.

RISING EXPENDITURES, DECLINING INSURANCE COVERAGE

The impetus for health care reform is driven by two concerns: the rapid rise in health care expenditures and the increasing percentage of Americans who lack health insurance.

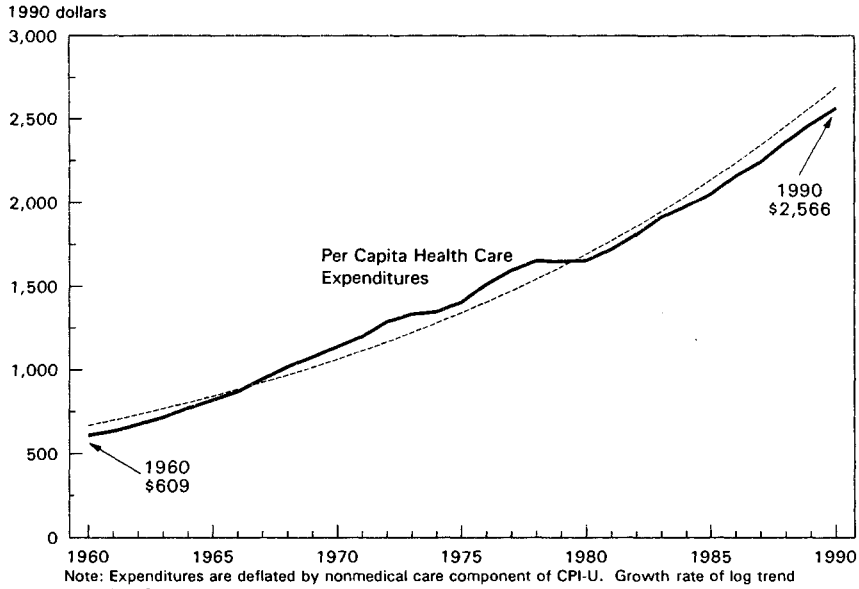
TRENDS IN HEALTH CARE EXPENDITURES

Chart 4–3 shows the change in spending on health care since 1960. Some increases were due to the expansion of health insurance benefits through the establishment of the medicaid and medicare programs in the mid-1960s. Health care spending has continued to escalate since then.

Studies that examine patterns of health care spending across countries show that the share of income countries devote to health care usually rises with national income. Health expenditures in the United States are no exception. Expenditures rose more quickly than incomes between 1960 and 1990, from 5 percent of gross national product (GNP) in 1960 to 12 percent.

Chart 4-3 **Real Per Capita Health Care Expenditures**

Real per capita health care expenditures have been rising at an average annual rate of 4.6 percent since 1960.



Note: Expenditures are deflated by nonmedical care component of CPI-U. Growth rate of log trend is 4.6 percent per year.

Sources: Department of Labor and Organization for Economic Cooperation and Development.

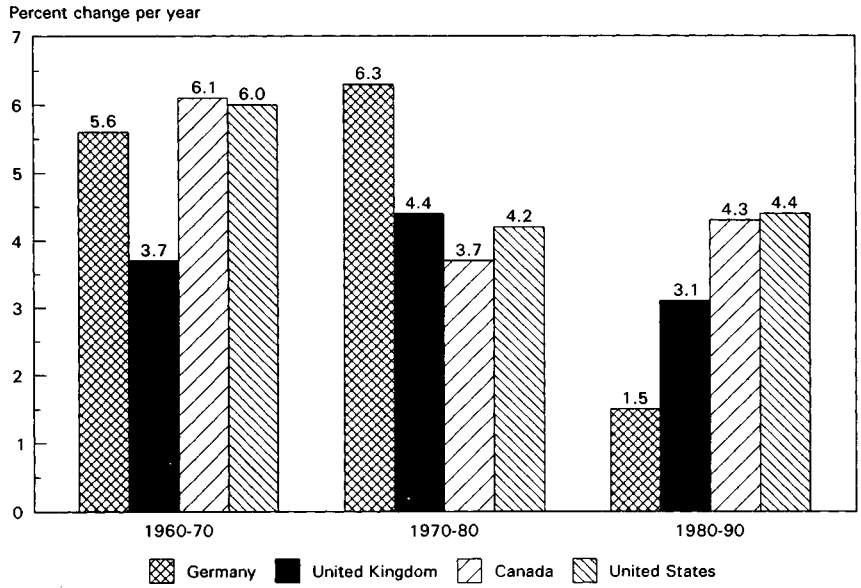
Health expenditures are not greatly affected by short-term changes in economic conditions. *Health care costs often continue to grow during economic downturns, so that the share of national income devoted to health care may rise during a recession and fall when prosperity returns.*

HEALTH CARE EXPENDITURES IN OTHER DEVELOPED COUNTRIES

America is not alone: Germany, the United Kingdom, Canada, and other industrialized countries all experienced large increases in health care spending between 1960 and 1990. As Chart 4-4 shows, spending in Germany increased rapidly between 1960 and 1980, but slowed sharply in the 1980s. In Canada, the United Kingdom, and the United States, expenditures increased rapidly in all three decades. Although outlays for health care have increased substantially in all four countries, per capita health care spending in the United States has historically been considerably higher than in the other three countries. The United States currently spends about 1.5 times as much on per capita health care as Canada, about 1.7 times

as much as Germany, and about 2.6 times as much as the United Kingdom.

Chart 4-4 **Growth in Real Per Capita Health Care Expenditures in Selected Countries**
Other countries have also experienced substantial increases in health care expenditures since 1960.



Note: Expenditure in national currency deflated by GDP price indexes for all items.
Source: Organization for Economic Cooperation and Development.

The rapid growth in health care spending in the United States, Canada, Germany, and the United Kingdom is somewhat surprising because these countries have very different systems of health care financing and provision. As health care expenditures continue to increase, each of these countries is considering health care reform. *In some cases, these reform proposals include incorporating features of U.S. health care financing and provision. The United Kingdom and Canada have been experimenting with coordinated care systems, the United Kingdom has been developing versions of DRGs, while Germany has been increasing the use of patient copayments.*

THE UNINSURED

Besides rising costs, the other major problem in U.S. health care has been the increasing number of Americans who lack insurance—over 35 million people, according to current estimates. Because so many Americans receive health insurance through their employers, the percentage of Americans without health insurance is affected by changes in employment. The number of uninsured,

however, increased during the 1980s, even during periods of economic growth.

Who Are the Uninsured?

Although medicaid covers many of the very poor, about 47 percent of those with incomes below the poverty line, the probability of being uninsured is highest among those with low incomes. As incomes rise, so does the probability of having health insurance.

Those in the 18–35 age group are more likely to be uninsured than those of other ages. These young adults, most in good health, may have been covered previously by their parents' health insurance. Young adults who work are more likely than other workers not to accept health insurance coverage even when their employers offer it, and young adults who lose their jobs are the least likely to pay to retain their health insurance.

Most uninsured people report that their health is good or excellent relative to others of the same age. The population of uninsured Americans, however, also contains a group that is much sicker than average, with serious chronic health conditions. The chronically ill, who are very likely to incur high health care costs, may find it very costly to obtain insurance.

Other Problems with Insurance Coverage

Health insurance is also a concern for people with limited insurance coverage and for those whose insurance ties them to a specific employer. Some people with insurance are susceptible to large out-of-pocket expenses, either as copayments or for services that their insurance does not cover. Estimates from the mid-1980s suggest that 7 percent of privately insured Americans under the age of 65 face a 1-percent chance of spending at least one-fifth of their family income on health care. Over 20 percent of those over 65 have not purchased supplementary medigap policies that cover medicare copayments and do not qualify for medicaid; they also may be subject to substantial financial burdens if they become seriously ill.

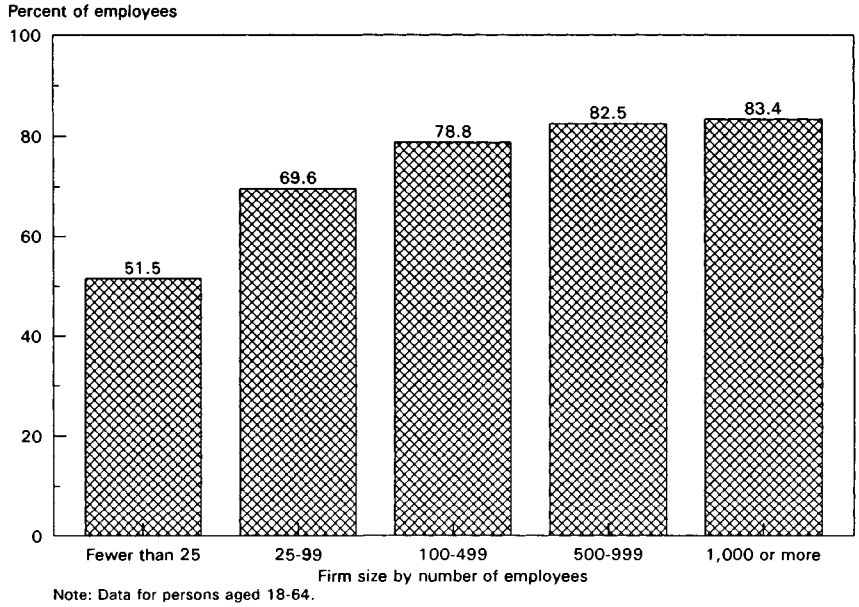
Those whose health insurance ties them to a specific employer face a different problem. Most private health insurance contracts contain preexisting condition clauses limiting or excluding coverage for conditions that began before the policy went into effect. These restrictions can force people with chronic conditions to stay with one job when they would prefer to move to another. Even those without chronic conditions may avoid changing jobs because they prefer to stay with one insurer. A recent survey found that over 25 percent of American households included a family member who stayed in a job because of health coverage.

Gaps in Employer-Provided Health Insurance Coverage

Although not having a job greatly increases the probability that an individual is not insured, the majority of uninsured Americans

are workers or their dependents. Workers may lack health insurance because their firm does not offer it, because they do not work enough hours to qualify for benefits, or because they have been offered insurance and have chosen not to take it. While almost all large firms in the United States offer health insurance to their workers, small firms are far less likely to do so (Chart 4-5).

Chart 4-5 **Employer-Provided Health Insurance, by Firm Size: 1990**
Employees of large firms are much more likely than employees of smaller firms to have health insurance.



Note: Data for persons aged 18-64.
Source: Employee Benefit Research Institute.

Three factors affect the ability and willingness of small firms to provide health insurance. First, the administrative costs of health insurance per employee rise rapidly as the size of a firm declines. Second, small firms are less able to self-insure their health insurance coverage—that is, pay expenses from their own funds rather than contracting with a commercial insurance company. About 65 percent of all firms self-insured the health costs of their employees rather than purchasing commercial insurance in 1991, but only 41 percent of firms with fewer than 500 employees self-insured their costs. Because small firms often purchase State-regulated commercial insurance, they incur costs associated with State-mandated benefits (for example, coverage for chiropractic services) and pay State insurance premium taxes. These mandates can be quite costly and may affect the probability that a small employer will offer insurance. Self-insured plans, on the other hand, are exempt-

ed from providing State-mandated benefits and paying State premium taxes under the Federal Employee Retirement Income Security Act (ERISA). Third, risk-spreading, which keeps costs down by pooling the cost of possible serious health problems among a large group is more difficult in smaller firms. When one employee of a small enterprise becomes seriously ill, the cost of premiums for the entire group increases much more than it would in a larger group.

This last observation is a matter of concern. The purpose of insurance should be to spread risk so that premiums do not increase in small groups when an employee becomes ill. To improve risk-spreading, small firms could purchase health insurance policies that remained in force for 5 or 10 years, rather than the 1-year contracts that are now customary. High employee turnover rates and high business failure rates in small firms, however, may make it costly for insurers and firms to make such contracts. Furthermore, continuing changes in medical technology may make it risky for insurance companies to offer long-term contracts.

Firms are considerably less likely to offer health insurance to their part-time employees than to their full-time employees, mainly because coverage for a part-time employee costs as much as it does for a full-time employee and accounts for a much higher share of part-time workers' total compensation.

HOW THE UNINSURED USE HEALTH CARE SERVICES

Those who lack insurance do not necessarily forgo all health care. They may pay for care directly or may receive it for free, primarily through hospitals. In 1989, U.S. hospitals provided over $10 billion worth of free, or uncompensated, care. People without health insurance do use less health care than those with similar health problems who are insured, however.

People without health insurance are far more likely than those with insurance to report that they did not receive health care during an illness because of financial constraints. Those who do seek care are more likely to receive it in inappropriate and costly settings such as emergency rooms. The uninsured are likely to be sicker when they are admitted to a hospital; they are also likely to be discharged from the hospital earlier than their insured counterparts.

New estimates suggest that out-of-pocket health expenditures among the uninsured are lower than they are among insured people with similar incomes and are far less than the cost of purchasing a basic health insurance policy. Some uninsured people may be consciously choosing to rely on emergency room care and personal savings rather than purchasing costly health insurance coverage.

RECENT CHANGES IN THE NUMBER OF UNINSURED

Many of the uninsured are unemployed. Although the Consolidated Omnibus Budget Reconciliation Act allows those who leave jobs to continue their coverage for up to 18 months through their employer's health care plan by paying the full cost of the premium, only about 20 percent of those eligible do so. Structural changes in the American labor market have also affected insurance coverage. Workers are most likely to be covered by health insurance if they are unionized or employed in the manufacturing sector. But employment in manufacturing fell from 23 percent to 18 percent of total employment during the 1980s, while the fraction of private sector workers represented by a union fell from 19 percent to 13 percent between 1983 and 1991.

These changes in the composition of the labor force, however, explain only a small percentage of the increase in the number of uninsured. As health insurance becomes more costly, more people may find it makes sense for them to seek higher wages rather than health insurance from their employers, relying instead on emergency care.

Low-Wage Jobs and Health Insurance

For employers offering jobs at low wages, increases in the cost of health insurance make it especially difficult to offer coverage. These employers cannot lower wages to help pay for health insurance, because wages would then fall below the legal minimum. *Studies suggest that, in 1989, about one-third of all uninsured American workers earned wages which, if reduced by the cost of health insurance, would fall below the legal minimum. Requiring employers to provide these workers with health insurance is likely to lead to increased unemployment among low-wage workers.*

SUMMARY

- Spending on health care has been rising steadily, both in absolute terms and as a share of national income. Since 1960, spending on health care has also risen rapidly in other developed countries, but the per capita cost of health care is much higher in the United States than in other developed countries.
- The number of uninsured has increased recently. Part of this increase is due to the economic slowdown, while part is due to a long-term decline in employer-sponsored health insurance.
- The uninsured are poorer and younger, on average, than the insured. Although most are in good health, some are chronically ill. The uninsured do receive some health care, but they receive less than those with insurance and often receive care in emergency rooms. Out-of-pocket health expenditures among

the uninsured are lower than among insured people with similar incomes.

- Many of the uninsured are workers employed by small firms. A substantial fraction of uninsured workers earn wages which, if reduced by the cost of health insurance, would fall below minimum wage. Requiring employers to provide insurance to these workers would lead to increased unemployment.

ECONOMIC THEORY OF THE HEALTH CARE MARKET

Economic analysis can help explain much of the recent performance of the American health care market and the problems that have emerged. Providers and purchasers of health care services respond to the incentives and restrictions they face, which stem from both the nature of health care itself and the way it is financed and delivered.

PROVIDING HEALTH CARE SERVICES

Two features of health care provision have significant implications for costs. First, it is difficult for consumers to evaluate the quality of health care services. They rely on the advice of the provider of the service in deciding what to buy. While the lack of independent information is not unique to the health care market (car owners may rely on mechanics), it can lead to the unwitting purchase of unnecessary, poor quality, or high-cost services.

Second, to protect consumers from unscrupulous or incompetent providers, licensing boards in every State regulate those who work in health care. The licensing procedure can increase the price of services by restricting the number of providers and limiting the ways that they may compete.

PROBLEMS OF MEASURING QUALITY

Physicians have much more information about treating a particular illness than their patients do. Patients may find it difficult to evaluate their treatment; if they get better, they may not be able to tell whether they have enjoyed a natural recovery or especially effective treatment. Lack of information can make it difficult for people to make decisions about purchasing health care. A physician could charge a low fee either because the services are provided in the most cost-saving way or because they are not performed properly.

People have tried to overcome this problem by evaluating a primary care physician—asking for recommendations from friends, for example—and then accepting the primary care physician's advice on further treatment. But friends may not be able to assess

quality accurately; their advice may be particularly deficient in evaluating the services of a group of doctors in a coordinated care organization.

Information about provider quality is especially important because of the enormous variation in the way American doctors treat patients with similar problems. For example, rates of use of some discretionary procedures, such as tonsillectomies, can be ten times as high in one county as in a neighboring county with a similar population. In many cases, the use of such procedures deviates substantially from what experts recommend. Rates of mortality for patients with similar problems also differ considerably among hospitals.

These variations suggest that if consumers could better evaluate their care, the quality of care could be improved substantially and costs could be reduced. Physicians and hospitals that offer low-quality care at high prices would face stronger incentives to improve quality and reduce costs.

Improving the Quality of Information

Without a reasonably accurate way to measure quality, health care plans, hospitals, and providers have a difficult time competing on the basis of the price of services they offer. But developing such information may not make economic sense for any single health care provider or insurer, since setting up a system of gathering and disseminating information would be costly and, once developed, might well be copied. The tax treatment of employer-provided insurance and the government's growing role in health care provision have also limited the incentives for private insurers and providers to develop ways to compete by providing high-quality, low-cost care.

Despite these impediments, insurers and employers have recently been working together to develop systems for measuring the quality of health care provided. The Federal Government has launched a major initiative with the publication of mortality rates (adjusted for the severity of patient illness) for medicare patients in U.S. hospitals. A variety of other groups are providing information in health care markets, including a group that publishes an annual guide to Washington-area Federal employee health plans; the Pennsylvania Health Care Cost Containment Council, which publishes information about hospital charges and mortality rates; and a group of employers in Cleveland that sponsors the Cleveland Health Quality Choice Project, which is developing measures to compare the quality of care in Cleveland-area hospitals.

THE SUPPLY OF PROVIDERS

In many industries, costs rise when the necessary skilled personnel and materials are in short supply. In most cases, such short-

term shortages cause wages to rise, attracting new supplies of skilled workers. Shortages and the high wages that they produce are unlikely to persist over time. High physician incomes might persist, however, without leading to an increased supply of doctors, because the medical profession can, to some extent, regulate the number of new physicians receiving licenses each year.

In the past, physicians' associations have also kept doctors from competing on the basis of price. Until 1982, these organizations restricted their members' ability to advertise services. For many years, professional associations controlled the types of fee arrangements that doctors could accept, stifling the growth of coordinated care. These problems are less serious today. The number of practicing doctors has increased greatly and the profession's ability to limit price competition has declined.

HEALTH INSURANCE

The need for health care depends, in part, on somewhat unpredictable and costly events, such as a serious illness or accident. People can respond to the risk of such possibilities by self-insuring, or saving money to pay for potential expenses; by investing in preventive health care; or by purchasing health insurance.

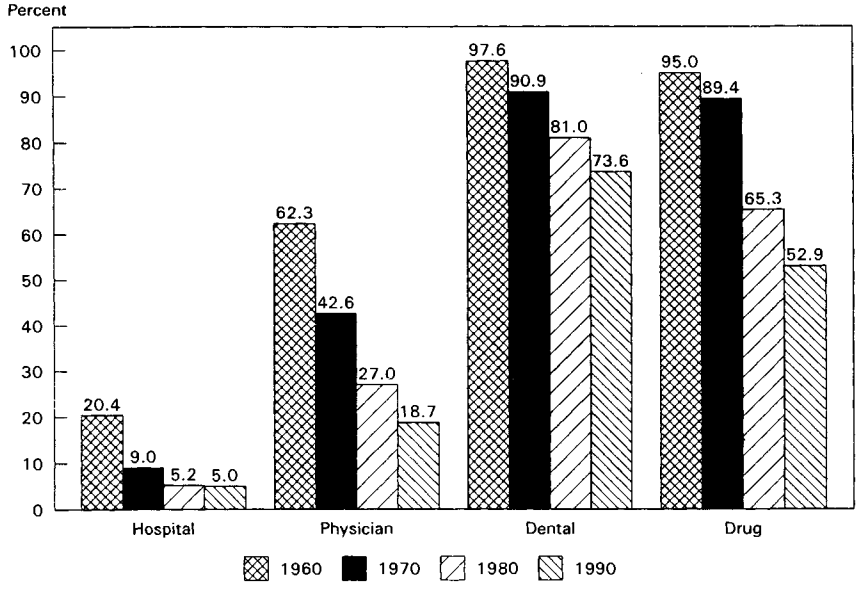
Insurance is most valuable when it protects people against uncertain events that carry a high risk of substantial financial loss. Thus, early insurance plans were set up to cover costly hospital expenses. By 1960, insurance covered most hospital care, but people generally paid for other services themselves. In recent years, however, insurance coverage has expanded to cover other services. The share of out-of-pocket expenses for relatively predictable and inexpensive services (such as physician services, dental care, and pharmaceuticals) has been declining steadily (Chart 4–6).

Insurance can Lead to Overconsumption of Services

All insurance, whether privately or publicly provided, affects the incentives of the insured. Because they are protected against the full cost of a serious illness or injury, the insured have less incentive to take steps to limit the losses associated with such events. The change in incentives that results from the purchase of insurance is known by economists as "moral hazard." To economists, the term carries no connotation of dishonesty.

Moral hazard typically refers to a reduction in the incentive to avoid undesirable events. For example, people insured against car theft may leave their doors unlocked, increasing the chance that their cars may be stolen. People with health insurance may be just as careful as the uninsured about avoiding health risks, but they also respond to the incentives produced through insurance by using more health care services. They are likely to go to the doctor more often and choose more complex procedures. Among health econo-

Chart 4-6 **Share of Health Care Expenses Paid Out of Pocket**
The share of expenses paid out of pocket varies considerably among services but has been declining since 1960 for all services.



Source: Health Care Financing Administration.

mists, the term moral hazard has come to include this incentive for the overconsumption of health care services, which adds to total health care costs.

Studies suggest that the overconsumption of services due to moral hazard is an important factor in rising health care costs. One study in the 1970s gave one group of randomly selected families health insurance policies that provided them with full insurance for all health care services and another group a catastrophic health insurance plan and a corresponding cash payment (for example, a health insurance policy with a $1,000 deductible together with a cash payment of $1,000). Although both families were equally well indemnified, those who were fully insured used nearly 30 percent more services than those with the catastrophic insurance plan. According to most measures of health status, families in both groups were equally healthy at the end of the 3 to 5-year experiment.

Responses to Moral Hazard

Because people with insurance pay less than the full cost of insured services, moral hazard suggests they may use services that they would not have chosen to purchase if they had to pay the full

cost. But by using these additional services, policyholders drive up the cost of insurance. Ultimately, they pay the full expected cost of these additional services through higher insurance premiums. Yet many consumers would prefer less expensive insurance policies that encourage them to use only those services that they value most highly.

Insurers have two well-known ways to limit the potential response to moral hazard in their policies and keep premium costs down. Traditionally, they have required those with insurance to pay for part of their services through deductibles and copayments. Even with deductibles and copayments for a particular service, however, the price an insured patient pays for services will generally be less than the full cost.

Another response to moral hazard involves monitoring policyholders to ensure that they are taking appropriate preventive measures and to cap the services that they can use if an illness or injury occurs. By monitoring services and encouraging preventive care, the insurer can try to restrict the policyholder to only those services that are worth their full cost. Coordinated care organizations take this approach. These organizations typically charge low copayments and deductibles but closely monitor the utilization of health care services among those who are ill and often provide free preventive care services. Conventional insurers have also begun to adopt these monitoring practices, for example, by requiring a second opinion for surgery.

Using Private Information in Purchasing Insurance

People usually know more than insurance companies about their own health and their need for health care services. This asymmetry of information has important implications for the health insurance market. An insurer charges a premium based on the average need for health care services. For those who anticipate that their need for health care services will be higher than average, health insurance is a bargain. But those who anticipate that their need for health care services will be below average may find health insurance a poor investment. They may choose to pay for their health care themselves or to purchase a health insurance policy with very high deductibles and copayments. This process is known as adverse selection.

If those at low risk drop out of the health insurance market, the average premiums for the remaining purchasers will rise. In theory, if the adverse selection process continues, the market for insurance may disappear altogether as healthier people decline increasingly expensive insurance. Alternatively, people may sort themselves into high- and low-risk groups and purchase different kinds of insurance. If this occurs, *those at high risk will purchase comprehensive health insurance plans and face premiums that re-*

flect the full costs associated with their true health status. Low-risk individuals will purchase less comprehensive insurance, paying low premiums that reflect both the type of plan they purchase and their health status.

Economic theory suggests that adverse selection can lead to lower levels of health insurance coverage for the relatively healthy. Studies also support this finding. Among firms offering multiple health insurance plans, premiums for comprehensive coverage are much higher than premiums for plans with high deductibles and copayments. These higher premiums are not fully explained by the fact that comprehensive plans offer additional services or by the effects of moral hazard. Rather, evidence suggests that those who choose the comprehensive plans are in poorer health than those who choose plans requiring high out-of-pocket payments.

The theory of adverse selection can also explain some characteristics of the uninsured. For example, the uninsured appear to have a low propensity to use medical services. When currently uninsured people obtain insurance, they use, on average, fewer services than those who are continuously insured.

CONCERNS OVER THE DISTRIBUTION OF MEDICAL RESOURCES

Asymmetries of information, whether between insurers and policyholders or providers and patients, can cause problems in the health care market. Consequently, some people will not be able to purchase insurance, and some patients willing to pay for better care will not be able to find it. But even if these asymmetries could be eliminated, health care would still be costly. Some Americans, especially those who are poor or who have chronic health conditions, would still find it very difficult to purchase health insurance.

Risk Selection

Private insurers compete to offer people the lowest price for their health coverage. One way to offer a better bargain to people with lower-than-average health risks is to adjust the price of insurance offered to them to reflect only the cost of the health services they can be expected to purchase. If insurers can observe the risk characteristics of those they insure, they can charge these low-risk people low premiums. People at high risk would be charged high premiums that reflect all the costs they could be expected to incur.

People with chronic health conditions may be excluded from commercial health insurance coverage due to preexisting condition clauses. If they are able to find coverage, they are likely to be charged very high rates that correspond to their expected health costs. Ironically, improvements in diagnostic and management technology may make it even harder for some people to obtain

health insurance, as insurance companies become better able to diagnose and screen out those with chronic health problems.

If insurers are required to charge all purchasers of health insurance in a community the same premiums (a practice known as community rating), they are prevented from responding to even readily observable health characteristics by raising or lowering prices. Yet these insurers will still try to compete by offering low prices to those at low risk. They may do this by directly refusing to provide coverage to those at high risk, a practice called risk selection. Alternatively, they may use adverse selection to their advantage, selling low-priced insurance contracts with restricted services or high copayment rates that appeal to those at low risk but would not be chosen by those at high risk.

Health Care for the Poor and Ill

The unequal distribution of health care is an important policy concern. Most Americans believe that everyone should be entitled to at least basic health care, regardless of income or health status. This belief distinguishes the health care sector from most other parts of the U.S. economy and explains why charitable organizations have always played an important role in health care. Public and voluntary hospitals continue to provide, to some extent, a health care safety net that ironically causes other problems in the health insurance market.

First, because this safety net operates principally through hospital emergency rooms, most of the uninsured receive care only when their conditions are quite serious, although more effective care could often be provided earlier in the course of their illness. Furthermore, providing emergency care through hospitals is likely to be much more costly than providing preventive care in an outpatient setting.

Second, although most Americans agree that everyone should receive basic health care, the safety net does not force all Americans to share the burden of this care equally. Instead, the costs may fall on those who use hospitals that charge high fees to paying patients in order to cover the cost of the uninsured.

Finally, the existence of the safety net may discourage some people from purchasing health insurance, especially those with serious health conditions who must pay very high premiums and those in very good health who do not expect to use services at all. For these people, remaining uninsured may be better than purchasing insurance because they know that they will not be turned away if and when they need care.

Unfortunately, programs that help low-income people purchase health insurance can also have some undesirable effects. As family incomes rise, support under income-tested health programs is phased out. As with similar provisions in other government pro-

grams (such as aid to families with dependent children), this phase-out means that poor families may face a very high marginal "tax" rate. Small increases in their income are accompanied by large reductions in the value of the health care and other support they receive. Such high taxes may discourage people from trying to increase their incomes.

SUMMARY

- A lack of information may lead patients to spend money on services they might not choose if they were fully informed. Private and public initiatives are underway to improve the quality of health care information.
- Health insurance reduces the price of health care services for policyholders. Thus it can lead to the overconsumption of health care—that is, the use of services whose full costs exceed their benefit to the consumer.
- When policyholders have more information about their own health status than do insurers (or than insurers are permitted to use), adverse selection—which may cause the healthiest people to opt out of the health insurance market—may occur.
- The existing safety net for the uninsured is problematic. The uninsured receive insufficient and often inappropriate forms of care and have few incentives to purchase insurance.

WHY ARE HEALTH CARE EXPENDITURES INCREASING?

An economic analysis of the structure of the U.S. health care market can help to explain why health care expenditures have risen so sharply. The tax subsidy for health insurance has encouraged employers to provide employees with coverage that includes very low copayments and deductibles and covers relatively predictable and inexpensive services. Most people covered by government insurance programs (medicare and medicaid) also make low out-of-pocket payments. Although substantial out-of-pocket payments are required in the medicare program, most beneficiaries have medigap policies that cover many of these costs. Out-of-pocket payments for health care as a share of all health expenditures have been falling, reducing the incentive for consumers to limit their use of health care services. For example, studies show that, at current levels, medigap insurance increases health care utilization by up to 24 percent.

The open-ended nature of health insurance contracts means that most new nonexperimental technologies will be covered by existing policies. As a result, expensive new technologies covered by insur-

ance may be introduced before consumers would otherwise be willing to pay for them, further contributing to the escalation of costs.

PRICES AND QUANTITIES OF HEALTH CARE

The Health Care Financing Administration, the Federal agency that administers medicare and medicaid, has developed a price index for personal health care expenditures that measures the cost of all health care services, regardless of who pays for them. Dividing total spending on health care by this price index produces a composite measure of the quantity of the various health care services people consume, including physician visits, hospital care, and drug purchases.

Two factors affect the price index: changes in the economy's general inflation rate and deviations in the price of health care services from the general rate of inflation. Table 4–1 provides measures of changes in total health care expenditures and divides these into changes in economywide prices, real health care expenditures, health care prices in excess of economywide inflation, and quantities of health care consumed.

TABLE 4–1.—*Average Annual Percent Change in Personal Health Care Expenditures Per Capita, Prices, and Quantities: 1960–90*

Item	1960–70	1970–80	1980–90
1) Personal health care expenditures per capita	9.2	11.9	9.2
2) MINUS: Economywide inflation	2.2	6.2	4.6
3) EQUALS: Expenditures per capita corrected for inflation	6.9	5.4	4.4
4) MINUS: Health care price increases in excess of inflation	1.7	1.6	2.3
5) EQUALS: Quantity of health care per capita	5.1	3.8	2.2

Note.—Columns do not sum both because of rounding and because the price-quantity interaction terms have been omitted.
Source: Health Care Financing Administration.

This price index for health care expenditures, like other price indexes, is constructed by examining the cost of a basket of commodities or services over time. The personal health care price index basket includes hospital care, physician services, drugs, and other health-related products. The index reflects changes in the cost of this broad basket, not the price of a particular service provided by a hospital or physician.

The price index does not adequately reflect improvements in the quality of the commodities or services, which usually appear as price increases. For example, total expenditures for a hospital day go up if the number of nursing visits made during that hospital day increases. While such a change implies that the quality of a day in the hospital has improved, it appears only as an increase in the health care price index. An alternative way to measure changes in health care expenditures is described in Box 4–5.

Box 4–5.—Measuring Changes in Health Care Expenditures

Measures of the cost of health care often fail to account for changes in quality. An alternative method for measuring health care costs, proposed in a 1962 study, suggests a way of overcoming this problem by measuring the cost of treating a particular ailment over time. For example, the study compared the cost of treating an ear infection in 1971 to the cost of treating an ear infection in 1981 (in real dollars, the cost fell). The study also suggested that the costs of treatment should be adjusted to reflect higher cure rates.

Why isn't this more appropriate method in wider use? One reason is that it is computationally very difficult to measure the full cost of treating an ailment. Moreover, even this method does not capture all the changes that may have been made in medical technology. Important advances in health care have not only improved the technology for treating some diseases but, in many cases, reduced their overall incidence. At the same time, diseases exist today that were unknown in 1960. Even this modified method does not reflect the full effect on costs either of improvements that reduce the incidence of disease or of new diseases.

RECENT INCREASES IN HEALTH CARE EXPENDITURES

U.S. health care expenditures have risen continuously since the 1960s, not only because health care prices have gone up but because Americans are using more services. In the 1980s, real health care spending grew more slowly than it had during the preceding two decades. Growth was split evenly between increases in the quantity of health care consumed (2.2 percent annually) and increases in the health care price index in excess of general inflation (2.3 percent annually) (Table 4–1).

Economic theory suggests that when prices rise people usually consume less of a good or service. Yet the price of health care and the quantity purchased rose in tandem during the 1980s (as well as in earlier decades). These concurrent increases in price and quantity are consistent with the view that the quality of health care changed during the 1980s. Consumers in 1990 were probably not buying more 1980-style health care at 1990 prices; rather, they were willing to pay more for 1990-style health care than they had been willing to pay for 1980-style health care. The changes that were measured in quantity and price hid underlying changes in quality.

The quantity of health care services consumed increased primarily because of greater use of outpatient and physician care in the 1980s. The growth rate of inpatient hospital spending declined between 1982 and 1986, largely because of changes in the system of medicare reimbursement. Although inpatient hospital services are now paid prospectively, outpatient services for medicare continue to be paid on a less constraining retrospective basis, giving hospitals a considerable incentive to move procedures from an inpatient to an outpatient setting.

The health care sector responded in a flexible and rapid way to this changed incentive. In 1980 only 16 percent of surgeries in short-stay hospitals were performed on an outpatient basis, but by 1989, 49 percent were conducted on an outpatient basis. The potential for such responses needs to be taken into account in the development of health policy.

COMPONENTS OF PRICE INCREASES IN THE 1980s

The health care price index increased throughout the 1980s. Price increases measured were due, in part, to increased use of expensive technologies and to changes in the cost and types of labor used in health care. As insurers and providers competed by offering more generous coverage, technology, and high quality care, costs rose.

Physician Costs in the 1980s

In the late 1980s, physician costs rose more rapidly than other major components of health care spending, in part because of an increase in the use of outpatient diagnostic and treatment facilities, some of them owned by physicians. Studies suggest that physicians order more tests when they own a share in diagnostic and treatment facilities. These private facilities may be more convenient, but physicians may also be motivated by the incentives created by the traditional insurance system, which pays physicians for each service they provide—including those provided by diagnostic and treatment facilities that they own.

This practice may be curtailed by regulations stemming from the 1988 Clinical Laboratory Improvement Amendments. The act, intended to improve the quality of laboratory tests, imposes very costly regulations on the operation of laboratories. But these regulations may not significantly improve the quality of health care and, in fact, may impose additional costs on patients whose physicians operate small-scale office-based laboratories.

U.S. physicians became, on average, more highly specialized during the 3 decades leading up to 1990, especially before 1980. In 1965 24 percent of U.S. physicians were general practitioners. By 1990 only 12 percent of U.S. physicians were general practitioners; the other 88 percent were specialists, a much higher percentage

than in other countries, such as Canada. Specialists are usually more highly paid than general practitioners, and the pay differential expanded during the 1980s as the demand grew for new diagnostic and surgical procedures only specialists can provide.

Nursing Costs in the 1980s

In the early 1980s, salaries for nurses were low compared with those for other occupations requiring similar levels of skill, discouraging some qualified applicants from entering nursing school. In an effort to attract more nurses, hospitals increased nurses' real wages. Between January 1980 and January 1990, the real hourly earnings of private hospital employees rose about 25 percent (excluding the value of nonwage compensation), while the earnings of all private sector workers changed little. Registered nurses were among those hospital employees receiving the largest pay increases during the 1980s. At the same time, reductions in the length of the average hospital stay and increased use of outpatient surgery meant that patients who were admitted and kept in hospitals were, on average, sicker than those admitted in 1980. Hospitals were forced to increase the ratio of highly skilled registered nurses to patients in order to maintain the quality of their services.

Medical Technology in the 1980s

Increased use of costly medical technology also had an important impact on measured health care prices in the 1980s. *Between 1980 and 1990, for instance, the number of computerized axial tomography (CAT) scans performed in short-stay hospitals in the United States increased over 400 percent. The number of community hospitals with magnetic resonance imagery equipment rose 500 percent between 1984 and 1991.* Many of these new technologies also proliferated in nonhospital settings.

The use of new surgical techniques flourished in the 1980s. For example, *in 1980, 1 in every 400 American men aged 65 and over had coronary artery bypass surgery. In 1990, about 1 in 100 American men in the same age group had this form of surgery.*

The Costs of Malpractice Litigation

The increasing costs associated with medical malpractice suits have been an important factor in rising health care costs. Between 1982 and 1989, doctors' liability premiums, the principal source of payment for malpractice claims, grew at 15 percent annually, faster than any other component of medical practice costs. Another more insidious effect of malpractice suits is that they may compel physicians to perform tests that are not cost-effective simply to protect themselves from legal actions. The costs of defensive medical practices have been estimated at over $20 billion in 1989 alone, or almost 18 percent of total physician expenditures. Finally, malpractice insurance costs have caused some physicians to drop out of

some specialties, such as obstetrics, making such specialists hard to find in some communities.

Although insurers and physicians spend large sums defending themselves in malpractice suits, relatively little of this money makes its way to those injured through negligence. A recent study of malpractice cases in New York found that 16 times as many patients suffered an injury from negligence as received compensation from the tort liability system. In 1984, only about 60 percent of the money expended on malpractice litigation was actually paid to injured plaintiffs.

Administrative Expenditures

The administrative costs of the U.S. health care industry, which are estimated at $80 billion in 1991, have been widely criticized and unfavorably compared to the costs of administering the government-run systems in many other countries. Private insurance companies incur costs marketing their products, reviewing and processing claims, and screening and establishing the health status of potential enrollees. Billing individual patients or insurance companies raises costs for physicians and hospitals.

Recent studies find, however, that shifting to a system that eliminates the functions of the U.S. private insurance industry would result in few overall cost reductions. Most of the administrative cost savings would be offset by increases in utilization that would come from the elimination of features of the current system that reduce overall expenditures, such as patient payments and insurance company oversight. In other countries with multiple insurers, such as Germany, administrative costs as a share of total health expenditures are comparable to those in the United States.

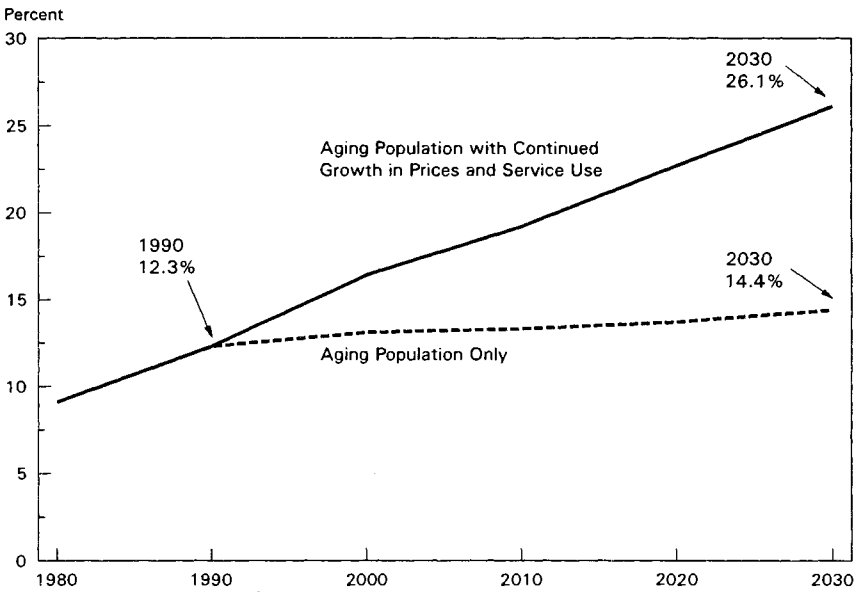
Private insurance companies compete, in part, on the prices of the services they offer. A competitive insurance company, like any other firm, can increase administrative expenses only if the benefits of these expenditures exceed the new expense. *In health insurance, much of the increase in administrative expenditures has come from the expansion of programs that monitor service utilization, and health insurance that offers these features is cheaper than insurance that does not—despite the administrative costs associated with oversight programs.* Nonetheless, some of these costs, such as the costs of assessing the health status of new enrollees, may raise aggregate health care expenditures.

PROJECTIONS OF FUTURE COST INCREASES

Many analysts expect that unless the health care market is substantially reformed, costs will continue to rise rapidly into the next century. Recent projections suggest that health care, which consumed 12 percent of the GNP in 1990, may rise to as much as 16

percent of GNP by the year 2000 and to 26 percent by 2030 (Chart 4-7).

Chart 4-7 **Projected Health Care Expenditures as Percent of GNP**
Most forecasts suggest that health care expenditures will continue rising, mainly due to increases in prices and in the use of services.



Note: The figure for 1990 (12.3 percent) is a projection from the model.
Source: Health Care Financing Administration.

These projected increases are due primarily to an expected continuation of the historic trends of increasing health care prices and volume consumed, as well as improving quality. Because most projections of health care expenditures are based mainly on mechanical extrapolations of past trends, *they do not take into account changes in government programs or other individual and institutional responses to the rising cost of health care.* During the 1980s, as health care expenses rose rapidly, insurers, employers, consumers, and the government responded through innovations in the financing and delivery of care. Such changes in behavior, which cannot be captured by the modeling techniques currently in use, could have profound effects on the cost of health care.

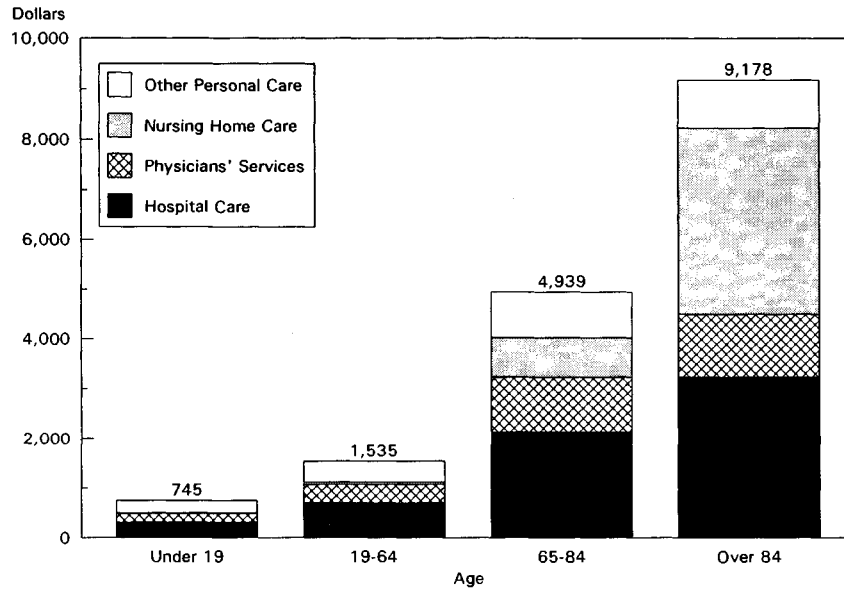
Demographics

Projected increases in health costs are, to a small extent, a consequence of the aging of the population. Population aging alone is expected to cause health care expenditures to increase from 12 percent of GNP in 1990 to about 14 percent by 2030, explaining about one-seventh of the total projected increase in health care costs (to 26 percent of GNP). The number of Americans over age 64, the age

group for which health care spending is the highest, will increase through 2030, especially after the turn of the century.

Those over age 64 consume about 3½ times as much health care as those between the ages of 19 and 64, and those over age 84 consume almost 2½ times as much health care as those between the ages of 65 and 69 (Chart 4–8). Health care spending is higher among those over age 64 due primarily to the increased probability of death at this age. Health care spending is especially high in the last year of life. The 5 percent of aged beneficiaries who were in their last year of life accounted for 29 percent of medicare expenditures in 1979.

Chart 4-8 **Per Capita Personal Health Care Expenditures, by Age: 1987**
Health care expenditures, especially for nursing home care, rise rapidly with age.



Source: Health Care Financing Administration.

Another important reason for the high costs of caring for those over age 64, and especially for those over age 84, is nursing home care. But because people who pay directly for much of this care, as well as State governments, which both pay for care and license nursing homes, have strong incentives to limit spending, most analysts expect the growth in spending for nursing home care to be slower than the changing age composition of the population would suggest.

SUMMARY

- Both the price of health care and the quantity of services consumed increased during the 1980s. Part of the apparent increase in price was due to improvements in the quality of care. Labor costs, the costs of new equipment, and the use of new treatments all contributed to the growth in expenditures during the 1980s.
- Changes in administrative expenditures are unlikely to have been an important contributor to overall expenditure growth. Most administrative expenses reduce overall health care costs.
- Litigation over medical malpractice raises costs directly and encourages the practice of costly defensive medicine.
- Simple extrapolations of health care expenditures—which do not take cost-cutting measures into account—suggest that they will consume as much as 26 percent of gross national product by 2030. A small part of this increase is due to the aging of the population.

PROPOSALS FOR REFORM OF THE HEALTH CARE MARKET

Increasing health care expenditures and the growing number of uninsured in the United States have led to a proliferation of proposals for health care reform. In the past year, some 70 bills have been introduced in the Congress. While most of these plans seek to alleviate the symptoms of trouble in the health care market, relatively few address the underlying causes of the cost increases and insurance gaps.

As the response to the diagnosis-related group payment system in hospitals has shown, changes in incentives can lead to major modifications in health care provision. *Because the health care sector is flexible and responsive, health reforms that address underlying economic problems and provide sound incentives can be very effective. On the other hand, reforms that ignore the economics of health care are likely to lead to unexpected and undesirable results.* Table 4–2 provides a summary of the main proposals for health care reform that are discussed below.

ADMINISTRATION PROPOSAL

This Administration's health care reform proposal is a comprehensive, market-based reform plan that builds on the strengths of the existing market. It includes components designed both to expand access to health insurance and to improve market functioning.

TABLE 4-2.—*Side-by-Side Comparison of Health Insurance Plans*

Issue	Administration Proposal	Managed Competition Proposal	Pay-or-Play and Rate Setting	National Health Insurance and Global Budgets
Cost containment				
Moral hazard	Encourages managed care for public programs.	Promotes use of basic benefit package.	—	—
Other	Increases competition in small group market and public programs. Improves availability of health care quality information. Simplifies recordkeeping and billing. Reduces malpractice litigation costs.	Increases competition in small group market.	Provider and hospital fee schedule.	Global budgets. Physician and hospital fee schedule.
Access				
Poor	Provides low and middle income people with insurance certificate/ deduction.	Mandates coverage through employers. Provides subsidies to low income people who are not employed and to part-time workers.	Requires employers to offer insurance or pay into public plan.	Universal coverage.
Ill Health	Implements health risk adjusters for high-risk people in individual and small group health insurance markets.	Provides age-adjusted community-rated coverage in individual and small group health insurance markets.	Covers employed persons in ill health.	Universal coverage.

Access to Care Under the Administration Proposal

An important objective of health care reform is to provide better access to health care for the poor and those with chronic illnesses. The Administration's plan would address this objective by providing these groups with the funds to purchase health insurance within the existing health care market at a reasonable price. It would provide low-income Americans with a transferable tax credit, ranging from a maximum of $1,250 for single persons to $3,750 for families of three or more, for purchasing health insurance. Those who do not file tax returns would receive the credit in the form of a transferable health insurance certificate. Middle-income people would be eligible for a tax deduction for health insurance.

The U.S. Treasury estimates that, when fully phased in (in 1997), the health insurance tax credit and deduction could benefit about 90 million people. About 25 million of these potential beneficiaries would be low-income people receiving the maximum applicable credit. The credit or deduction would be reduced for those with higher incomes: 10 million people with incomes between 100 and 150 percent of the poverty level would receive a partial credit or deduction, and 56 million middle-income individuals would receive a partial deduction.

States would develop basic insurance packages equal to the value of the health insurance credit. Each State would ensure that at least two insurers offered such a package. Because low-income

Box 4–6.—Health Risk Adjusters

The health risk pools envisioned under the President's plan would incorporate a system of health risk adjusters intended to equalize the cost of insuring those who differ only with regard to health status. Insurers serving a pool each cover different groups of people. Those providing coverage to groups with more than the average number of health problems would receive a payment from the pool equal to the difference between the expected average expenditures of that group and the average expenditures of all people in the pool. An insurer providing coverage to a relatively healthy group would make a corresponding payment into the pool.

These payments would be age-group specific. Thus, younger people, who tend to be quite healthy, would face lower average premiums than older people, who tend to have more health problems. That means that implementation of a health risk adjuster system would not give younger people additional incentives to leave the health insurance market or increase transfers from the young to the old. (Chapter 6 contains a discussion of current intergenerational transfers.) At the same time, the health risk adjuster system would leave all people with the incentive to save money for their old age.

Health risk adjusters have two advantages over community rating. First, because the payments are based on average rather than actual expenditures, everyone has incentives to monitor his or her own use of care. People who consistently use more than the expected average amount of health care for someone of their health status would face higher rates than those who economized on their use of care. Under community rating, the actual costs of this additional care would be spread among all people with insurance. Second, under a system of health risk adjusters, insurers would have no incentive to deny coverage to people with chronic health conditions. Firms that insure only low-risk people would have to make payments into the health risk pool to subsidize firms that insure high-risk people. Under community rating, insurers could profit by discriminating against people with chronic health conditions.

Under the Administration's reform proposal, health risk adjusters would be phased in over a period of 5 years. Premium bands would be implemented during the phase-in period. Premium bands limit the difference in premiums that insurers can charge groups with different average health status. Further limits on rate increases would also be in effect during the transition to health risk pools and risk adjusters.

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tions and lower some of the administrative costs associated with the screening of prospective enrollees in small-group plans.

Cost Control Under the Administration Plan

Other aspects of the Administration's proposal are designed to improve the functioning of both private and public insurance in the health care marketplace. The plan would increase incentives to use coordinated care delivery systems within the medicare and medicaid frameworks. It would provide both HMO and alternative coordinated care options to medicare beneficiaries and increase financial incentives for beneficiaries to join the HMOs. The plan would require States either to shift all nonelderly medicaid beneficiaries into coordinated care programs or to fold all medicaid beneficiaries into the tax credit and deduction program.

To improve the performance of the private health insurance industry, the Administration's plan would address the lack of information in health care markets by requiring States to implement programs to help make information about the cost and quality of medical services available to consumers. The Federal Government would assist the States by developing prototype systems to assist in data gathering and outcome comparison. Informed patients are more likely to choose providers and insurers who provide high quality services at reasonable prices.

Under the Administration's plan, administrative costs would be reduced in both the private and public health insurance sectors. The proposal calls for the Federal Government to work with the private sector in developing record-keeping and billing forms. These reductions in billing costs, in combination with the savings from reduced health status screening, could lower the total administrative costs of the health care system significantly.

The Administration's proposal would encourage competition among health plans. Because recipients of tax credits or deductions (including former medicaid recipients) would be able to choose between at least two plans available in every geographic area, competition between the plans would help ensure an adequate level of service. If one plan provided poor-quality service, those insured could choose another plan. States would also be encouraged to remove existing impediments to competition, such as regulations limiting coordinated care arrangements and mandating the inclusion of certain benefits in insurance plans.

Malpractice costs would be reduced under the proposal's comprehensive liability reform plan. The plan would provide States with incentives to cap the amount of allowable losses for damages other than loss of income and the cost of health care associated with an injury. States would be encouraged to employ systems of alternative dispute resolution, which may reduce the cost of adjudicating disputes. The Federal Government would also intensify existing ef-

forts to create guidelines and quality standards for health care that, when adopted by a State, could be used by the courts to determine negligence. If the legal system relied on such standards, physicians would no longer have to practice defensive medicine. Standards could also improve the quality of care by keeping physicians informed about state-of-the-art treatments for particular conditions.

The most important component of the Administration's proposal with respect to improving health is its emphasis on prevention. The proposal calls for substantially increased spending for Federal preventive care programs and for an expansion of primary care health services to low-income communities. It also increases funding for programs aimed at encouraging Americans to make healthier choices with respect to smoking, physical fitness, and diet.

MANAGED COMPETITION

Managed competition reforms are intended to improve the operation of the marketplace and expand the availability of employer-sponsored health insurance. Although managed competition has many market-oriented features, it would greatly increase the role of the government in the health care system and would limit the range of health insurance options available to Americans. Many types of managed competition proposals exist; the discussion that follows examines one version.

Managed competition is built around the "accountable health partnership," an organization similar to an HMO that would provide both health benefits and consumer information. Each accountable health partnership would be registered with a national health board that would monitor the insurance market.

The national health board would define a set of "uniform effective health benefits" that accountable health partnerships would be required to provide. *All insurers, both private and governmental, would be required to offer the same basic benefit plan. Competition would focus on providing these benefits in a cost-saving and medically effective fashion.*

With managed competition almost everyone would have health insurance coverage. The proposal would mandate employer-provided insurance for all full-time employees. Employers would be required to make a flat contribution to an insurer for each of their employees of between 50 and 100 percent of the cost of the minimum benefit package offered by the cheapest accountable health partnership in the area. An employee could use this money to buy this plan, a more generous plan, or a plan from a different accountable health partnership. Even healthy employees would no doubt find it in their best interest to purchase health insurance at only

half the premiums, so the 50-percent minimum contribution requirement would help to limit adverse selection.

Small firms would purchase insurance through collective purchasing agents in each State. These purchasing agents would pool risks and charge community rates across all small employers, although premiums could be age adjusted. Only those small employers who joined these organizations would be able to claim tax exemptions for health insurance premiums.

States would contract with the collective purchasing agent to insure all part-time employees and other unemployed and uninsured people. For these people, the premium costs of the cheapest available plan would be subsidized using revenues from taxes on part-time employees and on those with independent incomes.

Each State's collective purchasing agent could contract with many accountable health partnerships, creating competition among them. The national health board would be responsible for ensuring that the agent and each participating accountable health partnership met accounting, insurance, and benefit standards.

The mechanism for cost containment under managed competition is competition among accountable health partnerships over the price of the minimum benefit package. Although people could choose any insurance package offered by any participating accountable health partnership as long as it included at least the minimum benefits, they would not be able to deduct from their taxable income more than the cost of the minimum benefit package offered by the cheapest accountable health partnership. This limit on the tax subsidy would encourage people to choose less comprehensive health insurance and efficiently run insurance plans, since they would face the full additional cost if they chose a plan whose price exceeded that of the lowest-priced plan. Requiring that insurers offer at least this benefit package would mean that low-risk people could not engage in adverse selection by purchasing minimal benefit packages that would never be chosen by those at higher risk.

Because of the central role of the minimum benefit plan in this proposal, the kinds of benefits and deductible and copayment levels included in the plan would be very important. The benefits would have to be designed to fit the services offered by both traditional health insurers, which typically use deductibles and copayments to limit moral hazard, and coordinated care organizations, which use fewer deductibles and copayments but tend to monitor service utilization directly.

To avoid risk selection, the national health board would either need to specify benefits in a way that would limit the ability of accountable health partnerships to avoid sicker-than-average people or implement a system of health risk adjusters. Unless they did so, insurers could avoid such people, for example, by locating their of-

fices in buildings without elevators, or by contracting only with physicians who do not specialize in the care of costly conditions.

With managed competition the government would take an active role in selecting the basic benefit package and in defining the type of insurance that most people would be likely to purchase. These governmental decisions could change the insurance arrangements of many Americans, because the accountable health partnerships envisioned in the proposal are similar to HMOs, while most Americans are currently enrolled in traditional fee-for-service health insurance plans. These decisions will also have a profound effective on the financial future of providers and insurers, who are likely to press for benefits to be defined as broadly as possible, limiting the ability of managed competition to contain costs.

PLAY-OR-PAY

Play-or-pay proposals for health care reform are structured around requirements that firms either provide basic health insurance to employees and their dependents ("play") or pay a payroll tax to cover enrollment in a public health care plan ("pay"). Most play-or-pay proposals would also offer sliding subsidies to those who are not attached to the work force.

Play-or-pay proposals focus on improving access to health insurance. But while play-or-pay would improve access to health insurance for some workers with low incomes or poor health status, it could reduce the incomes and employment opportunities of many other low-income people. Competitive firms would probably have to pass along the costs of health insurance to their workers in the form of lower wages. Thus, mandating health insurance through the workplace could lead to lower wages among currently uninsured employees and to increased unemployment among employees whose wages are at or near the minimum.

To the extent that employers choose to "play" rather than "pay," play-or-pay reform would retain some of the competitive aspects of the current health care market. Firms offering benefits similar to those offered in the public plan, however, would be able to switch to the "pay" option if the cost of their health insurance premiums is greater than the payroll tax. If the tax is set too low, everyone will eventually be enrolled in a single public plan. If the tax is too high, small employers will be forced to buy costly insurance, which will increase the plan's potential to lead to layoffs.

Play-or-pay alone does not directly address the problem of controlling health care expenditures. The effect of play-or-pay on costs would depend greatly on the structure of the public health insurance program, because a play-or-pay system would greatly increase participation in this program. Medicaid includes only limited provisions to reduce moral hazard. It has only recently launched man-

aged care initiatives and, because it covers a population in poverty, currently incorporates few patient payment requirements. The public program in a play-or-pay system would need to include more patient payment requirements and managed care initiatives if costs are to be contained. Otherwise, play-or-pay could lead to increased overconsumption of medical resources, driving up health care costs.

Play-or-pay would provide health insurance to those with poor health conditions who may not be able to afford insurance in the current market. These people, however, are likely to be insured through the public program. Firms that hire workers with serious health conditions can avoid paying high insurance premiums by switching to the public plan. As a consequence, the cost of providing care in the public plan is likely to rise, and payroll tax rates may have to be raised to offset this increase. As the cost of health care rises, firms that are required to provide health insurance may begin laying off workers, especially low-skilled workers (as described above).

NATIONAL HEALTH INSURANCE PROPOSALS

Proposals for national health insurance envision replacing the private health insurance market with a single national health insurer. This national health insurer would be funded through taxes and care would be either free (as in Canada) or provided at a low cost-sharing level. National health insurance would provide Americans, regardless of income or health status, with access to a centrally determined set of health care services, at no direct cost to the insured. Because everyone would have exactly the same health insurance, national health insurance avoids the problems of risk selection and adverse selection.

Although national health insurance would ensure access to health insurance for everyone, it provides few incentives for consumers to limit their use of services and could lead to an explosion in cost unless other substantial reforms were undertaken. National health insurance greatly reduces existing incentives for consumers to limit their use of care. In most proposals, the cost of health care is shared among all taxpayers with few deductibles and copayments. The Canadian experience and other evidence suggest that substantial increases in utilization would be likely to accompany such reductions in deductibles and copayments.

Some proposals for national health insurance envision saving money by reducing administrative costs, but since reductions in administrative costs are likely to be accompanied by increased overconsumption of services, net health care costs may not decrease. National health insurance plans can control costs mainly by controlling the quantity and quality of health care supplied, often through price or budget controls (discussed below). An alternative

way to control costs would be to fund only selected services, a method that has been proposed for the State of Oregon's medicaid program (Box 4-7).

Controls on supply and reductions in administrative costs are easiest to achieve in national health insurance programs that do not allow people to opt out by purchasing private health insurance. Adding any degree of choice to a national health insurance program—by allowing people to purchase alternative insurance, for instance—may reduce the cost savings achieved through supply controls and would be likely to increase administrative costs.

Box 4-7.— Oregon Medicaid Waiver Proposal

The State of Oregon has developed an innovative proposal that would extend medicaid insurance coverage to all Oregonians with incomes below the Federal poverty line. The plan would extend coverage to this broad group of people by restricting the treatments available to those covered. As proponents of the plan put it, services, not people, would be rationed.

In order to determine which services would be provided, the Oregon Health Services Commission undertook an extensive process that included research and analysis as well as consultations with the public. Initially, the commission identified 709 "condition-treatment" pairs, such as appendicitis-appendectomy. Next, the commission classified each pair into 1 of 17 categories according to the outcomes that could be expected from the treatment, such as "prevents death with full recovery," and ranked the pairs within each of the categories according to their impact on the quality of life. Finally, the commission submitted the ranked list of 709 pairs to the State legislature.

The legislature appropriated funds to cover services 1–587 on the list. These condition-treatment pairs would be included in the basic medical plan. Those condition-treatment pairs ranked 588–709 would not be covered for those insured by medicaid in Oregon.

Because medicaid is funded jointly by the Federal Government and the States, Oregon had to apply for a waiver from the Federal Government in order to implement this plan. This waiver was denied to the current version of the Oregon plan in August because of concerns that it violated the rights of the disabled under the Americans with Disabilities Act.

RATE SETTING

Some play-or-pay and national health insurance proposals incorporate provisions for rate setting. Rate setting, currently in use for hospital billing in some States, means that a governmental agency sets a single schedule of health care prices on which all payments, whether private or public, are based. In practice, increases in utilization often accompany such restrictions on prices in the health care market, limiting their effectiveness as a method of cost control. Because of the difficulty of measuring prices and quantities of health care, providers of health care services can easily change the quantity of health care services they report to accommodate lower prices. For example, an increase in the number of diagnostic tests provided to a patient will appear to be an increase in the per-visit price if all the tests are provided during one visit. This same increase will appear as an increase in quantity, rather than as a price hike, if the tests are spread over multiple visits.

Problems in measuring units of health care services make the enforcement of price controls in this sector troublesome. The Canadian experience suggests that the implementation of price controls in a fee-for-service physician payment system is likely to be accompanied by large increases in office visits. For example, physicians could require their patients to make office visits to get the results of tests, rather than simply conveying this information over the phone or by mail. Doctors could refuse to do more than one procedure per visit, requiring the patient to come back again for a second procedure, in order to get a second fee from the government. Studies of the Canadian system suggest that very substantial amounts of patient time are wasted through unnecessary trips to the doctor.

Experience from other industries suggests that if price controls could be enforced, they would likely lead to shortages of desired services. Initially, rates may be set to reflect the availability and need for services. But over time, the bureaucratic process of setting rates may mean that changes in the provision of, or demand for, services are not captured by new rates. When conditions change, the old rates are likely to cause shortages.

GLOBAL BUDGETS

A frequently recommended proposal for controlling expenditures in the health care system has been global budgets that cover all health costs. Global budgets would fix the sums health care providers throughout the U.S. economy can spend.

It would be very difficult to implement global budgets in the fragmented health care sector that now exists. For example, a global budget would have to account for out-of-pocket payments made by consumers, fee-for-service payments made by conventional

insurers, per capita payments made by HMOs, and the provision of uncompensated care in emergency rooms. They would have to allocate funding across regions, States, and cities, although currently spending varies considerably in different localities. Most global budget plans would begin by implementing price controls—for example, setting payment levels for diagnosis-related groups and for HMOs—but as noted above, such controls are likely to lead to increases in utilization.

Global budgets could also be applied to individual hospitals, independent of the amount of service provided. Such budgets would create incentives to reduce the services within a hospital and could lead to delays in admitting patients, or reductions in the use of effective but costly medical technologies.

Under global budgets there would be few incentives for providers to compete by developing better ways to deliver care. Improvements in health care delivery would be made primarily by government mandate. The government would take a very active role in deciding how much health care would be provided, stipulating the number of practicing physicians, the number of hospital beds, and the availability of new medical technologies and treatments.

Such government-determined supply-side controls could also lead to inappropriate decisions at the level of the individual provider. For example, hospitals are likely to find it easier to stay within their annual budgets if they keep their hospital beds filled with patients who have already recovered, rather than admitting sicker patients. Global budgets for physicians may lead doctors to restrict their hours and increase their vacation days rather than providing cost-effective care. Efficient physicians can be penalized if global budgets lead to across-the-board cutbacks in spending on care.

POLITICS AND HEALTH CARE

Most proposals for reform of the health care market envision a larger governmental role. For example, under the Administration's proposal, the Federal Government would define a basic benefit plan that could be purchased by recipients of the tax credit or deduction (although they could choose other plans). Under the managed competition proposal, government boards would define accountable health partnerships and the basic benefits people could purchase and still remain eligible for the tax subsidy. Such government-determined allocation decisions are likely to become politicized. Decisions about which services to cover and payments to make may be affected by the political influence of provider groups rather than by appropriate medical and economic considerations.

Governments already play an enormous role in the U.S. health care industry as regulators, purchasers, and employers. Federal, State, and local governments regulate virtually every aspect of the

industry, from the supply of insurance to the practice of medicine to the sale of pharmaceuticals. In 1990 including the value of health-related tax subsidies, governments paid for about the same share of the output in this industry as in the aerospace industry. The three levels of government together employed more than twice as many health and hospital workers as postal workers.

Using government bureaucracies rather than markets to determine industry outcomes is usually wasteful and inefficient. The ordinary problems of regulation are magnified in the health care context for two reasons. First, setting quantities is difficult because of the enormous variation in people's need for and attitude toward medical care, a product that is constantly changing. Second, regulators have to rely on producer groups (including insurers, doctors, and hospital employees) and some consumer groups for information and support, and these groups share a proclivity to expand public and private expenditures at the expense of the general public.

SUMMARY

- The Administration's proposal for health care market reform would expand the insurance coverage available to low-income and middle-income Americans.
- The use of health risk adjusters in the Administration plan can reduce differences in the cost of health insurance between people in good health and people in poor health. Unlike community rating plans, health risk adjusters limit the incentive for insurers to exclude those in poor health.
- Managed competition proposals would encourage competition among health insurers providing a basic benefit package. Managed competition requires that the government play a substantial role in the private health insurance market, monitoring insurers and defining the benefits that most Americans would receive.
- Play-or-pay proposals focus on improving access to insurance by mandating that employers provide basic health insurance or pay a tax to cover enrollment in a public plan. These proposals do not directly address the problem of rising costs and may cause firms to lay off low-wage workers.
- National health insurance proposals would provide insurance for all Americans through a single national insurer. Without substantial restraints on the quality and quantity of care provided, national health insurance could lead to a cost explosion.
- Attempts to regulate the price of health care are often ineffective in reducing expenditures because of offsetting increases in utilization. If rate regulation succeeds in holding down prices, it may lead to reductions in the quality of health care and to waiting lines for services.

CONCLUSION

The U.S. health care market provides a very high standard of health care to most Americans. The cost of care in this market has, however, been growing very rapidly, and many Americans have inadequate health insurance coverage. Careful analysis of this market indicates that it is subject to many of the same economic forces as other sectors and establishes certain guiding principles that must be heeded if reform is to be successful.

As government and employer-provided health insurance programs have expanded, Americans have been paying for less of their health care out of their own pockets. Because people with health insurance do not face the full cost of their health care decisions, they overconsume health care services. Over time, the quantity and quality of services consumed by Americans have been increasing rapidly.

Because of the high cost of health care, many of the poor and chronically ill find that they cannot afford health insurance. These uninsured individuals often resort to hospital emergency rooms, resulting in a very costly and inefficient use of resources. Most Americans believe poor and unhealthy people should not have to choose between paying high premiums for health insurance or going without any insurance at all.

Because of the complexity of the health care industry, no reform plan can address all features of the system perfectly. Yet some approaches are better than others, because they deal more directly with the sources of rising expenditures and declining insurance coverage. Successful reforms must create incentives for consumers, insurers, and providers to cut costs and share the cost of care for the chronically ill.

Experience in other countries and in the United States suggests that health care costs cannot be controlled, even with waiting lines and limits on the use of medical treatments, unless the consumption of services is limited through incentives, such as deductibles and copayments, that encourage people to regulate the way they use health care services. Alternatively, insurers can monitor the use of care through coordinated care arrangements. Failure to control the overconsumption of services that results from insurance will make it impossible to control health care costs.

Even if overall costs can be controlled, expenditures for health care are likely to remain higher for those in poor health than for healthy people. One approach to this problem, community rating, creates a single premium level for everyone. In a competitive insurance market, however, community rating conflicts with the incentives of both insurers and healthy people. Insurers will try to discourage unhealthy people from enrolling in their insurance plans,

leaving the chronically ill without insurance. Alternatively, healthy people will opt out of the insurance market or select plans with high deductibles and copayments, so that the premiums paid by those remaining in more comprehensive plans are very high. Another response to differences in health risk is the use of health risk adjusters, which provide insurers with incentives to insure those in poor health.

Because providers know more about medical treatment than do patients, a successful reform must give providers financial incentives to recommend only those treatments whose benefits exceed their costs. Financing arrangements that pay doctors and hospitals a fixed amount regardless of how many services they provide reduce the incentive for providers to recommend unnecessary services. An important additional step toward achieving this goal is to make it easier for patients to evaluate health care providers. Informed patients will be better able to identify providers that offer high-quality health care at a reasonable price.

Reforms that give consumers, insurers, and providers appropriate incentives are likely to be the most effective way of controlling costs, improving access to insurance, and giving Americans the quality of health care that they want. Without these incentives, health care costs will continue to climb and the number of uninsured will only grow larger.