As a library, NLM provides access to scientific literature. Inclusion in an NLM database does not imply endorsement of, or agreement with, the contents by NLM or the National Institutes of Health.

Learn more: PMC Disclaimer | PMC Copyright Notice



Health Care Financ Rev. 1992 Fall; 14(1): 151-169.

PMCID: PMC4193322

PMID: 10124436

# A layman's guide to the U.S. health care system

Nancy De Lew, George Greenberg, and Kraig Kinchen

### **Abstract**

This article provides an overview of the U.S. health care system and recent proposals for health system reform. Prepared for a 15-nation comparative study for the Organization for Economic Cooperation and Development (OECD), the article summarizes descriptive data on the financing, utilization, access, and supply of U.S. health services; analyzes health system cost growth and trends; reviews health reforms adopted in the 1980s; and discusses proposals in the current health system reform debate.

#### Introduction

This article was prepared for a 15-country comparative analysis of health system reforms in the 1980s in Organization for Economic Cooperation and Development (OECD) countries. This OECD project follows up on an earlier 7—country comparative study (Schneider, 1991). This article pulls together basic structural information, reviews trends in the growth of health system costs and indicators, discusses the major health system reforms of the 1980s, and summarizes the proposed changes currently being debated. As a part of this OECD project, a comparative study of all 15 countries is currently being written and will be published by OECD, along with the individual country papers early next year.

### Overview

## Financing

The United States spends more on health care services than does any other nation—on average, more than twice as much per person as the other OECD countries (Schieber, Poullier, and Greenwald, 1991). These expenditures are financed by a complex mixture of public payers



(Federal, State, and local government), as well as private insurance and individual payments: There is no single nationwide system of health insurance. The United States primarily relies on employers to voluntarily provide health insurance coverage to their employees and dependents; government programs are confined to the elderly, the disabled, and some of the poor. These private and public health insurance programs all differ with respect to benefits covered, sources of financing, and payments to medical care providers. There is little coordination between private and public programs: Some people have both public and private insurance while others have neither. Nevertheless, persons without health insurance are not entirely without health care. Although they receive fewer and less coordinated services than those with insurance, many of these "uninsured" individuals receive health care services through public clinics and hospitals, State and local health programs, or private providers who finance the care through charity and by shifting costs to other payers.

## Organization

Health services are provided by a loosely structured delivery system organized at the local level. Hospitals can open or close according to community resources, preferences, and the dictates of an open market for hospital services. Also, physicians are free to establish their practice where they choose. There is no health planning at the Federal level, and State planning efforts vary from none to stringent review of hospital and nursing home construction projects. In areas without sufficient private providers (e.g., inner cities and remote rural areas), Federal-and State-funded programs provide some primary care to populations not otherwise served by the fee-for-service (FFS) system. Municipal and county public health departments provide limited primary care services through public health clinics and regulate sanitation, water supply, and environmental hazards.

Most hospitals are owned by private non-profit institutions; the remainder are owned by governments or private for-profit corporations. Physicians, the vast majority of whom are in private practice and paid on an FFS basis, see their patients in their offices, and admit them to hospitals where they can continue to serve them. About two-fifths of physicians are in solo practice. Although there is a long-term trend toward the formation of more and larger group practices, the proportion of solo practices is shrinking only at a very slow rate (Marder et al., 1988). A relatively small number of physicians is not in the FFS sector but is employed by the government, corporations, managed care networks, or hospitals.

#### Health reform in the 1980s and 1990s

In recent years, health reform in the United States has focused on controlling rapidly rising health costs and increasing financial access to health care. A variety of cost-control strategies have been attempted at the Federal, State, and local levels of government and by private payers. Despite these efforts, health care costs continue to escalate. The resulting pressure on public, private, and individual budgets keeps the issue of control of health care costs high on the public agenda.

# Background

## Sources of health insurance

Private The vast majority of the population, about 74 percent, is covered by private health insurance (Figure 1). Those under 65 years of age and their dependents obtain private health insurance either through their employers (61 percent of the population) or by direct purchase of non-group health insurance (13 percent of the population). A small proportion of the population, 13 percent, has multiple health insurance coverage<sup>2</sup> (e.g., both private and public health insurance), and 14 percent have no insurance (U.S. Bureau of the Census, 1991b). Not all firms offer health insurance. In fact the majority of the uninsured (75 percent) are employees or their dependents (Short, Monheit, and Beauregard, 1989).

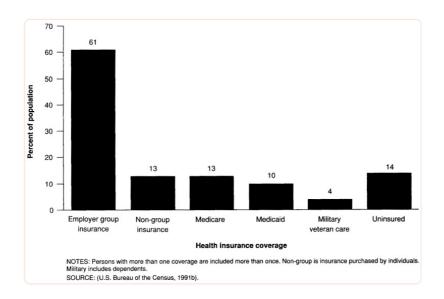


Figure 1

U.S. health insurance coverage: 1990

There are more than 1,000 private health insurance companies providing health insurance policies with different benefit structures, premiums, and rules for paying the insured or medical care providers. These companies are regulated by State insurance commissioners; the Federal Government does not generally regulate insurance companies. States sometimes specify that certain, often narrowly defined, benefits or providers (e.g., chiropractic services) be covered by all health insurance policies sold in the State. States may also regulate insurance premium increases and other aspects of the insurance industry. In recent years, most large employers have opted to "self-insure," or cover health expenses as they occur, rather than purchase insurance from a company, because this exempts them from State insurance regulation as detailed later.

Although employer-provided health insurance is voluntary, it is encouraged by tax policy. Employer-paid contributions to employee health costs are basically a substitute for cash wages. This substitution has increased in recent years. Health benefits rose from 2.4 percent of total compensation in 1970 to 5.8 percent in 1989, and from 23 percent of total benefits in 1970 to 36 percent in 1989 (Employee Benefit Research Institute, 1991). When employers pay wages in the form of health benefits, they are subject neither to the personal income tax nor to the Social Security tax. If such wages were taxed as income, then Federal revenues would have increased by an estimated \$56 billion in 1990 (U.S. Department of the Treasury, 1990). Individuals with relatively high medical expenses, more than 7.5 percent of their taxable in-

come, may be able to deduct out-of-pocket health care expenditures from their Federal income taxes, for a 1990 cost of about \$2.9 billion (<u>U.S. Department of the Treasury, 1990</u>). Employer contributions to group health insurance were estimated to be \$139 billion in 1990 (<u>Levit and Cowan, 1991</u>).

The majority of those with private health insurance are covered for inpatient hospital services and physician services; the breadth and depth of coverage of other services vary. Industries with strong unions (e.g., steel, automobile) have the broadest benefit packages. On the other hand, service industries (e.g., restaurants) may provide little or no coverage (Friedman, 1991). The amount of patient cost sharing also varies. For example, as many as 55 million Americans with private health insurance are underinsured, that is, they do not have a limit on their out-ofpocket health expenses and are at risk of being impoverished should they experience a costly, major illness (Farley, 1985). Home care is covered in most insurance plans after a hospitalization for an acute episode of illness in order to allow recovery in a less costly setting. Home care and long-term care for chronic conditions and frailty related to aging are not generally covered by public or private insurance. Most long-term care and home care are purchased out-ofpocket or provided informally by family and friends. In the last few years, some private health insurers have been marketing long-term care policies, primarily to upper income individuals who can afford the premiums. However, Medicaid (described later) does pay for long-term care and home care services for the poor, and finances nearly one-half of the annual nursing home expenditure of \$53.1 billion (Levit et al., 1991b).

Medicare Medicare is a uniform national health insurance program for the aged and disabled. Administered by the Federal Government, it is the single largest health insurer in the country, covering about 13 percent of the population, including virtually all the elderly 65 years of age or over (31 million people), and certain persons with disabilities or kidney failure (3 million people) (Board of Trustees of the Federal Hospital Insurance Trust Fund, 1992). The program is financed by a combination of payroll taxes, general Federal revenues, and premiums. It is comprised of two parts: Coverage under Part A is earned through payment of a payroll tax during one's working years; coverage under Part B is voluntarily obtained through payment of a premium once eligibility for Medicare is established (through receipt of retirement or disability benefits under the Social Security income assistance program).

Medicare is an inter-generational transfer program primarily funded by taxes from working people to provide services to aged beneficiaries. However, this financing approach is not actuarially sound: Expenses are increasing faster than revenues, leading to a projected trust fund bankruptcy early in the next century (Boards of Trustees of the Federal Hospital Insurance Trust Fund, 1992). As the population ages, there will be fewer workers supporting each beneficiary. There were 5 workers for each beneficiary in 1960, there will be 3 workers per beneficiary in 2000, and 1.9 by the year 2040 (U.S. House of Representatives, 1991).

Coverage under Part A includes inpatient hospital care, very limited nursing home services, and some home health services. The Part A payroll tax is paid by virtually all employed individuals. The payroll tax is 1.45 percent of payroll for both the employer and the employee (for a total of 2.9 percent) up to a maximum of \$125,000 of income. This maximum was raised in 1990 from \$51,300. Employer contributions to Medicare Part A were nearly \$30 billion in 1990 (Levit and Cowan, 1991). Coverage under Part B includes physician and other ambulatory ser-

vices, durable medical equipment (e.g., wheelchairs), and certain other services. It is funded through premiums (about 25 percent of the program cost), by enrollees (\$31.80 per month in 1992), and by general Federal revenues (about 75 percent of the program cost).

Medicare is oriented towards acute care, and such services as long-term nursing home care, routine eye care, and outpatient prescription drugs are not covered. Moreover, Medicare patients must also pay coinsurance and deductibles: These account for an average of 17 percent of the services covered by Medicare, and consume an average of 6 percent of their per capita income (U.S. House of Representatives, 1991). Medicare covers less than one-half of the total medical care expenses of the elderly (Waldo et al., 1989). To pay for Medicare coinsurance and deductibles and, in some cases, uncovered benefits, about 68 percent of Medicare beneficiaries have private supplemental health plans, provided by former employers or self-purchased, and an additional 9 percent have Medicaid (U.S. Bureau of the Census, 1991a). Despite all of these sources of health insurance, the elderly spend an increasing share of their after-tax income on health expenses, up from 7.8 percent in 1972 to 12.5 percent in 1988 (U.S. House of Representatives, 1991).

Medicaid Medicaid is a health insurance program for certain groups of the poor. It covers preventive, acute, and long-term care services for 25 million people, or 10 percent of the population. Medicaid is jointly financed by Federal and State governments. The Federal Government matches State Medicaid outlays at rates which vary by State personal-income levels: The Federal share of total expenditures ranges from 50 to 83 percent, with the poorer States receiving a higher match from the Federal Government. Medicaid is administered by the States under broad Federal guidelines governing the scope of services, the level of payments to providers, and population groups eligible for coverage.

In order to be eligible for Medicaid, a person must be poor as well as aged, blind, disabled, pregnant, or the parent of a dependent child. Mothers and dependent children comprise about 68 percent of Medicaid recipients, the elderly 13 percent, the blind and disabled 15 percent, and others 4 percent. States further define eligibility levels (e.g., maximum income and asset levels) within certain broad parameters. Consequently, about 60 percent of the poor below the Federal poverty line are excluded from Medicaid (Swartz and Lipson, 1989). Childless, non-disabled adults under 65 years of age, no matter how poor or how high their medical expenses, are not eligible, nor are individuals with assets above State-defined levels. On the other hand, because Medicaid is the only public program that finances long-term nursing home care, a significant number of middle-class elderly have become eligible for Medicaid-covered nursing home care by intentionally transferring assets to their children and exhausting their income on nursing home expenses (Burwell, 1991). About 43 percent of Medicaid expenditures are spent on skilled nursing facilities and intermediate care facilities (Ruther et al., 1991).

Other The uninsured receive fewer health services than insured individuals with comparable health status (Freeman et al., 1987). Services for the uninsured are provided through a variety of sources, the amount and scope of which vary by community. Federal, State, and local governments support public health clinics and hospitals with a primary mission of providing care to the indigent. In some cases they pay private providers to care for the indigent as well. Public health expenditures support preventive health measures such as vaccinations, cancer screening programs, and well-child care. The services are often available to all, although a fee which varies according to income may be charged.

Providers sometimes subsidize the costs of services to uninsured individuals from operating margins. Charity care and bad debt represented 5 percent of hospital expenses in 1988 (Prospective Payment Assessment Commission, 1991). Estimates of physician charity care are difficult to make because, unlike hospitals, physicians do not submit detailed cost reports to the Federal Government. A recent study estimated that physicians provide \$3 billion worth of free services and nearly \$4 billion of reduced-fee services annually (American Medical Association, 1991). However, as insurers and employers try to control their own costs, the ability of hospitals and other providers to cross-subsidize care for the uninsured, by cost-shifting to insurers and employers, may decrease.

## Health spending

National income and health In 1990, about 12.2 percent of GNP was devoted to health expenditures. This amounted to \$666.2 billion (\$2,566 per capita), an increase of 10.3 percent over 1989 levels (Levit et al., 1991a). The United States spent a higher percentage of its wealth on health than any other OECD country (Schieber, Poullier, and Greenwald, 1991). Health expenditures have been growing rapidly both as a share of GNP and in absolute terms. For example, health expenditures in 1980 accounted for 9.1 percent of GNP and are projected to rise to more than 16 percent of GNP by the year 2000 (Sonnefeld et al., 1991). One reason for this rapid growth is the sluggish U.S. economy and slow GNP growth. However, inflation in medical prices has long been significantly higher than general inflation (Levit et al., 1991b).

Source of funds Public budgets accounted for 42 percent of health spending in 1990, and private sector spending accounted for 58 percent (Figure 2) (Levit et al., 1991a). The proportion of total health care expenditures covered by public sources is lower in the United States than in all but one of the OECD member countries (Schieber, Poullier, and Greenwald, 1991). The Federal budget paid for 29 percent of all health spending, primarily through the Medicare and Medicaid programs, but also through health spending by the Departments of Defense and Veterans Affairs for current and retired military personnel and their dependents. Of the 13 percent State and local share of health spending, approximately 5 percent was for Medicaid, and 8 percent was for other State and local health programs (Levit et al., 1991a).

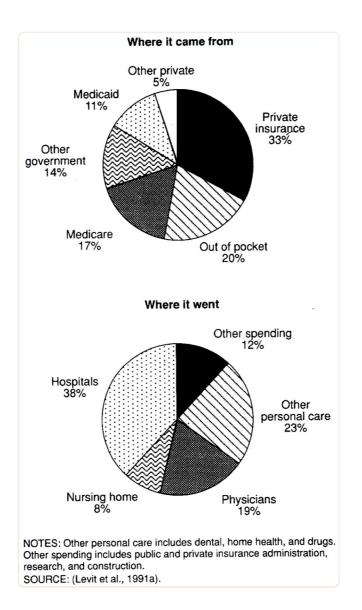


Figure 2

The Nation's health dollar: 1990

Health expenditures comprise a growing share of public budgets. In 1990, health represented 15 percent of the Federal budget and 11 percent of State and local budgets. By contrast, health expenditures in 1980 comprised 12 percent of the Federal budget and 9 percent of State budgets. Medicare alone is now 9 percent of the Federal budget (Levit et al., 1991a). Of the 58 percent of all health spending that was not financed by public budgets, 33 percent was paid for by private insurance payments, 20 percent by individuals out-of-pocket, and 5 percent by other private payments, including philanthropy (Levit et al., 1991a). In 1990, approximately 39 percent of total health spending was for hospital care, 19 percent for physician services, 8 percent for nursing home care, 22 percent for other personal health care spending, and 12 percent for other non-personal health care items such as research and construction (Levit et al., 1991a).

Trends in spending The annual growth rate of health spending in the 1980s was about 10.4 percent as a whole, but varied by type of service. Hospital spending grew by about 15 percent per year in the early 1980s, slowed to about 7 percent in the mid-1980s, and increased to

about 10 percent by the end of the decade. Physician spending growth through the decade averaged about 15 percent per year, but moderated somewhat toward the end of the decade (Levit et al., 1991a).

The share of all health spending accounted for by private health insurance and government programs rose slightly over the 1980s, while out-of-pocket spending marginally declined (<u>Levit et al., 1991a</u>). The increased use of cost sharing as a cost-containment measure, described later, has not kept pace with rapidly rising health care costs.

Insurance coverage by service Insurance coverage varies by service. Hospital care is the best insured, and nursing home care and dental care are the least well insured. Out-of-pocket payments for hospital care cover only 6 percent of total hospital spending, public programs (Medicare and Medicaid) 40 percent, other State and local programs 14 percent, private insurance 36 percent, and private charity care the remaining 4 percent. On the other hand, out-of-pocket payments for nursing home expenditures finance 44 percent of total nursing home spending, Medicaid covers 43 percent, Medicare and other non-Medicaid State and local funds cover 7 percent, private charity covers 2 percent, and private insurance covers only 1 percent (Levit et al., 1991a). Most employer-sponsored group health plans cover outpatient prescription drugs as does Medicaid, while Medicare does not.

Patient cost sharing As employers and insurers try to contain costs, patient cost sharing is becoming a more common feature of almost all U.S. health plans (Employee Benefit Research Institute, 1991). Typical deductibles are \$100 to \$500 per person per year, and typical coinsurance rates are 20 percent per service (Employee Benefit Research Institute, 1990). The RAND Corporation national health insurance experiment found that the use of cost sharing as a cost-containment tool reduced utilization without adversely affecting health status, except for low-income individuals with hypertension, vision, or dental problems (Newhouse et al., 1981). The impact on the health status of the low-income and the exclusion of the elderly and chronically ill from the experiment suggest some caution about the general use of cost sharing as a cost-containment tool. The proportion of private health plans with limits on out-of-pocket spending increased steadily during the last decade. Nevertheless, as previously noted, many policies still do not offer full protection against catastrophic expenses (U.S. Bureau of Labor Statistics, 1989, 1982).

## Health services delivery system

Hospitals There are about 6,700 hospitals in the United States, including 5,480 community, acute care hospitals, 880 specialty hospitals (e.g., psychiatric, rehabilitation, long-term care), and 340 Federal hospitals open only to military personnel, veterans, or native Americans. Of the 5,480 community hospitals, non-profit hospitals represent 59 percent, local government hospitals 27 percent, and for-profit hospitals 14 percent. There are 3.9 community hospital beds for each 1,000 residents, although this varies around the country. There were 33 million hospital admissions in 1990 with an average length of stay per admission of 9.2 days. Hospital stays are shorter and admission rates are lower in the United States compared with other OECD countries. The average hospital occupancy rate, 66 percent, is lower in the United States than in other OECD countries, however this rate varies and may be 40 percent or lower in rural areas (American Hospital Association, 1990; National Center for Health Statistics, 1991).

Hospitals finance capital purchases through a variety of means including savings, tax-exempt bond issues, and philanthropy. Although Federal and State mortgage loan guarantee programs assist some hospitals to secure financing for construction and renovation projects, it is more common for hospitals to secure private mortgage insurance when floating a construction bond. Some States require prior approval before certain capital projects can be undertaken, while other States have no prior approval procedures.

Because physicians in the community admit their patients to hospitals, hospitals must be attractive to physicians in order to obtain patients. This makes it difficult for hospitals to deny physician requests to purchase expensive equipment, because purchasing such equipment is a way that hospitals attempt to attract physicians. As a result, hospitals engage in what has been called a medical arms race, in which each competes to own state-of-the-art technology. The United States has 8 times more magnetic resonance imaging machines (MRIs) per capita, 6 times more lithotripsy centers, and 3 times more cardiac catheterization and open heart surgery units than Canada (Rublee, 1989).

## Physicians

There were more than 574,000 physicians in active practice in 1988, or 2.3 active physicians per 1,000 population (National Center for Health Statistics, 1991). In the early 1980s, a national physician surplus was forecasted for the 1990s (U.S. Department of Health and Human Services, 1981). Now this forecast is being debated. A physician surplus causes concern because some argue that physicians can create demand and thereby add to rising health costs (Rice and LaBelle, 1989).

Nonetheless, problems exist in the geographic and specialty distribution of physicians. For instance, the physician-to-population ratio averages 0.9 active physicians per 1,000 population in rural areas (<u>U.S. Office of Technology Assessment, 1990</u>). Of those in active practice, about 33 percent are primary care physicians (family practice, general pediatrics, and internal medicine) and the remainder are specialists (Politzer et al., 1989). There is concern that the proportion of primary care physicians will continue to fall in the coming decade. The United States has a much higher percentage of specialists than do other OECD countries (<u>Rosenblatt, 1992</u>).

Individuals can access specialists directly except in some coordinated care settings (described later). Some specialists (e.g., radiologists, anesthesiologists, and pathologists) practice in hospitals under contract. Compensation arrangements with hospital-based physicians vary but often include a salary as well as FFS billings of which the physician retains a percentage.

In the past, most high-technology equipment was purchased by hospitals. Recently, however, physicians, either alone or in joint ventures, have been purchasing high-technology equipment outside the traditional confines of the hospital. Joint ventures are arrangements where investors pool capital to purchase expensive equipment and build facilities such as ambulatory surgery centers. Some argue that these practices rapidly diffuse high technologies, create competition with hospitals for ambulatory procedures, increase utilization, and fuel health inflation (Florida Health Care Cost Containment Board, 1991).

Medical education is financed by a combination of student tuition payments, Federal and State education programs, and private funds. Public funds support medical education through State-supported medical schools (about 60 percent of all medical schools), Federal and State student loan programs, Federal health education programs, and Medicare payments for graduate medical education in teaching hospitals. In 1990, about 80 percent of medical students had an average debt of \$46,224 upon graduation from medical school (Jolin et al., 1991). High-paid specialties are more attractive to medical students than the lower paid family and general practice for a variety of reasons (Colwill, 1992). Reform of medical education financing, in order to influence new physicians' choice of specialty and geographic location, is an important public policy goal. Proposals include reducing Medicare payments to new physicians who locate in overserved areas, and increasing funds for the current Federal program (the National Health Service Corps) which forgives student debt in return for practicing in underserved areas.

Coordinated care In recent years, coordinated care arrangements have become increasingly popular as a way to control costs in both the private and public sectors. The term coordinated care refers to a diverse and rapidly changing set of alternative health care delivery models. These models differ from traditional FFS medicine by integrating the financing and delivery of health services with the goal of controlling costs by managing utilization and provider payment levels.

The oldest model of coordinated care is the health maintenance organization (HMO); several have existed for decades, although most have been formed in recent years. Individuals who enroll in an HMO receive a comprehensive benefit package available only from a defined network of providers for a fixed payment, usually a monthly or yearly premium. To compensate for the restricted choice of providers, enrollees often face lower cost sharing and have little billing paperwork compared with FFS medicine. HMOs themselves range from long-established organizations that employ physicians, build their own hospitals and clinics, and only serve HMO enrollees, to recent affiliations of solo practice physicians and hospitals who may also practice traditional FFS medicine. Nearly 37 million Americans, 15 percent of the population, are enrolled in HMOs (Porter, Ball, and Kraus, 1992).

A more recent model is the preferred provider organization (PPO) which selectively contracts with or arranges for a network of doctors, hospitals, and others to provide services at a discounted price schedule. Individuals pay lower coinsurance rates if they visit physicians who have agreed to accept a lower price. Similar to HMOs, the PPO model includes utilization review, and formal standards are used to select and maintain network providers and physicians. PPO enrollment grew from only 1 percent of participants in medium and large employer health plans in 1986 to 10 percent in 1989 (U.S. Department of Labor, 1990).

A recent development is the point-of-service (POS) network. POS networks start with an HMO and add a PPO component in an attempt to achieve both cost containment and freedom of choice of providers. Enrollees are encouraged to use HMO doctors by paying a higher coinsurance charge if they use doctors not affiliated with the HMO. By contrast, in a PPO, the doctor simply accepts a lower price for certain patients with no equivalent HMO structure with its emphasis on coordinated care. It is expected that the features of POS networks will continue to evolve.

Studies suggest that HMOs can save about 20-30 percent compared with FFS insurance, primarily by reducing inpatient hospital days (Manning et al., 1984). However, in some instances these savings are the result of favorable selection of enrollees rather than more cost effective use of health services. The cost advantages of HMOs compared with FFS medicine may be reduced as utilization controls are increasingly introduced into the FFS sector. Quality assurance at HMOs is an important issue. There is concern that HMOs, and especially for-profit HMOs, have economic incentives to underserve their enrollees in order to live within the capitated payment. On the other hand, HMOs may need to offer care of at least reasonable quality in order to be attractive to enrollees.

Coordinated care, as used broadly, includes not only HMOs and PPOs but also a variety of other cost-control techniques, influencing patient care decisions before services are provided. These techniques, increasingly imposed by third-party payers, include prior approval of hospital admissions, management of high-cost patient care, control of referrals to specialists through primary care physicians, selective contracting with hospitals and other providers, required second opinions for surgical procedures, profile analysis of provider utilization and practice patterns, and screening of claims prior to payment to avoid duplicate and inappropriate payments. Although the evidence on utilization review is not complete, some of these techniques, such as preadmission certification and review during an inpatient hospital stay, are cost effective (Scheffler, Sullivan, and Ko, 1991).

### Health outcomes

Despite the highest health expenditures in the world, the United States does not perform particularly well in terms of gross health outcome measures. For instance, in 1988 the United States had a life expectancy at birth of 71.5 years for males and 78.3 years for females, and an infant mortality rate of 10.0 per 100,000 births. Compared with the other OECD countries, it ranked 17th in male life expectancy, 16th in female life expectancy, and 20th in infant mortality (Schieber, Poullier, and Greenwald, 1991).

However, direct comparisons of U.S. health costs and outcomes with OECD nations can be misleading because of exacerbated social problems in the United States which have significant health costs and adversely affect U.S. health outcomes. The 20,000 annual U.S. homicides result in per capita homicide rates 10 times those of Great Britain and 4 times those of Canada. There are 100 assaults reported by U.S. emergency rooms for every homicide. About 25 percent of spinal cord injuries result from assaults; lifetime care for a quadriplegic averages \$600,000. The United States has about 375,000 drug-exposed babies, and estimated 5-year costs of treatment are \$63,000 per child. U.S. child poverty rates are double those of former West Germany and Canada, and triple those of Switzerland and Sweden (Schwartz, 1991; Rich, 1991; Smeeding et al., 1988).

The United States has had a total of 206,000 acquired immunodeficiency syndrome (AIDS) cases, and there were 39,000 AIDS deaths in 1990 alone. The U.S. AIDS infection rate is more than four times that of Canada (Pan American Health Organization, 1992). The average lifetime health costs of an AIDS patient are now \$85,000. These costs may increase as new drugs are developed to prolong the life of AIDS patients. AIDS is putting budget pressures on inner-city

hospitals and emergency rooms because many AIDS patients do not have adequate insurance. Recent studies estimate that the United States will spend \$5.8 billion caring for AIDS patients in 1991, and that these costs will rise rapidly to \$10.4 billion by 1994 (Hellinger, 1991).

Health outcomes for some minority groups are significantly worse than the U.S. average. The infant mortality rate for Native Americans is 1.5 times the rate for white people and the rate for black people is 2.1 times the rate for white people (National Center for Health Statistics, 1991). Life expectancy has been significantly higher for white people than for black people for the last 20 years. Homicide is the leading cause of death for black people between 15 and 44 years of age, with the rate for black males more than 8 times the rate for white males of the same age (National Center for Health Statistics, 1991).

# Data and evaluation systems

When evaluating health services, the United States is both data rich and poor. Compared with health systems where there is a single payer, U.S. data are divided among many insurers, making it virtually impossible to produce comprehensive provider or beneficiary profiles. However, the United States also requires detailed diagnostic and procedural information on each bill paid in an FFS system. Moreover, hospital admissions and major surgery often require preadmission review. Consequently, a great deal of information that is unavailable in systems which do not require detailed bills is produced at the patient level.

Various systems to improve data and to coordinate data systems are under development. The Institute of Medicine of the National Academy of Sciences has issued several reports calling for more health outcomes research and improved data systems, including computerized patient records (Institute of Medicine, 1991). The Federal Government publishes uniform mortality statistics for hospitals based on Medicare billing records and quality information on nursing homes based on periodic inspections. The Medicare program is also developing a uniform clinical data set to evaluate the quality of care and outcomes of Medicare patients. The Federal research effort on medical outcomes, including the development of medical practice guidelines, is coordinated by the Agency for Health Care Policy and Research.

Data are also used by commercial firms in order to evaluate providers for inclusion in managed care networks. Such firms analyze companies' claims experience, health utilization, and outcomes. These data help to identify efficient providers with whom the purchasers should contract, and inefficient providers who should be excluded. Other firms analyze drug prescription data to identify over-prescribers, as well as potential adverse drug interactions which may produce avoidable hospitalizations.

# Background for reform in the 1980s

## **Enactment of Medicare and Medicaid**

The first nationwide hospital insurance bill was introduced in Congress in 1942, but failed to pass. Discussions of various forms of national health insurance over the next two decades culminated in the enactment of Medicare and Medicaid in 1965. Medicare and Medicaid were a compromise between those who wanted national health insurance for everyone, and those

who wanted the private sector to continue to be the source of insurance coverage. The elderly and the poor were at high risk for health expenses beyond their means and were less likely than other population groups to have health insurance. The elderly were generally considered to be uninsurable or bad risks by the private insurance market. In 1963, 75 percent of adults under age 65 had hospital insurance compared with 56 percent of people 65 years of age or over. In 1966, following passage of Medicare, about 19 million elderly people, or 10 percent of the population, received health insurance coverage. This nearly doubled the number of insured 65 years of age or over. Medicare coverage was extended to the under age 65 population with disabilities or end stage renal disease, about 2 million new enrollees, in 1972 (Cohen, 1986; Gornick et al., 1986; Mills, 1986).

Medicaid initially covered about 10 million people, adding an unknown number of recipients to those covered under other State and local welfare programs. By 1973, there were 19.6 million Medicaid enrollees. Most Medicaid enrollees are children and mothers under the income assistance program called Aid to Families with Dependent Children (AFDC) (Cohen, 1986; Gornick et al., 1986; Mills, 1986).

This large expansion of third-party coverage combined with generous payment methods (both Medicare and Medicaid originally paid hospitals their costs and Medicare largely paid physicians their charges) was one of the principal engines of health care cost growth in the 1970s and 1980s. In addition, the passage of Medicare and Medicaid gave the Federal Government an institutional interest in health care cost containment as it suddenly became the single largest health insurer.

### Health care in the 1970s

The 1970s were characterized by rapid expansions in health care costs, and the development of strategies for their containment. Cost-control strategies emphasized regulation and planning. The National Health Planning Act of 1974 created a system of State and local health planning agencies largely supported by Federal funds. States passed certificate-of-need laws designed to limit investment in expensive hospital and nursing home facilities. The Carter Administration (1977-81) advocated direct Federal controls on hospital spending, however, Congress failed to enact them. With the installation of the Reagan Administration in 1980, a pro-competitive approach to cost containment was advanced and the health planning legislation was repealed in 1986 by Public Law 99-660.

Significant expansion of government support for medical education was designed to address a perceived shortage of physicians. Medical school enrollment doubled over the course of the decade. Government funds also supported a growing biomedical research and development community, with its hub at the National Institutes of Health.

Although not generally recognized at the time as a bill affecting health care, the 1974 Employee Retirement Income and Security Act (ERISA) has had a profound impact on health policy (Fox et al., 1989). The legislation was passed to regulate corporate use of pension funds, but it also pre-empted State regulation of self-insuring employee benefit plans generally. Growing numbers of larger employers were already moving to self-insured health benefits as a cost-control mechanism prior to ERISA's passage. The ERISA pre-emption provided further incentives to

employers to convert their employee health benefit plans to self-insurance. Employers now have a large stake in the ERISA Federal pre-emption because many have structured their health benefit plans to take advantage of its provisions and exemptions.

## U.S. health system in the 1980s

As frequently noted, the U.S. health care system suffers from rapid escalation of health costs, lack of universal access to insurance coverage, geographic maldistribution of providers, underutilization of primary care and preventive services, gaps in the continuity of care, and a high rate of inappropriate utilization of health services. These problems coexist with widely acknowledged strengths such as providing the vast majority of the population with state-of-theart care, offering consumers freedom of choice among a variety of highly skilled providers using the latest technology, and promoting a vigorous biomedical research and development sector. There are sophisticated quality assurance and data systems, and virtually no queues for elective surgery for those with insurance.

Health care cost growth Growth in U.S. health care costs results in part from such unique features as the predominant FFS payment system, extensive third-party insurance coverage, a fragmented multipayer system, and a vigorous biomedical research establishment combined with rapid diffusion of new technologies. The fragmented U.S. structure gives providers incentives to provide additional services and to bill for higher levels of service to increase revenues. Although coordinated care arrangements encourage provision of services within fixed budgets, they have only recently become more widespread. Moreover, coordinated care itself may have difficulty in controlling utilization in a system whose basic structure continues to reward increased FFS billings. In contrast to the United States, other OECD countries control health costs through central control of budgets and all-payer ratesetting.

Health care costs are perceived as reducing the international competitiveness of American business, however, there is debate on this issue. For example, Chrysler states that health care costs add \$700 to the price of every American manufactured car. By comparison, health care costs add \$350 to the cost of a car in Germany and France, or \$225 in Japan (Graig, 1991). (This, of course, reflects health benefits provided in lieu of past and present wages to retirees and current workers, and the aging labor force of the industrial sector.) Others argue that the issue is the total labor compensation package, not fringe benefits alone (Reinhardt, 1989).

Because health insurance in the United States is primarily employer-based, cost containment must be a high priority for employers if cost-control goals are to be attained. However, employers provide health benefits as a means of attracting a trained and stable labor force. Employers may become ambivalent about aggressive cost-containment strategies if the result is potential labor unrest (there have been several recent strikes<sup>3</sup> over employer health benefit reductions). Moreover, the business community has been split between industries that provide comprehensive benefits to older, unionized workers, and newer service industries that provide much more limited fringe benefits of all types to younger and healthier workers. The former, such as the automobile industry, is increasingly concerned about high health costs resulting from an aging labor force, and the shifting of costs to them for the health care provided to uninsured workers in the service sectors. This creates a new political situation in which the business community is no longer united against fundamental reform of the health care system.

Administrative costs U.S. administrative costs are high and a source of unnecessary expenditures. Efforts are under way to standardize electronic billing across all payers in order to reduce administrative costs (Sullivan, 1992). Despite consensus that administrative efficiencies are possible, there is disagreement about the extent to which adopting a single payer system or alternative health insurance arrangements would reduce administrative or total systems costs.

Advocates of national health insurance argue that Canada has been able to provide universal health insurance coverage while spending substantially less than the United States. In particular, they compare administrative costs in the United States and Canada, and suggest that the difference in these alone (an estimated \$60 to \$70 billion, or about 10 percent of total 1991 U.S. health costs) could finance health coverage for the uninsured (Woolhandler and Himmelstein, 1991; U.S. General Accounting Office, 1991; Newhouse, Anderson, and Roos, 1988). Others argue that these comparisons are unsound. They fail to properly value the positive effect of those administrative costs designed to coordinate care, assure quality, and control utilization, misapprehend that cost differences result from factors other than the single payer mechanism, and ignore or do not capture other costs of the Canadian system, for example, increased patient waiting time (Danzon, 1991).

Medical malpractice Another alleged source of excessive health spending is the high cost of medical malpractice premiums and defensive medicine. (The fear of a malpractice suit is said to induce doctors to order unnecessary tests and services. However, this behavior also maximizes FFS physicians' practice income.) Professional liability costs for physician services are estimated to be about \$20 billion, only \$5 billion of which are malpractice premiums, or less than 1 percent of all health spending. The remainder, or \$15 billion (another 3 percent of health spending), is the estimated cost of defensive medicine (American Medical Association, 1990).

Malpractice insurance premiums average 6 percent of physician practice costs. The average premium masks considerable variation in premiums by specialty and State: Obstetricians and neurologists can pay up to \$100,000 or more a year in malpractice insurance premiums in Florida and New York. Patients who win malpractice cases can receive awards in the millions of dollars.

A recent study found that adverse events occurred in slightly less than 4 percent of hospital admissions. Medical negligence caused the adverse event in 25 percent of these cases, or 1 percent of all admissions. The incidence of injured patients seeking redress in the courts (8 times as many patients were injured than filed a claim) or receiving compensation from the courts was smaller still (16 times as many patients were injured than received compensation). The study also found that many malpractice cases in the courts did not involve adverse events or negligence, and that physicians' perceived probability of suit was significantly higher than actual experience warranted (Harvard Medical Study, 1990).

Inappropriate utilization Studies have documented high variation across geographic areas in the performance of certain surgical procedures (Wennberg, 1973; Chassin et al., 1986). They raise questions about why this variation, even within small geographic areas, exists: Are patients sicker in some towns than others? Are physicians trained to practice medicine differently? In order to measure the extent of this variation, panels of physician experts have developed and applied medical appropriateness criterion retrospectively to medical records. They have found that the incidence of inappropriate use of such expensive and potentially dangerous procedures as coronary artery bypass surgery accounts for between 20 and 35 percent of

care (<u>Chassin et al., 1987</u>). Additional RAND Corporation studies of a small number of medical procedures (<u>Brook et al., 1989</u>; <u>Merrick et al., 1986</u>) found that about 15-30 percent of those medical procedures were inappropriate, unnecessary, or both, meaning the medical evidence did not justify the medical intervention. If the estimate for clearly inappropriate procedures alone were applied to all medical spending, this would amount to unnecessary expenditures of between \$99 billion and \$198 billion in 1990. Inappropriate utilization may result from several factors including incentives inherent in FFS medicine, inadequate communication or knowledge among medical professionals, defensive medicine, and patient demand on physicians to render more services. As a consequence, the Federal Government is investing more than \$100 million a year in research to study outcomes and inappropriate utilization, and to develop practice guidelines for physicians.

Of course, an unestimated number of people who need appropriate procedures do not receive them. Groups at risk of underservice include minorities, the poor, and uninsured (<u>Freeman et al., 1987</u>; <u>Hadley, Steinberg, and Feder, 1991</u>; <u>Goldberg et al., 1992</u>). It is unknown whether providing appropriate procedures to all would result in net savings or costs.

Delivery system under stress In many areas of the country, the distribution of providers does not adequately reflect the population's need for services. Some inner-city areas have insufficient physician, clinic, and hospital capacity to provide needed services, resulting in backlogs of patients in emergency rooms which too often serve, inappropriately, as providers of last resort. Some rural areas of the country have excess hospital capacity combined with a paucity of physicians. In 1988, about 34 million people (collectively 29 percent of the rural population and 9 percent of the urban population) lived in underserved areas (<u>U.S. Office of Technology Assessment, 1990</u>). Other parts of the country have a surfeit of hospital beds and physicians.

Utilization review Utilization review techniques are designed to prevent unnecessary services and control costs. They require physicians to fill out forms, write special justifications of the appropriateness of the services they order, and subject providers to utilization review of their services. Medicare peer review activities assess the medical necessity, appropriateness, and quality of care in the hospital setting. Efforts are under way to extend Medicare peer review to other settings (e.g., coordinated care). Some argue that health systems that budget physician expenditures as a cost-control mechanism grant them more clinical freedom than U.S. physicians enjoy. In the United States, physicians guard the right to set their own fees, but as a result find themselves increasingly subject to utilization controls which may constrain their clinical freedom (Reinhardt, 1987).

Long-term care In common with other OECD countries, long-term care services in the United States are not integrated with acute care health services in terms of delivery, providers, or financing. Because long-term care and acute care are not routinely covered by the same private or social insurance systems (with the exception of Medicaid), there are few incentives to overcome the separation of services. Social and health services have been effectively integrated in only a few federally funded demonstration projects in selected cities. Municipal, State, and local governments pay for long-term care or home care only in rare and limited cases.

### Reforms in the 1980s

When President Reagan took office in 1981, tax reform was a priority. The combination of the tax reforms passed in the early 1980s, and increased military spending during the Reagan Presidency, together with Congress dominated by the opposition party which defended domestic program spending, led to a growing Federal deficit (Sawhill, 1982). In this context, the 1980s was a decade of constant pressure to find budget savings from Medicare and Medicaid because these programs are not subject to annual budget limits (i.e., spending increases as enrollees utilize services) and they represent a large and rapidly growing share of the Federal domestic budget.

At the Federal level, the intellectual paradigm to control health costs shifted from regulation and planning to managed competition. Some economists theorize that health care competition is capable of systematically bringing market-oriented economic incentives to bear on medical care in order to control costs and enhance efficiency. These theories suggest that in the face of appropriate incentive forces, health care insurance plans will themselves seek to control both the price and volume of services as they competitively seek to increase market share and attract enrollees (Enthoven, 1978).

### Federal-level reforms

Federal Government reforms have been an opportunistic mix of competitive and regulatory strategies. The Reagan Administration developed an agenda based on competitive principles in the early 1980s, but in large measure these proposals were not enacted by Congress. The result was a mixture of pragmatic reforms such as Medicare hospital prospective payment, which combined aspects of regulation (uniform, Government-set prices) with aspects of competition (per admission payments give hospitals incentives both to attract more patients and to cut costs).

Competition as a strategy The competitive strategy builds from its critique of the current financing and delivery system in which the provider has little incentive to contain costs as long as a third-party insurer-payer will honor any bill submitted. The third-party insurer-payer has little incentive to pressure providers to control costs if the insured (or his representative, typically an employer) is willing to pay an ever-increasing health insurance premium. The patient has little incentive to control utilization because with insurance coverage, typically paid by his employer as a tax-advantaged alternative to taxable wages, the employee-patient is indifferent to costs. Advocates of competition seek to create incentives to overcome such indifference to costs.

There are various techniques for fostering competition. First, advocates of competition encourage HMOs and similar entities to compete for members on the basis of quality and premiums as an effective way to control health care inflation. Because HMOs and similar entities receive a fixed payment in advance for each enrollee, regardless of actual utilization, they have strong incentives to control costs by limiting utilization, whereas the risk of underutilization is moderated by the entity's need to maintain membership.

Another approach builds on vouchers and tax credits (<u>Pauly et al., 1991</u>, <u>Butler et al., 1989</u>). These proposals would replace the current open-ended tax subsidy to businesses with incomerelated tax credits for the purchase of health insurance. Low-income families would be given

purchasing power in the form of insurance vouchers, allowing them to select among plans (Butler et al., 1989). This would shift the current subsidy away from high-income toward low-income groups, including low-income workers without employer-sponsored insurance. The Butler variation would alter the role of employer groups, making families directly responsible for the purchase of insurance, using available tax credits. This variation has been criticized because it would end the administrative efficiencies provided by large-employer groups. The Pauly variation assumes, but does not require, that employers will continue to act as purchasing agents on behalf of their employees. It has raised concerns that employers might have fewer incentives to negotiate lower group insurance rates on behalf of employees if the ultimate purchasing power is shifted to the employee, and that the purchasing power of the tax credit or voucher might be inadequate for an individual or family without the negotiating power of the employer (Pauly et al., 1991).

Competition proposals Proposals for a tax cap, advanced in the early 1980s by the Reagan Administration, called for limiting the amount of health insurance an employer could provide tax-free to a fixed amount per employee per month. The rationale for these proposals is that the current tax treatment of employer-provided health insurance fuels cost-inflation because it encourages first dollar coverage, excessive utilization, and high provider payment levels by shielding everyone from the true cost of health care choices. Because unlimited health benefits would no longer be tax-free, both employees and employers would become more cost-conscious, and consequently would pressure providers and insurers to contain costs. They also would be encouraged to seek cost-efficient plans, such as HMOs, that are more likely to provide broad benefits within the capped tax-free monthly amount. Congress did not agree with the Reagan tax cap proposals, and the proposed legislation was never enacted.

Another proposal would have encouraged employers who provide retiree health benefits supplementing Medicare to go at-risk much like an HMO, and manage the basic Medicare benefit as well as their supplemental benefits as a single integrated plan. This was proposed by the Administration in the mid-1980s as the Medicare voucher bill. Congress subsequently permitted limited demonstrations of this concept, called Medicare Insured Groups, which are currently under way.

Medicare managed care reform In 1982, Congress changed the structure of Medicare payments from a retrospectively adjusted cost-reimbursement system to a prospective, risk-based one. The goal was to build incentives for HMOs to accept Medicare enrollees, while bringing an element of competition into the Medicare program. Prior to 1982, Medicare interim payments were adjusted at the end of the year based on the actual costs incurred by Medicare enrollees. HMO's preferred the post-1982 method where they received a monthly capitated at-risk payment for each Medicare enrollee because that is how they insured non-Medicare enrollees. Medicare pays HMOs 95 percent of what it otherwise pays on a geographically adjusted basis for the average Medicare enrollee in the FFS sector controlling for age, sex, and disability. Regardless of whether the Medicare payment is more or less than an HMO's costs at the end of the year, there is no further adjustment. This payment method, because it places them at financial risk, provides HMOs with a strong incentive to contain costs.

With these changes in place, Medicare enrollment in HMOs increased rapidly to a level of about 1.5 million enrollees in risk-based HMOs, or 3 percent of total Medicare enrollees. However, for two key reasons, growth then leveled off. First, HMOs did not offer sufficient enrollment incentives to entice Medicare beneficiaries to give up their free choice of providers. Second, HMOs

are reluctant to enroll Medicare beneficiaries in some areas where Medicare payments are considered to be too low to make Medicare beneficiaries good risks. On the other hand, some studies have shown that Medicare enrollees in HMOs tend to be healthier than Medicare enrollees in FFS medicine (Mathematica Policy Research, 1989). This phenomenon is called favorable selection for the HMO and adverse selection for the Medicare program.

Medicare hospital payment reform In 1983, the Federal Government adopted a regulatory approach to Medicare hospital payment that changed hospital reimbursement from a cost-based retrospective system, in which a hospital was paid its costs, to a fixed-price prospective payment system (PPS) in order to create incentives for hospitals to be efficient in the delivery of services. Under PPS, hospitals receive an average payment for each patient based upon the patient's diagnosis. If the hospital spends less than the Medicare PPS payment, it keeps the difference as profit, and if it spends more, it takes a loss. The payment system change was made after a period in which hospital costs had grown about 16 percent annually. Although PPS is essentially a Government administered price system, it was not regarded as incompatible with a pro-competitive reform strategy because hospitals, to survive, still had to attract patients. This significant change in hospital payment resulted primarily from Federal budget pressures and only secondarily from a consensus within the health policy community about how to reform hospital payments.

PPS was successful in reducing Medicare's rate of increase in inpatient hospital spending, and in increasing hospital productivity although the effect on overall cost growth is not clear (Coulam and Gaumer, 1992). A number of State Medicaid programs adopted variations of the PPS in order to reduce their hospital spending. Total hospital spending—inpatient and outpatient—still continued to increase because of increased volume of more expensive diagnoses (so-called "upcoding"), and technological change which permitted surgical procedures to move to the outpatient setting. One-half of all surgeries are now performed in the outpatient setting where spending controls are less vigorous (American Hospital Association, 1992). Because PPS makes a payment for each admission, hospitals have incentives to increase admissions. However, hospital inpatient admissions declined substantially during the 1980s for all patients. This decline occurred because of:

- Increased review of hospital admissions by both private and public payers.
- Increased use of hospital deductibles and coinsurance by private payers.
- Technological advances permitting more surgery to be performed in the outpatient setting.

The decline in admissions and days leveled off by the end of the decade.

Medicare physician payment reform After the growth rate in Federal hospital expenditures declined, attention turned to the 15-percent average annual increase in Medicare physician spending. In 1989, the Medicare system of paying physician charges was changed to a resource-based relative value scale (RBRVS) to be phased-in starting in 1992. The prior system of charge-based reimbursement was considered inflationary because physicians had incentives to raise their charges in order to increase their Medicare payments.

RBRVS, like hospital PPS, is regulatory in that it sets a price based on the input resources required to produce each physician service. On the other hand, because physician prices for each procedure will be published, consumers will have more information about physician costs, fos-

tering competition when compared with the old payment system in which it was difficult for physicians or patients to know in advance what Medicare would pay. There are more than 7,000 physician procedure codes which must be priced, compared with less than 500 hospital payment groups.

At the same time that the Medicare physician fee schedule was enacted, a process for setting spending goals for Medicare physician services was developed. If physicians exceed the goal, they can be penalized in a future year by receiving a lower payment update than they otherwise would have received. Conversely, if they meet the goal, they can be rewarded with a larger payment update. In addition, physicians must now submit bills directly to Medicare on behalf of patients (formerly the physician had the right to refuse to submit the bill to Medicare for the patient) and they are restricted in the amount they can charge patients above and beyond what Medicare will pay (balance billing).

It is too early to tell whether the RBRVS will be successful in limiting Medicare physician spending. Similarly, it is not yet clear whether private payers will voluntarily adopt the Medicare fee schedule structure, thereby enhancing the prospects for system-wide savings. If RBRVS is broadly adopted by private payers, the ability of physicians to recoup revenue by increasing charges to other payers (cost shifting—a dynamic that also applies to hospitals under PPS) would be significantly reduced.

Medicare catastrophic coverage act The Medicare Catastrophic Coverage Act (MCCA), Public Law 100-360, enacted in 1988, was the most significant expansion of Medicare benefits since the beginning of the program. Prior to MCCA, Medicare patients without supplemental coverage (i.e., private insurance or Medicaid) were vulnerable to significant out-of-pocket expenses if they exhausted Medicare hospital coverage or had high outpatient drug or physician expenses. Under MCCA, Medicare coverage was extended to cover a portion of the costs of outpatient prescription drugs, increasing post-hospital nursing home extended care benefits, increasing home health benefits, limiting beneficiary cost-sharing liability for covered Medicare services, and expanding inpatient hospital benefits.

MCCA also significantly expanded the Medicaid program by reducing cost sharing for spouses of Medicaid-covered nursing home residents, increasing the number of eligible pregnant women and children, and requiring State Medicaid programs to pay Medicare premiums and cost sharing for Medicare beneficiaries near the poverty line who were not otherwise eligible for Medicaid.

The new Medicare benefits were beneficiary-financed, first through an increase in Medicare Part B premiums affecting all enrollees, and also through a surcharge on the income taxes of high-income elderly. As a result of a tax revolt initiated by high-income beneficiaries, Medicare provisions were repealed 1 year after enactment. This experience makes it unlikely that Congress will attempt to pay for expanded benefits (e.g., long-term care) for the poor elderly by taxing the high-income elderly or reducing their benefits. It can also be argued that Congress and the President are less likely to propose expanded health benefits for those without insurance coverage paid for by taxing or reducing the benefits and tax advantages of those currently with insurance coverage.

Medicaid reform In 1981, the Administration proposed and Congress enacted reductions in Medicaid eligibility coupled with additional State flexibility in setting payment levels for providers. States used this new flexibility to constrain provider payments by engaging in selective contracting with hospitals, developing PPSs similar to Medicare for hospitals, increasing enrollment in managed care networks, and restricting rates of increase in payments to all providers. By the end of the decade, hospitals were challenging the adequacy of Medicaid payment levels in the courts arguing that States had violated the statutory requirement to set payment rates high enough to cover the costs of an efficiently run hospital. In some cases, the courts have ruled that States have presented insufficient evidence to justify their payment levels (U.S. Congressional Budget Office, 1992). As a result, some States have begun to increase their Medicaid payments to hospitals.

Although budget cutting goals continued to be the norm for the fast-growing Medicare program throughout the 1980s, during the second half of the 1980s, Congress began to expand the number of people eligible for Medicaid resulting in dramatically increased spending. The expanded Federal mandates meant that States were required to devote new resources to Medicaid. By the end of the decade, Medicaid was the fastest-growing component of State budgets. Given the recent recession and consequent declines in State revenues, States are now highly resistant to additional Medicaid expansions absent their full financing by the Federal Government.

### State-level reforms

All-payer systems In the 1970s and 1980s, several States, including Maryland, New Jersey, New York, and Massachusetts, started all-payer ratesetting systems for hospital services. Ratesetting is a regulatory method of budgeting hospitals designed to provide adequate revenue for all patients, including those without insurance, prevent cost shifting between payers, and provide incentives for cost containment. These systems budget hospitals either by establishing payment rates for the treatment of each patient as in PPS, no matter who pays (hence the term allpayer), or by directly establishing annual budgets. Evaluations indicate that all-payer ratesetting has been a successful cost-control strategy (Anderson, 1992). The rate of hospital cost growth has been reduced on a per capita basis compared with the national average. Most of the ratesetting States started with comparatively higher hospital costs, making it unclear whether or not these savings would have resulted if the system were adopted in States with lower costs. Despite their success in cost control, all-payer ratesetting programs have not been adopted by additional States. All-payer systems require consensus among health insurers, employers, hospitals, and State government as well as a sophisticated State regulatory bureaucracy. Some States reject as inappropriate such significant State intervention in the health marketplace.

Employer health insurance mandates Prior to the 1980s, Hawaii adopted an employer health insurance mandate and has virtually universal coverage. However, the passage of ERISA (previously discussed) prevents additional States from requiring employers to provide insurance. Employer mandates have not resulted in significant problems in Hawaii for a variety of reasons, including a history of employer paternalism (employer-provided health benefits were widespread prior to the State mandate), and the State's geographic isolation that prevents em-

ployers and health care providers from easily moving to a different State. In addition, the State has a fast-growing economy which increases employer competition for relatively scarce labor (<u>Friedman, 1990</u>; <u>Van Ellet, 1981</u>).

The State of Massachusetts adopted a variant of an employer mandate called play or pay. Under play or pay, an employer must provide health insurance to employees or pay a tax which is used by the State to provide public insurance for the firm's employees and other uninsured individuals. However, the Massachusetts play or pay plan was not implemented because of the State's recent fiscal crises, and election of a new governor who campaigned, in part, on a platform opposing the program (Kronick, 1991).

Risk pools for the uninsurable Twenty-five States have legislatively approved risk-pool legislation to provide insurance to those who, because of an expensive pre-existing health condition, cannot purchase insurance in the private market. Generally, risk pools are financed by a mixture of State general revenues, health insurance premium taxes, and individual premiums. Several States have actually implemented such pools. However, because risk-pool premiums are high (even though insufficient on an actuarial basis)—typically 125 to 150 percent of equivalent policies—many of the uninsurable cannot afford to participate. Consequently, these pools have limited enrollments, but require substantial subsidies, nonetheless. Enrollment in State risk pools ranges from 94 people in Wyoming to 25,000 in Minnesota (Trippler, 1991).

Oregon health priorities demonstration In order to increase the number of people with health insurance, the State of Oregon has proposed a three-part program (Eddy, 1991). First, it proposes to expand Medicaid eligibility to all persons below the poverty line, whether or not they are categorically eligible, and to partly finance these expansions in health insurance coverage by not paying for medical services that are determined annually by the legislature to be of low priority. Oregon constructed a partial enumeration of health services. Based on available medical information and on the values expressed by Oregonians toward those outcomes, as assessed through public forums and surveys, 709 pairs of conditions and treatments were ranked from most- to least-expected positive outcomes.

The annual Medicaid budget will determine how far down the list services can be funded in any given year. Only mothers and children would be covered under the demonstration's first year, and the elderly and disabled populations would be phased in at a later date. This policy has been described as rationing, and criticized as funding expansions for one group of the poor at the expense of another. However, it has been defended as achieving greater equity among the poor by giving a smaller but higher priority benefit package to a larger group of people, and allowing explicit public participation in publicly funded health insurance choices. Because of the nature of the changes to the Medicaid program, Federal approval of the demonstration is required before it can be implemented. To date, approval has not been given.

In addition to the Medicaid changes, the Oregon proposal includes two other components. It would require employers, on a play or pay basis, to extend insurance coverage to employees not currently insured; and, it would allow low-income people not covered by the employer mandate or Medicaid to purchase publicly-subsidized State-sponsored insurance.

### Private sector reforms

In recent years, employers and private insurers have used a number of strategies to control health-care costs. These include the development of coordinated care networks, such as HMOs and PPOs, previously noted, increases in employee cost sharing, and the employment of a variety of utilization review techniques. All of these approaches are designed to decrease utilization of health care services thought to have marginal value to the individual case.

Another cost-control strategy that many large employers use is to self-insure, paying for employee health expenses rather than purchasing a health insurance policy from an insurance company. Under ERISA, employers who self-insure escape State regulations, including mandated benefits and taxes on premiums. Some self-insured companies have placed limits (for example, \$5,000) on payments for specific conditions such as AIDS. This has been challenged in the courts (McGann v. H and H Music Co., 1991). Self-insuring employers also avoid the profit, marketing, and sales components of private health insurance policies, and reserve for themselves the financial benefits which other insurers secure through investment of premiums and reserves. Such employers may contract with a health insurer for claims processing services only. More than one-half of all group insurance company coverage is now provided by self-insurance (Health Insurance Association of America, 1991). 4

Despite all of these efforts, employers may find that offering a coordinated care product (PPO or HMO) as a choice to the employee group may not reduce overall costs. Although healthy employees opt for the coordinated care network (which they do not expect to use) to obtain lower premiums, the premium for the employer's traditional indemnity plan is driven up by the sicker risk pool that remains in the FFS sector. One recent study of a PPO found that enrollees used it for preventive care and minor illnesses, but went outside the network about one-half the time for specialty care and hospitalization without surgery (Wouters and Hester, 1988). This suggests a dilemma for public policy in relation to encouraging PPOs: If the price for going outside the network is not punitive, enrollees will go outside for much of their care. However, if the price is punitive, the plan may no longer be attractive to enrollees.

# Health-system reform

By the early 1990s, continued large premium increases in the small group health insurance market led to increasing recognition that reforms were needed at the State or National level. The heavy use of medical underwriting by small group insurers combined with such practices as increasing premium rates when illnesses occurred meant that many companies faced the choice of dropping coverage, excluding employees with medical conditions from their policies, or shopping for a new insurer in an ever-tightening and expensive market.

Despite pressure for fundamental reform in recent years, major changes in the U.S. health care system have not occurred for several reasons: 1) no consensus has yet emerged on the direction fundamental reform should take; 2) there is divided political control of the Administration and Congress; 3) budget pressures at both the Federal and State levels make it unlikely that there will be substantial new money to finance reforms; 4) the public is unhappy with the health system as a whole but satisfied with their own doctor; and 5) the public is unwilling to pay more than a small amount in new taxes to finance changes (Blendon and Edwards, 1991; Blendon and Donelan, 1990).

Health has emerged as an important issue in the 1992 election. Candidates and all the major interest groups have advanced proposals, and bills have been introduced in Congress. The Republican Party tends to support voluntary market-based proposals and the Democratic Party tends to support mandatory government-directed proposals, but there are still significant differences within each party. Proposals tend to differ on one or more of several dimensions: the extent to which they rely on the private sector or government to provide health insurance coverage; whether they call for cost control through market forces, government ratesetting, or government-determined budgets; and whether they are universal and mandatory, or voluntary and incentive-based.

It is an open question whether the country will unite behind any of the broad-scale proposals outlined later, or support incremental changes to components of the current system.

President Bush's proposal President Bush has advanced a broad, market-based reform approach that builds on the present health care delivery system (Executive Office of the President, 1992). The plan minimizes the role of Government in providing health insurance in favor of providing individuals with tax credits for the purchase of private insurance but also contains regulatory aspects. The plan has numerous elements. It would:

- Provide health insurance tax credits to the poor for the purchase of private insurance.
- Increase tax subsidies to the middle class for the purchase of insurance.
- Regulate the ability of private insurers to select whom to insure and how much to charge.
- Encourage the growth of coordinated care in public and private programs.
- Reduce administrative costs in public and private programs.
- Reform the medical liability system.
- Expand access to services in underserved areas by increasing funding for public health clinics and health personnel.

Advantages of the proposal include that it builds on the current system, which minimizes disruption for those who are satisfied with their current arrangements, and allows those newly enfranchised with a tax credit or otherwise assisted in purchasing health care coverage to choose their health insurance plan. However, critics argue that the proposal does not guarantee universal coverage, and hence the problems surrounding the uninsured will not be fully remediated. They also assert that market incentives and managed care approaches will not adequately control costs.

Employer-based proposals Some members of the Democratic Party have endorsed play or pay. This type of proposal requires employers to provide a minimum health insurance package or pay a tax to support public provision of coverage to their employees. Variations, such as the proposal of the National Leadership Coalition, include an overall health budget target, set by a quasi-governmental board, which would constrain real growth in health spending, over time, to the growth in the gross national product (National Leadership Coalition for Health Care Reform, 1991).

Play or pay proposals address the problem of self-selection by allowing employers to choose between provision of insurance or payment of the tax. Employers facing high health insurance expenses may save money by paying the tax, while those with low health expenses may save money by purchasing insurance. The public plan could become very expensive if private insur-

ance covers low-cost employer groups, leaving high-cost groups to the public plan. The play or pay approach differs from an employer mandate primarily by having a back-up public plan that would shift significant dollars from the private to the public sector. However, this back-up public plan could potentially include all of the uninsured, while an employer mandate, by itself, would leave uncovered the 25 percent of the uninsured who are not connected to the labor force.

Advantages of employer-based approaches (either a mandate or play or pay) include expanding, rather than replacing, the current employer-based insurance system to uncovered workers thereby reducing the current problem of cost shifting. When compared with government-sponsored national health insurance, employer-based proposals limit the costs shifted to public budgets. However, critics argue that employer-based approaches will increase unemployment as employers, particularly small businesses, are forced to lay off workers because they cannot or choose not to incur the tax or the cost of health insurance. They also characterize mandated coverage as a tax on employers and employees. Critics of play or pay argue that the public plan would be unstable, grow rapidly, and likely would evolve into national health insurance (Butler, 1991).

Government-sponsored national health insurance Advocates of publicly financed or budgeted approaches, which include some members of the Democratic Party, are split between two possible versions: the Canadian or State-budgeted model, and the Medicare or federally budgeted model. Arguments for the Federal model are that a global budget and a single payer would be the most efficient in reducing duplicative administrative costs, negotiating payment levels with health providers, and assuring universal coverage (Himmelstein and Woolhandler, 1989). Proponents for the State model argue that State budgets are constrained by the inability to run deficits or print money, so States may have a greater stake in restraining cost growth than the Federal Government. In addition, consolidating health programs at the State level would build on existing State functions such as licensing providers and inspecting health facilities. Opponents argue that national health insurance would lead to burdensome regulation, rationing, and objectionable new taxes.

Recent blue ribbon commission proposals Several recent Commissions have examined the question of universal health insurance coverage and cost control. These include the Pepper Commission (a bipartisan group representing Congress, the Administration, and the public), the Quadrennial Social Security Advisory Commission, the National Governors' Association (NGA), and the National Leadership Coalition for Health Care Reform (1991), a group of big business, unions, consumers, and health care professionals. The Quadrennial Commission recommended a series of demonstrations in the States prior to fundamental reform at the Federal level (Advisory Council on Social Security, 1991). NGA recommended federalizing the long-term care portion of Medicaid and allowing States to engage in demonstrations, such as Hawaii's employer mandate and Maryland's all-payer system. The Pepper Commission (U.S. Bipartisan Commission, 1990) and the National Leadership Coalition (1991) recommended variations on an employer-based play or pay approach.

## Summary and conclusion

As of this writing, December 1992, it appears that the new Administration's approach to national health reform will build upon the existing employer-sponsored health insurance system. It is unclear, however, how universal coverage will be achieved or costs controlled. Health reform will remain high on the political agenda because of the continuing growth in health care expenditures in the United States and the resulting pressure on Federal, State, corporate, and individual budgets.

# Acknowledgments

We wish to thank Chris Bladen and other staff of the Office of the Assistant Secretary for Planning and Evaluation, George Schieber, Health Care Financing Administration (HCFA), Richard Saltman, OECD project consultant, Emory University, HCFA reviewers, and the OECD staff for comments on earlier versions of this article.

### Footnotes

<sup>1</sup>This article is a slightly shorter version of the official U.S. Government paper submitted to the OECD.

Reprint requests: George Greenberg, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, 200 Independence Avenue, SW., Room 442E, Washington, DC. 20201.

<sup>2</sup>The numbers presented in this document reflect this duplicative coverage and consequently do not sum to 100 percent.

<sup>3</sup>Recent strikes—Pittson Coal strike in West Virginia in 1989, and Communication Workers of America in 1989 struck in 15 States against three regional telephone companies: Bell Atlantic, NYNEX, and Pacific Telesis (<u>Gorman, 1989</u>).

<sup>4</sup>Self-insured plans here include administrative services only plans, in which the corporation or organization self-insures but contracts out for the processing of claims, and minimum premium plans in which the corporation or organization self-insures but also purchases health insurance for very large claims.

# References

- 1. Advisory Council on Social Security. *Commitment to Change: Foundations for Reform.* Washington: 1991. [Google Scholar]
- 2. American Hospital Association. Annual Survey of Hospitals, 1980-92. In Lane, L., A decade of growth in outpatient surgery. *Hospitals*. 1992 May 5;66(9):34–35. [Google Scholar]
- 3. American Hospital Association. *Hospital Statistics*. Chicago: 1990-91. [Google Scholar]
- 4. American Medical Association. Physician Provision of Charity Care. Chicago: 1991. [Google Scholar]
- 5. American Medical Association. The Cost of Medical Professional Liability in the 1980s. Chicago: 1990. [Google Scholar]

- 6. Anderson GF. *Health Care Financing Review.* 1991 Annual Supplement. Washington: U.S. Government Printing Office; Mar. 1992. All-payer ratesetting: Down but not out; pp. 42–44. HCFA Pub. No. 03322. Office of Research and Demonstrations, Health Care Financing Administration. [PubMed] [Google Scholar]
- 7. Blendon R, Donelon K. The Public and the Emerging Debate Over National Health Insurance. *New England Journal of Medicine*. 1990 Jul 19;323(3):208–212. [PubMed] [Google Scholar]
- 8. Blendon R, Edwards J. Caring for the uninsured: Choices for reform. *Journal of the American Medical Association.* 1991 May 15;265(19):2563–2565. [PubMed] [Google Scholar]
- 9. Boards of Trustees of the Federal Hospital Insurance Trust Fund. 1992 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund. Washington, DC.: Apr. 1992. [Google Scholar]
- 10. Brook R, Kamberg C, Mayer-Oakes A, et al. *Appropriateness of Acute Medical Care for the Elderly: An Analysis of the Literature.* Santa Monica, CA.: RAND Corporation; 1989. [PubMed] [Google Scholar]
- 11. Brown ER. Medicare and Medicaid: The process, value, and limits of health care reforms. *Journal of Public Health Policy.* 1983 Sept.4(3):335–366. [PubMed] [Google Scholar]
- 12. Burwell B. *Middle-Class Welfare: Medicaid Estate Planning for Long-Term Care Coverage.* Lexington, MA.: SysteMetrics/McGraw Hill Inc.; Sept. 1991. [Google Scholar]
- 13. Butler S. Why 'play or pay' national health is doomed to fail. *The Heritage Lectures.* 1991;329:1–9. [Google Scholar]
- 14. Butler S, Haislmaier EF, editors. *A National Health System for America*. Washington: The Heritage Foundation; 1989. [Google Scholar]
- 15. Chassin MR, Brook RH, Park RE, et al. Variations in the Use of Medical and Surgical Services by the Medicare Population. *New England Journal of Medicine*. 1986 Jan.314(5):285–290. [PubMed] [Google Scholar]
- 16. Chassin MR, Kosecoff J, Park RE. Does Inappropriate Use Explain Geographic Variation in the Use of Health Care Services. *Journal of the American Medical Association*. 1987 Nov.258(18):2533–2537. [PubMed] [Google Scholar]
- 17. Cohen W. *Health Care Financing Review.* 1985 Annual Supplement. Washington: U.S. Government Printing Office; 1986. Reflections on the enactment of Medicare and Medicaid; pp. 3–11. HCFA Pub. No. 03217. Office of Research and Demonstration, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 18. Colwill J. Where Have All the Primary Care Applicants Gone? *New England Journal of Medicine*. 1992 Feb.326(6):387–393. [PubMed] [Google Scholar]
- 19. Coulam R, Gaumer GL. *Health Care Financing Review*. 1991 Annual Supplement. Washington: U.S. Government Printing Office; Mar. 1992. Medicare's prospective payment system: A critical appraisal; pp. 45–78. HCFA Pub. No. 03322. Office of Research and Demonstration, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 20. Danzon P. The Hidden Costs of Budget-Constrained Health Insurance Systems. Paper presented at the American Enterprise Institute Conference; Washington, DC.. Oct. 3, 1991. [Google Scholar]
- 21. Eddy D. Oregon's plan: Should it be approved? *Journal of the American Medical Association.* 1991 Nov.266(17):2439–2445. [PubMed] [Google Scholar]
- 22. Employee Benefit Research Institute. *Fundamentals of Employee Benefit Programs*. Washington: 1990. [Google Scholar]
- 23. Employee Benefit Research Institute. Issue Brief, No 118. Washington: Sept. 1991. [Google Scholar]
- 24. Enthoven AC. Consumer-Choice Health Plan: A National Health Insurance Proposal Based on Regulated Competition in the Private Sector. *New England Journal of Medicine*. 1978 Mar.298(13):709–720. [PubMed] [Google Scholar]

- 25. Executive Office of the President. *The President's Comprehensive Health Reform Program.* Washington: U.S. Government Printing Office; 1992. [Google Scholar]
- 26. Farley P. Who are the uninsured? *The Milbank Memorial Fund Quarterly, Health and Society.* 1985;63:476–503. [PubMed] [Google Scholar]
- 27. Florida Health Care Cost Containment Board. *Joint Ventures Among Health Care Providers in Florida. Sept.* Tallahassee, FL.: 1991. [Google Scholar]
- 28. Fox DM, Schaffer DC. Health Policy and ERISA: Interest Groups and Semipreemption. *Journal of Health Politics, Policy and Law.* 1989 Summer;14(2):239–260. [PubMed] [Google Scholar]
- 29. Freeman HE, Blendon RJ, Aiken LH, et al. Americans Report on Their Access to Health Care. *Health Affairs.* 1987 Spring;6(1):6–18. [PubMed] [Google Scholar]
- 30. Friedman E. The Uninsured: From Dilemma to Crisis. *Journal of the American Medical Association.* 1991 May 15;265(19):2491–2495. [PubMed] [Google Scholar]
- 31. Friedman E. Health insurance in Hawaii: Paradise Lost or Found? *Business and Health.* 1990 Jun;8:52–59. [PubMed] [Google Scholar]
- 32. Glaser WA. Health Insurance in Practice. San Francisco: Jossey-Bass; 1991. [Google Scholar]
- 33. Goldberg K, Hartz A, Jacobsen S, et al. Racial and Community Factors Influencing Coronary Artery Bypass Graft Surgery Rates for all 1986 Medicare Patients. *Journal of the American Medical Association*. 1992 Mar.267(11):1473–1477. [PubMed] [Google Scholar]
- 34. Gorman C. Can't afford to get sick. *Time.* 1989 Aug.134:43. [Google Scholar]
- 35. Gornick M, Greenberg JN, Eggers PW, et al. *Health Care Financing Review.* 1985 Annual Supplement. Washington: U.S. Government Printing Office; 1968. Twenty years of Medicare and Medicaid: Covered populations, use of benefits, and program expenditures; pp. 13–59. HCFA Pub. No. 03217. Office of Research and Demonstration, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 36. Graig L. *Health of Nations, An International Perspective on US Health Care Reform.* Washington, DC.: The Wyatt Company; 1991. [Google Scholar]
- 37. Hadley J, Steinberg E, Feder J. Comparisons of Uninsured and Privately Insured Hospital Patients: Condition on Admission, Resource Use, and Outcome. *Journal of the American Medical Association*. 1991 Jan.265(3):374–379. [PubMed] [Google Scholar]
- 38. Harvard Medical Practice Study. *Patients, Doctors, and Lawyers: Medical Injury, Malpractice Litigation, and Patient Compensation in New York.* Cambridge, MA.: President and Fellows of Harvard College; 1990. [Google Scholar]
- 39. Health Insurance Association of America. Source Book of Health Insurance Data. Washington: 1991. [Google Scholar]
- 40. Hellinger F. Forecasting the Medical Care Costs of the HIV Epidemic: 1991-1994. *Inquiry.* 1991 Fall;28(3):213–225. [PubMed] [Google Scholar]
- 41. Himmelstein DU, Woolhandler S. A National Program for the U.S.—A Physicians' Proposal. *New England Journal of Medicine*. 1989 Jan.320(2):102–108. [PubMed] [Google Scholar]
- 42. Iglehart JK. The American Health Care System: Introduction. *New England Journal of Medicine*. 1992 Apr.326(14):962–967. [PubMed] [Google Scholar]
- 43. Institute of Medicine. *Computer-Based Patient Records: An Essential Technology for Health Care.* Washington, DC.: National Academy Press; Apr. 1991. [Google Scholar]

- 44. John LD, Jolly P, Krakower JY, et al. U.S. Medical School Finances. *Journal of the American Medical Association.* 1991 Aug.266(7):985–990. [PubMed] [Google Scholar]
- 45. Jonas HS, Etzel SI, Barzansky B. Educational Programs in U.S. Medical Schools. *Journal of the American Medical Association*. 1991 Aug.266(7):913–920. [PubMed] [Google Scholar]
- 46. Kronick R. Can Massachusetts Pay for Health Care for All? *Health Affairs*. 1991 Spring;10(1):26–44. [PubMed] [Google Scholar]
- 47. Langenbrunner JC. Improving the Cost-Effectiveness of Health Care Under the Medicare and Medicaid Programs in the United States: Experience and Future Directions. Paper presented at the International Social Security Association Meeting; Ottawa, Canada. Oct. 1991. [Google Scholar]
- 48. Levit KR, Lazenby HC, Cowan CA, et al. *Health Care Financing Review.* 1. Vol. 13. Washington: U.S. Government Printing Office; Fall. 1991a. National health expenditures, 1990; pp. 29–54. HCFA Pub. No. 03341. Office of Research and Demonstration, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 49. Levit KR, Lazenby HC, Letsch SW, et al. National Health Care Spending, 1989. *Health Affairs*. 1991b Spring;10(1):117–130. [PubMed] [Google Scholar]
- 50. Levit KR, Cowan CA. *Health Care Financing Review.* 2. Vol. 13. Washington: U.S. Government Printing Office; Winter. 1991. Business, households, and governments: Health care costs, 1990; pp. 83–93. HCFA Pub. No. 03326. Office of Research and Demonstrations, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 51. Manning WG, Leibowitz A, Goldberg GA, et al. A Controlled Trial of the Effect of a Prepaid Group Practice on Use of Services. *New England Journal of Medicine*. 1984 Jun 7;310(23):1505–1510. [PubMed] [Google Scholar]
- 52. Marder W, Emmons D, Kletke P, et al. Physician Payment Patterns: Challenging Conventional Wisdom. *Health Affairs*. 1988 Winter;7(5):137–145. [PubMed] [Google Scholar]
- 53. Mathematica Policy Research. *National Evaluation of the Medicare Competition Demonstrations Summary Report.*Washington, DC.: Jan. 1989. Contract Number 500-83-0047. Prepared for the Health Care Financing Administration.
  [Google Scholar]
- 54. McGann v. H and H Music Company: U.S. Court of Appeals, Fifth Circuit, Number 90-2672. Nov. 4, 1991.
- 55. Merrick NJ, Brook RH, Fink A, et al. Use of Carotid Endarterectomy in Five California Veterans Administration Medical Centers. *Journal of the American Medical Association*. 1986 Nov.256(18):2531–2535. [PubMed] [Google Scholar]
- 56. Mills WD. *Health Care Financing Review.* 1985 Annual Supplement. Washington: U.S. Government Printing Office; 1986. Building a better safety net; pp. 1–2. HCFA Pub. No. 03217. Office of Research and Demonstrations, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 57. National Center for Health Statistics. *Health, United States, 1990.* Washington: U.S. Government Printing Office; 1991. DHHS Pub. No. (PHS) Public Health Service. [Google Scholar]
- 58. National Leadership Coalition for Health Reform. *Excellent Health Care for All Americans at a Reasonable Cost.*Washington, DC.: 1991. [Google Scholar]
- 59. Newhouse JP, Anderson G, Roos L. Hospital Spending in the United States and Canada: A Comparison. *Health Affairs*. 1988 Winter;7(5):6–16. [PubMed] [Google Scholar]
- 60. Newhouse JP, Manning WG, Morris CN, et al. Some Interim Results From a Controlled Trial of Cost-Sharing in Health Insurance. *New England Journal of Medicine*. 1981 Dec.305(25):1501–1507. [PubMed] [Google Scholar]
- 61. Pan American Health Organization. AIDS surveillance in the Americas. Washington, DC.: Mar. 1992. [Google Scholar]

- 62. Pauly MV, Danzon P, Feldstein P, et al. A plan for 'Responsible National Health Insurance' *Health Affairs*. 1991 Spring;10(1):5–25. [PubMed] [Google Scholar]
- 63. Pauly MV. Taxation, Health Insurance, and Market Failure in the Medical Economy. *Journal of Economic Literature*. 1986 Jun;24(2):629–675. [PubMed] [Google Scholar]
- 64. Politzer RM, Harris DL, Gaston MH, et al. Primary Care Physician Supply and the Medically Underserved. *Journal of the American Medical Association*. 1991 Jul 3;266(1):104–109. [PubMed] [Google Scholar]
- 65. Porter M, Ball P, Kraus N. The Interstudy Competitive Edge. 2. Vol. 1. Excelsior, MN.: Jan. 1992. [Google Scholar]
- 66. Prospective Payment Assessment Commission. *The trend and distribution of hospital uncompensated care costs 1980-1989.* Washington: U.S. Government Printing Office; Oct. 1991. Technical report I-91-04. [Google Scholar]
- 67. Reinhardt U. Health Care Spending and American Competitiveness. *Health Affairs.* 1989 Winter;8(4):5–21. [PubMed] [Google Scholar]
- 68. Reinhardt U. Resource Allocation in Health Care: The Allocation of Lifestyles to Providers. *The Milbank Quarterly.* 1987;65(2):153–176. [PubMed] [Google Scholar]
- 69. Rice TH, Labelle RJ. Do Physicians Induce Demand for Medical Services? *Journal of Health Politics, Policy and Law.* 1989 Fall;14(3):587–600. [PubMed] [Google Scholar]
- 70. Rich S. Tracing Medical Costs to Social Problems. The Washington Post. 1991 Aug. [Google Scholar]
- 71. Roper W, Winkenwerder W, Hackbarth G, et al. Effectiveness in Health Care: An Initiative to Evaluate and Improve Medical Practice. *New England Journal of Medicine*. 1988 Nov.319(18):1197–1202. [PubMed] [Google Scholar]
- 72. Rosenblatt R. Specialists or Generalists: On Whom Should We Base the American Health Care System? *Journal of the American Medical Association.* 1992 Mar.267(12):1665–1667. [PubMed] [Google Scholar]
- 73. Rublee D. Medical Technology in Canada, Germany, and the United States. *Health Affairs*. 1989 Fall;8(3):178–181. [PubMed] [Google Scholar]
- 74. Ruther M, Reilly TW, Silverman HA, et al. *Medicare and Medicaid Data Book, 1990.* Washington: U.S. Government Printing Office; Mar. 1991. Health Care Financing Program Statistics. HCFA Pub. No. 03314. Office of Research and Demonstrations, Health Care Financing Administration. [Google Scholar]
- 75. Sawhill I. Economic Policy. In: Palmer JL, Sawhill IV, editors. *The Reagan Experiment.* Washington, DC.: The Urban Institute Press; 1982. [Google Scholar]
- 76. Scheffler R, Sullivan S, Ko T. The Impact of Blue Cross and Blue Shield Plan Utilization Management Programs, 1980-1988. *Inquiry.* 1991 Fall;28(3):263–275. [PubMed] [Google Scholar]
- 77. Schieber G, Poullier J, Greenwald LM. Health Care Systems in Twenty-Four Countries. *Health Affairs.* 1991 Fall;10(3):22–38. [PubMed] [Google Scholar]
- 78. Schneider M. *Health Care Financing Review.* 3. Vol. 12. Washington: U.S. Government Printing Office; Jun, 1991. Health care cost containment in the Federal Republic of Germany; pp. 87–101. HCFA Pub. No. 03317. Office of Research and Demonstrations, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 79. Schwartz L. The Medical Costs of America's Social Ills. Wall Street Journal. 1991 Jun 24; [Google Scholar]
- 80. Short P, Monheit A, Beauregard K. *National Medical Expenditure Survey: A profile of uninsured Americans*. National Center for Health Services Research and Health Care Technology Assessment; Rockville, MD.: 1989. Research findings. [Google Scholar]

- 81. Smeeding T, Torrey BB, Rein M. Patterns of Income and Poverty: The Economic Status of Children and the Elderly in Eight Countries. In: Palmer J, Smeeding T, Torrey BB, editors. *The Vulnerable*. Washington, DC.: The Urban Institute Press; 1988. [Google Scholar]
- 82. Sonnefeld S, Waldo D, Lemieux J, et al. *Health Care Financing Review.* 1. Vol. 13. Office of Research and Demonstrations, Health Care Financing Administration; Fall. 1991. Projections of national health expenditures through the year 2000; pp. 1–27. HCFA Pub. No. 03321. [PMC free article] [PubMed] [Google Scholar]
- 83. Sullivan L. President Bush's Comprehensive Health Reform Package. *Journal of American Health Policy.* 1992 Mar-Apr;2(2):15–18. [PubMed] [Google Scholar]
- 84. Swartz K, Lipson D. *Strategies for Assisting the Medically Uninsured.* Washington, DC.: The Urban Institute and the Intergovernmental Health Policy Project; 1989. [Google Scholar]
- 85. Trippler A. *Comprehensive Health Insurance for High Risk Individuals.* Bloomington, MN.: Communicating for Agriculture, Inc.; Aug. 1991. [Google Scholar]
- 86. U.S. Bipartisan Commission on Comprehensive Health Care. *Access to Health Care and Long-Term Care for all Americans. Recommendations to Congress.* Washington, DC.: 1990. [Google Scholar]
- 87. U.S. Bureau of the Census. *Current Population Reports.* No. 175. Washington: U.S. Government Printing Office; 1991a. Poverty in the United States: 1990. (P-60). [Google Scholar]
- 88. U.S. Bureau of the Census. *Current Population Survey File.* Washington, DC.: Mar, 1991b. Tabulations by the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. [Google Scholar]
- 89. U.S. Bureau of Labor Statistics. *Employee benefits in medium and large firms, 1988.* Bulletin 2336:39. Washington: Government Printing Office; Aug. 1989. U.S. Department of Labor. [Google Scholar]
- 90. U.S. Bureau of Labor Statistics. *Employee benefits in medium and large firms, 1981.* Bulletin 2140:5. Washington: Government Printing Office; Aug. 1982. U.S. Department of Labor. [Google Scholar]
- 91. U.S. Congressional Budget Office. *Factors Contributing to the Growth of the Medicaid Program.* Washington: May, 1992. [Google Scholar]
- 92. U.S. Congressional Research Service. *Health Insurance and the Uninsured: Background Data and Analysis.* Washington: U.S. Government Printing Office; May, 1988. [Google Scholar]
- 93. U.S. Department of Health and Human Services. *Summary Report of the Graduate Medical Education Advisory Committee to the Secretary.* Washington: U.S. Government Printing Office; 1981. DHHS publication (HRA) 81-651. [Google Scholar]
- 94. U.S. Department of Labor. *Employee Benefits in Medium and Large Firms, 1989.* Bulletin Number 2363. Washington: U.S. Government Printing Office; Jun, 1990. Bureau of Labor Statistics. [Google Scholar]
- 95. U.S. Department of the Treasury. *Financing Health and Long-Term Care Report to the President and to Congress.*Washington: U.S. Government Printing Office; Mar. 1990. [Google Scholar]
- 96. U.S. General Accounting Office. *Canadian Health Insurance: Lessons for the United States.* Washington: Jun, 1991. Pub. No. HRD-91-90. [Google Scholar]
- 97. U.S. House of Representatives, Committee on Ways and Means. *Overview of Entitlement Programs, 1991 Green Book.*Washington: U.S. Government Printing Office; May 7, 1991. [Google Scholar]
- 98. U.S. Office of Technology Assessment. *Health Care in Rural America*. Washington: U.S. Government Printing Office; Sep, 1990. Pub. No. OTA-H-434. [Google Scholar]

- 99. Van Ellet T. *State Comprehensive and Catastrophic Health Insurance Programs: An overview.* Washington: Intergovernmental Health Policy Project. George Washington University; 1981. [Google Scholar]
- 100. Waldo DR, Sonnefeld ST, McKusick DR, et al. *Health Care Financing Review.* 4. Vol. 10. Washington: U.S. Government Printing Office; Summer. 1989. Health expenditures by age group, 1977 and 1987; pp. 111–120. HCFA Pub. No. 03284. Office of Research and Demonstrations, Health Care Financing Administration. [PMC free article] [PubMed] [Google Scholar]
- 101. Wennberg J, Gittelsohn A. Small area variations in health care delivery. *Science.* 1973;182:1102–1108. [PubMed] [Google Scholar]
- 102. Woolhandler S, Himmelstein D. The Deteriorating Administrative Efficiency of the U.S. Health Care System. *New England Journal of Medicine*. 1991 May 2;324(18):1253–1258. [PubMed] [Google Scholar]
- 103. Wouters AZ, Hester J. Patient Choice of Providers in a Preferred Provider Organization. *Medical Care.* 1988 Mar.26(3):240–255. [PubMed] [Google Scholar]