

Hospital Financing in the United States

8

by *Mary A. Laschober and James C. Vertrees*

Hospitals are a basic element of America's health care system. U.S. hospitals adopt much of the state-of-the-art medical technology, train most new physicians, and are often the point of access to health care for the uninsured. In 1991, hospitals were the single largest category of health spending at 38 percent of national health expenditures (NHE), although other services have increasingly accounted for a greater share of health outlays (8). Hospital expenditures for acute care—the focus of this chapter—equaled 33 percent of NHE in 1991 (table 8-1). Payments for hospital-based acute care rose by about one and one-half times between 1981 and 1991, growing consistently faster than general inflation and contributing substantially to the overall increase in NHE during that period (8,15) (table 8-1). These trends and the substantial amount of money devoted to acute care in the United States have focused cost containment efforts on hospital expenses and payments.

Because of the greater focus on hospital costs in recent years and especially on inpatient services, acute inpatient hospital expenditures have increased much more slowly than spending on hospital outpatient care (8) (table 8-1). This trend has two main causes. Changes in payment methods for inpatient services and increased monitoring of inpatient care by public and private payers have motivated hospitals to reduce costs through more careful screening of admissions, reductions in lengths of stay, and closures of empty hospital beds. The other important cause for the decline in acute care inpatient expenditures as a share of total hospital outlays has been the displacement of inpatient care to outpatient sites (15).

The organization of the hospital system in the United States is unique and complicated. No other country has such a heteroge-



TABLE 8-1: U.S. Hospital Expenditure

Hospital expenditures	1981	1991	Change (in percent)
Total hospital expenditures	\$119.6	\$288.6	+ 141
Acute care hospital expenditures (inpatient and outpatient care)	\$100.9	\$249.4	+ 147
Acute care hospital expenditures as of share of NHE	35%	33 %	-5.7
Acute inpatient hospital expenditures	\$87.5	\$186.5	+ 113
Acute outpatient hospital expenditures	\$13.5	\$63.0	+ 367

SOURCE: S.W. Letsch, H.C. Lazenby, K.R. Levit, et al., "National Health Expenditures, 1991" *Health Care Financing Review* 14(2), 1-30, 1992.

neous collection of hospitals, payers, or payment methods for hospital services (6). U.S. hospitals can be classified as short-term (acute care) hospitals, teaching hospitals, or long-term care institutions; as public, private nonprofit, or private for-profit; or designated by the main type of services provided, such as general, specialty, or referral services. Financing for hospital services comes from a multitude of private insurers as well as the joint federal-state Medicaid program, the federal Medicare program, and out-of-pocket costs paid by insured and uninsured people. The various third-party insurers pay hospitals through an even wider assortment of methods, including retrospective cost-based reimbursement, discounted charges, and prospective payment based on diagnosis-related groups (DRGs) of cases or based on groups of hospitals with similar costs (peer groups).

STRUCTURE OF THE HOSPITAL SECTOR

The dominant type of hospital in the United States is the community hospital, of which there were 5,342 in 1991 (6) (table 8-2). Community hospitals are nonfederal, short-term facilities serving

the general public, in which the majority of the hospital's patients are admitted to units where the average length of stay is less than 30 days. Community hospitals can be private nonprofit (3,175, or almost 60 percent of all community hospitals in 1991), private for-profit (738 in 1991), or owned by state and local governments (1,429 in 1991) (6) (table 8-2). Nonprofit hospitals are operated by organizations such as universities, churches, and other charities, and they are exempt from taxes on surplus revenues. For-profit hospitals are operated by individuals, partnerships, or corporations and pay taxes on their surplus income. Public community hospitals are owned and operated by state or local governments, and they provide care for large numbers of uninsured patients.

In addition to community hospitals, there are hospitals owned and operated by the federal government (serving active military personnel, veterans, and Native Americans), specialty long-term hospitals (e.g., psychiatric, long-term care, rehabilitation), and teaching hospitals. Teaching hospitals, which are more complex than community hospitals, supply primary and tertiary care, pro-

TABLE 8-2: Community Hospital Statis

Type of hospital	Number of hospitals	Percentage of all hospitals	Percentage of acute care beds	Percentage of admissions
Private nonprofit	3,175	59.4	71.0	73.9
Private for-profit	738	13.8	10.8	9.7
State and local government	1,429	26.8	18.2	16.4
Total community hospitals	5,342	100	100	100

SOURCES: J.K. Iglehart, "The American Health Care System," *The New England Journal of Medicine* 329(5):372-376, 1993; American Hospital Association, American Hospital Association Hospital Statistics, 1992-93

vide clinical education, and conduct biomedical research. There are a considerable number of “hybrid” hospitals that combine features of community and teaching institutions (6).

U.S. hospitals deliver a wide variety of services. Some hospitals serve mainly as referral centers for the most highly specialized diagnostic and treatment modalities; others mainly provide routine acute care and few intensive care services. In between are hospitals that provide an assortment of medical and technologically sophisticated services.

Public and private hospitals can serve any patient and receive reimbursement from any payer, with the exception of certain population-based hospitals, such as federal military and veterans’ hospitals. Most acute care admissions (74 percent in 1991) are to private nonprofit hospitals, which contain almost three-quarters of the total acute care beds in community hospitals (table 8-2). Community hospitals delivered 86 percent of all hospital care in 1991, a proportion that has remained stable throughout the last decade (8).

PHYSICIANS

Physicians play an important role in the work of all types of hospitals. The relationship between private-practice physicians and hospitals in the United States contrasts with that of most European countries. In general, European hospitals are staffed primarily by full-time, salaried specialists who limit their practices to inpatient care for patients referred by office-based physicians. In contrast, U.S. physicians are office-based; they not only provide outpatient ambulatory care but also follow their patients into hospitals to provide inpatient services. Hospitals in the United States typically operate according to the “open-staff” model, under which physicians in the community are free to treat their patients in any number of different hospitals that grant them admitting privileges. U.S. hospitals exist mainly as locations for physicians to provide inpatient services, with access to nursing and ancillary services. Relatively recent cost containment approaches adopted by private payers, such as utilization review, often

now limit the ability of physicians to hospitalize their patients without prior approval by the patient’s insurer except in emergency situations. This review of physician decisions is an important component of “managed care.”

U.S. doctors most often bill for hospital services on a fee-for-service basis. Physician reimbursement for hospital-based services are subject only to the limitations of fee schedules imposed by each insurer. Only a very small number of physicians are salaried employees of hospitals (typically in academic medical centers). No reimbursement differences exist for physicians working primarily in a hospital (e.g., anesthesiologists) and those working in the community, except that hospital-based procedures have historically been more lucrative. Changes in payment—such as Medicare’s relative value scale, which increased fees for evaluation and management services and reduced fees for surgeries and procedures—have started to redress perceived inequalities in fees for different services and incomes for different physician specialties.

Most hospital-based physician services in the United States are not included in a hospital’s financial planning. This has intensified the tension between physicians and hospitals as third-party payers increasingly adopt prospective payment methods (e.g., case-based payment, capitation payment) that encourage hospitals to reduce services in general and expensive medical technologies in particular. For example, under Medicare’s prospective hospital payment system, the fixed payments for particular patient diagnoses place hospitals at greater financial risk for the clinical services provided by their medical staffs, motivating hospitals to reduce the cost of inpatient services and lengths of stay. However, physicians, who largely control these decisions, were left untouched by Medicare’s new hospital payment scheme and still frequently have incentives to provide more care (6).

Other factors also influence the relationship between hospitals and physicians. One of these is hospitals’ increasing competition for market share. To ensure a large base of referrals needed to

maintain admission levels, hospitals actively court physicians and their practices. This is especially true for primary care physicians, who are in limited supply in the United States and who increasingly act as the “gatekeepers” for hospital services in private managed care organizations. Competition among hospitals for these providers has led to a variety of financial arrangements with physicians, including joint ventures and income guarantees. Hospitals sometimes purchase physician practices outright, put clinicians on salary, and manage the administration of the practices, in order to recruit and retain needed providers.

HOSPITAL OPERATING COSTS¹

■ Financing Model

There is no uniform payment system or rates for hospitals in the United States. Although Medicare pays all hospitals using a common rate-setting methodology (with different hospitals receiving different rates), Medicaid rates and payment methods are determined by individual states, and private insurance companies and managed care plans are free to set their own hospital rates and payment arrangements within the constraints established by antitrust laws. Maryland is the only state that has retained an all-payer, prospective rate-setting system for hospital care, under which services are paid for by multiple third-party payers but all payers must adopt the same methods and hospital-specific rates. A few states have less comprehensive forms of rate-setting systems.

The plethora of payers and payment methods creates considerable complexity for U.S. hospitals. Hospitals must design intricate administrative mechanisms to track services eligible for reimbursement for different patients, the amount of money that a hospital will receive for those services, and the method of payment for each pa-

tient’s care. This complexity imposes high administrative costs on the U.S. system as a whole, including its hospitals, and creates opportunities for cost shifting among payers and services (17).

Medicare

Because Medicare’s payments to hospitals account for a substantial share of their revenues (about 25 percent in 1991), its payment system and rates have a large impact on hospitals’ financial condition. When Medicare was first established in 1965, mainly to pay for health care for the elderly population, hospitals were reimbursed for inpatient services on the basis of “reasonable cost” plus 2 percent. (By definition, these costs included both patient-related direct costs and indirect costs.) Essentially, once costs were established by Medicare’s intermediaries, hospitals billed Medicare for whatever services they provided. In response to concerns about rising Medicare expenditures—Medicare spending for inpatient hospital services rose between 12 and 20 percent yearly during the early 1980s—between 1972 and 1983 a number of constraints were introduced to control Medicare’s hospital outlays (15). These included changing Medicare’s payment method for hospital services away from retrospective payments to a prospective payment schedule with hospital rates set in advance (10).

Beginning in 1983, Medicare implemented the hospital prospective payment system (PPS). This system changed the basis of Medicare’s payments for inpatient hospital care from retrospective costs to a prospective fixed rate per discharge. Under PPS the basis of payment for each hospital discharge is the national standardized payment amount, which represents the average payment for the typical Medicare case. Cases are categorized by diagnosis-related groups (DRGs), which are groups of medically similar cases that require comparable resource use by hospitals. Each DRG

¹ Hospital operating expenses are the costs that a hospital incurs for its **day-to-day operation, such as staff salaries**, electricity bills, and medical supplies. They also include depreciation expenses (i.e., costs that represent capital equipment’s fall in value, which in turn represents at least part of the cost of replacing the equipment) and interest expenses (i.e., the costs of borrowed funds) which are related to previous capital investments.

is assigned a weight based on its cost relative to the national average cost for all cases. Relative DRG weights reflect the relative rates that Medicare pays for patients' admissions for each DRG case. Basic DRG payments are adjusted so that they reflect the hospital's location (i.e., large urban, other urban, or rural) and local wage rates as well as the mix of the hospital's Medicare cases. Payments are also adjusted for cases with unusually long stays or extraordinarily high costs, for hospitals that operate graduate medical education programs, and for hospitals that serve a disproportionate share of patients with low incomes (15). Charges for outpatient services are not included in the DRG payment.

PPS is intended to lower Medicare's inpatient hospital expenditures by giving financial incentives to hospitals to improve efficiency in providing inpatient services, including reducing lengths of stays and the quantity and cost of services provided during hospital stays. Hospitals that provide care for a patient at less cost than the prospective DRG rate are allowed to keep the surplus, whereas those whose costs exceed the rate must bear the loss. Medicare's increased emphasis on utilization review and the implementation of Peer Review Organizations have also encouraged doctors and hospitals to reduce hospital costs (15).

Some hoped that PPS would promote more emphasis on cost-saving (as opposed to cost-increasing) technologies, although this does not seem to have taken place (10). According to the Congressional Prospective Payment Assessment Commission (ProPAC), which oversees Medicare's prospective rate system, Medicare expenditures for inpatient care have continued to climb despite its cost containment efforts, mainly because of technological innovations that have changed the types of services provided and thus increased the cost of complex cases (15).

During its first year PPS led to pronounced decreases in the average length of stay for Medicare patients as well as declines in admissions, short-stay hospital beds, and occupancy rates (9). After PPS was introduced, the rate of growth in Medicare's hospital expenditures declined substantially from previous annual spending increases (10).

However, because hospital costs for Medicare patients have grown faster than Medicare's payment updates, hospitals' Medicare operating margins (the difference between Medicare payments and Medicare-allowed inpatient operating costs) have steadily declined (10). (Because of the diversity in DRG payments, individual hospital experiences vary from the average.)

PPS's savings maybe less than indicated if one observes only changes in hospital inpatient services and spending. PPS is often cited as one reason for the accelerated shift of treatment from inpatient settings to hospital outpatient sites, free-standing outpatient centers, and physicians' offices (10). Medicare's expenditures for post-acute care services, for home health care, and for Medicare's part B program have risen markedly over the past decade (15). Payments for outpatient hospital services constitute an increasing percentage of the revenue that hospitals receive from Medicare, which still pays for the majority of outpatient services based on their costs. In response to these trends, in 1986 Congress first directed the Health Care Financing Administration (HCFA; the agency that administers Medicare) to propose a prospective payment system for outpatient services and provided a list of requirements for the system to meet. Developing a viable method turned out to be much more difficult than designing the DRG system for inpatient care, and only now, in 1995, is the proposal finished and ready to make its way through a review process. Implementation of an outpatient PPS may still be years off (13).

Medicaid

Medicaid is the second-largest public payer, targeting low-income families, poor elderly, and the blind and disabled populations. HCFA's Medicaid Bureau oversees state administration of individual Medicaid programs. The federal government defines certain guidelines that states must meet to receive federal funding, but states are free to develop their own Medicaid programs within these guidelines. The guidelines include restrictions on provider reimbursement methods and rates, which must be consistent with efficiency, economy, and

quality of care, and they must be sufficient to attract adequate numbers of providers by geographic region and ensure that Medicaid beneficiaries have access to care (providers are not required to serve Medicaid patients). Payment amounts are supposed to be set such that Medicaid beneficiaries have access to care equal to that of the general population.

In the 1970s and early 1980s, many private and public health insurers (including most Medicaid programs) paid hospitals on a cost-reimbursement basis. This payment method, under which hospitals passed on the costs of providing services to third-party payers, encouraged the provision of more, and more costly, services. Public insurers were the first to implement major payment reforms during the 1980s to overcome these negative incentives for cost containment. Before 1980, Medicaid programs were required to use the same methods as Medicare in paying for inpatient hospital services. Legislative changes in 1980 and 1981 allowed states to develop their own payment arrangements with hospitals. States have made use of the legislation to adopt a wide variety of reimbursement mechanisms. In general, there are two major payment types, as described below:

Retrospective Payment

Within this type, payment levels are based on the actual costs of care incurred by the provider. Reimbursement is therefore determined after services are rendered, based on the exact number and cost of services delivered. Retrospective or cost-based payment usually takes into account depreciation of capital and equipment costs by distributing them as a percentage of the charge for each service.

Prospective Payment

With this type, rates of reimbursement are set in advance of the time period to which they apply. Prospective rates, regardless of how they are determined, may be paid according to various units, such as per service, per month, per day, per discharge, or per episode of illness for each patient served. Rates may or may not include capital costs

and often leave the provider with the risk that costs will exceed payments. Conversely, providers who keep costs down may be able to collect payments in excess of their actual costs.

Many states have also introduced prospective limits or caps on retrospective spending to encourage cost-consciousness. Hospitals are given a predetermined limit on spending for a particular period, and Medicaid will retrospectively reimburse hospital charges up to this limit. All charges above the limit become the hospital's liability. The state's aggregate Medicaid expenditures are therefore limited to the lesser of the prospective spending limit and hospitals' actual costs of treating Medicaid patients.

States have three general methods for determining either prospective limits or prospective rates:

- *Trending.* A rate or limit is established for the base year using historical cost-based data. For future years the base rate is trended forward using a projection of costs to reflect inflation. Rates and limits may be specific to each individual hospital or statewide.
- *Peer Groups.* Hospitals are statistically grouped into peer groups based on the similarity of their costs to the costs of other hospitals in their group. Peer groups may be determined by populations served, number of beds, size and type of hospital, geographic location, teaching facilities, state or private ownership, or special services provided. The peer group's average costs are used to determine reasonable rates or limits for each hospital in that group. Hospitals that exceed the group's average costs are reimbursed only for the average limit or rate; hospitals with lower-than-average costs receive full reimbursement.
- *Negotiation or Selective Contracting.* A competitive bidding or negotiation process is used to select Medicaid providers. The bidding or negotiation process establishes the payment rates for each individual hospital. Medicaid beneficiaries are then restricted to receiving services from facilities that have contracts with Medicaid.

Several states are also reforming their Medicaid programs by enrolling Medicaid participants in managed care plans ranging from health maintenance organizations (HMOs) to primary-care case management systems.² Eleven states enacted major new Medicaid managed care initiatives in 1993 as a way to contain costs, broaden coverage to uninsured people, and improve access and disease prevention (7). The most dramatic of the state measures was Florida's mandate that established a minimum enrollment level of Medicaid recipients in all state-licensed HMOs. Other state measures directed the development and implementation of Medicaid managed care systems or authorized Medicaid managed care demonstration projects. Oregon, for example, is implementing a controversial program that eliminates coverage for certain services deemed to be of lower priority to generate savings for expanding coverage to everyone who is uninsured and whose income is at or below 100 percent of the federal poverty level. In addition, all recipients are required to enroll in some form of managed care arrangement. Eight other states enacted laws in 1993 that addressed existing Medicaid managed care programs (7). Medicaid managed care enrollment more than doubled between 1987 and 1992, to 12 percent of the Medicaid population (15).

Medicaid managed care programs are still in their infancy. As yet there is no clear evidence whether these programs have actually extended coverage to a broader population; whether current and new beneficiaries have better access to and quality of care; whether provider capitation rates (per person payments) are sufficient to ensure access, quality, and provider participation in the programs; or whether managed care networks and tools (e.g., provider networks, gatekeeper systems, utilization review programs) in some states are adequate to meet the challenges of serving the Medicaid and uninsured populations.

The changes in Medicaid programs and payment methods affect how hospitals are paid and the amount of Medicaid expenditures. From 1985 to 1993, Medicaid benefit payments tripled (15). Much of this growth is attributable to rising enrollment, expanded coverage to additional populations, and improvement in payments to hospitals that serve a disproportionate share of low-income people. Because of these confounding effects and the relatively recent adoption of alternative Medicaid payment methods and managed care requirements, it is difficult to discern the effects on Medicaid hospital expenditures of different states' policies for Medicaid cost containment.

Private Sector

One of the most dramatic changes in private health care and health insurance markets during the past decade has been the rapid increase in managed care organizations (MCOs) and the continuing variety of organizational forms adopted by MCOs. MCOs include HMOs, preferred provider organizations (PPOs), and other more recent forms of integrated service networks that combine insurance functions with the delivery of a complete continuum of inpatient, ambulatory, and post-acute care services. In contrast to traditional insurance plans, which allowed members to choose any hospital at which their doctor had admitting privileges, MCOs often limit member choice to specific hospitals even for urgent care. If MCO members seek care from providers outside their plan, they often must bear a larger share of the cost of that care. Even most traditional fee-for-service plans now use some of the managed care tools (e.g., utilization review, pre-admission certification to use services, primary care referral requirements) to control health care costs.

The joining of groups of providers and insurance companies into integrated health plans has

² Health maintenance organizations provide a comprehensive set of health services in exchange for a predetermined payment per enrollee. Fee-for-service reimbursement is retained under case management systems, but recipients must obtain prior approval for services from a physician, who receives an additional fee to monitor individuals' service usage.

been in part a reaction to increased cost containment pressure from individual employers and large employer purchasing cooperatives. In response to rising health insurance costs, more large employers have also chosen to self-insure, which allows them to avoid state benefit mandates and premium taxes and reduce their premiums by assuming financial risk themselves (15).

The substantial changes in health care markets have in turn altered the way in which private insurers and health plans interact with and pay hospitals. For example, HMOs either have their own hospitals or contract with specific hospitals. Many MCOs have been successful in negotiating favorable contract terms with hospitals, including discounts from the standard billed charge, fixed payment per admission, and per diem hospital rates (fixed payments per day of hospital care provided). HMOs and other managed care plans as well as traditional private insurance companies also use nonfinancial methods to control inpatient utilization, including prior authorization and second opinions, concurrent review and discharge planning for hospitalized members, case management services, and programs aimed at identifying physicians with patterns of unnecessarily high use of inpatient services.

■ Sources of Funding

The largest payer of hospital costs remains private insurance, which paid over 35 percent of hospitals' operating revenues in 1991 (8) (table 8-3). At

the end of 1985, over 1,000 private insurance companies were writing individual or group plans (4). Private insurance, which covers most inpatient and outpatient hospital care and physician services, has historically been linked to employment. Almost 60 percent of the U.S. population receives health insurance through employers, although employers are not required to provide insurance coverage (15).

Private policies often place upper limits on the amount of benefits available per day or per illness. Individual deductibles, co-insurance, and copayments are now considered standard, although most plans place a maximum limit on patients' annual out-of-pocket expenses. Many employers who provide coverage are trying to limit their costs by changing the types of plans offered, increasing employees' share of premium payments, raising copayments and deductibles, or dropping benefits altogether. As a result, individual out-of-pocket spending for all health services has increased in recent years. Employers are also increasingly offering managed care plans in addition to or instead of traditional fee-for-service insurance coverage (15).

Health insurance benefits increasingly consume a larger proportion of employee compensation in relation to wages (18). Consequently, the number of employed persons covered by voluntary employer/employee-funded private insurance has been shrinking. By 1993, the proportion of the population covered by employer plans and

TABLE 8-3: Sources of Hospital Operating Funds

Source of funds	Hospital operating revenues in 1991 (in percent)	Population covered in 1993 (in percent)
Private insurance	35.2	64.5
Medicare	25.4	12.8
Medicaid	15.0	8.1
Other government funds	15.9	NA
Miscellaneous funds	5.1	NA
Out-of-pocket	3.4	NA

NA= Not applicable

SOURCES. SW. Letsch, H.C. Lazenby, K.R. Levit, et al., "National Health Expenditures, 1991" *Health Care Financing Review* 14(2) 1-30, 1992, Prospective Payment Assessment Commission, *Medicare and the American Health Care System Report to the Congress* (Washington DC: ProPAC, June 1994)

individually purchased insurance had declined to 58.5 and 6 percent, respectively, down from 66.3 and 6.9 percent in 1980 (15).

The second-largest source of hospital funds is the federal Medicare program, which is financed mainly through a payroll tax on employers and employees. In 1993, Medicare covered approximately 12.8 percent of the population (15) and paid over one-fourth of aggregate hospital operating revenues in 1991 (9) (table 8-3). Individuals over the age of 65, some people with disabilities, and people with end-stage renal disease are eligible to participate in the Medicare program. Eligible persons are enrolled at no charge in Medicare part A, which covers inpatient acute care, recovery in a skilled nursing facility following hospitalization, limited home health visits, and hospice care (10). Medicare patients pay deductibles and copayments, although many beneficiaries purchase private “Medigap” policies to cover their share of costs and uncovered services, such as outpatient prescription drugs and some skilled nursing care. Part A accounts for about 66 percent of total Medicare payments. Medicare part B provides coverage for physician and outpatient services, for which beneficiaries pay a share of the premium (25 percent of total outlays). There is no limit on the amount of cost sharing for which beneficiaries are theoretically liable (10).

The third major source of hospital revenues is the Medicaid program, which pays hospital expenses for many low-income and disabled people. Medicaid enrolled 8.1 percent of the population in 1993 (15) and accounted for 15 percent of spending on hospital services in 1991 (8) (table 8-3). Medicaid is a joint state-federal program financed from general tax revenues. Each state sets its own eligibility and coverage standards within guidelines established by the federal government. The federal government provides each state with funds that range from 50 percent to 83 percent of the state’s total Medicaid expenditures. Both the size of state programs and the restrictiveness of their eligibility policies vary. Some states require beneficiary cost sharing.

The share of hospital care financed by consumers out of pocket has been gradually declining

over the past three decades (6). Patients directly paid 3.4 percent of 1991 hospital operating revenues. Hospitals generate additional revenues through investments and private philanthropy and by operating cafeterias, parking lots, and gift shops. These miscellaneous funding sources amounted to 5.1 percent of hospital operating revenues in 1991 (8) (table 8-3).

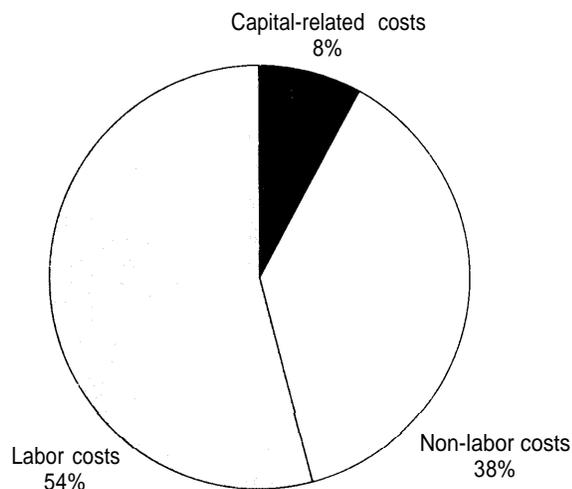
Because approximately 37 million people were not covered by any form of third-party insurance in 1993—representing 14.7 percent of the U.S. population (15)—hospital charges to insured people partially pay for the “bad debts” of those who cannot pay for their own care. In addition, public insurers appear to pay less than the actual hospital costs of their beneficiaries. In 1991, Medicare paid on average 88 percent of hospitals’ actual costs of treating Medicare patients, and Medicaid paid 82 percent for their beneficiaries (6). Despite the growth in aggregate hospital costs, below-cost payments from Medicare and Medicaid, and losses from uncompensated care, hospitals have sustained their aggregate total margins (the difference between total revenues and total expenses as a percentage of revenues) by increasing income from other sources, particularly through higher payments from some privately insured patients (15). In 1991, private insurers paid an estimated 130 percent of the actual hospital costs for their insured patients (6).

■ Allocation of Operating Funds

Labor accounts for just over half (54 percent in 1993) of hospital expenses, making it a natural target for cost containment efforts. Nonlabor expenses (including pharmaceuticals, food, energy, malpractice insurance, and surgical and medical instruments) other than capital-related costs were responsible for 38 percent (6), and capital depreciation and interest expenses constituted about 8 percent of aggregate hospital costs (15) (figure 8-1).

Largely in response to Medicare’s PPS, established in 1983, hospital staffs declined and wage growth slowed dramatically from 1983 through 1985 (15). Beginning in 1985, however, hospital

FIGURE 8-1: Allocation of Hospital Operating Expenses, 1993



SOURCES: J.K. Iglehart, "The American Health Care System," *The New England Journal of Medicine* 329(5):372-376, 1993; Prospective Payment Assessment Commission, *Medicare and the American Health Care System*. Report to the Congress (Washington DC: ProPAC, June 1994).

employment again climbed steadily, with the number of full-time-equivalent employees increasing from 3 million to 3.5 million between 1981 and 1991 (6,15). According to Iglehart (6), more staff was required to care for sicker patients admitted for inpatient care and to handle the increase in outpatient business. Preliminary data indicate, however, that hospitals were more conservative in their hiring in 1992 and 1993 (15).

■ Operating Expenditures

Spending for acute care hospitals (both inpatient and outpatient care) totaled \$268.9 billion in 1991, constituting a 12.1 percent growth over 1990 levels. Unusually large increases in Medicaid payments to hospitals of almost 50 percent accounted for much of the growth. In 1991, community hospital expenditures accounted for 33 percent of national health expenditures and 4.4 percent of the U.S. gross domestic product (8).

The rate of growth in inflation-adjusted total and inpatient hospital expenditures slowed signif-

icantly during the mid- 1980s, but outpatient expenditures continued to rise at a high rate throughout that period. In addition to rapid growth of private managed care systems, changes such as Medicare's adoption of PPS, Medicare's and Medicaid's liberalization of coverage rules for nursing home and home health services, greater utilization review of inpatient procedures, and emerging forms of technology that favor the outpatient setting have fostered a strong shift in services from inpatient acute care settings to less expensive outpatient care sites (15). (Outpatient sites include outpatient care provided in hospitals, doctors' offices, freestanding health care centers, and nursing homes and home care.) In 1984 only half of all community hospitals had outpatient departments; by 1991 that proportion had risen to 87 percent (6). In 1981 only 16 percent of surgical operations were performed in an outpatient setting, but that figure had risen to 52 percent a decade later (6). Payments for nursing facilities, home health agencies, and physicians' services increased at higher rates than did payments for inpatient hospital care (15).

According to ProPAC, substitution of outpatient services for inpatient services is not the only reason for the growth in outpatient expenditures (15). Some of the increase is due to greater patient demand for new technologies that have made outpatient procedures less costly, less time consuming, and less invasive for patients.

HOSPITAL CAPITAL COSTS

■ Relationship of Capital and Operating costs

Operating and capital expenses have a direct relationship in U.S. hospital financing. Capital depreciation amounts and interest expenses are frequently reimbursed by third-party payers through their payments for hospital services, although that arrangement is changing. Additionally, even though capital represents in the aggregate less than 10 percent of total U.S. hospital costs, capital expenditures may generate additional operating costs. For instance, when a hospital de-

cides to expand its capacity by opening new beds or a new specialty unit, it must often employ more people to staff those beds. The full long-term effect of U.S. hospital capital investments on operating expenses is not completely understood (2).

■ Capital Financing Model

As with hospital operating costs, there is no single financing mechanism for hospital capital investments. All U.S. third-party payers contribute in varying proportions to the cost of hospital capital spending. Under cost-based reimbursement, capital expenses for property, plant, and equipment are passed through to patient charges by including in the billed amount both capital depreciation amounts and interest expense on debt. However, cost-based reimbursement is increasingly being phased out as a method for paying hospitals. Prospective payment methods, which are growing, restrict the ability of hospitals to fund unlimited capital purchases; for the most part, these limitations are only now beginning to be felt by hospitals.

When Medicare adopted PPS, capital costs were excluded from the formula, retaining their pass-through status. Until 1992, Medicare reimbursed hospitals for the “reasonable” cost of new medical equipment by allowing them to bill for depreciation, interest payments, and lease or rental expenses. Medicare’s share of hospital capital costs was determined by its share of inpatient days. For instance, Medicare paid half of a 100-bed hospital’s reasonable capital costs even if only two beds were occupied all year, as long as one of those beds was occupied by a Medicare patient (5). That payment arrangement essentially provided a federal subsidy for acquisition of new equipment and encouraged hospitals to substitute capital equipment for operating expenses such as labor. Policymakers also feared that Medicare’s capital reimbursement method paid for excess inpatient capacity and discouraged hospitals from decreasing unused beds (5).

To phase in their inclusion in DRG payment calculations, the proportion of new capital costs that could be directly passed through charges de-

creased over several years prior to 1992. Beginning in 1992, Congress established a new method of paying for capital costs through Medicare (to be phased in over a 10-year period) that added a fixed capital cost payment to each DRG payment. Hospitals that spend more on capital investments no longer receive higher payments from Medicare to cover these capital costs; thus, a financial incentive to introduce expensive technologies that do not reduce longer term hospital costs has been removed (14). Other payers may increasingly restrict the amount of capital spending that they will reimburse under prospective payment methods.

Determining Capital Requirements

Each hospital in the United States determines its own capital needs (within regulatory confines) through a capital budgeting process. Capital budgeting is ongoing and linked to the strategic planning of an institution, but it is usually not summarized separately in the hospital’s annual budget. Each hospital carefully analyzes the costs and benefits of a capital project, choosing among competing demands. Expenditures for replacement capital usually do not undergo a lengthy decisionmaking process, as they are often viewed as essential for continuing operations.

Medical staff demands for capital are a unique problem for U.S. hospitals. Because physicians are typically not employees of any one hospital, they are free to treat their patients at whichever hospital offers the best facilities. Administrators face pressure from staff physicians to invest in new technologies and hospital bed capacity. Although physicians strongly influence a hospital’s profitability, they generally do not have a long-term financial interest in the hospital itself. Competition for physicians has encouraged hospitals to purchase expensive medical technologies, further driving up health care costs in the United States.

There is no collective planning process for the allocation of capital among or within hospitals. Few state governments exert direct control over the capital decisionmaking process, although rate setting by states and other payers may limit the

profitability of hospitals, which in turn affects the amount of retained earnings available to fund capital projects. In the past, cost-based reimbursement payment encouraged capital spending by mitigating the risks involved with hospital indebtedness. However, prospective payment has increased those risks, as hospitals may have a more difficult time recovering capital costs through charges to patients.

There are currently no fixed guidelines governing the purchase of capital equipment in privately owned hospitals. Many public hospitals are subject to governmental contracting procedures that require competitive bids for the provision of products or services. Public hospitals are usually allowed to raise private funds for capital purchases through bond issues, although often an independent authority is created to raise and administer such funds. Public and private hospitals independently purchase and use capital equipment but are free to arrange shared purchase agreements.

The most prominent attempt by the federal government to control the introduction, diffusion, and allocation of hospital capital is generally perceived to have failed its mission. In 1974 Congress passed the National Health Planning and Resources Development Act, which required each state to establish a mechanism for reviewing and approving hospital purchases of expensive technologies and other capital expenditures through a certificate-of-need (CON) process as a condition for obtaining federal money. States were directed to design health planning programs that created comprehensive, areawide health plans and to establish CON programs to review and approve capital expenditures. Some states, such as California, had very permissive CON programs; others established rigorous limits within their states and, in some cases (e.g., New York), states combined the CON program with hospital rate regulation.

The perception is widespread that CON laws failed to control health care costs and were usually ineffective in promoting the rational introduction and use of new technology. CON efforts to control the supply of acute care beds may have been more successful, and more stringent programs may

have affected some technologies. For example, CON programs have been credited with slowing the purchase of magnetic resonance imagers (MRIs) in hospitals but not the total number of MRI facilities. In New York state, regulatory policies related to cardiac surgery facilities may have reduced inappropriate procedures (16).

One problem with the state CON programs is that the agencies that approved CON applications did not control the actual allocation of capital funds and thus lacked the proper incentives to take account of the aggregate amount of expenditures approved when considering new applications. Many of the programs were highly political and subject to manipulation by special interests. In addition, CON laws applied to purchases of hospital equipment but did not apply to medical technologies in outpatient settings. Because of the relative ineffectiveness of the CON process and the elimination of federal funding in 1986, many states abandoned or substantially weakened the process, although about 30 states have continued without federal support (15,18).

Sources of Capital Funds

Individual hospitals determine their need for funds and desired method of funding capital within the confines of current reimbursement methods and the law. Once a hospital has identified a need for capital, it must seek financing from retained earnings, from charitable contributions, or through borrowing in private financial markets. In the U.S. hospital industry, approximately 50 percent of assets are financed through equity and 50 percent through debt. Equity capital is generated either through the retention of the hospital's profits or through charitable contributions. Long-term debt financing is available from at least four major sources: tax-exempt revenue bonds, Federal Housing Administration insured mortgages, public taxable bonds, and conventional mortgage financing.

A large influence on capital spending is the availability of funds, either through excess revenues or from investors. To obtain debt financing, hospitals must maintain a certain level of financial performance as measured by various ratios of as-

sets to liabilities or income to expenses. Investors often specify the required levels for these ratios in covenants that are included in the bond contract. Some types of funding also require the creation of fund balances in escrow accounts to be held by the bond trustee, usually equal to at least one year's worth of principal and interest payments.

The sources of payment for capital funds for hospitals are roughly proportional to those of operating expenses, as charges for hospital services incorporate costs for interest and depreciation. The exception is that many nonprofit hospitals seek philanthropic donations to support capital improvements. In 1991, private philanthropic donations accounted for only 4.9 percent of capital expenditures, however.

■ Capital Expenditures

Estimates by the Health Care Financial Management Association place capital spending at 10 percent of U.S. hospital expenditures annually. In 1991, approximately \$27 billion was devoted to capital spending, including both plant and equipment. Between 1985 and 1989, inflation-adjusted capital expenditures increased greatly (3). The value of real fixed capital in hospitals grew 6.9 percent per year from 1976 to 1987, compared to only 3.5 percent yearly for the gross stock of fixed private, nonresidential capital for the U.S. economy as a whole (12).³ From 1980 to 1987, capital

costs grew substantially faster than operating costs, thus contributing more to total hospital costs (12). Since 1987 the ratio of capital costs to total hospital costs has declined slightly.

HOSPITAL INDICATORS AND TRENDS

Reflecting continued pressures to reduce inpatient costs, inpatient admission rates, procedures, and lengths of stay declined over the most recent decade, as did the number of community hospitals and patient beds (6,18). According to the American Hospital Association, the total number of inpatient days fell between 1981 and 1991 as annual admissions to community hospitals dropped from 36.4 million to 31.1 million and the average length of stay declined from 7.6 days to 7.2 days (6) (table 8-4). In response to the decreased use of inpatient beds, between 1980 and 1992 approximately 8 percent (642) of community hospitals were either closed or acquired by other hospitals (6). The number of beds staffed for use in U.S. hospitals subsequently fell from 988,000 in 1980 to 933,000 in 1990, a 6.2 percent decline (18). Nevertheless, the reduction in the number of hospitals and hospital beds did not keep pace with the fall in the use of inpatient services. Thus, hospital occupancy rates decreased from an average of 76 percent of beds filled in 1980 to 61 percent in 1993 (15).

TABLE 8-4: Selected Characteristics of Community Hospitals, 1981 and 1991

Characteristic	1981	1991	Change (in percent)
Number of hospitals	5,813	5,342	-8.1
Number of beds (thousands)	1,003	924	-7.9
Admissions (millions)	36.4	31.1	-14.7
Average length of stay (days)	7.6	7.2	-6.1
Inpatient days (millions)	278.4	222.9	-20.0
Occupancy rate (%)	76.0	66.1	-13.1
FTE employees (millions)	3.0	3.5	+16.7

SOURCE: J.K. Iglehart, "The American Health Care System," *The New England Journal of Medicine* 329(5):372-376, 1993.

³ Fixed real capital is **buildings, machinery**, and equipment; it excludes land, working capital, and goodwill. Gross stock is the value of fixed real capital; net stock would subtract accumulated depreciation.

In a reversal of earlier trends, the growth rate of inpatient and aggregate hospital expenditures began to climb after 1987. ProPAC asserts that this acceleration is explained in part by the greater intensity of services resulting from the complexity of inpatient cases combined with the introduction of new technologies to treat such cases. The possibilities for cost shifting among payers, which has allowed hospitals to avoid any serious reduction in costs, is also responsible for the return to higher growth rates, according to ProPAC (15).

The most recent data show a somewhat improved picture. According to data from the American Hospital Association's National Hospital Panel Survey, inflation-adjusted costs per adjusted hospital admission⁴ declined from a 5 percent growth rate in 1992 to 1.8 percent in 1993 (15). It is not yet clear, however, whether this a short- or long-term phenomenon, as hospital costs often vary widely from year to year (15). The drop might be due to public and private payers' efforts to contain costs or to transitory effects from the intense health reform debate that took place in 1994. Moreover, U.S. hospital costs per admission are still higher than in most other industrialized countries (18).

FUTURE DIRECTIONS

The U.S. hospital system has myriad owners, missions for care, third-party insurers, and payment methods for both hospital operating and capital expenses. On the positive side, such diversity has allowed for an enormous amount of experimentation by the federal government, as evidenced by the use of DRGs to pay for inpatient care; by state governments, as evidenced by the wide variety of methods used to reimburse hospitals for Medicaid patients; and by the private sector, as evidenced by the growth and variety of managed care organizations. On the negative side, the complexity and lack of uniformity probably raises hospital admin-

istrative costs above those of many other countries (17) and makes it difficult to efficiently allocate and use hospital resources, such as expensive medical technologies. The variety of payers also makes cost shifting among payers possible, blunting incentives for hospitals to contain costs and increase efficiency.

Increasing and high hospital expenditures, like all sectors of health care, combined with the large and increasing number of uninsured people, led President Clinton and Congress to consider major reform of the health care system in the past congressional session. Although this consideration did not focus explicitly on constraining hospital costs and expenditures, proposed changes to the entire health care system undoubtedly would have affected hospitals. The two main goals of most congressional proposals were to control growth in total health expenditures and to provide universal coverage, or at least broader insurance coverage to the population.

Although Congress ultimately did not pass any health reform legislation, the two basic strategies under consideration tended to lie at opposite ends of the spectrum. One set of strategies was market oriented, with the major strategy being termed "managed competition." Managed competition is a concept that describes an environment in which a "sponsor" (e.g., employer, government entity, purchasing cooperative), acting on behalf of a large group of subscribers, purchases health services from networks of providers that compete for members on the basis of price and quality. In response to greater price competition, health plans or provider networks could be expected to reduce health care costs by using the tools of managed care. Other components of managed competition proposals included limitations on employer contributions to the cost of low-priced plans, standard benefit packages, community rating with open enrollment and limited underwriting and exclusions

⁴ Adjusted admissions are a measure of total patient care activity undertaken in a hospital, both inpatient and outpatient care. Adjusted admissions are equivalent to the sum of inpatient admissions and an estimate of the volume of outpatient services. This estimate is calculated by multiplying outpatient visits by the ratio of outpatient charges per visit to inpatient charges per admission (15).

for insurance, “report cards” on health plan quality, and limits on the tax deductibility of premium contributions. Other market-oriented proposals included health vouchers, tax credits, or medical savings accounts to put medical care and insurance purchasing power in the hands of individual consumers.

The other major competing proposal was a single-payer or national health insurance approach. The single-payer approach contained in most proposed legislation encompassed a system of tax-financed universal coverage with government as the sole purchaser of health services. Several of the reforms were closely modeled after the Canadian health care system but also included legislated limits on the rate of growth of national health expenditures.

The central features of current Republican proposals for health system reform focus on changing the rules for marketing insurance to individuals and to businesses with 50 or fewer workers. Current insurance reform proposals would prohibit insurance companies from rejecting employers that look like bad risks; require insurance companies to guarantee policy renewal; limit exclusion of coverage for pre-existing conditions; and narrow variations in premiums charged different buyers for the same insurance policy.

Absence of major reforms at the federal level does not mean that the U.S. health care system is standing still. Restructuring of the system by state governments and by private insurers and providers has greatly affected, and will continue to affect, health care organization, access, quality, and financing.

The substantial rise in state health expenditures, particularly for the Medicaid program, and the growing number of people without health insurance induced states to address health care issues more intensely. Over the last five years, every state has enacted some type of health reform legislation. Several state legislatures recently passed comprehensive reforms that combine cost containment and health care coverage goals. States have also attempted to increase the purchase of private insurance by reforming the health insurance market for individuals and small businesses.

In 1993, 46 states passed some form of “small market” reform that included guaranteed issuance or renewal of insurance policies, community rating laws that prohibit or limit the use of health status or prior utilization of health care services to determine premiums, and encouragement of small businesses to form purchasing pools to gain better access to the large group insurance market (15). Various states have reinvigorated their health planning programs, focusing more on reviews of major medical equipment purchases and development of specialized services than on construction of new facilities (15). Some states’ reforms expand Medicaid eligibility to uninsured persons, move more people into managed care plans, or reconfigure their entire health care systems. Because several states had been waiting to see what might occur at the federal level before proceeding with their reforms, there is likely to be even more activity at the state level in the coming years.

State legislation encouraging the formation of managed care plans supports the changes in private health care markets that have occurred at a quick pace over the past decade. Perhaps the most important trend affecting the future of the U.S. health care system is the phenomenal growth of managed care organizations and the increasing tendency of purchasers to form large buying groups. These purchasing groups, along with other large employer and government purchasers, either contract selectively with managed care organizations that pay for services and arrange for the provision of those services (e.g., health maintenance organizations and preferred provider organizations) or contract directly with networks of providers to supply health care services to the group’s members (e.g., physician-hospital organizations).

In response to greater purchaser collaboration, providers are increasingly cooperating to form integrated networks or systems of care that can bargain with purchasing groups directly. Health care mergers have included a great deal of restructuring in the hospital sector during the 1980s and early 1990s. Hospitals merged with, acquired, or affiliated with other institutions to create larger systems to compete effectively for patients under

managed care contracts (15). After four for-profit hospital chains complete their mergers, the resulting two hospital chains will control 61 percent of the for-profit beds in the United States, although they will still include less than 10 percent of the nation's hospitals (11). Some analysts contend that consolidation in the health industry is necessary for squeezing out excess capacity among hospitals and specialists and for more efficient allocation and use of expensive medical technologies; others fear that consolidation may lead to higher prices and less quality and choice for consumers.

Changes by private and public payers over the last decade appear to have reduced inpatient utilization of services and have had some impact on slowing the rate of increase in inpatient costs. Although hospital staffing increased in 1993, it did not match the growth in hospital output. Hospital staff wages and benefits grew more slowly than wages and benefits in all industries (15). Inpatient admission rates, procedures, and lengths of stay have continued to decline over the most recent decade, as did the number of community hospitals and patient beds. Low occupancy rates continue to be a problem, however, as the number of beds has not declined as rapidly as hospital use. In part this may be a consequence of hospitals' ability to shift costs from patients with third-party payers who have more strict payment controls to patients with fewer payment restraints, thereby reducing hospitals' incentives to constrain costs. The willingness of private payers to continue to underwrite hospital cost increases may be limited, though, which will add to the pressure on hospitals to reduce costs.

Changes in government programs and in private health care insurance and provider markets have also encouraged the use of less costly providers and sites of care. Care has been shifting from inpatient acute care settings to less expensive outpatient settings. These trends have led to substantial declines in the use of hospital inpatient services and rapid growth in spending for services furnished in other settings. Consequently, the share of national health spending attributable to hospital inpatient care dropped from about 29 percent in 1983 to slightly less than 24 percent in

1991. Meanwhile, the share of spending for hospital outpatient services increased from about 5 percent in 1983 to 8 percent in 1991 (15).

Although hospital cost growth appears to have slowed in 1993, it is difficult to determine whether this is a long-term trend or only a transitory effect of the recent health reform discussions at the national level. Overall, public and private reform efforts implemented over the past decade appear to have had only a limited impact on the upward trend in aggregate health spending in the United States. Although the delivery system has been reconfigured, advances in medicine continue to drive up the demand for and costliness of care. At the same time, rising health insurance premiums and changes in employment patterns have resulted in higher numbers of uninsured people (15).

Effective control of overall health care expenditures may require that the set of cost containment strategies used be comprehensive in terms of the types of services and providers covered, the payers included, and the control of both prices and volumes of services. Current U.S. reforms are not moving in that direction, but are being implemented on an incremental basis for specific parts of the U.S. health care system, by individual states, or are occurring independently within private markets. It remains to be seen whether such reforms will solve the dual problems of health expenditure growth and increases in the uninsured or underinsured population.

REFERENCES

1. American Hospital Association, *American Hospital Association Hospital Statistics, 1992-93* (Chicago: AHA, 1993).
2. Anderson, G., Erickson, J., and Feigenbaum, S., et al., "Examining the Relationship Between Capital Investment and Hospital Operating Expenditures," *The Review of Economics and Statistics* 709-713, 1987.
3. Clarke, R.L., and Herr, W.W., "New Medicare Capital Regulations: A Capital Idea?," *Journal of American Health Policy* 1(1):23-6, 1991.

4. DeLew, N., Greenberg, G., and Kinchen, K., "A Layman's Guide to the U.S. Health Care System," *Health Care Financing Review* 14(1):151-169, Fall 1992.
5. Hemesath, M., and Pope, G.C., "Linking Medicare Capital Payments to Hospital Occupancy Rates," *Health Affairs* 8(3):104-116, fall 1989.
6. Iglehart, J.K., "The American Health Care System," *The New England Journal of Medicine* 329(5):372-376, 1993.
7. Intergovernmental Health Policy Project, The George Washington University, Richard E. Hegner, author, *Medicaid and Indigent Care: An Overview of 1993 State Legislative Activity*, January 1994.
8. Letsch, S.W., Lazenby, H.C., Levit, K.R., et al., "National Health Expenditures, 1991" *Health Care Financing Review* 14(2):1-30, 1992.
9. Levit, K.R., et al., "National Health Expenditures, 1990," *Health Care Financing Review* 13(1):39-40, 1991.
10. Moon, M., *Medicare Now and in the Future* (Washington DC: The Urban Institute Press, 1993).
11. National Health Policy Forum, The George Washington University, "Consolidation in the Health Care Marketplace and Antitrust Policy," Issue Brief No. 660, January 17, 1995.
12. Peden, E.A., "Do Hospitals Behave Like Consumers? An Analysis of Expenditures and Revenues," *Health Care Financing Review* 14(2):125-134, 1992.
13. Pettengill, J.H., Senior Policy Analyst, Prospective Payment Assessment Commission, personal communication, Mar. 15, 1995.
14. Prospective Payment Assessment Commission, *Report and Recommendations to Congress*, Washington, DC, Mar. 1, 1994.
15. Prospective Payment Assessment Commission, *Medicare and the American Health Care System. Report to the Congress* (Washington DC: ProPAC, June 1994).
16. Tunis, S.R., and Gelband, H., "Health Care Technology in the United States," *Health Policy* 30(1-3, special issue):335-396, 1994.
17. U.S. Congress, Office of Technology Assessment, *International Comparisons of Administrative Costs in Health Care*, OTA-BP-H-135 (Washington, DC: U.S. Government Printing Office, September 1994).
18. Vertrees, J.C., "Cross National Study of Hospital Financing; Country Report for the United States," Prepared for the Organization for Economic Cooperation and Development, SOLON Consulting Group, Ltd., Silver Spring, MD, August 1993.