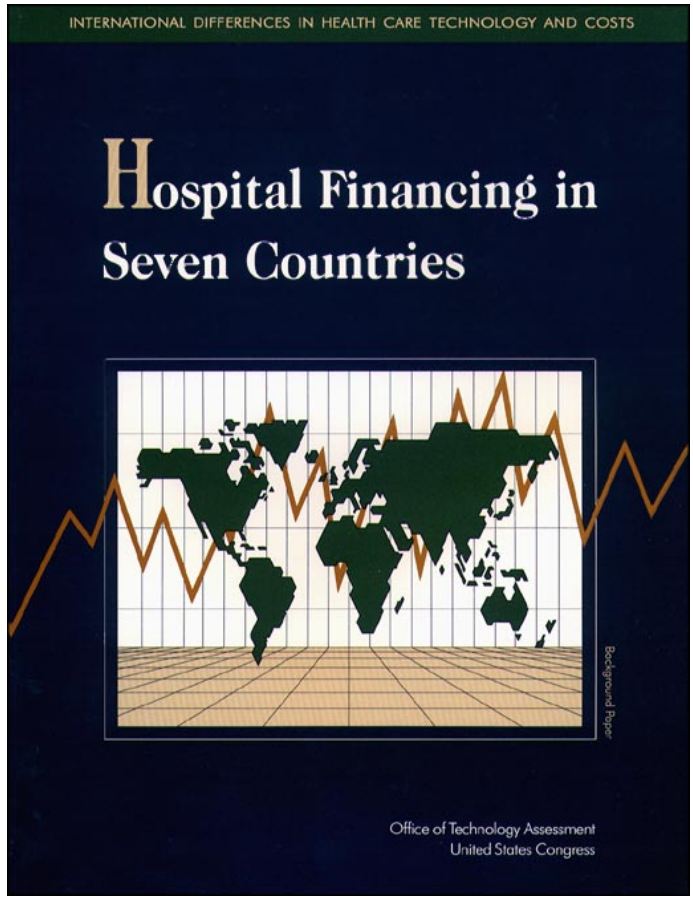
Hospital Financing in Seven Countries

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Foreword

Hospitals—the largest single item in the health care budget—have been a prime target of policymakers in attempts to rein in rising health care spending. In the search for new ideas about how to organize and pay for health care, U.S. policymakers and researchers have looked to other countries that appear to have been more successful at holding down costs. This seven-country study of hospital financing is an attempt to find lessons for the United States.

The individual experiences over the past decade of the United States and six of its international peers—Canada, England, France, Germany, the Netherlands, and Sweden—in hospital financing and payment systems are reviewed by experts in each country. In the other countries, the cost of hospital care (and of all health care) has, in fact, risen more slowly than it has in the United States. Perhaps surprisingly, though, reforms have been and continue to be instituted in these countries not only to keep cost increases down, but also to improve the efficiency of the systems, in part by introducing selected aspects of a market system, many borrowed from the United States.

At a national policy level, there appears to be little for the United States to adopt from abroad. Other countries have managed to keep hospital and total costs down by, in one way or another, imposing cash limits on the health care system. A market-oriented system, such as the current U.S. system, is not as amenable to absolute limits, and in the 1990s progress is more likely to come from within than through imported solutions.

This background paper is part of a larger study, *International Differences in Health Care Technology and Spending*, which consists of a series of background papers. *International Health Statistics: What the Numbers Mean for the United States* was published in November 1993, *International Comparisons of Administrative Costs in Health Care* appeared in September 1994, and *Health Care Technology and Its Assessment in Eight Countries*, in February 1995.

OTA has been greatly assisted by the advisory panel for the overall study, chaired by Rosemary Stevens of the University of Pennsylvania. Miriam M. Wiley, of the Economic and Social Research Institute in Dublin, Ireland, guided the country authors and coordinated much of the work. As with all OTA documents, however, responsibility for the content rests with OTA.



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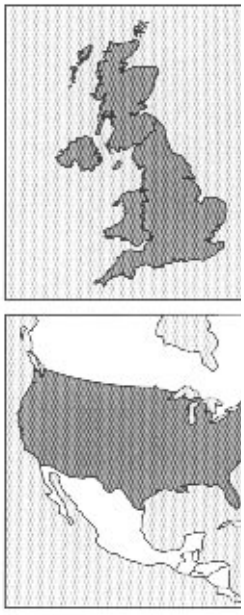
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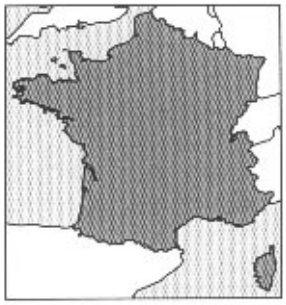
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Summary and Lessons for the United States

1

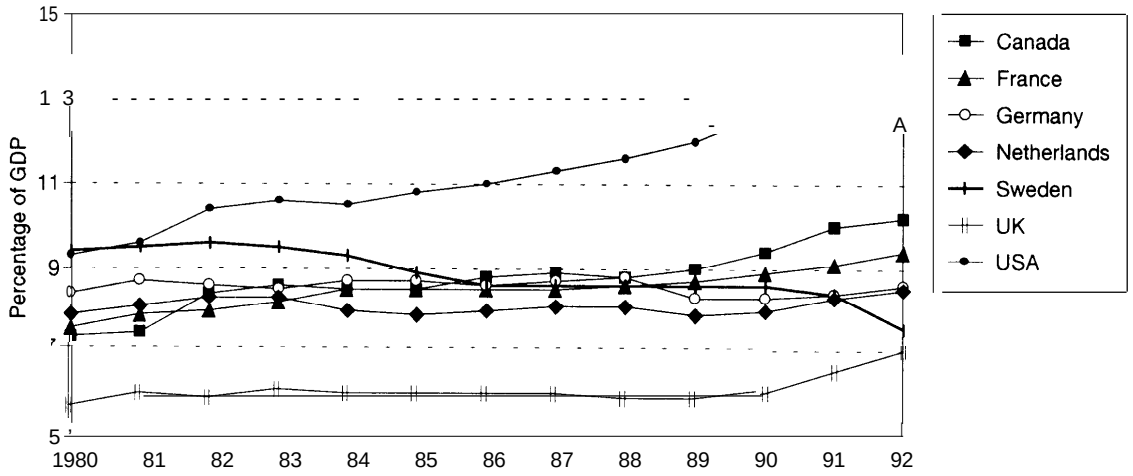
The largest item of expenditure in the health care budgets of most industrialized countries—including the United States—is the acute care hospital sector. As a consequence, hospitals have attracted the attention of policymakers attempting to curb growth in health care costs by changing the financial landscape for hospitals. Hospital use has declined, particularly dramatically since the early 1980s, in response to economic signals and the development of new medical technologies. The rate of growth in hospital costs also has slowed, but at least some costs have been diverted to other health care sectors, particularly outpatient care and long-term care. What happens in one part of the health care system often reverberates in other sectors, so no component can be studied in complete isolation. Nonetheless, payment for hospital care in the United States and other countries is governed by distinct policies that bear examination.

Looking around the world, it appears that health care expenditures in other industrialized countries have remained lower than in the United States, while at the same time, everyone in those countries has financial access to care. Increasingly, U.S. policymakers and researchers have looked to other countries to find new ways of organizing and paying for health care, which might be transferable. This seven-country study of spending for hospital services and the policies that affect spending is an attempt to find lessons for the United States.



The individual experiences of the United States and six of its international peers—Canada, England, France, Germany, the Netherlands, and Sweden—in hospital financing and payment systems over the past decade are reviewed in the chapters that fol-

FIGURE 1-1: Total Health Expenditures as a Percentage of GDP
Selected Countries, 1980-92



SOURCE: Organisation for Economic Cooperation and Development, *OECD Health Data* (Paris: OECD, 1995),

1ow.[1] This summary focuses on general trends in the United States and the other countries and on recent reforms directed at hospitals.

THE CHANGING PROFILE OF HOSPITAL USE

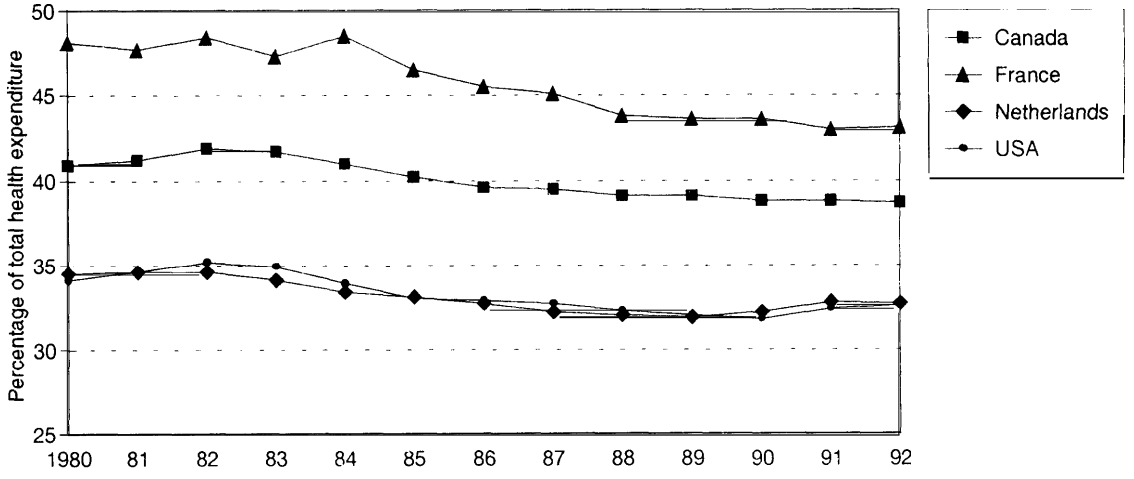
The acute care hospital continues to be home to the most advanced medical technologies, but much about hospitals has changed, and the change has been especially rapid since 1980. Trends in key indicators in different countries give an idea of just what has occurred.[2] Overall, health care spending has taken up an increasing percentage of the gross domestic product (GDP), most significantly in the United States, Canada, France, and the United Kingdom, and to a lesser extent in Germany and the Netherlands, declining only in Sweden (figure l-l). In 1980, the percentage of GDP devoted to health care was between 7 and 10 percent in all the countries except the United Kingdom (which was below the rest). The United States was second to Sweden by this measure. By 1992, the United States stood well above the other six countries, having experienced a steeper rise than the rest, particularly during the late 1980s and early 1990s.

As a percentage of total health care spending, the amount devoted to acute hospital care has actually decreased since 1980 in the United States, Canada, France, and the Netherlands (the only other countries for which this figure is available) (figure 1-2), because utilization in other sectors has risen faster than hospital utilization (due in part to the shift of services out of hospitals and into other sites of care). Among these four countries, France allots the highest percentage to hospitals,

1 The country chapters were first drafted in 1993. They have been updated to different degrees, and *are* current, on average, to early 1994.

2 The data referred to in this section are from the Organisation for Cooperation and Development (OECD). The relative standings of countries are probably very reliable, but because data from different countries are not necessarily entirely comparable, the actual numbers should be interpreted with some caution.

FIGURE 1-2: Acute Hospital Expenditures as a Percentage of Total Health Expenditures Selected Countries, 1980-92

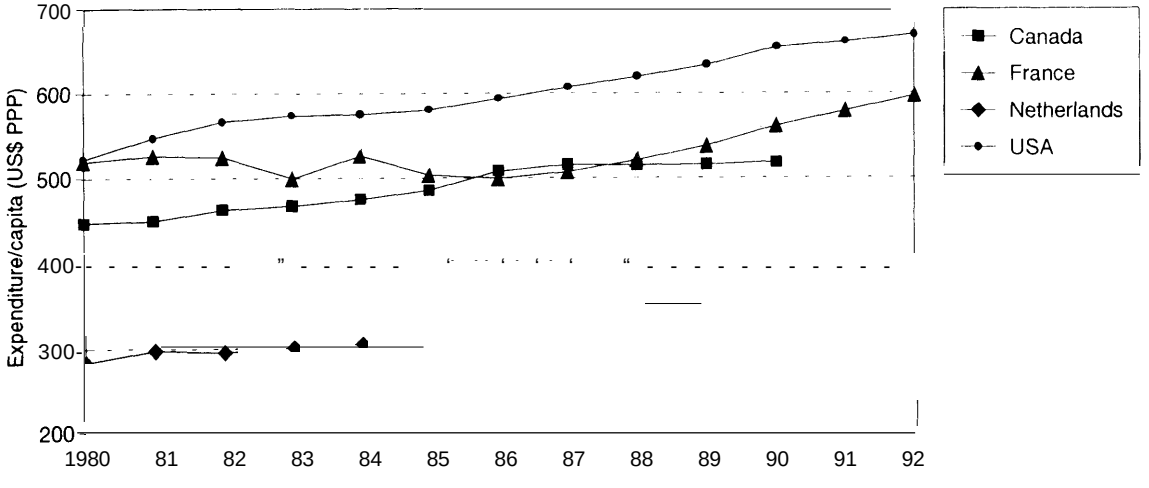


SOURCE: Organisation for Economic Cooperation and Development, *OECD Health Data* (Paris: OECD, 1995)

and the United States the least (even though the United States has spent more per capita than these four countries in every year since 1980 (figure 1-3)).

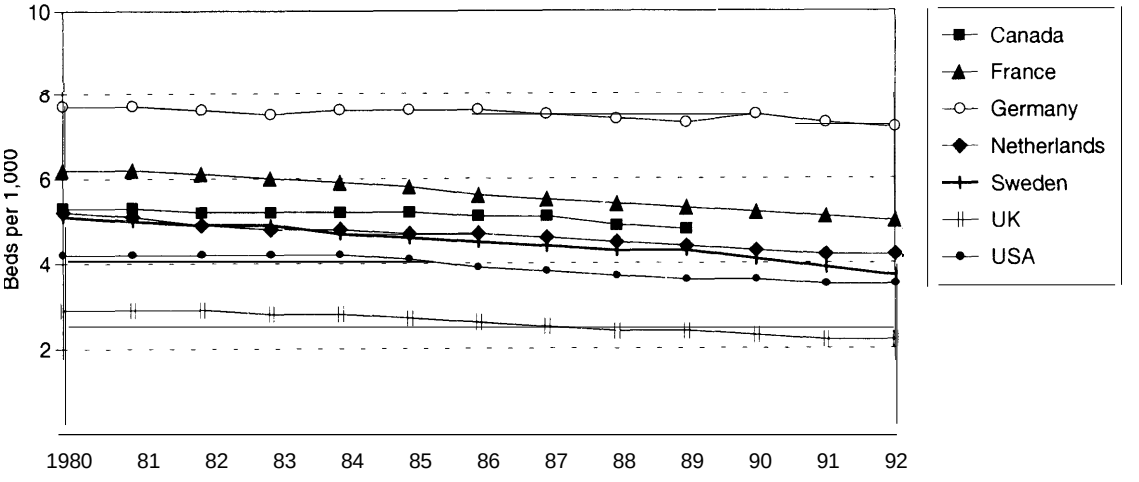
Some of the reasons for changes in hospital spending can be gleaned from a few other statistics. The United States and the other six countries all have somewhat fewer hospital beds in the

FIGURE 1-3: Acute Hospital Expenditure Per Capita (inflation-adjusted U.S.$ Purchasing Power Parity) Selected Countries, 1980-92



SOURCE. Organisation for Economic Cooperation and Development, *OECD Health Data* (Paris: OECD, 1995), Organisation for Economic Cooperation and Development, *OECD Health Systems, The Socio-Economic Environment. Statistical References, Volume II* (Paris OECD, 1993).

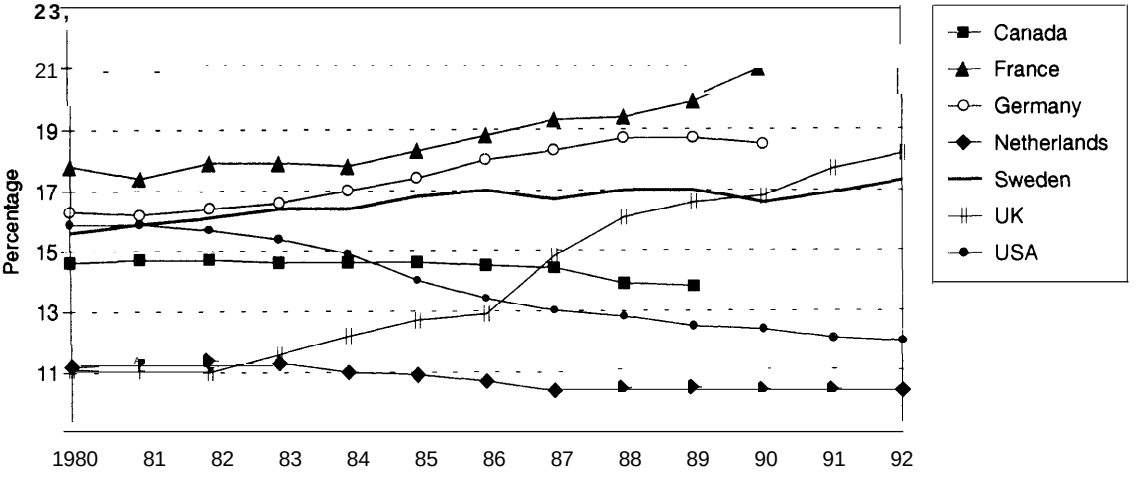
FIGURE 1-4: Acute Hospital Beds/1,000 Population
Selected Countries, 1980-91



SOURCE: Organisation for Economic Cooperation and Development, *OECD Health Data* (Paris: OECD, 1995).

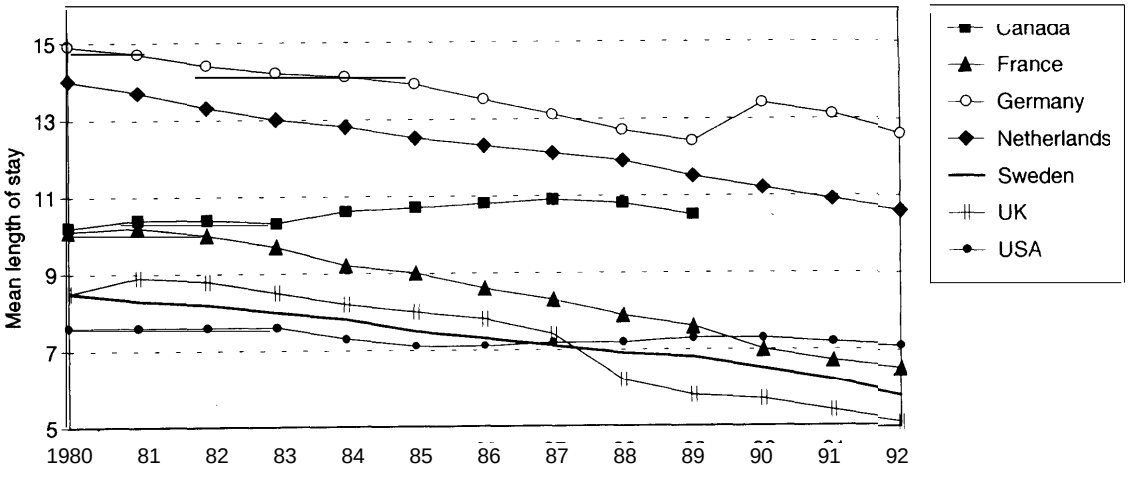
1990s compared with 1980, in proportion to population size (i.e., fewer hospital beds/1,000 population), and the United States has the lowest ratio of any country except the United Kingdom (figure 1-4). The decline is a result of reduced demand. The percentage of the population admitted to a hospital has fallen steadily in the United States (this is not the case in all countries, with some trending upward and others downward) (figure 1-5). By 1992, the United States had a lower admission rate than any country except the Netherlands. And once in the hospital, people in all coun-

FIGURE 1-5: Acute Hospital Admissions as a Percentage of Population
Selected Countries, 1980-92



SOURCE: Organisation for Economic Cooperation and Development,*OECD Health Data* (Paris: OECD, 1995).

FIGURE 1-6: Mean Length of Stay in Acute Hospitals
Selected Countries, 1980-92

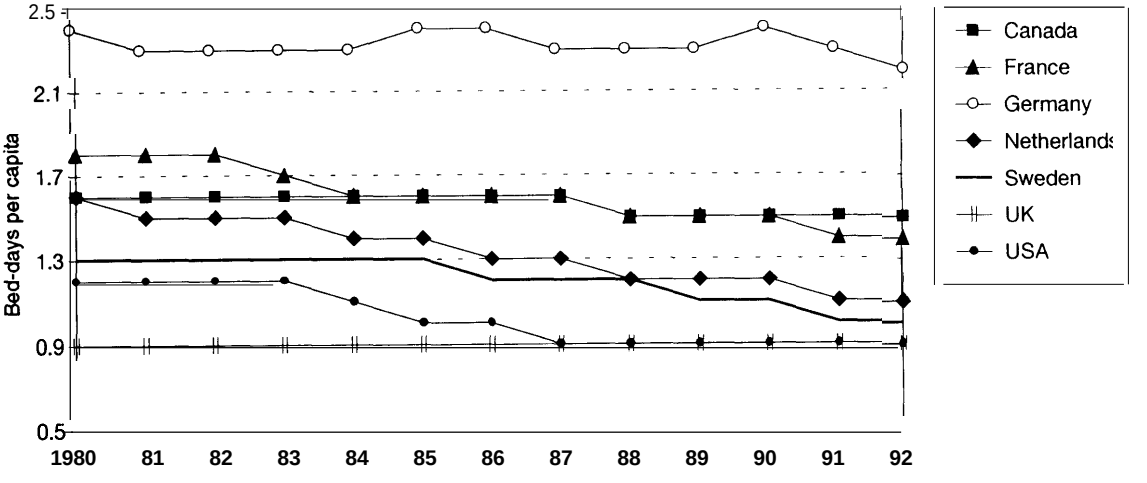


SOURCE: Organisation for Economic Cooperation and Development, *OECD Health Data* (Paris: OECD, 1995)

tries stay, on average, for a shorter period than they did in 1980 (figure 1-6).

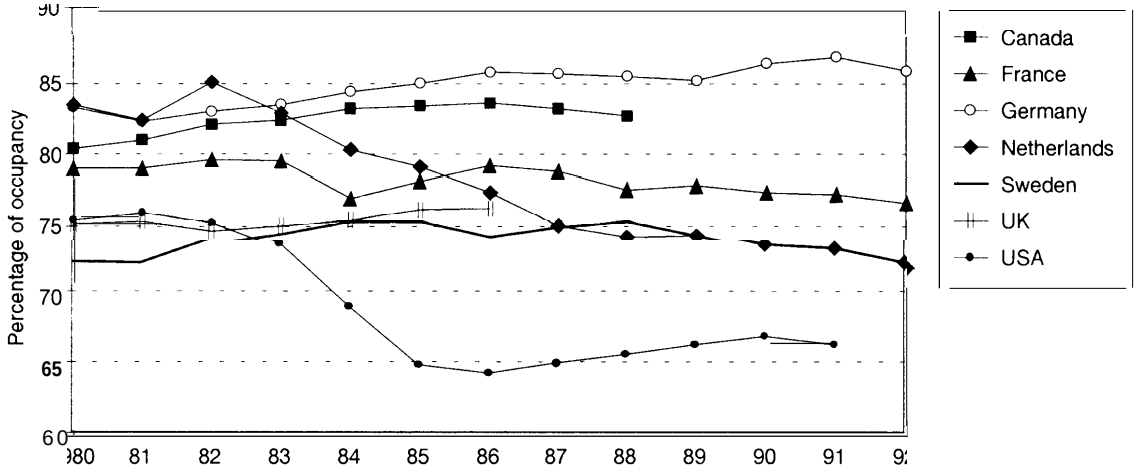
Overall, the number of days spent in the hospital each year per capita has declined in all seven countries (figure 1-7). In 1992, the United States and the United Kingdom had the lowest rates of hospital days per person of the seven countries, and Germany has consistently had the highest rate. Hospital occupancy rates (the percentage of beds occupied as a proportion of the number available) are determined by the numbers of beds, the numbers of admissions, and how long people stay.

FIGURE 1-7: Acute Hospital Bed-Days per Capita
Selected Countries, 1980-92



SOURCE: Organisation for Economic Cooperation and Development, *OECD Health Data* (Paris: OECD, 1995)

FIGURE 1-8: Occupancy Rates for Acute Hospitals
Selected Countries, 1980-92



SOURCE: Organisation for Economic Cooperation and Development, *OECD Health Data* (Pans: OECD, 1995)

Since the mid-1980s, the hospital bed occupancy rate in the United States has dropped steeply, from about 75 to about 65 percent, and is lower than in the other six countries (figure 1-8). The low occupancy rates have already caused many U.S. acute care hospitals to close, downsize, or shift into other areas (e.g., long-term care) and many more will probably do so in the next few years.

▪Forces of Change

Two forces have been most influential in reducing the demand for acute hospital services: financial incentives and advances in medical technology. Prospectively fixed hospital payments and pricing strategies have encouraged hospitals to find ways to reduce the cost of caring for patients, which includes shifting inpatient care to outpatient settings where possible. In the United States, the rate of growth of inpatient hospital spending slowed during the mid-1980s, but outpatient expenditures rose steeply. This coincided with:

1. Medicare's adoption of a prospective payment system (discussed below), which sets per-case payment limits only for hospital inpatients,
2. the beginnings of privately insured managed care efforts to reduce inpatient expenditures, and
3. Medicare's and Medicaid's liberalized coverage rules for nursing home and home health services.

In the other six countries, most hospitals have been operating under fixed annual budgets that provide clear expenditure constraints, at least for inpatient services. Recent and ongoing reforms include pricing strategies designed to encourage greater use of outpatient sites. For an example, the Canadian province of Ontario has made outpatient care more attractive by adjusting the relative rates for the same services provided in and out of the hospital. While still lowering costs overall, providers do better financially by using outpatient sites. Several counties in Sweden also have used price differentials to influence patient flows to inpatient and outpatient sites, in some cases including differences in patient cost-sharing amounts rather than hospital reimbursement, giving the consumer an incentive to choose the less expensive setting. In the Netherlands, as part of major

health care reforms in 1992, payment rates for hospital care not requiring an overnight stay were increased to stimulate substitution of daycare for inpatient care. One of the farthest reaching reforms in this area is currently being implemented in Germany. Germany's 1993 Health Sector Act for the first time allows general hospitals to establish outpatient departments.

Existing medical technology has been exploited and the development of new technology pushed in the quest to lower hospital costs. Some of the improved efficiency in hospitals comes from such advances as laparoscopic surgery (also called "keyhole" surgery), which allows many complex procedures to be carried out through extremely small incisions, reducing hospital stays and the need for post-surgical care to a fraction of what they are for "open" surgeries. Getting people out of the hospital sooner after all kinds of procedures is also the rule now, since it is generally accepted (whether or not it is always true) that outcomes are no worse with shorter hospital stays.

HOSPITAL FINANCING IN THE UNITED STATES AND ABROAD

Health care systems and their financing may be categorized many ways. Looking at where most of the money comes from is an obvious first cut (table 1-1). Broadly speaking, health care systems are financed either by tax revenues or by some type of insurance premiums. Of the countries covered in this report, Canada, Sweden, and England fall into the former category and the United States, France, Germany, and the Netherlands into the latter. Among the insurance-based systems, participation is mandatory in all except the United States. The source of revenue does not predict how hospitals get their money, however, and in fact there is considerable overlap between the two groups, particularly since the recent series of reforms of the late 1980s and 1990s (tables 1-1 and 1-2).

In all the countries, operating expenses—the costs of keeping the hospital running day-to-day to treat patients—account for the lion's share of hospital spending. Capital spending—the money to buy new equipment, build new hospital wings, replace old ones, etc.—though small relative to operating expenditures, can drive up operating expenses because it creates an atmosphere where new technologies come into frequent use. In the real world, the split between operating and capital expenses is an artificial one, but in fact, policies in most countries do treat them separately to some extent, and they are discussed separately below.

Cost containment, increased efficiency, and a more equitable allocation of hospital funds are the objectives driving nearly all hospital financing reforms in the comparison countries, but other factors also are important. Enhancing patient choice in the health care system, including greater choice of hospitals, is another recurring theme. The organizational and social concerns that affect and are affected by health care and hospital reforms are discussed briefly in this chapter.

The United States

There is no single "U.S. hospital system." The U.S. health care system may be described as insurance-based with patient-based payment as the predominant approach to reimbursing hospitals for services, but really it is a combination of systems, some overlapping and others existing independently. Money flows to hospitals in the United States in much more varied ways than it does in other countries. It comes from a multitude of private insurers, the joint federal-state Medicaid program, the federal government's Medicare program, and out-of-pocket costs from both insured and uninsured people (table 1-3). (The separate hospital systems for veterans, military personnel, and for Native Americans are paid for entirely by the federal government.) Third-party payers use a vast array of methods for reimbursing U.S. community hospitals (defined as nonfederal short-term facilities), of which 59 percent are privately owned nonprofit institutions, 14 percent are privately owned for-profit institutions, and the rest are operated by state and local governments.

The Medicare program is federally funded primarily through payroll taxes on employers and

TABLE 1-1: Approaches to Financing Hospital Operating Expenses in Seven Countrie

	Canada	England	France	Germany	The Netherlands	Sweden	United States
Predominant financing source for inpatient hospital services	General tax-based (provincial general tax revenues and federal transfers)	General tax-based (central government general tax revenues)	Social insurance (payroll taxes paid to social security sickness funds)	Social insurance (payroll taxes paid to statutory sickness funds and private insurers)	Social insurance (payroll taxes paid to statutory sickness funds, premiums paid to private insurers)	General tax-based (County Council income taxes)	Private insurance/ social insurance (premiums paid to private insurers, payroll taxes and general tax revenues for social insurers)
Predominant payment method for inpatient hospital services	Prospective "global" budgets (controlled by provincial governments)	Activity-based financing (funds follow the patient; total funds cash-limited at district level)	Prospective budgets ("global allocation" plus daily charges) (controlled by the government)	Prospective "flexible" budgets[b] (negotiated between hospitals and insurance funds, with central government controls)	Prospective "functional" budgets (partially activity-based), (negotiated between hospitals and sickness funds, with central government controls)	Prospective hospital department budgets; some activity-based financing (funds follow services or patients) (county council controlled)	Activity-based (funds follow patients) (some central or state government controls for social Insurance programs)
Ownership of hospitals (percent of total hospital beds)	Public (100%)	Public (NHS) (91 .3%), private (8.7%)	Public and public affiliated (75%); private nonprofit (5%); private for-profit (19%)	Public (62.3%);[c] private nonprofit (33.9%); private for-profit (3,8%)	Public (15%), private nonprofit (85%)	Public (nearly 100%)	Public (18,2%), private nonprofit (71%), private for-profit (1 0.8%)
Predominant payment method for inpatient hospital services provided by physicians	Fee-for-service	Salary	Salary	Salary	Fee-for-service	Salary	Fee-for-service

[a]The information presented in this table relates primarily to the dominant acute hospital sector at the beginning of 1994
[b]Beginning January 1993, effective until 1995, Germany has adopted prospective "fixed" budgets (See definitions in text).
[c]The figures refer to general hospitals and include both acute and nonacute services; they refer to all 16 states of unified Germany, The former East German states had a much higher proportion of public hospitals and beds than the former West German states

SOURCE: OTA, 1995.

TABLE 1-2: Approaches to Financing Hospital Capital Expenses in Seven Countries

	Level of Responsibility	Source of funding	Basis of reimbursement for capital costs	Role of health sector planning	Relation of capital and operating costs
Canada	Provinces	Provincial funds, often combined with **local** community **or** hospital funds.	Separate capital funds are granted after provincial government approval of proposed investments.	The hospital sector is subject to planning by the provincial government, which mostly determines the capacity of the system.	Depreciation for major medical equipment may be reimbursed through operating expenses.
England	Regional health authorities	National Health Service's capital budget is allocated to Regional and District Health Authorities (under reforms, hospitals will be able to generate their own capital funds).	Separate capital projects are funded if approved by Regional Health Authorities.	The central government, working through regional and district health authorities, fully determines the capacity of the public hospital sector.	Capital charges, including depreciation and interest charges, now included in service contracts.
France	Ministry of Health, in consultation with regional authorities	Public and PSPH hospitals obtain most funds from their own resources, with some funding from state or local subsidies.	Upon approval by the appropriate level of government authority, hospitals finance the investment from own sources and receive state subsidies if eligible.	The entire health care system (both public and private health institutions) are subject to formal health sector planning through the Health Map. The central government fully determines the capacity of the hospital sector.	Depreciation and interest costs are included in operating charges.
Germany	State authorities	State capital budgets (trend toward combined state and hospital funds).	State funding for approved projects only for hospitals included in the state hospital plan (almost all hospitals); trend toward combined state and hospital funding of capital after consensus among hospital, state, and sickness funds.	Capital investments are approved and financed by state governments on the basis of state hospital plans. State governments fully determine the capacity of the hospital sector.	Depreciation for fully state-financed capital not included in operating charges; depreciation and interest costs Included in operating charges for capital financed from combined state and hospital funds.
The Netherlands	**Central and regional governments**	**Hospitals' own financial resources.**	**Internal sources and loans from private banks upon regional or central** governmental approval of capital investment.	**Construction of facilities and purchases of major medical** equipment require a government-issued license, issued on the basis of regional and national health-sector planning.	**Depreciation and interest costs fully recoverable through patient** charges.

(continued)

TABLE 1-2 (Cont'd.): Approaches to Financing Hospital Capital Expenses in Seven Countries

	Level of Responsibility	Source of funding	Basis of reimbursement for capital costs	Role of health sector planning	Relation of capital and operating costs
Sweden	County Councils	Separate county council capital budgets, but trend toward including building and equipment costs in hospitals' operating budgets.	Buildings are rented and equipment leased upon approval from the county council.	The capacity of the hospital sector is planned and controlled at the county council level, with input from regional organizations.	Trend towards allocating building rents and capital-related costs to hospital departments.
United States	**Hospital** management	**Hospitals' own financial** resources.	**Internal sources and private** loans.	**Almost** none. Some states require a certificate-of-need process for reviewing and approving capital projects.	Depreciation and interest costs mostly recoverable through patient charges, although not all.

employees. In 1993 Medicare covered about 13 percent of the population and paid 28 percent of all hospital operating revenues. Until 1983, Medicare generally paid hospitals retrospectively based on the costs of care for each patient hospitalized. Explosive cost increases throughout the 1970s and early 1980s led to introduction of a "prospective payment system" (PPS) that uses nationally standardized payment rates by "diagnosis related group" (DRG). DRG-based payments were intended to provide incentives for hospitals to improve efficiency by offering a standard payment for all similar patients receiving similar services. PPS was important in decreasing the length of hospital stays. After PPS was instituted, the rate of increase in hospital costs did decline, but only temporarily. Within a couple of years, the rate of growth was back up to pre-PPS levels. PPS was also associated with a substantial shift to outpatient treatment for certain types of services, including outpatient surgery.

DRG payments have not kept pace with increases in hospital costs, but hospitals have, by and large, maintained their previous rates of growth by charging private insurers more, a practice known as "cost shifting." Because insurers traditionally have passed along these higher charges in the form of higher premiums or copayments, the level and quality of care for Medicare patients probably has not been affected greatly. But with greater market pressure brought by private insurers on hospitals to lower their charges (discussed below), hospitals will find it more and more difficult to shift costs.

Medicare pays for most outpatient services on a cost basis. In 1986, Congress first directed the Health Care Financing Administration (HCFA, the agency that administers Medicare) to propose a PPS 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, have options for establishing an outpatient PPS been submitted to Congress. But the options developed so far would apply to only about one-third of outpatient spending. Implementation may be years off.

TABLE 1-3: Hospital Expenditures by Source of Funds 1993 (in billions of dollars)

Program area	Hospital expenditures	All health expenditures
Private spending	1437	445,5
Public spending	182,9	337.0
Medicare	92.7	151,1
Medicaid	42.4	172,8
State & local public assistance programs	3.1	5.0
Dept. of Veterans Affairs	118	14,2
Dept. of Defense	104	133
Workers Compensation	10.0	20,6
State & local Hospitals	10.3	10,3
Other public programs	21	9.7

SOURCE. U.S Department of Health and Human Services, Health Care Financing Administration, Office of Research and Demonstrations, *Health Care Financing Review* 16(1), fall 1994

Medicaid is a tax-financed state-federal health care program for low income and disabled people, which covered 8 percent of the population in 1993 and accounted for 13 percent of hospital payments. Eligibility for Medicaid is determined by each state within federally determined guidelines and varies considerably across the country. Virtually all hospitals participate in Medicaid, although the extent of participation varies widely. Medicaid beneficiaries are more likely to get inpatient care in public nonfederal hospitals and teaching hospitals, and less likely in private hospitals, which may be reluctant to admit Medicaid patients because of low reimbursement rates and restrictions on coverage.

Before 1980, Medicaid programs were required to use the same methods as Medicare to pay for hospital services. Legislative changes in 1980 and 1981 allowed states to develop their own payment arrangements with hospitals. The substantial state autonomy and the imperative to constrain costs in Medicaid programs has led to heterogeneous approaches to reimbursing hospitals. Prospectively determined payment rates are common, but are packaged differently in different states. In addition, more and more states are introducing managed care initiatives as a way to either hold down costs, increase coverage to a broader population, or to achieve both goals.

More than half the states have applied for waivers that excuse them from certain Medicaid specifications so they can institute changes that move even farther from a "standard" Medicaid program States are being seen as laboratories for experimentation.

Government influence on the hospital sector has been very strong, but most people—about two-thirds of the population—still are covered by private insurance, most sponsored by employers. About 35 percent of hospital expenditures are paid for by the hundreds of U.S. private insurers, under a multitude of plans. The very essence of the private insurance sector is variability in its range of plans, benefits covered, reimbursement systems, payment rates, etc. These attributes are combined with a range of payment mechanisms for beneficiary contributions, including coinsurance, copayments, deductibles, and other out-of-pocket expenses.

The fact that health insurance benefits have been consuming an increasing share of employee compensation relative to wages has contributed to the pressure to hold down costs. The constant pressure of rising costs and expanding demands means that insurers continually seek ways to cap both expenditures and benefits. One important response to this pressure has been the extraordinary growth in managed care organizations and the increasing tendency of purchasers to form large buying groups. Managed care organizations vary in structure, scope, and size, but all constitute integrated service networks that often combine insurance functions with health care delivery. Purchasing groups (including large employer and government purchasers) tend to contract selectively with managed care organizations or to contract directly with networks of providers to supply health care services to the group's members. The growth of managed care organizations has also been accompanied by greater financial risk-sharing by providers, which might include sharing profits or surplus funds in risk pools with providers or paying providers on a per person (capitation) basis.

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. During the 1980s and early 1990s, many hospitals have merged with, acquired, or affiliated with other institutions to create larger systems to compete effectively for patients under managed care contracts. This trend is, if anything, growing stronger, and is a major force putting downward pressure on hospital costs.

The effects of these changes are seen in a slowing of hospital cost growth in the 1990s, particularly dramatic since about 1993. Adjusting for the effects of inflation, the real growth in costs per case fell from 5 percent in 1992 to less than 2 percent in 1993 and the beginning of 1994. In addition to the declines in lengths of stay and per-capita admissions, discussed earlier, growth in hospital salaries also has slowed.

This is not the first time that the rate of growth in hospital costs has slowed down. Hospitals have responded before, with a decline in growth rates after introduction of the prospective payment system; earlier, in the 1970s, to the Nixon Administration's economic stabilization program; and at other times. These earlier slowdowns did not hold, however, with rates of increase picking up within a few years.

Whether the current slowdown will continue is debatable. Part of the impetus for hospitals to improve efficiency and cut costs was undoubtedly the prospect of comprehensive health care reform at the national level. That pressure appears to be off for the foreseeable future. But today's pressures also come from the private sector, and changes in the private insurance market are accelerating. Many people believe that these market forces holding down health care costs will be sustained and will continue to keep growth in check by wringing still more inefficiency out of the system, by promoting cost-saving new technology, and by abandoning services with only marginal health benefits.

Hospital Capital Expenditures

U.S. hospitals have great freedom to decide how much capital they need, with relatively few regulatory constraints. Public hospitals may be required to follow government guidelines for competitive bidding arrangements, but few states exert direct control over the decisionmaking or acquisition process for capital. About 30 states operate some kind of certificate-of-need program requiring prior approval of large capital expenditures, and other states limit the amount of capital available by other means, but these programs do not appear to have had much impact overall.

Capital expenditures are financed through fundraising (i.e., gifts), loans, and routine payments for services by insurers (including the federal government). About half of all capital expenditures are financed by loans and the rest by other sources. Under "traditional" cost-based reimbursement systems, capital expenditures for buildings and equipment (represented by depreciation and interest payments on debts) are passed through to payers by adding on an appropriate amount to all charges for services. But as cost-based reimbursement is being replaced more and more with prospective payment systems that pay a predetermined charge for each service, payers can exercise more control over how much allowance they make for capital costs. Medicare's PPS system originally allowed capital costs to be paid directly as required, independent of DRG payments, but as of the 1992 fiscal year, capital costs are gradually being incorporated into DRG payments, giving the government greater control over the level of capital it provides to hospitals.

Through the 1980s, hospitals competed by continually upgrading their facilities and providing the most sophisticated medical technology. These capital expenditures were a major contributor to the rise in hospital and health care costs. Today, with price competition a much greater factor in the survival of hospitals, investments in the latest technology are no longer a given. In this case, limits on new technology may be imposed by market forces. At the moment, however, capital spending is still growing as a percentage of total hospital spending.

International Trends

The upward pressures of medical costs, especially in hospitals, are felt in all countries and the responses are a continual series of reforms that attempt to maintain control over costs and improve the quality of services. The six countries included in this study, though crossing the spectrum of organization and financing, all maintain near-universal coverage of their populations, and no reforms have sought to exclude segments of the population from coverage (though in some countries the amount people must pay out-of-pocket has risen, which may effectively reduce access for some people, and the range of benefits to be covered by public or sickness fund insurance is alive in policy discussions). Changes to improve the countries' health systems have focused more on the supply side of the system through provider incentives and on the demand side through the creation of purchasing organizations.

Canada, England, France, Germany, the Netherlands, and Sweden all currently have or have recently had some form of prospective budgeting system for most hospitals, i.e., they determine ahead of time how much money a hospital will get for operations in the next year. One of the most pervasive factors underlying reform in these countries is the belief that, while prospectively fixed hospital budgets help promote overall expenditure constraint, at least for inpatient services, explicit incentives and controls are needed to encourage the efficient and equitable allocation of funds within individual hospitals or across hospitals. In simpler terms, where no appeal for more money is possible, a fixed budget can hold costs down to an absolute level, but not necessarily improve the return on the money spent in terms of the quality or quantity of hospital services.

Traditionally, annual hospital budgets have been based largely on historical costs, adjusted for such factors as general inflation, service growth, new technologies, and wage and salary increases.

A hospital budgeting system based on historical costs, however, may not encourage hospitals to try to find cheaper ways to produce hospital services or to improve the quality of services to attract patients. Hospitals only have to ensure that their expenditures stay within the amount provided from the government or insurance funds. Of course, if annual budget determinations do not keep pace with the demands placed on a hospital's services, the overall budget restraint may require hospitals to cut their costs. Historical cost budgeting may also lock in inequitable funding arrangements. Hospitals that have been historically underfunded or become underfunded because of changes in local population needs often remain underfunded while other hospitals may be inefficiently overfunded.

For these reasons, countries with prospectively fixed budgets have chosen to redesign hospital financing or payment mechanisms to better account for patient flows and patient needs, and to promote more efficient use of resources. Cost containment has not been abandoned as a primary goal in hospital financing reforms, but this goal is increasingly accompanied by attempts to encourage more efficient production of hospital services. Reallocation of funds among hospitals is not always designed to decrease aggregate hospital spending, but may be used to provide more money to hospitals where health care needs are greatest and less where needs are lower in order to obtain better "value" for the same amount of resources spent. Different ways of paying individual hospitals (e.g., a fixed payment per hospital episode) have also been adopted to a limited extent in some countries to motivate hospitals to lower their production costs by reducing lengths of stay, using less expensive labor, or using cheaper medical technologies or settings where appropriate.

Financing reforms adopted by the six studied countries follow one or both of the following broad strategies:

1. strategies that depend on greater internal or external market competition to reallocate funds among hospitals and within hospital departments, and
2. strategies that depend on activity- or case-mix based budget determinations.

The first strategy has recently been adopted by the Netherlands, England, and some Swedish county councils. In these places, reforms have focused on separating the purchasers of hospital services from service providers. Money is directed to individual hospitals either through patient decisions to choose a specific hospital (i.e., "money follows the patient"), through a purchasing organization's decision to contract with a hospital to provide services to the organization's members, or, as in some Swedish hospitals, hospital departments "purchase" services from other departments.

In Sweden, several county councils have established internal hospital markets under which some hospital departments (usually clinical departments) are given budgets out of which they purchase services (e.g., diagnostic tests, food, and housekeeping services) from other departments, encouraging scrutiny of the costs and benefits of services that patients get. Other Swedish county councils have established external markets by allocating budgets to authorized purchasing organizations that are responsible for buying all health care for a defined population through contracts with health care providers.

England and the Netherlands have adopted more decentralized, market-oriented mechanisms to pay for hospital (and other) services. Following reforms in these two countries, a large part or all of a hospital's operating revenues are determined largely by the contracts it negotiates with purchasers for specific services. In England, purchasing organizations (District Health Authorities or general practitioners who have become "fundholders") receive a budget from the government, which is proportional to the size of the population for whom they provide health services. The purchasing organizations are responsible for contracting with hospitals to provide inpatient services to their enrolled populations (a very small number of British hospitals still operate on prospectively determined budgets).

In the Netherlands, about half of a hospital's revenue comes from a prospective budget based on the size of the population it serves and on the number of authorized beds and medical specialist units that it has. The other half is determined by "production contracts," the result of annual negotiations between hospitals and health insurers (both sickness funds and private insurers) over the projected volume of hospital use by each insurer's beneficiaries. Health insurers agree to pay hospitals for a predetermined number of hospital admissions, inpatient days, outpatient visits, and daycare visits, and for some specific high-cost treatments. Payment rates for hospital services are determined by a quasi-governmental agency. Production contracting acts as an instrument for adapting hospital budgets to changes in demand for a hospital's services, making the budgeting scheme more flexible. Production contracts have also increased the role of health insurers in the budgeting process and have tended to decentralize the process.

The second broad strategy for financing reforms moves from budgets based on historical costs to allocating money in ways that more accurately reflect each hospital's patient load and activity. These methods use measures of the hospital's case mix or severity mix, often derived from the diagnosis-related groups (DRGs) used in U.S. Medicare's prospective payment system, to determine at least a portion of the budget. The Canadian provinces of British Columbia, Alberta, and Manitoba have begun using various forms of population- or case-mix based measures to set a percentage of hospitals' budgets to encourage hospitals to produce services more efficiently or to align hospital funding more closely with population needs. France is also conducting limited experiments in a number of hospitals to test a case-mix based approach to financing, with hospital charges based on homogeneous patient groups that are similar to DRGs. Germany has recently expanded the use of special fees and case-based payments that are conceptually similar to U.S. Medicare's DRGs with the goal of bringing most hospital inpatient care under a more performance-related system.

Hospital Capital Expenditures

Trends toward greater hospital efficiency are echoed, but to a much lesser extent, in the six countries' reforms of capital financing. Some reforms have been aimed at requiring explicit consideration of the "opportunity costs" of making specific capital expenditures—i.e., what other opportunities there are for investing the money that will be lost by spending it a certain way. Others have changed the threshold for approving capital expenditures in countries where approval is required and changing the way in which hospitals are paid for capital expenditures.

In England, before recent National Health Service (NHS) reforms, depreciation and the opportunity costs of using capital assets were not explicitly separated out in NHS accounts because all hospitals were owned, operated, and funded by the NHS. But since 1991 and the reforms that have separated purchasers and providers, charges for capital have begun to be incorporated into contracted rates for hospital services. The reforms also for the first time allow NHS Trusts to finance their capital requirements from within their own budgets and by borrowing.

Until recently, private loans to hospitals in the Netherlands were guaranteed by the national government, which is estimated to have decreased interest payments by about 1 percent. This arrangement was recently ended to encourage hospitals to behave like private companies in obtaining loans for capital investments. A general trend in Sweden's county councils is to allocate rents for hospital buildings and investment costs directly to hospital departments to motivate them to more efficiently use different kinds of hospital inputs (e.g., labor versus high-technology equipment) to provide services. Although France has not changed its policy of providing free state and local government subsidies and interest-free loans from sickness funds for public hospital investment, public hospitals are obtaining an increasing share of their capital funds from internal sources and interest-bearing loans.

Because of the split between capital planning and budgeting and operating cost budgeting, the impact that capital investments will have on future

hospital operating costs often is not considered when decisions about capital investments are made, but this, too, is being addressed in some countries. The Canadian provinces are increasingly requiring that requests for approval of hospital capital expenditures include an "economic case" that the capital purchase will either reduce operating costs by improving technical efficiency or that it will lead to improvements in patient outcomes sufficient to justify the expenditures. In the province of Manitoba, getting approval for new equipment requires that the implications for future hospital operating costs be predicted before a decision is made. If it is likely to significantly increase operating costs, e.g., require additional staff or maintenance, it may be treated as a new program proposal, which is evaluated more rigorously. In Germany, with only some recent exceptions, the law has allowed the cost of capital investment to be added directly to hospital charges only for projects designed to reduce operating costs.

U.S. hospitals must raise their own funds, usually through equity or borrowing, and therefore already include the opportunity costs of capital investment funds and possible impacts on future operating costs in their decisionmaking process. Individually, U.S. hospitals have incentives to purchase capital when the expected benefits of an investment project outweigh its cost, but the lack of overall planning and allocation of capital among regions and hospitals does not promote maximization of the net benefits of capital investments in the hospital industry or country as a whole.

Overall Hospital Spending

Recent and ongoing reforms are expected to increase hospital efficiency and patient satisfaction. However, unlike the United States, in all six comparison countries there are still explicit limits on the total amount of money available to pay for hospital services.

In Sweden, hospital funds are limited by the county councils, which determine hospital department budgets or the budgets of purchasing organizations; beginning in 1991, the central government restricted county councils' ability to further increase tax revenues. In England, the amount of money flowing to District Health Authorities or to general practitioner fundholders to purchase hospital services is still cash-limited by their respective Regional Health Authority, and, ultimately, by aggregate limits on National Health Service funding from general tax revenues.

French public (and affiliated private) hospital budgets are still largely constrained by prospective budgets (called global allocations) that must be approved by government authorities. Negotiations between German sickness funds and German hospitals over a hospital's prospective budget are more constrained since that country's most recent health reforms were adopted. The German Health Sector Act of 1993 requires fixed prospective hospital budgets from 1993 to 1995 that can no longer be adjusted for the difference between the actual number of inpatient days delivered and the predicted number. The Health Sector Act also strictly constrained growth in hospital budgets during that period, tying growth to increases in sickness fund income.

The Canadian provinces have also become more forceful in the 1990s in developing institutional expectations that hospital budgets are binding. The Netherlands' hospital reforms provide a partial exception to this rule of aggregate limits on hospital spending. The new budgeting scheme with production contracts leaves one avenue for hospital spending open-ended, and the Health Ministry may now only issue expenditure *targets* for any given year. However, the Ministry may make up a cost overrun by reducing the next year's budget.

Other Areas of Health Care and Hospital Reform

A trend in the six countries, though not as pervasive as strategies to improve efficiency, is the movement toward allowing greater patient choice of insurance organization, health care providers, or both. Strategies to achieve this goal often overlap with schemes to promote greater efficiency. Greater choice may not only make consumers

more satisfied with their health care system, but it also may encourage providers and insurers to try to improve quality and lower costs to attract customers.

In 1997, blue-collar workers in Germany will for the first time have the right to choose among sickness funds.[3] In Sweden's traditional health care system, patients were assigned to a primary health center and a hospital. However, the established, well-defined catchment areas of health centers and hospitals have been increasingly questioned by the general public. In response, the Swedish Federation of County Councils adopted a statement in 1991 that calls for all Swedes to be allowed to choose their physician and hospital.

Under the Netherlands' reformed system, patients may choose their health insurer—either a sickness fund or a private insurer—and insurers compete to attract subscribers. A major element of the United Kingdom's reforms was increased consumer choice of providers and services. General practitioner fundholders will compete for patient enrollment, and public and private hospitals in turn are expected to compete for their patients. Canadian citizens have always had free choice of physicians and hospitals under Canada's Medicare system. France's 1991 health reform act reiterated patients' freedom to choose a physician or hospital.

Decentralization of decisionmaking is another trend in these countries. England's purchaser-provider split shifts hospital decisionmaking from local government entities to individual hospital managers. Canada has always been decentralized to the provincial level, which allows for experimentation and for funds to be more closely aligned with local population needs. British Columbia's new restructuring initiatives attempt to create a more efficient and patient-friendly match of needs and levels of care by downsizing large urban hospitals, expanding community-based programs, and generally moving patients "closer to home." The Netherlands' production contracts have decentralized the hospital budgeting process. Some Swedish county councils' and England's purchaser-provider splits have put more power into the hands of health care purchasers. In Sweden, the tax and planning powers of county councils allows different councils to experiment with financing and payment arrangements.

CONCLUSIONS

The period since 1980 has seen constant change in the role of hospitals all over the world, reflecting both the dynamism of medicine and the tightening financial climate. The countries studied by OTA all started from different places, but all have shared the reform goals of greater cost containment, efficiency, and health service coverage. The prevailing approaches to hospital financing and the recent reforms emerge from specific historical, cultural, political, and societal contexts that do not lend themselves to unidimensional categorization. Broadly, financing models are tax-based (Canada, Sweden, England) or insurance-based (France, Germany, the Netherlands, and the United States), but the mode of financing appears to be neither a constraint against nor a requirement for any particular type of hospital financing reform.

The United States stands out among its international peers as having the highest level of hospital costs since 1980, but also for pioneering financing mechanisms—especially prospective payment systems—that have led hospitals to reduce the hospital resources used to care for individual patients, including shifting the site of care away from the inpatient setting for many patients. These mechanisms, especially the DRG system introduced in the mid-1980s in the United States, are now, in the 1990s being adopted by other countries as ways to allocate funds among hospi-

[3]White-collar workers already have this right, and they can also choose to leave the statutory insurance system and go to a private insurer. German consumers have always been able to choose their physicians, but sickness fund patients usually have to go the nearest hospital with suitable facilities.

tals, most often within the constraints of prospective budgets.

Other countries have had greater control over total hospital spending at a central level. To a large degree, these countries' reforms seek to integrate the advantages of spending controls that they have already with more efficient and equitable production of hospital services. Decentralizing hospital financing, creating incentives for competition within the hospital system, and basing a greater amounts of a hospital's revenues on the needs of the population it serves are the goals of reform, while also giving consumers more choice in where and from whom they get their health care. Basically, they are attempting to introduce selected market-type forces into their systems, choosing largely from mechanisms deemed successful in the U.S. system.

The United States is moving to a more forcefully market-driven health care system in which price competition has become more important than it has ever been. In the early 1980s, the Medicare program's prospective payment system led to a slowdown in cost increases to the federal government, though not in national health care spending. In the 1990s, the private sector is applying the greatest pressure to slow cost growth. Ratcheting down by private insurers will also affect publicly funded health care by making it more difficult for hospitals to recoup their deficits from Medicare and Medicaid patients by shifting costs to the privately insured. Ultimately, this will mean constraining the growth of services, finding ways of providing the same services at lower cost, or both. Advances in medical technology already have contributed to this effort and will probably continue to do so. Continuing to wring inefficiency out of the system—by eliminating unnecessary care and by further streamlining the functions that remain—also will contribute.

The Medicare program's move to eliminate the historical separation of operating costs and capital expenditures is also a step toward increasing the rationality of the system. Some other countries also are moving in this direction, a move that should place their health care systems—regardless of how they are financed—in a more market-drive mode.

What can the United States learn from its international peers about the costs of hospital care? The way that other countries have kept spending at a lower level than the United States is no mystery: fixed (or relatively fixed) budgets have been set in virtually all these countries by some central authority. The U.S. system as it is today and is likely to be in the foreseeable future does not allow for this type of centralized decisionmaking. Fixed, prospective budgets have apparently not made the other countries' systems more efficient, either; in fact, they may have had the opposite effect.

There is intrinsic value in understanding more about how other countries function, and their similarities and differences with the United States. There may well be some important lessons to be learned at the operational level of hospitals from international comparisons, but at a national policy level, the great efforts that have gone into international comparative studies over the past decade or so have produced relatively little practical return for the United States. They may be of greater value among countries with systems that are more similar in their health care systems. The United States should continue to be aware of and examine other countries' successes and failures in managing health care, but with limited expectations. The U.S. health care system is peculiarly our own. In the 1990s, progress is more likely to come from within than from imported solutions.

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Hospital Financing in Canada

2

by Morris L. Barer

Canada is often described as having a national health insurance system; this is not entirely accurate, however, since each of the 10 Canadian provinces (and two territories) administers its own health insurance plans. Although the hospital and medical components of those plans are subject to federal guidelines, the provincial governments make their own decisions about health care financing and payment of providers, benefits other than hospital and medical care, and the organization of health services. Despite some heterogeneity among provinces, however, the provincial health systems have several features that are common across the provinces.

To qualify for federal contributions, provincial hospital and medical insurance plans must fulfill federal eligibility and coverage standards, which include public nonprofit administration, portability of benefits across provinces, comprehensive coverage defined as "all medically necessary services," accessibility, and universal coverage. All 27 million Canadian residents, regardless of age or financial or health status, are entitled to participate in their respective provincial plans. Provinces can insure benefits in addition to hospital and physician services, but they are left to each province's discretion and vary among provinces.



Among the Organisation for Economic Cooperation and Development (OECD) countries, Canada is unique in having no private-sector involvement in hospital and medical insurance. Private insurers cannot compete with the public medical and hospital insurance programs, but can only cover services not covered by provincial plans (e.g., outpatient prescription drugs, dental care, cosmetic surgery, optometry, physiotherapy). A large percentage of the population has some private coverage, usually paid by employers. Hospitals (and physicians) are largely prohibited from

treating both patients whose care is paid for by provincial plans and patients who pay directly. The prohibition of private insurance for benefits covered by the provinces virtually establishes provincial governments as single payers of much of the health care received by Canadian residents.

Provincial health plans are financed almost entirely from general revenues (from provincial sources and federal transfers to provinces), raised through personal, corporate, sales, payroll, and other broad-based taxes (residents of Alberta and British Columbia also pay monthly premiums). In 1993, provinces funded approximately 70 percent of Canada's total health expenditures (which includes federal transfer payments) and paid for almost 90 percent of all physician and hospital charges. The remaining 30 percent of national health spending came predominantly from private payments, mainly for the costs of long-term care, adult dental care, nonprescription drugs, and other items (27).

The simple story of Canadian hospital financing—which might be summed up as single-source public funding allocated to hospitals via global budgets established by provincial Ministries of Health—offers a relatively accurate picture. However, this general description masks both provincial/territorial variations in the details of hospital funding and the different ways in which hospital capital and operating costs are paid for and allocated. The objective of this chapter, therefore, is to clarify the general story, with particular emphasis on recent new provincial funding initiatives for hospital operating costs and on the less well-understood capital funding process.[1] Approaches to funding capital and operating costs are described in more detail for several provinces to illustrate the general structure of the Canadian hospital financing system.

STRUCTURE OF THE HOSPITAL SECTOR

Hospitals were brought into the Canadian health care system under the Hospital Insurance and Diagnostic Services Act (HIDS) of 1956 (41). (For the purposes of this chapter, "hospitals" are acute care and rehabilitation care facilities, some of which also contain extended care beds.)[2] By 1961, all provinces had met the terms and conditions required to receive federal funds for hospital cost-sharing. Since that time, hospital care in Canada has been provided largely through publicly owned and funded nonprofit institutions. There is virtually no private acute care hospital sector in Canada, although an active private long-term care sector includes a variety of chronic care institutions. These institutions, even though privately owned, receive a significant amount of public funding. (The *Canadian Hospital Directory* lists over 50 private hospitals, but most are psychiatric, drug and alcohol rehabilitation, and long-term care facilities.)

PHYSICIANS

For nearly all Canadian physicians, hospitals serve as free workshops. General/family practitioners may admit patients directly to a hospital or may refer their patients to specialists who may then recommend hospitalization. In either case the primary care practitioner or specialist can follow the patient into the hospital and bill the provincial medical plan for hospital visits or for surgical procedures or assists. Physicians are paid fees for inpatient services but are responsible for none of the hospital costs incurred.

Many specialists (particularly tertiary care subspecialists) are hospital based; some have their offices within the physical confines of the hospital. Most hospital-based physicians, however, are

[1]This document reflects the situation in Canada as of the spring of 1993, and rapid changes occurring in the provinces may render it an inaccurate representation of hospital financing in 1995.

[2]For more detail on hospital classifications, see (13,40).

paid fees for services from provincial medical plans rather than from the hospital's budget. Also, a sizable number of diagnostic physicians (e.g., radiologists, pathologists) are in salaried hospital positions. Many of the services they provide are also paid for on a fee-for-service basis to the hospital by the provincial medical plan.

A small (but growing) number of specialists is negotiating alternative payment arrangements with provincial medical plans. For example, a teaching hospital-based neonatology unit may negotiate with the provincial ministry of health for sessional (half-day) payments to its practitioners or even for block operating funds. These funds generally flow to the hospital separately from its operating budget; they derive from a different branch of the provincial ministry.

In general, like the United States but different from most of the other five countries in this study, the only physician costs that appear in a hospital's operating budget are for salaried medical staff, such as the heads of clinical departments or diagnostic salaried positions, postgraduate medical students (interns and residents), or physicians serving in administrative posts (e.g., CEOs or vice presidents). These costs represent only a very small fraction of the total cost of physicians' services delivered in hospitals.

HOSPITAL OPERATING COSTS

Financing Model

Historical Hospital Financing Approach

Hospital funding in the early years of the public program was characterized by either line-by-line budgeting or per diem reimbursement. Under line-by-line budgeting, individual institutions negotiated specific budgetary line items with provincial ministries of health. The total budget allocation for an individual hospital was the aggregate of the line items. Reallocation of funds between different line items was severely restricted, and the effort involved in scrutinizing the line-by-line detail eventually persuaded ministries to move away from this approach.

Per diem reimbursement involved retrospective adjustments to hospital operating budgets based on the actual number of inpatient days of care provided, leaving provincial ministries with a large open-ended line in their budgets. (For example, a special request for additional funding in British Columbia in fiscal year 1980-81, amounting to almost 25 percent of hospital expenditure estimates, was required to cover actual per diem costs that year [24]). Inflation-adjusted per capita hospital expenditures increased by 7.6 percent annually during the 1960s, in part because funding increases were relatively generous and also because ministries tended to cover year-end budget deficits.[3]

The line-by-line budgeting approach has largely disappeared (although about 20 percent of hospital budgets in Québec continue to be determined on a line-by-line basis [14], and Alberta only recently moved away from this method [28]). The move toward "global budgeting" began in Ontario in the late 1960s (17). With this method, budget negotiations focused on the total budget rather than on individual activity or cost centers within the budget (and hospitals gained considerable flexibility in moving funds among operating lines). Under the original global budgeting method, the annual funding allocation was based on a series of relatively mechanical adjustments to the previous year's hospital expenditures. Special provisions were made for new programs, unanticipated and justifiable increases in service provision, or other unforeseen circumstances. The effort required of ministry staff in approving budgets was reduced significantly. Retrospective line-by-line review was invoked only in situations in which hospitals exceeded their budgets.

For many years the change from open line-by-line budgets to the theoretically capped global budgets lacked "teeth" for controlling the growth of hospital expenditures because most expendi-

[3] Per-capita hospital expenditure data are from Barer and Evans (6) and were deflated using a GDP implicit price index (16).

ture overruns were ultimately covered by provincial health ministries. Québec tried to close off year-end coverage of deficits, and several provinces, led by Québec, experimented with a variety of incentive reimbursement schemes to motivate hospitals to use their funds more efficiently. Yet this movement had a rather checkered history (14,21), in part because of glaring failures to understand the motivations of key hospital stakeholders. For example, for some time in Ontario, hospitals could not run deficits but also could not retain the full amount of any surpluses. Not surprisingly, actual expenditures clustered tightly around approved budgets.

Only in the more fiscally constrained late 1980s and especially in the early 1990s have ministries of health become more forceful in developing institutional expectations that budgets are not starting points but rather binding constraints. Concurrent with this more hard-nosed approach have come a number of attempts to refine the criteria used to allocate funds among hospitals. The global budgeting approach remains a relatively accurate portrayal of the process today, however. In most provinces (Alberta being one exception, as will be seen later), the more recent funding innovations are applied only to the portion of the following year's funding that represents an increase over hospital budgets in the current year. To a large extent any relative inefficiencies and inequities that existed in each province when it switched to global budgeting have been fossilized. In many instances historical problems may even have been exacerbated by the current relatively ad hoc process of allocating new funds and covering deficits (35).

Current Hospital Financing Approach

Details of the current budget development, approval, and allocation process vary among provinces, but a general picture can be sketched without straying too far from the specifics of any one province. Despite some other minor sources, provincial and federal general tax revenues constitute the lion's share of funds for hospitals in Canada. There are no tax revenues earmarked specifically for hospitals. Although provinces receive federal transfer funding for health care programs governed by the Canada Health Act, these funds fall far short of the total cost of the programs; therefore, they are treated simply as part of general provincial tax and transfer revenues. Provincial ministries of health must compete with other ministries in their provinces for a piece of the general revenue pie and must then allocate their share among hospitals, other health care institutions, health agencies and programs, private health care providers (the majority of whom are physicians), and some health research agencies and programs.

Individual hospital budgets are based largely on approved budgets from the previous year, with allowable adjustments depending on province-specific factors, such as new or expanded programs, patient increases, anticipated wage settlements or other expected increases in production costs (e.g., the costs of pharmaceutical, surgical, and other supplies), or other policies expected to affect the bed capacity of each hospital. This approach might be labeled a service-based approach to budget estimation. Ministry staff are generally responsible for developing estimates of each hospital's funding requirements. The amount of interaction between ministry staff and individual institutions during this phase of the budget development process varies considerably among provinces. Individual hospital budget estimates are aggregated to an overall hospitals line in each health ministry's budget estimating process.

An alternative approach—adopted recently in British Columbia, for example—begins with total hospital expenditures in the previous year and develops a rationale for adjusting the budget in the current year based on changes in the characteristics of the population (e.g., size or age composition) and information on alternative ways of providing services to that population. This might be labeled a more "population-based" approach to budget development.

The aggregate hospital budget line that emerges from either of these approaches is subject to modification as a result of internal provincial government negotiations over the final request from the

health ministry. Because hospital expenditures constitute the single largest item within provincial ministry of health budgets,[4] they are subject to special scrutiny. A very small reduction in hospital allocations will easily fund a variety of other programs—a fact that has escaped neither those programs nor ministry staff.

Two factors characterizing the current situation—one resulting from the current economic environment and one the result of new policy directions (which are themselves influenced, of course, by the economic setting)—ensure that hospital funding is even more carefully scrutinized than in the past. First and most obvious is the current fiscal crisis facing all provincial governments (and the federal government). As a result of declining federal health care transfers to provinces, slow or no growth in provincial tax revenues, and increasing demands on social support programs because of slow economic growth, provincial governments are finding themselves with very little room to maneuver, and hospital funding makes a very large target. Second, various new and major provincial restructuring initiatives are attempting to create a more efficient and patient-friendly match of patient needs and levels of care by downsizing large urban hospitals, expanding community-based programs, and more generally moving patients "closer to home" (12,33). The consequent reduction in bed capacity has been matched by an expectation that hospitals will require lower budgets.

At the conclusion of the internal ministry "estimates" process, the aggregate of all hospitals' budgets is presented to the provincial department of finance, or treasury board, as part of the health ministry's request for funds. This request is scrutinized by treasury board staff as part of the process of determining how the province's aggregate budget will be allocated across competing sectors of the public economy (e.g., education, social services, justice, health, and housing). Finally, recommendations are presented to the provincial cabinet (composed of the elected ministers for each of these sectors) for approval.

The approved budget has to withstand debate in each province's House of Commons before it passes into law. Until then, ministries do not know what their allocations will be for the fiscal year. (Unfortunately, this stage is often reached well into the fiscal year for which estimates are being debated, so that hospitals must run on faith and hope during the early part of the fiscal year.) In some provinces approval comes with very specific directives as to the internal allocation of funds among health ministry programs, allowable salary increases, and similar instructions. In other provinces the approved aggregate health budget is returned to the ministry, at which point decisions on the allocation of funds to individual program areas within the ministry must be made if the approved amount is different from the budget request. In either case the allocation to individual hospitals and other institutions is still an internal ministry responsibility. The budget estimation process will usually have generated the information necessary for this exercise. For example, in Manitoba, where the hospital budget line is developed by aggregating individual hospital estimates after adjustments for production cost increases and new programs, the allocation of available funding across institutions mirrors closely the relative size of individual hospital budgets developed during the estimates process. Whatever the detailed allocation process, hospital budget levels have been and continue to be dominated by budgeted amounts from the preceding year.[5]

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[4]For example, in fiscal year 1991-92 total payments to hospitals in British Columbia were $2.2 billion for a population of about 3 million; this represented over 40 percent of the Ministry of Health's aggregate budget in that year. Similarly, hospital expenditures represented about 42 percent of public health care expenditures in Ontario in 1992, down sharply from about 50 percent in 1983. This reflects the overall trend shown in figure 2-1.

[5]In 1988, for example, the previous year's funding accounted for 92 percent of the funding allocated to Ontario hospitals; the remainder was made up of a variety of adjustments for inflation, service increases, and new or expanded programs (31).

New approaches for allocating hospital funds have been adopted in recent years in several provinces. It is important to note, however, that these initiatives still leave the previous year's base budget for each institution largely intact. In some provinces the new adjustments are applied only to the annual increment in funding levels (i.e., new funds for the current year are allocated on the basis of new rules, but base budgets remain largely unchanged); in Alberta the adjustments affect 5 percent of each hospital's previous year's budgeted amount.

These approaches indicate an increasing interest among ministries of health in making hospital budgets more sensitive to the relative efficiency of different institutions given the mix of patients served (e.g., in Alberta and Ontario) or to changes in population composition and patient flows (or the needs of a hospital's catchment area) (e.g., in British Columbia).[6] Three provincial experiences are described in more detail below to illustrate the types of changes occurring in the funding of Canadian hospital operating costs.

Alberta

The Alberta Acute Care Funding Plan (ACFP) is designed to redistribute a component of the province's inpatient operating budget from less to more efficient institutions (1). It involves the estimation of a hospital performance measure (HPM) for each hospital equal to the number of case- and severity-weighted days treated per dollar of inpatient expense (see box 2-1).[7] The higher the measure (i.e., the more adjusted inpatient days a hospital has been able to provide for each dollar it spent), the more efficient the hospital. An individual hospital's budget adjustment is based on its HPM relative to all other hospitals' HPMs.

The Alberta system is a service-based approach for adjusting hospital funding that takes as a given (and therefore as implicitly acceptable) the "efficiency" of the average hospital. It rewards or penalizes institutions not on the basis of their designated roles, the patient populations they serve, or the technical efficiency with which they meet specific objectives, but rather on the basis of their prior care-providing experience (as reported by them) and the costs incurred as a result of that care provision. A hospital that aggressively pursues community-based partnerships that have the effect of keeping patients out of the hospital could easily end up being penalized under such a system, whereas a hospital that uses clever accounting practices to move inpatient costs out of the denominator of its HPM and creative patient classifications to increase the value of the numerator would end up being rewarded.[8]

Another major problem with the use of this type of funding system in a Canadian context is that case weights are based on U.S. cost or charge data.[9] U.S. data are used because there are as yet no reliable patient-centered cost data systems in place in Canadian hospitals, but the provinces that have adopted case-mix adjustment of inpatient funding have chosen to use costs as a key component of their weight calculations. There are other approaches to estimating the relative complexity/severity of cases (see, for example, Barer (4), Evans and Walker (19)), but these have received much less development and, perhaps more im-

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[6]As with so many other health and social policy initiatives, Québec was ahead of the other provinces in experimenting with peer group-based incentive reimbursement programs (21) but appears to be doing relatively little on this front at present.

[7]The exchange rate in January 1994 was approximately $CAN1.00 to $U.S.0.75.

[8]"Case mix creep" is no stranger to the United States, where such reimbursement systems have been in place for much longer. As Botz (9) notes, no case weight system, no matter how carefully constructed, will be devoid of case-shifting incentives. The extent to which such case shifting occurs depends on the degree of clinical flexibility in the patient classification system and how adept institutions become at ascertaining the differences between the marginal revenues and costs associated with each case mix/severity category.

[9]Whether or not the data are adjusted for the relationship between costs and charges in New York State seems moot as the New York patterns of care are likely to be more service-intensive for comparable patients than those in Canada. Only if care were uniformly more service-intensive across all types of cases would such an adjustment be appropriate for application in a Canadian setting, but this is not likely to be true.

BOX 2-1: Alberta's Hospital Budget Allocation Approach

A detailed description of the methodology underlying Alberta's approach to funding hospital inpatient services is beyond the scope of this chapter, but more details are available elsewhere (1 ,23,28).

The hospital performance measure (HPM) method begins by estimating inpatient costs for each hospital by netting out a variety of outpatient activities and a share of joint activities (e.g., diagnostic services, administration) from the hospital's total operating costs. (This process of inpatient cost estimation is a modified form of a methodology developed in the late 1970s to compare different hospitals inpatient costs [3,5].) Second, each of the hospital's inpatient cases is assigned to one of 1,100 refined diagnosis-related groups (RDRGs) on the basis of the case's diagnostic group, diagnostic or procedure code, and level of co-morbidity or complications. Each RDRG is assigned a weight that measures the relative amount of resources used (i.e., the relative costs) to produce the services of that RDRG. The weights are constructed by marrying per diem cost or charge information from New York State with RDRG average length-of-stay information based on recent historical experience in Alberta (after trimming outliers). Minor case weight adjustments are made for outlier cases on the grounds that these are of extraordinary severity that would not be adequately reflected in the RDRG weight.

This patient classification system, together with the case weight calculations for the province, provides the means to calculate a measure of weighted cases for each hospital. The measure of weighted cases is then scaled up or down to take account of other factors alleged to influence inpatient costs per case--namely, the size of the institution (based on the number of inpatient beds) and the extent of its teaching role. This latter adjustment is motivated by evidence from Canadian hospital cost analyses (e.g., 4) indicating that even after extracting the costs of direct teaching-related activity in estimating inpatient costs, the teaching function continues to have indirect effects on those costs.

The adjusted weighted cases become the numerator of the HPM, and the denominator equals total estimated inpatient costs for the institution. ' The resulting HPM values for each hospital are converted to index values, and each hospital's index value determines its budget adjustment. For example, if a hospital has a value of 125, it would be eligible for a funding adjustment amounting to an increase of 25 percent over its previous year's approved budget In practice, however, adjustments have been applied only to a small fraction (about 5 percent) of the previous year's budget. A 25-percent increase to the hospital's total budget might be substantial, but a 25 percent increase to 5 percent of the budget usually represents a relatively small increase in the amount of funds for the coming year. There are a number of serious problems with this system. Some of those flaws are being actively worked on; others are generic to any system of reimbursement tied to case/severity mix and case weights.

1 In fact, the official and published literature on the Acute Care Funding Plan generates an aura Of additional complexity that is unnecessary (1,28). Specifically, it suggests that the measure of weight cases for each hospital is divided by actual cases to construct something mislabeled the "severity predicted cost per case" (SPCC) (which does not, in fact, have anything to do with cost per case; it is a measure of the average case weight). Then this SPCC, after adjustment for size and teaching activity, is divided by the actual cost per case. This amounts, of course, to dividing both the numerator and denominator by the unadjusted number of cases--a superfluous step that nevertheless makes the entire technical exercise seem more complex and less logical than it is.

portantly, much less marketing than the system based on diagnosis-related groups (DRGs) that was developed in the United States. (Much of the literature in this area simply assumes that cost data must be used to develop case weights; see, for instance, [31]).

The adjustment factors for hospital size and teaching status have also come under attack for being arbitrary and not particularly sensitive to the phenomena that they are supposed to capture. Efforts are presently under way to alleviate some of these problems, but they beg the larger question of

whether such adjustments are appropriate at all and, if so, whether there are other similar types of adjustments that ought to be considered as well. Inevitably, each hospital has an incentive to claim that the key factors that make it unique have not been captured within the adjustment process. Indeed, it could be argued that no hospital would be happy unless and until sufficient adjustments had been incorporated to ensure that some hospitals were better off and none worse off than at present.[10]

Ontario

The recent patient case-mix-based adjustments to hospital budgets in Ontario are similar in many respects to Alberta's methodology. The Ontario method also computes a measure of weighted cases using weights that measure resource intensity for different cases, constructed as a hybrid of New York State hospital cost and charge data and Canadian length of stay data, and then constructs a measure of relative inpatient cost per weighted case (the inverse of Alberta's weighted units per inpatient cost) using a method similar to Alberta's to estimate inpatient costs (31,32,35).

There are several differences, however, both in methodology and in the way that the resulting measure of relative efficiency is applied in the funding allocation process in Ontario as opposed to Alberta. For example, the Ontario process makes no additional direct adjustments for hospital size or teaching status, but instead creates hospital peer groups based on teaching status, size, and geographic location and makes allocation adjustments within the context of those groups. Furthermore, the province uses patient case-mix groups designed for Canadian use rather than the U.S.-based refined diagnosis-related groups.

The reallocation amounts for which a hospital is eligible are limited both by the fact that the funding adjustments are applied only to separately designated pools of "equity" or "growth" funds and by some predetermined percentage of the previous year's budget (currently a maximum of 2 percent for an individual hospital for the growth adjustment). "Equity" funding is intended to recognize inter-hospital inequities that may have been locked into place when global budgeting became effective in 1982. Because the original global budgets were based largely on previous funding levels, any such inequities that existed at the time became entrenched (and even exacerbated by the largely across-the-board funding increases during the 1980s). This sort of problem becomes more visible in times of financial restraints, which may explain the emergence of the equity funding concept in the early 1990s. "Growth" funding is intended to compensate hospitals for greater than anticipated patient volumes (35). The growth formula also incorporates weights for inpatient services and a variety of outpatient services (e.g., day surgery and outpatient clinics). By adjusting the "price" weights attached to these different services, the Ontario Ministry of Health attempts to create incentives for hospitals to shift services from inpatient to outpatient settings.

A number of equity fund pools have been allocated, most recently in the fall of 1992 (35,36). However, these sums represent well under 1 percent of total hospital operating expenses. Funds available for growth adjustments have also been limited to about 1 percent of aggregate hospital base budgets. In Ontario this process has not yet been used to reduce a hospital's budget below the previous year's budget. Instead, it has replaced the old formula of providing general increases to all hospitals for inflation, service increases, and new or expanded programs.

The method is plagued by all of the problems identified for Alberta plus some of its own (31,32). (For example, the problems with adjustments for bed size and teaching status in Alberta were noted. In Ontario, the construction of peer groups has to date been relatively unsophisticated—although it has been improved from the original seven groups—and so is equally subject

[10]Jacobs et al. (28) describe other problems with the Alberta system that are not noted here.

BOX 2-2: British Columbia's Hospital Budget Allocation Approach

Like the Ontario and Alberta methods, British Columbia's approach to allocating funds among hospitals relies heavily on the Hospital Medical Records Institute database, which contains detailed records on each patient discharged from a Canadian hospital. These data are used to compute provincial age- and sex-specific utilization rates for each of five types of care: acute or rehabilitation days; long-term (chronic) care provided in acute care hospitals; intensive care; inpatient surgery; and day surgery. Recent historical utilization rates are then applied to age- and sex-specific changes in the provincial population to estimate aggregate changes in service use for each level of care for the province as a whole (e.g., the 1993-94 model used data from 1991-92).

Changes in service "needs" are next allocated to hospitals on the basis of where the population changes have occurred and on existing referral patterns for each type of care. Thus, if historical utilization patterns suggest that a specific large urban hospital provided 20 percent of inpatient surgery for the residents of its own region plus 80 percent of inpatient surgery for residents of the rest of the province, then 20 percent of the population-based change in surgical utilization for that region plus 80 percent of the change for the rest of the province would be assigned to that hospital.

The result of this process is five separate measures of population-based utilization changes for each hospital. These are aggregated to a single volume-change figure for each hospital using relative resource weights developed by internal Ministry of Health staff. For example, a weight of 3.5 is assigned to an intensive care day, 1.65 to a day involving a surgical service (inpatient or outpatient), 1.0 to an acute/rehabilitation inpatient day, 0.45 for an extended or continuing care day, and 0.4 for a newborn patient day. Using these weights, new weighted patient days (NWPD) can be computed for each hospital,

The final technical step in the process is to compute a measure of cost per weighted patient day for each institution by dividing the hospitals's most recent year's total operating costs by the total number of weighted patient days. The relative value of this measure for each hospital is then used to adjust that hospital's NWPD, on the assumption that higher costs per weighted patient day imply a more complex than average mix of patients within the five service categories. The result of this exercise is adjusted new weighted patient days (ANWPD) for each hospital. The available incremental funding is then allocated on the basis of each hospital's share of total provincial ANWPD.

to criticism by the hospitals themselves.) Additionally, the amounts reallocated through the budget adjustment process may not be sufficiently large to effect the sorts of equity and efficiency shifts sought by the province's Ministry of Health.

British Columbia[11]

Like Ontario, British Columbia's recent budget allocation adjustments have been applied only to new or incremental budgetary allocations to the hospital sector as a whole. Unlike Ontario and Alberta, however, British Columbia does not allocate this incremental funding solely on the basis of service volumes (although historical utilization rates do play a role in determining estimated population needs; see box 2-2). By adopting a population- rather than an institution-based focus, this province attempts to ensure that new funds follow prospective patients. The funding adjustments are sensitive to regional changes in population growth and age structure and to changes in patterns of care-seeking. The adjustments appear to be a serious attempt to begin aligning hospital funding more closely with underlying population

[11] Much of the information on which this section is based is taken from Haazen (24).

needs for institutional care, although to date they can only be regarded as a tentative step in that direction. British Columbia's approach is, however, complemented by local initiatives to plan future bed capacity on the basis of an overall provincial bed-to-population target of 2.75 beds per 1,000 population. Individual hospital capacity would be determined by the projected relative growth in population in the region and by estimated patterns of referral or care-seeking.

On first blush British Columbia's approach may seem more need driven than the approaches being applied in Alberta or Ontario because it is less dependent on historical service patterns. In fact, though, this may be no more than an illusion. To begin with, historical patterns of utilization are used to estimate expected population-based changes in future utilization. This procedure locks in whatever service patterns are used to compute the age-specific provincial utilization rates.[12]

Furthermore, the two-part approach to weighting patient days is questionable on several counts. The differentiation of types of care is not likely to be sufficiently discriminating to take account of the fact that different hospitals may treat quite different segments of the case distribution (in terms of resource intensity) within any type of care (e.g., only 10 different weights are used to distinguish among inpatient days [10].) One hospital may treat a higher proportion of severely ill patients within the intensive care category than another, but that would not be reflected by the former hospital's receiving a greater weight. The adjustment on the basis of cost per weighted patient day may simply make matters worse. For example, if a hospital has below-average-severity patients in all five levels of care but is an inefficient facility, its new weighted patient days (NWPD) value will be scaled up in computing the adjusted NWPD (ANWPD).

Thus, this approach draws on existing patterns of utilization and on the existing cost performance of each institution in its computation of the relative share of each hospital of new "population/demographic" funding. On the one hand, it is perhaps less subject to institutional manipulation than the systems employed in Ontario and Alberta. On the other, it seems far less sophisticated in distinguishing the resource intensity of different types of cases and currently offers little to compensate for that shortcoming in terms of population-based needs information.

Efforts are under way within the Ministry of Health to make some adjustments. First, factors other than age and sex that may contribute to or be correlated with individual variations in need are being incorporated within a more comprehensive model for computing NWPD. Second, efforts are being made to adjust each hospital's NWPD not by its own cost per WPD experience but rather by a composite average cost experience based on peer hospitals. Although still imperfect, these would both seem to be improvements.

Future Trends in Financing

In future years one might anticipate some convergence of case-mix-based and population-based approaches to budget allocation along with increases in the shares of hospital budgets that are subject to such reallocation criteria. A hybrid approach might, for example, draw on the richness of a case-mix groups (CMG)- or refined diagnosis-related groups (RDRG)- type patient classification system to distinguish the resource requirements of alternative types of patients, develop case weights based on real resource use in "efficient" Canadian hospitals, and use population-based methods and appropriateness evidence to estimate the expected volume of services within

[12]If the proportion of those rates that is inappropriate varies either by level of service or by age, then regions experiencing atypical changes in population age structure, and hospitals offering relatively more or less of particular types of services than average, may be differentially and inappropriately affected in terms of the attribution of new service "needs" to particular institutions.

each patient category. Such an integrated system is likely to be at least a decade away, however, in part because the Canadian hospital sector lacks the information systems necessary to support this type of approach. (On this point see, for instance, Auditor General of British Columbia [2].) In the meantime one can expect to see more technical adjustments to methods in the provinces that have been involved in these new initiatives, involvement of additional provinces in similar efforts, and increasing proportions of hospital budgets subjected to these types of reallocation procedures.

Sources of Funding

Hospital operating costs are funded largely from general tax revenues made up of general provincial taxes and transfers of federal tax revenues to the provinces.[13] Yet funds available for annual operations are not restricted to the hospital allocations that come from the provincial ministries or departments of health. Hospitals are able (indeed, increasingly encouraged) to call on a variety of other potential sources of revenue to supplement ministry budgets. Charges to patients for "luxury" accommodations (e.g., semi-private or private rooms) when they are not medically necessary provide one such source of revenue for most institutions.[14]

An equally important revenue source is the provision of outpatient diagnostic services (e.g., laboratory tests, radiology and ultrasound exams, ECGs). If salaried medical staff provide the service, the entire fee accrues to the hospital. Even when these services are supervised by private practitioners with no employment status at the hospital, the hospital may charge the provincial medical plan for the technical component of the fee.[15] In British Columbia, for example, fees received from the provincial Medical Services Plan for outpatient diagnostic services accounted for just under 5 percent of total hospital revenues in 1993-94. This was the second-largest source of revenue, after the operating grants from the Ministry of Health, which accounted for 85 percent of hospital revenues. Private/semi-private room charges represented well under 1 percent of revenues. Some provinces, such as Ontario, restrict the range of ambulatory services provided by hospitals to avoid competition between publicly funded hospitals and "private" diagnostic practices (35). ("Private" diagnostic practices are also publicly funded through the provincially funded fees paid for these services.) Thus, hospitals in Ontario cannot charge the provincial medical plan (OHIP) for laboratory tests to outpatients unless such tests are available only within the hospital sector. They can, however, charge for a variety of other diagnostic services not available in the private sector (e.g., most scans and scopes).

Other sources of hospital funds include revenues from parking, cafeterias, gift shops, the provision of uninsured patient services or services to patients from other provinces or countries and the provision of specialized hospital consulting services (38). One particularly innovative and com-

[13]Although numerous provinces over the years have used premiums to raise a component of hospital funds, only Alberta does so now. Even when premiums were used, hospital care could not legally be denied to Canadian residents even if premium payments were in arrears, because of the universality provisions in the federal HIDS Act.

[14]Many provinces in the past imposed a variety of other small hospital user fees for such things as emergency department visits. With the passage of the Canada Health Act of 1984, federal transfers could be withheld on a dollar-for-dollar basis from any province continuing to allow user fees for medically necessary services. By 1986 such fees had virtually disappeared from the Canadian landscape.

[15]The technical component of the fee is that part intended to cover the overhead cost of the equipment (usually diagnostic) used to provide the service. For example, an x-ray provided in the hospital for an outpatient would generate two separate charges: a technical fee would be billed by the hospital and a professional fee for reading the x-ray would be charged by the radiologist. However, if the x-ray was provided to an inpatient of the hospital, the hospital would be expected to provide this service from its global operating budget (although the nonhospital-staff physician would still be entitled to bill a professional fee). For diagnostic services provided outside hospitals, the professional and technical component are billed together.

prehensive approach to revenue generation was the establishment of the St. Michael's Hospital Health Centre in Toronto, a remarkable example of product line expansion (37). This free-standing building was purchased by the hospital and attracted a variety of patient-service-related tenants (e.g., a family medical practice, a women's health clinic, a nutrition clinic).

Allocation of Operating Costs

The largest single component of hospital operating costs is salaries of hospital employees. For example, in Québec in 1991-92, employee salaries and benefits represented about 75 percent of total hospital operating costs (30). Hospital employees in most provinces are represented by a small number of trade unions, and province-wide wages are negotiated and often determined by arbitrators who do not feel bound by hospitals' ability to pay. Thus, for most Canadian hospitals, wage settlements are largely outside their control and must be dealt with in terms of staying within budget. Often, if a collective agreement runs over several years so that wage increases are known in advance, ministries of health will make allowance for at least part of this in their annual allotments to hospitals. For example, in a letter sent to all Manitoba hospitals by that province's responsible associate deputy minister in 1992 an explicit note was made that the ministry's allocations would fund salary increases in existing collective agreements (34). As discussed earlier, only hospital-based salaried physicians' incomes are included in hospital budgets.

Other major hospital cost items are pharmaceuticals and surgical supplies. In some provinces, bulk purchase arrangements are in place. Hospitals nationwide may enter into bulk purchasing arrangements and, in the past, have been able to take advantage of their purchasing power to negotiate reduced rates for pharmaceuticals. However, as a result of recent federal legislation introduced in response to pressure from the U.S. government (stimulated by U.S.-based multinational pharmaceutical firms), the ability of such joint purchase arrangements to reduce pharmaceutical costs is likely to be severely undermined.

Operating Expenditures

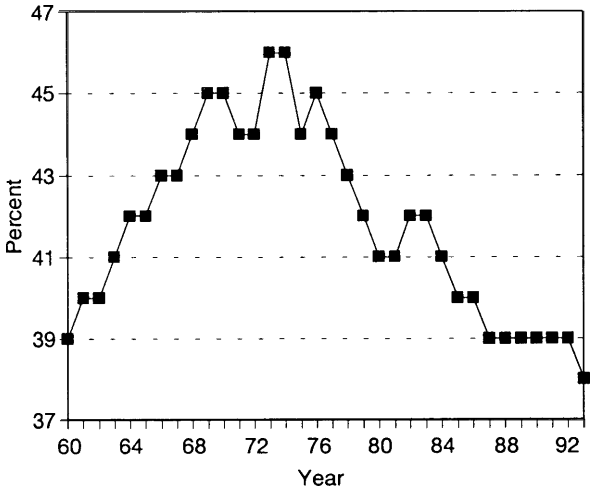
The statistical picture of hospital expenditure trends in Canada mirrors the general evolutionary story of hospital budgeting. In inflation-adjusted terms, hospital expenditures increased about 10 percent annually during the 1960s under open-ended budgets; the rate of increase declined sharply to just under 6 percent in the 1970s after the adoption of Canada's universal medical care insurance and the initiation of hospital global budgeting, and continued on down to an average of 4.6 percent annual growth in the more fiscally constrained 1980s.[16]

As figure 2-1 shows, the effect of Canada's increasingly constrained expenditure environment has been to stabilize and then reduce hospital outlays as a share of national health expenditures (NHE). Although NHE has increased considerably as a share of gross domestic product (GDP) since 1956, much of this increase came in the period prior to 1971, which was also characterized by rapid expansion in hospital capacity and generous line-by-line budgeting (6,18). Since then, however, NHE as a share of GDP stabilized during the 1970s and was stable again during the 1980s, following a sharp increase early in that decade that was in part recession-induced. Hospital expenditures as a share of GDP reflect this overall pattern (figure 2-2).

The worsening economic situation in Canada in the early 1990s has placed hospital financing under even greater strain. Although finalized national data beyond 1991 were not yet available at the time this chapter was written, they will almost certainly show additional reductions in the rate of hospital expenditure growth even while hospital

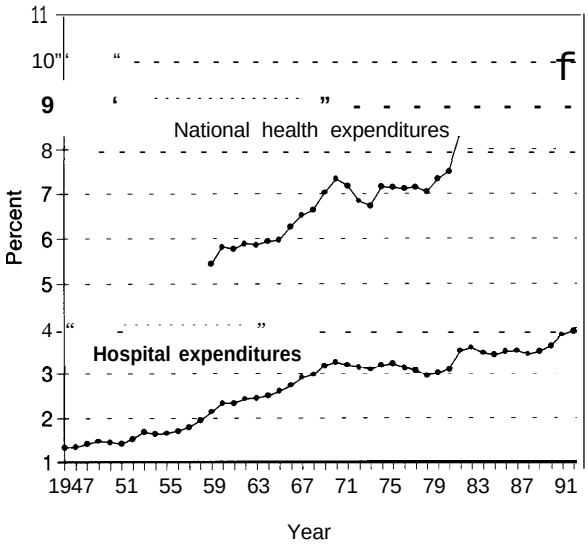
[16] Hospital expenditure data for 1960 to 1970, 1970 to 1980, and 1980 to 1990 are from Health and Welfare Canada (25,26). The GDP implicit price indexes used to construct real growth rates are from Department of Finance (16).

FIGURE 2-1: Canadian Hospital Expenditures as a Share of NHE, 1960-93



SOURCE: Health and Welfare Canada, *National Health Expenditures in Canada* (Ottawa: HWC, 1979; n.d., 1984); Health Canada, Policy and Consultation Branch, Health Policy Division, *National Health Expenditures in Canada 1975-1993* (Ottawa: Health Canada, 1994).

FIGURE 2-2: Canadian Health Expenditures as a Share of Gross Domestic Product, 1947-93



SOURCE: R.D. Fraser, '(Vital Statistics and Health, "*Historical Statistics of Canada,* F.H. Leacy (cd.) (Ottawa: Statistics Canada with the Social Science Federation of Canada, 1983),

expenditures as a share of GDP will have increased because of the severe effect of the recession on Canada's GDP growth. For example, in fiscal year 1993-94, Ontario hospitals were told to expect no increase in funding-a far cry from **the** heady 4-to 10-percent increases during the mid-1980s.

CAPITAL EXPENDITURES

■ Relationship of Operating and Capital costs

In general, equipment depreciation is handled in an ad hoc and relatively unsatisfactory manner in Canadian hospital accounts. Published depreciation expense figures are not reliable indicators of the underlying value of equipment or of the extent of consumption of the useful life of equipment in any year, and practices vary markedly among provinces. In many provinces capital depreciation is reimbursed through the operating side of hospital accounts, but the actual funding that flows to hospitals for depreciation may have virtually nothing to do with either the useful life or the current replacement cost of the underlying equipment. For example, Manitoba "pays back" hospitals for equipment purchases over a 16-year period, and this amount appears in the hospital's operating budget. Yet the 16 years is an arbitrary payback period unrelated to the useful life or replacement cost of the equipment. No depreciation appears on the operating side of hospital accounts for building depreciation. In some instances, the impact of capital acquisitions on future operating costs is considered. For example, part of the equipment purchase approval process in Manitoba involves seeking information from the hospital on the predicted operating cost implications of new medical equipment. If the equipment is likely to involve significant additional operating requirements, such as additional staff or maintenance contracts, it may be treated as a new program proposal and require more extensive evaluation by Manitoba's Ministry of Health.

There is an obvious reason for this seeming lack of any relationship between capital expendi-

tures and operating costs. Because most capital costs and operating expenses are covered by the same provincial Ministry and the replacement of obsolete equipment is also largely covered by a separate pool of Ministry funds, there is no compelling reason on the hospital side to expend any significant energy in depreciation expense estimation, or on the Ministry side to earmark depreciation funds for hospitals. This leads rather naturally to a more detailed consideration of the manner in which provincial ministries of health control the process of allocating funds for medical equipment and buildings.

Financing Model and Determining Capital Requirements

As with hospital operating cost financing and funds allocation, the details of capital funding vary considerably across provinces (8,15,39). Yet even more so than on the operating side, where there are some relatively new approaches being developed in some provinces, provincial specifics concerning capital financing are probably less important than the general story.

The first and perhaps most important piece of the story is that the same provincial health ministry from which hospitals derive most of their operating funds is also the major source of funding and the control point for capital equipment purchases and building construction. Although in many provinces hospitals or their communities are responsible for some component (usually less than 50 percent) of the funding for new construction or major new equipment, the final decision as to whether to build (or, in the case of equipment, to buy) almost always rests with the ministry of health. (Exceptions to this rule tend to be purchases of major diagnostic equipment funded from private philanthropic sources, often without the approval of the provincial ministry and without any guarantee that associated operating costs will be covered in future years' budgets.)

Health ministries' control over approvals means that funding for hospital capital follows the same type of process described above for operating funds. The provincial ministry develops a capital funding budget that is scrutinized and usually modified by the provincial treasury board or department of finance before being returned to the ministry as part of its annual budget request. However, the process differs in two key respects from that associated with operating budgets. First, ministries of health generally do not come close to funding 100 percent of capital expenditures. Second, the determination of how the ministry's capital funds are allocated across competing hospital projects bears no relation to the process of allocating operating funds. In fact, because most ministries only partially fund capital projects, even projects formally approved by the ministry can be initiated only if the hospital or the community can raise the remaining funds. This generally means that:

> . . . by design or default, . . . capital equipment acquisition is based, not on objectively defined needs but on the success of fund raising campaigns. Not only the nature of the equipment being sought but numerous other factors such as hospital prominence, location, and overall program appeal can affect a hospital's ability to attract public funds (8).

As for replacement of existing capital, particularly hospital buildings, very few provinces have any long-range plans in place. Many of the country's hospitals were built during the health care construction boom of the 1950s and 1960s,[17] and some of the key institutions are much older than that. Such facilities will eventually need at least to be upgraded. Because this represents the major component of future capital requirements, ministries of health are likely to become increasingly stingy with respect to new facilities or equipment as the need to upgrade or replace existing physical structures becomes more pressing (42). British

[17]Between 1951 and 1971, the bed capacity of Canada's hospitals doubled (6).

Columbia has recently attempted to ameliorate this situation by allowing hospitals with excess operating funds to apply to the Ministry of Health for authorization to use such funds to purchase equipment without invoking adjustments to their base operating budgets (24).

Most provinces have no formalized, long-term plan for the orderly replacement of capital, nor do they appear to have any detailed and accurate accounting of capital inventory. Several provinces have begun to move in this direction through the establishment of multiyear planning and funding approval processes and by requiring that hospitals report regularly on all equipment purchased. Funding sources and approval processes vary considerably among provinces.

Sources of Capital Funds

Funding shares from ministries of health commonly vary by the type of project (e.g., they are often different for medical equipment and capital construction) and by the type of hospital (e.g., rates of ministry financing participation tend to be higher for provincial tertiary/teaching facilities than for small community facilities). Yet although descriptions can be found of the formal decision-making processes used by most provinces in determining levels of co-funding, there is much less documentation on how decisions are reached as to which projects receive ministry approval and which do not. A common allegation is that such decisions often have more to do with a community's political persuasion or with the presence of an influential local politician or community member than with any provincial plan for capital replacement or expansion (see Smith [39]). Furthermore, the actual provincial level of cost sharing does not always match the publicized formula. (Again, see Smith [39], particularly for the description of the process in Ontario.)

Any equipment purchases in any province that proceed without ministry approval (i.e., funds are raised privately) are not guaranteed the necessary operating funds. Provincial ministries frown on such purchases and may even penalize hospitals that proceed with them; nevertheless, they continue to occur. For example, Ontario hospitals tend to purchase equipment as part of the process of developing claims for funding of new programs (31).

Capital Expenditures

Unfortunately, published Canadian data do not provide information on hospital capital expenditures. Although the official health expenditure statistics (25) report a "capital" line item, it cannot be used reliably to ascertain hospital capital expenditures. To begin with, the capital expenditure data are not restricted to hospitals. These figures include construction, renovation, and equipment costs for all health care facilities. Because hospital capacity has grown at quite different rates and times than, for example, long-term care facilities, one cannot infer hospital capital expenditure growth from aggregate capital expenditure increases. Furthermore, federal officials must estimate national hospital capital expenditures using provincial ministry expenditure data and the official provincial cost-sharing formulas. To the extent that such formulas understate actual practice, the Health and Welfare Canada data understate capital expenditures. Additionally, capital purchases made by hospitals without ministry approval may not be included at all.

A sense of the relative importance of capital and operating costs within provincial ministries' budgets can be gained by seeking such data directly from each province, although these do not generally distinguish between plant and equipment. For example, 1991-92 hospital capital expenditures by the British Columbia Ministry of Health amounted to just under 4 percent of operating costs (before depreciation) (29). The equivalent figure for Québec was slightly higher, between 5 and 6 percent (30).

In general, provincial ministry expenditures on capital are dwarfed by annual operating costs. Of course, this does not mean that such expenditures are unimportant. Decisions on expenditures for new capital create a stream of operating cost commitments that often last well beyond any accounting evidence of the original capital purchase (7).

Ministries are increasingly requiring that requests for approval of capital expenditures make an "economic case," especially for new capital purchases. That is, a case must be made that the new capital will either reduce operating costs by improving technical efficiency or will lead to improvements in patient outcomes sufficient to justify the expenditures. Yet there are very few situations in which new capital is expected to reduce operating costs, and even in cases where such cost reductions can be identified, they rarely materialize in practice. As a result, ministries of health tend to be skeptical of such claims (2).

As for improving cost-effectiveness, hospital equipment requests are often for "life-saving" equipment that has not been sufficiently evaluated to make any such case (2). Provinces such as Québec and British Columbia have recently established formal technology assessment capabilities to assist them in evaluating such requests. Most provinces rely on ad hoc technical advisory committees to review the likely utilization of new equipment, the availability of clinical expertise, and where the most logical site(s) might be. The new technology assessment offices in Québec and British Columbia provide the means to bring external evidence on effectiveness and efficiency to such internal committee processes.

Provincial Experiences

A more accurate account of capital financing requires a focus on specific provinces, as there is considerable variation in the mix of sources of capital funding and in the detailed processes followed for bringing capital projects on line. Accordingly, the situations in British Columbia and Manitoba are described in greater detail below.[18] They are examples, respectively, of provinces in which ministry capital funding falls well short of 100-percent financing, and provinces in which the general rule is that capital projects (both equipment and capital construction or renovation) are fully funded by the provincial ministry of health.

British Columbia[19]

Hospital Construction

Hospital construction and renovation are guided by a five-year rolling capital plan that must be approved by the elected representatives responsible for the various provincial ministries (the Cabinet). This has several implications. It means that hospital capital funding is approved by the highest provincial government body, that capital expenditures are controlled by the same broad governmental process that dictates other budgetary allocations to the Health Ministry, and thus that provincial capital planning (such as it is) can be a victim of political influence.

A hospital must submit a proposal to the Health Ministry for consideration to have a project incorporated within the five-year plan. In principle, hospitals are also required to gain the support of their regional hospital district before their proposal can proceed. British Columbia is divided into 29 official regional hospital districts (RHD), which are geographic areas used for a variety of planning purposes. The operating funds for the RHDs derive from local property taxation. Approval of a project by a hospital's RHD is particularly important in the largest urban district, where many institutions may concurrently be developing major capital projects. (See Greater Vancouver Regional Hospital District [22] for more details on the local approval process.) Regions complain, often bitterly, about the fact that they are expected to contribute to projects financially, often quite substantially, yet at the same time do not have commensurate influence or control over the project approval process, which is still dominated by

[18]Because decisions and sources of funds tend to vary at least with the value and type of equipment and the type of hospital, the interested reader is encouraged to consult representatives of the individual provincial ministries for more detail. (For a relatively comprehensive picture of the situation in each province in 1987, see Smith [39]. However, capital funding is a dynamic process, and the details are constantly changing.)

[19]The material in this section borrows heavily from Barer and Evans (7).

the Ministry of Health. The Ministry considers each request against competing priorities for hospital and other health care facility construction requests, bearing in mind projected regional needs for beds of various types. The current Ministry target is 2.75 beds per thousand population. Recent provincial planning initiatives are intended to bring beds closer to the population distribution in the province and to move beds away from tertiary care settings whenever possible (11).

A successful proposal is returned to the originating hospital with "approval in principle," at which point funds are made available in the provincial hospitals' capital budget for the planning phase of the project. Also, funds are tentatively earmarked for subsequent phases in the remaining years within the five-year plan. The hospital must then develop a more detailed functional program and various physical design proposals.

With Ministry approval comes a commitment of 60 percent of the costs of the project, including the cost of the land and servicing to the site.[20] The hospital must find the remaining funds from its RHD and/or from other private sources, increasingly including its own hospital foundation. (For example, all the major urban teaching hospitals in Vancouver have their own hospital foundations which are actively involved in soliciting funds from the business sector and from individual donors on a continuing basis. One enterprising hospital runs a local lottery twice a year, offering an upscale condominium apartment as the carrot; it raises in excess of $500,000 from each lottery.) The exception to this rule is full ministry funding of provincial tertiary care facilities (e.g., the provincial Cancer Agency, parts of Children's Hospital).

Capital Equipment

A similar process is in place for medical equipment requests. Hospitals must submit "annual rolling five-year equipment plans, with fairly detailed specifications for the first year" (24). The plans consist of two parts, part one containing equipment associated with new programs or equipment costing in excess of $100,000 and part two containing all remaining capital items. They are reviewed by the hospital's RHD before being submitted to the Ministry. Items in part one must go through much the same sort of internal approval process as capital construction projects and 60 percent of approved purchases are funded by the Ministry.

Each hospital receives an approved funding level for items on the second part of the list; if the list is approved, it is approved in its entirety. Once a hospital receives approval, it is free to purchase any item on its part two list until it has exhausted part two funding. The funding level for each hospital is determined on the basis of the hospital's size, role, and mix of beds, but again the Ministry funds only 60 percent of that level (including costs to replace equipment). Hospitals are thus forced to pare their own lists to stay within the available cost-shared funding limit. Although hospitals are free to make purchases from within their submitted lists, actual purchases are audited for consistency with the hospital's rolling five-year equipment plans. Furthermore, hospitals may still require more detailed approval of specific items if they wish to receive RHD funds (e.g., see Greater Vancouver Regional Hospital District [22]).

If new equipment is associated with a new service or facility, the hospital must also submit a request for adjustment to its base operating budget to take account of the expanded services and associated operating costs. A hospital cannot expect to receive support for increased operating costs for an unapproved capital acquisition.

Thus, funding for hospital capital generally derives from British Columbia's Ministry of Health (at least 60 percent of all approved pur-

[20] In practice the RHD is responsible for raising 100 percent of the funds, usually through the issuing of debentures. The Ministry then covers its share by contributing 60 percent of the costs of carrying the debentures and by paying down 60 percent of the value of the debentures to retirement. This entire process is coordinated by the Ministry through the Regional Hospital District Financing Act.

chases), regional hospital districts, or hospitals' own charitable foundations. There are rare occasions in which hospitals raise the funds for a major equipment purchase and receive the required operating funds from the RHD. In an environment of continued financial restraint, such innovative funding arrangements may become more common, as appears to be the case in Ontario (38). Although the Ministry is under no operating cost obligation in such situations, it cannot prevent the provision of services using the capital equipment. (If the operating funds are found within the hospital's approved operating budget, however, the Ministry can certainly scrutinize and adjust the budget downward in future years.) Furthermore, private practitioners are allowed to bill the province's medical services plan for the professional component of any fees (i.e., the physician's portion of the charge) associated with the use of such equipment as long as there is an appropriate fee code in the physicians' fee schedule.

Manitoba

The capital financing processes in British Columbia and Manitoba are relatively similar, although the financial involvement of the province in Manitoba is far more substantial, and the dollar value of equipment funding requiring detailed scrutiny in Manitoba is lower than in British Columbia.

Hospital Construction

As with British Columbia, the Manitoba Department of Health maintains a five-year capital plan for major construction or renovation projects, and projects go through an approval process separate from the process of establishing annual operating budgets.[21] In contrast to British Columbia, the province funds 100 percent of the costs of approved projects. (However, the funding does not include the cost of serviced land, unapproved embellishments, space, or changes occurring after project tendering has been completed.) All capital requirements for renovations, expansions, maintenance, or fire and life safety upgrades are included in the five-year capital plan. The plan provides borrowing authority and sets out repayment requirements and operating budget implications for each capital project. Once a project is completed, the approved operating costs are rolled into the operating budget.

Each approved project receives separate funding for design and construction. Larger hospitals have planning departments that undertake the early design and planning work, and some projects receive some financial support from the Department of Health to support this early functional planning phase. The functional plan for each project arises from a "role statement" for the institution. This statement is intended to ensure that capital expenditure allocations are consistent with the overarching strategic policy direction of the province's health care system, which is currently attempting to align health care expenditures of all types more closely with health needs (33). The role statement phase concludes with a project definition that specifies the programs or services that will drive the remaining phases of the planning process for each capital project.

The phases of each approved project—functional planning, architectural design, and construction—each require approval, and the Department of Health is heavily involved in reviewing and approving the various stages within each of these phases. Once a functional program is approved by the Department, the hospital is able to proceed with the design phase. At that point the Department provides interim borrowing authority, which the hospital can take to its chosen financial institution. A "letter of comfort" can be provided to a financial institution on request; it essentially assures the lending institution that the province stands behind the project.

Approval of architectural plans allows the hospital to seek competitive site preparation and

[21] In addition, the province can provide funding of up to $500,000 out of a contingency project fund. This fund is intended primarily for unanticipated major repairs or maintenance that the hospital is unable to cover from its operating funds.

construction bids (at least five are required). Bids are reviewed by the facility and Department of Health staff, the lowest appropriate bid is chosen, and a tender price is fixed. The hospital generally borrows the necessary funds up front; once a project is completed, the hospital converts the loan into some form of long-term debt that is paid back by the province through contributions of principal and interest included in the hospital's operating budget.

Capital Equipment

Major medical equipment purchases are also funded largely by the Department of Health. Hospitals can purchase equipment from depreciation accounts, other internal hospital funds (e.g., through donations or fundraising), or approved equipment loans. They are also allowed to purchase equipment that is an approved element of a capital project from project funds.

Hospitals periodically purchase unapproved equipment, but the Department not only feels no obligation to fund the operating costs associated with such equipment, it can actually reduce a hospital's operating budget if unapproved equipment is used.

Manitoba remains more involved than does British Columbia's Ministry of Health in approving relatively small equipment purchases. Small rural hospitals are free to proceed with purchases up to $5,000 without prior approval. The equivalent amount for large urban hospitals is $20,000. Any other proposed purchases must go through the Department's capital approval process. Once approved, a hospital may proceed to solicit competitive bids and, after final approval of one of them, to purchase the equipment. The Department covers the cost of the equipment by way of straight-line contributions to the hospital's depreciation fund for 16 years (regardless of the value of the equipment or its likely useful life).

Because many hospitals have insufficient funds in their depreciation accounts to cover necessary equipment replacement (in part because of slow payback for some types of equipment that quickly become obsolete, and in part because of rapidly increasing prices for such equipment), Manitoba has established a separate "capital equipment approved borrowing fund." It equaled slightly more than $9 million in fiscal year 1992-93 for a population of slightly over 1 million. This fund is intended to augment resources available from depreciation accounts and to support new program initiatives. All hospitals can submit wish lists that are reviewed and prioritized by Department staff. Some Manitoba hospitals are able to supplement their depreciation fund through private donations. Hospitals are also able to move up to 20 percent of revenues generated from non-Department sources (e.g., private room charges and parking fees) to their depreciation fund. Although hospitals are not supposed to dispose of equipment without Department approval, in practice this happens frequently, and these proceeds also find their way into the depreciation accounts. Nevertheless, all prospective purchases exceeding the levels noted above require Department of Health approval. The private sources of funding provide an important means for hospitals to cope with a funding mechanism that is insensitive to useful life, price changes, and other factors that may leave depreciation fund balances below necessary levels of funding for approved equipment purchases.

In the case of major new imaging equipment, the province has established a tiered structure of imaging advisory committees, one for each type of major equipment (e.g., CT, MRI, ultrasound). Each committee obtains input from representatives in each region and is responsible for making recommendations to the Department for equipment diffusion that will best meet the overall "needs" of the province's population. The recommendations of these committees play an important role in the process of evaluating and approving purchase requests from individual hospitals.

FUTURE DIRECTIONS

The major features of hospital financing in Canada have not changed appreciably in the past 20 years. During that time all provinces moved from prospective line-by-line budgeting of operating

costs to some form of prospective global budgeting. Although efforts to improve the efficiency of hospital operations and to make hospital capacity more responsive to population health needs are beginning to emerge, Canada has as yet seen only very timid moves in these directions. For the most part, the allocation of operating funds among institutions is dictated by historical happenstance, and more political energy is devoted to overall expenditure control than to attempts to realign the aggregate allocation of funds among provincial hospitals.

Hospital capital planning and funding still appears quite chaotic in most provinces, being driven in large part not by an overall assessment of needs or the cost-effectiveness of alternative capital configurations but rather by needs as defined by the staff and practitioners of institutions that stand to be major beneficiaries of new capital spending. Both British Columbia and Manitoba, however, are currently involved in major initiatives to circumvent these past problems. In both provinces capital planning is now beginning to be tied more closely to population movements, taking into consideration alternative approaches to delivering services. This is expected to become more widespread over the next few years.

Despite relatively ad hoc capital and operating cost financing, Canada has been fairly successful in containing hospital expenditures over the past 20 years, at least relative to the United States. Whether this relatively effective top-down budgetary control can continue to survive is a large question. The race appears to be on, with provinces attempting to stay one step ahead of the pressures for rapid adoption of new, predominantly cost-expanding (and provider income-increasing) technological innovations. Provincial ministries of health are developing new policies intended to result in more appropriate placement of large segments of traditional hospital populations. They show every intention of becoming more rather than less stingy with hospital funding, even as the hospital sector raises alarm bells about waiting lists for high-technology interventions, decaying facilities, and declining quality of care.

One outcome that seems relatively predictable is that private (and increasingly creative) sources of funding will become ever more important outlets for hospitals, at least as means to raise funds for capital projects. Just how hospitals will fund associated operating costs remains an interesting question. Yet human ingenuity knows no bounds when there are incomes at stake, and the temptation for ministries to cost-shift back to patients by giving hospitals more rope may be overwhelming. Canada's overall health care cost control record will stand or fall on the tenacity and perseverance of its provincial ministries of health in dealing with the issue of hospital financing.

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Hospital Financing in England

3

by Alastair M. Gray and Charles Normand

Introduced in 1948 by the Labor Party, Britain's National Health Service (NHS) is based on the principle that everyone is entitled to any kind of medical treatment for any condition, free of charge. The NHS is not insurance-based but is funded almost exclusively from general tax revenues. The aggregate NHS budget is fixed every year, based on the previous year's budget and adjusted for inflation estimates and the population's estimated health care needs. The Department of Health allocates the aggregate NHS budget for hospital care to regional and district health authorities who, under the traditional system, were responsible for providing and paying for hospital services; Family Practitioner Committees are responsible for providing primary care for several district populations and receive funding directly from the Department of Health. The third component of the NHS is the personal social services category. Local governments receive payments from district health authorities to provide community-based services, including nursing home care, home care for the elderly, and other support services.

The United Kingdom's centralized, mostly public, comprehensive health care system was a pioneer of national health care. Currently, however, the NHS is undergoing an important program of reforms, principally announced in the government's 1989 White Paper entitled *Working for Patients* and enacted as legislation in the NHS and Community Care Act of 1990 (7). The United Kingdom's comprehensive health care reform program, based on concepts of "managed competition," will result in the most significant changes to the NHS since its creation more than 40 years ago (10). The main elements of the reforms are as follows:



- the introduction of contractual funding designed to separate the provider and purchasing roles for health services within

NHS to encourage efficiency through "managed competition" among both public and private providers, and
- increased consumer choice of providers and services.

These changes, which became effective April 1, 1991, will substantially affect the way that hospitals conduct their business. Although the British government will continue to play a key role in health care planning, financing, management, and limiting of the aggregate amount of funds available for health services, the distribution of these funds among regions and among hospitals may change dramatically. The locus of hospital decisionmaking will also shift from local government entities to individual hospital managers.

The NHS is currently divided into three distinct components: one for hospital care (which includes inpatient and hospital outpatient care), one for primary care, and the third for community/social services and long-term care. In the hospital sector, there are 14 regional health authorities (RHAs) that are each responsible for four to five million people. Every RHA is divided into approximately 15 district health authorities (DHAs), which are each responsible for around 260,000 people and 4 to 5 hospitals. The aggregate hospital sector has a cash-limited budget that (even under the reforms) is allocated to the RHAs according to a formula that takes into account the age and mortality rates of the particular population it is to cover. In turn, RHA budgets are allocated to DHAs.

Previously, the responsibility for both the funding and provision of hospital services rested with the approximately 190 DHAs. The responsibility for strategic management and coordination of services resided with the higher administrative layer of the RHAs. However, under the reformed system, DHAs now have the central functions of assessing the health of their resident population, determining the population's health care needs, and purchasing services appropriate to those needs.[1] Thus, DHAs now mainly fund hospital services, while the provision of services is competitively determined. The nature of the reforms as they affect the hospital sector are described in more detail in the rest of this chapter.

STRUCTURE OF THE HOSPITAL SECTOR

The public (NHS) and independent (private voluntary and for-profit) hospital sectors coexist in England. In 1990, there were approximately 115,000 acute care beds available in NHS public hospitals, comprising almost nine-tenths of all available acute care beds. Prior to the reforms, public hospitals were both owned and operated by DHAs; however, the structure of the public hospital sector was changed substantially by the reforms. DHAs may continue to manage hospitals as directly managed units (DMUs), but NHS hospitals are encouraged to become self-managing NHS Trusts independent of the DHAs.

The first wave of NHS Trusts, involving 57 hospitals and units, became operational on April 1, 1991, and a further 99 hospitals and units became Trusts on April 1, 1992. Following the third wave, which became operational on April 1,1993, approximately two-thirds of NHS hospital provider units in England are estimated to have Trust status.[2]

In the future, NHS Trusts will compete with private providers of hospital services by negotiating contracts or service agreements with DHAs. (Currently, such contracts include both hospital outpatient and inpatient services; however, in the future, separate contracts for inpatient and ambulatory care may be negotiated). DHAs will purchase care from NHS hospitals, private hospitals, or the self-governing Trusts. The Trusts will also

[1] A number of DHAs have entered into formal or informal agreements with other DHAs to jointly negotiate contracts and purchase services, which has resulted in approximately 80 to 90 purchasers within the NHS.

2 As of April 1995, all but a few percent of hospital provider units have Trust status.

be able to contract with general practitioners to provide hospital services to their patients, as well as with other self-governing hospitals and private insurers (10).

The entire population, both publicly and privately insured, is entitled to treatment in NHS hospitals. Inpatient access for nonemergency care is mainly through referral from a general practitioner. In principle, access is based on need and is rationed in part through waiting lists for consultations and treatment.

The independent sector plays a relatively small role in England's hospital sector, with 10,906 beds in acute care medical and surgical hospitals (8.7 percent of total acute care beds). In addition, approximately 3,000 beds within NHS hospitals are authorized as "pay beds" for the treatment of private patients. (These beds have only about a 30 percent average rate of occupancy by private patients.) Private ownership of hospital facilities, although small now, is increasingly playing a larger part in the British system. Between 1978 and 1988, the number of beds in private hospitals increased by 50 percent (10). Traditionally, most independent hospitals have been nonprofit. The recent expansion in private beds, however, has been almost entirely in for-profit hospitals, most of which are subsidiaries of U.S. companies. Private medical care plays an essentially complementary role to NHS services, offering a choice of physicians, avoidance of waiting periods for elective surgery, and higher standards of comfort and privacy than the NHS (16).

Access to private hospitals depends on the patient's ability to pay through private insurance or out-of-pocket. Most of the private sector's caseload is limited to elective surgery (e.g., hernia repair, varicose vein surgery). A 1986 survey indicated that private patients accounted for 16.7 percent of elective surgery in England and Wales, with the proportion varying considerably among regions.

The public and independent hospital sectors in England coexist and are also interrelated in several ways:

- Most private hospital services are delivered by NHS consultants, who are hospital-based senior specialists. All full-time NHS consultants are permitted to earn up to 10 percent of their gross income from private practice. Consultants can also enter into contracts with the NHS that enable them to devote a greater proportion of their time to private practice. Approximately 12,000 of the 15,170 consultant-grade staff in NHS hospitals undertake some private practice.
- As noted previously, some private treatment is carried out in NHS hospitals through NHS pay beds. In 1989, the NHS earned 99 million pounds from private treatment.[3] This amount may increase in the future, since the requirement to obtain authorization from the Secretary of State for Health for pay beds was removed in the 1990 health reform legislation.
- The NHS and private sectors are allowed to enter into partnerships. For example, a private partner might be given a lease on an NHS site to undertake a capital investment or might be given a contract to manage an NHS facility. Only a few such arrangements exist at present.
- NHS patients may be treated in private hospitals if their purchasing authority agrees to pay for treatment, although the volume of such cases is currently low.

PHYSICIANS

In 1990 there were 15,170 senior hospital doctors (consultants) in England and 32,848 other hospital medical staff. Hospital consultants have the choice of taking a full-time or part-time position with the NHS. If they choose part-time, they are allowed to perform as many private sector services as they like. If they choose full-time, how-

3 The exchange rate in **January** 1994 was approximately $U.S. 1.48 to l.00 pound.

ever, their private practice is limited to 10 percent of their NHS salary (10).

Hospital doctors are paid for the delivery of hospital services through nationally negotiated salary scales.[4] Since 1960, salaries have been based on the annual report of the independent Review Body on Doctors' and Dentists' Remuneration, which takes evidence from medical and dental representatives, the Department of Health, and other interested parties. The Review Body's recommendations are subject to governmental approval; they have never been rejected, although they have been deferred or modified.

All consultants are also eligible to obtain distinction awards that supplement their basic salaries. The number and value of awards is fixed by the Review Body; recommendations concerning distinction awards come primarily from the medical profession. Approximately one-third of all hospital consultants hold a distinction award. As noted earlier, consultants may also obtain contracts that allow them to devote part of their time to private practice.

Consultants' contracts are held by regional health authorities, which also administer the payment of distinction awards. Other hospital medical staff are employed by district health authorities or DMUs, or, if they work in an NHS Trust, by the Trust.

Following the NHS reforms, hospitals can alter the pay and conditions of the staff they employ, including the medical staff. There is little evidence so far, however, that hospitals have deviated to any great extent from national salary scales, although many Trust hospitals are currently making plans to do so. Little change is expected before 1995.

Very few medical staff work on a full-time basis in private hospitals. Most physicians are NHS consultants who devote part of their time to private practice. Medical staff in the private sector are predominantly paid on a fee-for-service basis. There are no statutory controls on fee levels, although the British Medical Association recommends fee scales, and some insurers will reimburse patients for fees only up to a certain amount. The basis for setting fees is the subject of a current investigation by the Monopolies and Mergers Commission, which is concerned that there is too little price competition for private medical services.

General practitioners (GPs) working in the community are self-employed. They contract with the NHS to provide services to NHS patients. Each British citizen enrolls with a GP, who is the patient's first point of contact with the health system. GPs determine when a patient will see a hospital-based consultant. They are paid under a mixed payment system with four elements:

- annual cavitation payments for each patient on the GP's list, weighted according to age;
- fees for some services (e.g., treating temporary residents or making night visits);
- a basic practice allowance to cover practice expenses; and
- payments for attaining certain targets, such as cervical screening or infant immunization rates.

The recent health reforms also introduced some major changes to GP practices. Because general practitioners are the main source of nonemergency referrals to NHS hospitals, reforms to the framework within which general practitioners work also affect hospitals. Under the reforms, larger GP practices have been given the option to become "fundholding" practices. These practices are allocated funds per enrolled citizen by their respective RHA to purchase nonemergency hospital services and community health services for their patients. They can purchase hospital services from public or private hospitals, which compete for the patients of these GPs. In theory, money follows patients to the most efficient providers of care.

In turn, because GPs receive more money for each additional patient they sign up, they will be

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4 The pay of junior hospital doctors is determined primarily by national salary scales, supplemented in most posts by payments related **to** their hours of employment above a standard working week.

encouraged to compete for patients. GP fundholding aims to bring the purchasing of health services closer to the patient, with the GP negotiating contracts with providers based on the needs of patients. GP fundholding also aims to make GPs more conscious of the cost of services and to put pressure on providers to increase efficiency. It is also hoped that GPs will provide more services themselves, better coordinate services provided to patients, and reduce referrals of straightforward cases to hospitals.

The first wave of 306 GP fundholding practices, covering approximately 7.5 percent of the population, became operational on April 1, 1991. The number of GPs choosing to become fundholders has increased steadily, and perhaps 40 percent of England's population is now enrolled (1 1). Yet because only a limited range of treatments is financed through the fundholding scheme, most services are still purchased by DHAs, even for the patients of fundholding GPs.

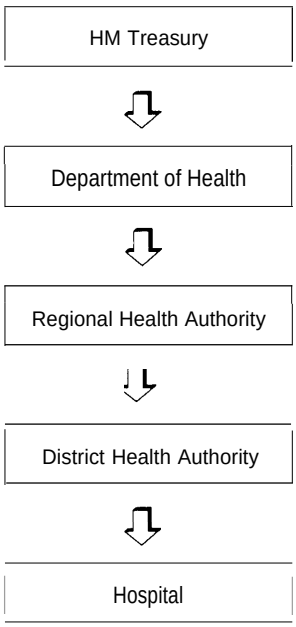
HOSPITAL OPERATING COSTS

Financing Model

The prevailing approach to financing hospital operating expenses in England has been via the National Health Service. The NHS is funded primarily through general tax revenues allocated to it as part of the central government's expenditure plans for its entire budget. NHS-owned (public) hospitals are funded mainly through NHS payments. The recent reforms make no changes to the basic flow of funds from the central government to hospitals, which follows the route shown in figure 3-1. However, the reforms affect the relationship between the NHS and hospitals. Following thereforms, funds move from a district health authority to a hospital on the basis of contracts for services rather than as direct funding. This process is described in further detail below.

Nationally, the Department of Health represents the NHS in an annual process by which the central government makes its expenditure plans for the following three years. All major spending departments and the Treasury are involved.

FIGURE 3-1: Flow of General Revenue Funds from the Central Government to Hospitals



SOURCE: A. Gray and C. Normand, 1994

Spending plans are published each January in a government White Paper on public expenditures entitled *The Government's Expenditure Plans. The* plans set forth total cash limits for each main spending program. For the NHS, the main programs are hospital and community health services (HCHS) and Family Health Services, which include primary care provided by general practitioners, dentists, opticians, and pharmacists. (Hospital and community health services include home nursing and ambulance services [16]). Separate cash limits are established for operating expenditures and capital expenditures.

The Department of Health divides its cash allocation among the 14 RHAs on the basis of an allocation formula. The formula is based on each RHA's population, weighted for age and morbidity, measured in terms of standardized mortality ratios. An RHA's block allocation covers most areas of service provision, but some specific services (e.g., research, teaching, the prevention and

treatment of HIV and AIDS) are funded separately by means of other allocation formulas. RHAs then distribute most of their allocations to the 190 DHAs, retaining a small proportion for spending at the regional level. Prior to the reforms, DHAs were allocated resources primarily on the basis of the hospital services they provided, with some adjustments to allow for flows of patients across DHA boundaries. Following the reforms, DHAs have been funded on the basis of their population, similar to the RHA formula, weighted for age distributions and morbidity patterns.

Although the initial allocation to the Department of Health limits the aggregate amount of money available to fund hospital and community health services, there is no formal guidance as to the exact proportion that each RHA should devote to hospital services from its cash allocation. Similarly, DHAs have freedom in dividing their block allocation among different types of health services. This process determines an aggregate amount available for hospital services, and purchasers (e.g., DHAs) are constrained to stay within their total allocation. The cash-limited system at the national level ensures that it is not possible to exceed aggregate expenditure limits.

Prior to the United Kingdom's recent health reforms, hospitals received global budgets based mainly on historical costs (16). Following the reforms, however, the operating costs of an individual NHS hospital—be it a Trust or a directly managed unit—have been determined by the contracts it negotiates with purchasers for specific services. In other words, there are no longer prospectively fixed budgets for individual hospitals. Under the reformed system, it is anticipated that hospitals that are successful in making contracts with purchasers will expand and that hospitals that fail to make or maintain contracts with purchasers will reduce their capacity or close.

Private hospitals, consisting of independent hospitals and hospitals owned by private health insurers, are currently funded primarily through private health insurance payments. The NHS reforms envisage that the NHS and private sectors will become more interrelated, with private hospitals competing with NHS Trusts and directly managed NHS hospitals for contracts from purchasers.

Sources of Funding

NHS hospital services are financed mainly through general tax revenues and through a portion of national insurance contributions. In the 1990-91 fiscal year, 94.1 percent of total revenues came from those sources, with general taxation (from the Consolidated Fund) contributing 79.2 percent and the NHS element of national insurance contributions accounting for 14.9 percent. The remaining 5.9 percent of NHS hospital revenues came from charges to patients for specific courses of treatment, appliances, amenity beds, and other private charges (4.2 percent), along with miscellaneous income (1.7 percent) mainly from the sale of capital assets (e.g., land).

Prior to the reforms, hospitals funded their operating costs through prospectively determined budgets established by their respective DHA. Under the reformed health system, the operating costs of NHS Trusts and DMUs are financed via contracts with public and private purchasers. Trust hospitals have a statutory duty to operate within the income they obtain from these contracts; DHAs have the same duty with respect to other NHS hospitals.[5] Contracts may be of three different types: block, cost and volume, and cost per case, as described below:

[5] A system of financial audit ensures that expenditures accord with contracts and rules. Trusts are obliged to submit audited accounts annually at a public meeting. External audit of NHS expenditures is the responsibility of the Audit Commission, an independent body funded by audit fees, which appoints auditors to examine the accounts and financial systems of purchaser and provider units in the NHS. In extreme circumstances the Secretary of State for Health has the authority to appoint commissioners to take over the running of any unit within the NHS that is in breach of cash limits or contracts, but there are no recorded instances of this.

- With block contracts, the purchasing health authority pays an annual amount in installments to the providing hospital unit for access to a specified set and volume of services, especially for urgent and emergency cases requiring immediate treatment.
- With cost and volume contracts, purchasers pay a providing hospital a fixed sum for a baseline number of treatment episodes or cases, thus giving the purchaser some security; any additional cases treated are paid for on a cost-per-case basis.
- With cost-per-case contracts, purchasers pay a specified price for a particular case. These contracts occur most frequently when a purchaser does not have routine contact with a particular hospital; such cases are called extra contractual referrals (ECRs).

Approximately 80 percent of private revenues for acute care hospital services comes from private insurance, mainly through fee-for-service payments. Private insurers covered about 12.5 percent of the United Kingdom's population in 1991; the remaining 20 percent of revenues comes from direct patient payments. (Private hospital revenues from contracts to treat NHS patients are at present very small.)

Bulk Purchases of Pharmaceuticals and Supplies

Before the NHS reforms, most regional health authorities had established regional distribution centers that purchased pharmaceuticals and supplies on behalf of district health authorities. In October 1991, a new NHS Supplies Agency was established that assumed national responsibility for NHS supplies. All regional supplies staff have been transferred to this agency, which is structured around six geographical divisions. Purchasing is intended to occur through the best priced local source except where bulk purchasing has the potential to realize major savings. (The previous more centralized system was criticized because routine items were often available locally at lower prices, but hospitals could not take advantage of the lower prices because they were required to buy from the regionally centralized system.)

A national purchasing unit within the NHS Supplies Agency is responsible for developing and maintaining a limited list of products that should be purchased only via national NHS contracts. Typical products covered by national contracts include surgical gloves, batteries, and medical gases. The NHS Supplies Agency often negotiates a national unit price for such products, and the provider units draw off supplies under this central contract rather than receiving them via the Agency; therefore, it is not possible to estimate accurately the volume of pharmaceuticals and other supplies covered by bulk contracts.

Operating Expenditures

The 1989-90 fiscal year is the most recent year for which accurate data on NHS acute care hospital operating expenditures are available. Operating expenditures for NHS acute hospital services totaled S6,112 million in that year(8). This is equivalent to 42.8 percent of the NHS's operating expenditures for all hospital care, 28.9 percent of total NHS expenditures (which equaled 21,102 million pounds in the 1989-90 year), and 1.2 percent of GDP (which equaled 511,413 million pounds in current market prices in calendar year 1989) (l). Hospital expenditures rose by about 19 percent between the 1989-90 and 1991-92 periods in nominal terms (i.e., not adjusted for general inflation), and by 2.5 percent in real terms (i.e., after adjustment for inflation) (15).

Expenditures for private sector, acute care hospital services in the United Kingdom were estimated at l,217 million pounds in 1989 (12). This figure includes expenditures for independent, psychiatric, and substance dependency hospitals. Excluding the latter group, this is equivalent to approximately 90 percent of all private sector hospital expenditures, 45.6 percent of all private sector hospital and residential home expenditures, and 18.6 percent of total private sector health expenditures using abroad definition that includes private hospital and residential care, clinics, alternative

medicine, and nonprescription medicines. Private sector, acute care hospital expenditures in 1989 were equivalent to 0.2 percent of GDP.

Hospital-based doctors' remuneration is included in estimates of U.K. hospital expenditures. In the 1989-90 fiscal year, the salaries and wages of all medical staff employed by regional and district health authorities (in NHS hospitals of all types) was 1,437 million pounds. (No breakdown of expenditures for medical staff is available by type of hospital.) This equaled 11.3 percent of hospital expenditures, 6.8 percent of total health expenditures, and 0.28 percent of GDP.

HOSPITAL CAPITAL COSTS

Relationship of Operating and Capital costs

Prior to the recent NHS reforms, depreciation and the opportunity costs of using capital assets were not explicitly accounted for in NHS accounts. Most of the facilities used to provide hospital services were owned and operated by the NHS. No rent for the use of facilities or capital was paid, and the opportunity costs of using the capital were not calculated. Capital was considered an expense only in terms of the costs initially incurred to buy the capital; the NHS's cost of using its money to purchase hospital capital instead of paying for other services or supplies was not considered. In planning health services, there was no incentive either to use existing capital resources efficiently or to dispose of the surplus. The goal of reforming capital financing was to introduce such incentives.

Beginning on April 1,1991, schemes for charging for hospitals' use of capital assets are being introduced gradually.[6] In the early stages the introduction of capital charges has been simply a bookkeeping exercise. Contracts with purchasers of hospital services include a charge for the use of capital, which is taken from the hospital. Real incentives to use capital efficiently are likely to be introduced shortly; hospitals using buildings and equipment more efficiently will be able to charge lower prices to purchasers of hospital services and obtain more contracts.

Directly managed units must reflect the cost of using assets in capital charges, which consist of depreciation and an interest charge representing a rate of return on the current value of assets. Depreciation is not provided for land assets. The rate of return on the value of assets is set by the Treasury, currently at 6 percent. Interest charges are applied to land and other assets used to provide health care services.

NHS Trusts do not pay capital charges as such; however, they are required to provide for depreciation on the same basis as DMUs. They must also satisfy an annual target rate of return on the current value of their assets, which is set at 6 percent so that contract prices for the purchase of hospital services are not distorted between Trusts and DMUs.

The cash flows generated by capital charges and Trust capital provisions typically do not leave the NHS. The goal is to levy from hospitals depreciation costs and the opportunity cost of funds tied up in hospital capital stock so that more accurate price signals are conveyed to purchasers and providers. The rather complicated accounting mechanism also aims to create a level playing field for providers within the public sector and between the public and private sectors, giving equal opportunities for all types of hospitals to win contracts.

Financing Model and Source of Funding

NHS hospital capital expenditures are currently funded in the same way as NHS operating expenditures: from general tax revenues, the NHS component of national insurance contributions, and income from NHS service charges and other miscellaneous sources. Aggregate capital and operating budgets are subject to separate negotiations in

[6] Capital assets are defined as buildings, land, or equipment valued in excess of l ,000 pounds. Beginning on April 1, 1993, this threshold was raised to 5,000 pounds.

the annual public expenditure system. The Department of Health and the Treasury are the main parties to the negotiations.

Once an aggregate capital expenditure limit has been agreed upon, the Department of Health allocates it to the RHAs according to a formula similar to that governing allocations of operating funds, based on the size, age, and health distributions of the resident population. RHAs then allocate capital resources to the DHAs. DHAs directly control capital expenditures associated with minor building projects, but RHAs control major capital schemes, such as the construction of new hospitals.

As the NHS reforms are implemented, however, hospitals will increasingly be allowed to generate their own capital funds, which will then account for a larger proportion of total capital spending. Hospitals will also have more control over their capital investment plans. Purchasers will not influence the pattern of capital investment directly but rather indirectly through the services for which they contract.

Determining Capital Requirements

The process of capital investment is detailed in the codes of practice prepared by the Department of Health. These codes specify procedures for planning, option appraisal, tendering, project management, and financial control. They also specify procedures for the sale and resale of plant, equipment, and other capital assets. Policies for projects carried out over several years are no different in principle from those governing single-year projects. Once an investment appraisal has been undertaken and a capital expenditure plan is produced by the hospital, and once any necessary authorization from the RHA, NHS management executive, and/or Treasury has been obtained, the capital requirements of the project are incorporated into the hospital's current and future plans. In the case of multiyear projects, it is likely that capital requirements will have first claim on the capital budget once the project is under way.

DMUs are not allowed to raise private funds for the purchase of building capital or equipment, although they may accept donations of equipment (e.g., equipment purchased by a charity). Charitably donated assets need not be included in the capital charging procedure.

NHS Trusts are allowed to finance their capital requirements from internally generated income, including contract income and income from the sales of assets, and from external borrowing. External borrowing is subject to external financing limits (EFLs), which are cash limits set by the Department of Health following negotiations with the Treasury. An EFL is set globally and for each Trust and may be positive (i.e., the allowable capital spending limit is in excess of the Trust's internally generated capital funds), neutral, or negative (i.e., the allowable agreed capital spending limit is less than internally generated capital funds). Trust hospitals are required to provide evidence that they are likely to win enough purchasing contracts to cover the costs of major capital schemes.

All capital investment projects by NHS Trusts or DMUs will continue to require external authorization under the reformed health system if they exceed certain limits. At present, a Trust must obtain approval from a regional office of the NHS management executive for any capital project in excess of 1 million pounds, approval from the national office of the NHS management executive for any capital project in excess of 10 million pounds, and approval from the Treasury for any project in excess of 15 million pounds. In addition, RHAs have their own limits above which national authorization is required, varying from approximately pounds 1 to 5 million.

Private sector hospital investment in land, buildings, or equipment is not subject to government control. No mechanism exists to prevent replications of the provision of services or equipment by the public and private sectors. Contracting between these sectors for services is encouraged by the purchaser/provider split introduced in the NHS reforms. In addition, public and private sectors may enter into formal partnerships involving capital schemes, leases, or shared access to capital.

▮ Capital Expenditures

In the 1989-90 fiscal year, total capital expenditures for all hospital and community health services equaled l,299 million pounds.[7] The Department of Health suggests that it would not be unreasonable to assume that this was apportioned roughly in line with the breakdown of operating expenditures. This would suggest that acute care hospital capital expenditures totaled 556 million pounds, equivalent to 4.28 percent of total hospital expenditures, 2.6 percent of national health expenditures, and 0.11 percent of GDP.

Of the aggregate capital expenditures for hospital and community health services in 1989-90,58 percent was for buildings and engineering works, 2.5 percent for vehicles, 12.1 percent for equipment and furniture, and 27.4 percent for other items.

Aggregate capital spending is controlled by the nationally cash-limited system and by internal and external auditing, similar to operating expenditures. Historically, capital funds have been particularly subject to modification in light of prevailing macroeconomic and political factors. For instance, capital funds ran at very low levels in the 1950s and fell substantially during the later 1970s, causing the House of Commons Public Expenditure Committee to express concern at the overall balance between capital and operating funds.

HOSPITAL INDICATORS AND TRENDS

In fiscal year 1990-91 there were approximately 115,000 acute care beds available in the NHS providing 5.8 million inpatient episodes. The average length of stay was 6.3 days, lower than in the United States, and the average occupancy rate of hospitals was quite high (at least as compared with the United States) at 87 percent. NHS acute care hospitals dealt with 1.2 million day cases, 7.5 million new outpatient visits, and 11.2 million accident and emergency visits.

In the private sector, there was a total of 10,906 beds in acute care medical and surgical hospitals in 1990. The average occupancy rate was lower than in NHS hospitals and more closely matched the average occupancy rate of U.S. hospitals at approximately 60 percent. The average rate of occupancy of the 3,000 pay beds within NHS hospitals by private patients is about 30 percent.

FUTURE DIRECTIONS

The greatest achievement of the NHS has probably been to provide universal access to medical care, mainly based on need, at a low cost as compared with other OECD countries. This has been achieved at a price, however, in terms of some poor facilities, delay in obtaining access to nonemergency care, and some political unpopularity.

Control over health service expenditures comes from the nearly complete cash limitations of the system and various controls on access (in particular, gatekeeping practices by general practitioners). The NHS experience **suggests that** avoidance of rapid growth in health care costs requires overall control of budgets. It also may help to have a large share of services provided by professionals paid salaries or via cavitation. It is interesting that the NHS reforms did not change these features, which are often associated with effective cost containment. Competition between providers may lead to greater efficiency and lower costs, but there is no evidence yet that this has occurred.

The extensive review of Britain's National Health Service and the resulting reforms followed a heated public debate about the level of funding for health care. No significant change was made, however, to the main source of funds, and no additional spending was introduced as a direct result of the reforms. Instead, the reforms primarily restructured the internal configuration of the British health system by introducing "internal markets" for health care services.

The main elements of these reforms affecting hospitals include the following:

- the introduction of contractual funding that separated the provider and purchasing roles for

7 No information on capital expenditures is available by type of hospital.

health services within the NHS, designed to encourage efficiency through "managed competition" among providers;
- the introduction of GP fundholding practices designed to increase the efficiency and quality of care;
- the ability of purchasers, especially DHAs, to choose from a wide range of providers, thereby enhancing competition and consumer choice; and
- a broader accounting of capital costs to encourage hospitals to use capital more efficiently.

It is difficult at this early stage to evaluate the changes in detail, as many are in the early stages of implementation and data are scarce. In addition, the government has done little to encourage systematic evaluation of the reforms. There are reasons to expect some important benefits from the changes, however. Introducing an awareness of capital costs is likely to improve the efficiency with which assets are used. Separating purchasers from providers potentially allows health authorities to concentrate on the health care needs of their populations instead of simply on running facilities. However, the small amount of available evidence shows little progress in purchasing for health gain (i.e., purchasing packages of health services that have been or can be shown to maximize effects on the population's health), and patterns of service delivery still largely reflect historical patterns.

The early experience with Trust hospitals has been mixed. Financial controls have sometimes been inadequate, and it is not yet clear what will happen if Trusts fail to generate sufficient income to stay in business. There is some evidence of improved efficiency in the provision of services by Trust hospitals, but also some evidence that measured improvements largely reflect changes in the recording of work rather than in the actual volumes of services delivered. The need for a good system of workload classification of has become apparent.

The health reforms appear to have led to an increase in the costs of managing the NHS, although no accurate data on this phenomenon exist. It can be argued that the pre-reform NHS devoted inadequate resources to management and that possible increases can be justified on the grounds of more efficient services. It is not yet clear, however, whether the additional costs of administration can be justified.

The reforms have re-ignited the debate on equity and access to care. Patients whose GP is a fundholder have apparently been able to obtain more rapid access to services at the expense of other patients. There is little doubt that some unequal access has resulted. Yet the move to funding populations according to their size, age, sex distributions, and morbidity patterns is moving resources away from historically overfunded regions and districts and toward those that have been underfunded.

The process of setting priorities for access to health care is increasingly visible following the reforms. Purchasers have a duty to buy services to meet the needs of their communities to the greatest extent possible. This has helped reveal the paucity of evidence available on health care needs, and some of the more visible signs of rationing have been controversial. Any system of health care that gives access to all, free or nearly free at the point of use, and that aims to control overall expenditures, needs explicit rationing for some services.

Overall, the NHS reforms attempt to increase accountability, introduce certain market incentives, and increase efficiency and patient choice. It is perhaps more interesting to note the features of the former system that have not been changed than those that have been reformed. General revenue financing of health care, free and universal access to services, and a range of cost-controlling features have been maintained in the United Kingdom's current health care system.

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Hospital Financing in France

4

by Marie-José Sourty-Le Guellec

The French health care system is arguably the most complicated of the European (and Canadian) systems described in this report. Its system includes universal, compulsory social insurance, significant patient cost-sharing, and supplementary insurance on the financing side, and public providers combined with a sizable number of private providers on the supply side. Overlaying both the public and private sectors are strong governmental controls at all levels of government (11).

Almost the entire population (99 percent) is covered by the statutory health insurance scheme, which is part of France's social security system. Statutory health insurance expenditures account for over 70 percent of national health expenditures in France. The scheme is administered by social security sickness funds (*Assurance Maladie de la Sécurité Sociale*). A person's occupation generally determines membership in a particular fund. There is one large fund for salaried workers (CNAMTS), which accounts for nearly 80 percent of the compulsorily insured and about 15 smaller funds cover other workers. The government provides insurance for low income people. Contributions for sickness fund insurance are income-related and shared by employers and employees or paid directly to the relevant fund by nonsalaried or self-employed individuals (11).



Social insurance provides both cash benefits (e.g., sick pay) and benefits in kind (e.g., ambulatory care, hospital care). Depending on the patient's financial circumstances, the patient may be required to pay coinsurance or copayment amounts; for instance, patients may have to pay 20 percent of the cost of hospital services (the *ticket modérateur*) and a daily flat rate contribu-

tion that is currently 50 francs.[1] Employers sometimes provide supplementary insurance for their employees through mutual fund organizations *(mutuelles)* to cover patient cost-sharing amounts and a few benefits not covered by the social insurance scheme. Individuals may also purchase private supplementary insurance. *Mutuelles* and private insurance payments account for about 8 percent of national health expenditures.

France's sickness funds are quasi-autonomous, non-governmental organizations; there are national, regional, and local organizations of these funds. They are subject to national and local management by employer associations and trade unions. They are also closely regulated by the central government; in particular, contribution rates, fee schedules, and pharmaceutical prices are controlled by the central government (11).

Patients can consult any medical practitioner for primary care, and can choose to go to either a public or private hospital. Money follows the patient in the case of private hospitals, but public hospitals are subject to prospectively fixed budgets. Compared with the other European countries in this study and Canada, French patients have relatively large cost-sharing requirements. Patient out-of-pocket payments currently account for about 17 percent of national health expenditures; however, cost-sharing for hospital services is fairly small with only about 4 percent of hospital expenditures financed directly by patients (1 1).

Similar to many other countries, the containment of health expenditures is a major concern in France. Hospital care represents half of national health expenditures, making the hospital sector a primary target of France's cost-containment efforts. Recent reforms have concentrated on effectively controlling sickness fund insurance payments to private hospitals by extending governmental regulation over that sector, and by creating a new balance between the private and public sectors to harmonize their development within an overall program designed to control health spending. Also similar to many other countries, France's health reforms are moving in the direction of making individual hospital budgets based more on each hospital's level of activity and less on historical costs.

STRUCTURE OF THE HOSPITAL SECTOR

France has a mixture of public, private nonprofit, and private for-profit hospitals. Public hospitals tend to be large and well equipped; private hospitals tend to be smaller and to specialize in elective surgery, obstetrics, or long-term care. In 1990 there were 1,072 public institutions; they constituted only 28 percent of all French hospitals, but provided almost two-thirds of total hospital beds, hospital days, and inpatient admissions (tables 4-1 and 4-2). By law, a public institution is a corporate body governed by public law and is responsible for providing a specific public service. Public institutions have full legal status, their own assets and resources, and full legal autonomy. They are, however, subject to various forms of public supervision and financial control. Public hospitals cannot waive their obligations, defined in the Act of December 31, 1970, to:

- provide diagnosis, treatment, and (in particular) emergency care to their patients and those referred to them, including necessary inpatient care;
- contribute to the training of medical and paramedical (nonmedical) staff; and
- participate in medical and pharmaceutical research and health education.

In 1989 the private hospital sector included 2,721 institutions, constituting 72 percent of all hospitals but accounting for only one-third of the total hospital beds, patient days, and inpatient admissions in France in that year (tables 4-1 and 4-2). The private sector is divided into a private for-profit or commercial sector with 1,515 institu-

[1]The exchange rate in **January** 1994 was approximately $USO.17 to F1 .00.

TABLE 4-1: Hospital Shares in France, by Category of Hospital[a]

Category of hospital	Percent of total hospitals	Percent of beds
Public	28	65
Nonprofit, PSPH	12	11
Private nonprofit, non-PSPH	19	5
Private for-c) refit	**40**	**19**

[a]Data for public hospitals are for 1990; data for private hospitals are for 1989.

SOURCES: Documents Statistiques, "Les Etablissements d'Hospitalisation Privee en 1989," Enquete EHP 1989, SESI no. 121, Juillet 1991, Documents Statistiques, "Les Hopitaux Publics en 1990, Resuitats H80, " SESI no. 154, Septembre 1992

tions and a private nonprofit sector with 1,206 institutions. For-profit hospitals are privately funded and subject to the rules of commercial and civil law. Private nonprofit hospitals are run by voluntary organizations, religious orders, employee representatives, mutual fund associations, and social security funds. They are similar to public institutions in that they do not attempt to maximize profits, and their surplus revenues are invested to further their health care objectives.

Private institutions are managed by individuals or a legal entity. They make many of their own management and investment decisions, and their services are governed mainly by market forces, although they are subject to certain government constraints. Fees charged by private institutions are controlled and subject to formal agreements. Increases in the number of beds and high-cost equipment are controlled by the health map *(carte sanitaire),* described later, and require formal au-

TABLE 4-2: Hospital Beds and Inpatient Days, by Category of Hospital[a]

	Public		PSPH		Public and PSPH	
	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1,000s)
Medicine	105,393	29,243	13,879	3,918	119,272	33,161
Surgery	61,282	14,827	8,986	2,315	70,268	17,142
Obstetrics/gynecology	17,337	4,101	1,393	356	18,730	4,458
Medium-stay	42,127	11,943	19,921	5,386	62,048	17,329
Long-stay	63,711	22,289	1,877	638	65,588	22,927
Psychiatry	68,600	18,669	12,733	3,921	81,333	22,590
Total	358,450	101,071	58,789	16,535	417,239	117,607

	Private for-profit		Private nonprofit		Total private	
	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1 ,000s)
Medicine	14,753	2,039	3,943	1,242	18,696	3,282
Surgery	50,820	17,123	4,675	1,484	55,495	18,607
Obstetrics/gynecology	10,083	3,084	882	254	10,965	3,338
Medium-stay	18,123	5,646	15,672	4,525	33,795	10,171
Long-stay	436	140	2,037	722	2,473	862
Psychiatry	13,405	4,767	1,960	637	15,365	5,404
Total	107,620	32,800	29,169	8,865	136,789	41,664

[a]Data for public hospitals are for 1990; data for private hospitals are for 1989.

SOURCES: Documents Statistiques, "Les Etablissements d'Hospitalisation Privee en 1989, " Enquete EHP 1989, SESI no 121, Juillet 1991, Documents Statistiques, "Les Hopitaux Publics en 1990, Resultats H80, " SESI no. 154, Septembre 1992.

theorization. Additionally, the medical activities of private hospitals are supervised by the sickness insurance funds' medical officers.

Private institutions are allowed to participate in the public sector, although to date only some of France's private nonprofit hospitals (467 in 1988) have asked to be incorporated into the public hospital service. These hospitals, called PSPH hospitals, are governed by rules similar to those for public hospitals. There are thus two general categories of hospitals in France: public and PSPH hospitals, and private institutions that do not participate in the public hospital sector.

Financing methods and operating arrangements vary greatly between the public and private hospital sectors. Public and PSPH hospitals are governed by the principles of public accounting, whereas private for-profit hospitals are commercial undertakings that attempt to maximize their surplus revenues. Reform legislation passed in July 1991 and currently being implemented is designed to create a new balance between the private and public sectors and to harmonize their development within an overall program to control health expenditures. The reforms formally recognize that public and private hospitals perform the same basic functions. In the future, the two categories of hospitals will share equal responsibility for ensuring public health through common provisions that affect all types of hospitals. Furthermore, the reforms seek to strengthen and encourage cooperation between public and private hospitals (5).

At present, a statutorily insured patient in France can go to either a public or private hospital, although in practice the decision is usually made by the patient's physician. When the choice is a personal one, it tends to reflect the hospital's geographical proximity, its reputation, or other personal preferences. Under the 1991 reforms, patients' freedom to choose a physician or hospital became an even more integral part of the health care system in France than it was under previous health care legislation.

Many hospitals in France have short-, medium-, and long-stay beds as well as psychiatric beds. It is difficult, if not impossible, to determine the proportion of hospital care in France that is devoted to short-term acute care treatment; therefore, this chapter deals with the French hospital sector as a whole. Purely residential institutions, such as nursing homes, are excluded from data cited herein, however.

PHYSICIANS

In public and PSPH hospitals, the medical staff includes residents or interns, who are physicians in training, and hospital practitioners, who are full-time or part-time with a salaried established post *(titulaire)* or a salaried, nonestablished post ***(non-titulaire).*** Table 4-3 provides a breakdown of hospital physicians in private and public hospitals in 1989 and 1990. The central government controls the growth of salaries and the number of hospital staff in public hospitals.

TABLE 4-3: Hospital Physicians[a]

		Public	PSPH	Private for-profit	Private nonprofit	Total
Salaried practitioners	Full-time	27,913	2,614	596	525	31,675
	Part-time	39,962	4,250	851	2,047	47,110
Nonsalaried practitioners	Full-time		32	8,883	495	9,410
	Part-time		762	22,151	1,912	24,825
	Occasional		590	12,976	1,496	15,062
Salaried residents	Full-time	22,019	1,655	248	236	24,158
	Part-time		233	328	90	651
Nonsalaried residents	Full-time		22	15	11	48
	Part-time			164	8	172

[a]Data for public hospitals are for 1990; data for private hospitals are for 1989.

SOURCES: Documents Statistiques, "Les Etablissements d'Hospitalisation Privee en 1989," Enquete EHP 1989, SESI no. 121, Juillet 1991; Documents Statistiques, "Les Hopitaux Publics en 1990, Resultats H80," SESI no. 154, Septembre 1992.

In certain circumstances hospital physicians are authorized to treat private patients in public hospitals through consultations or the use of public service beds for private patients. In such cases the physician receives a fee from the patient, which may be reimbursed by the patient's insurance company. Income from private fees may not exceed 30 percent of a physician's total income and the number of beds that can be used for private patients may not exceed 8 percent of all public service beds.

Public hospital physicians often confer with office-based private practice physicians (*médecins libérals*). Whether or not payment for the consultation is included in the hospital's global allocation of funds (discussed further below) depends on the regularity of the consults. Any physician in an office-based practice may be consulted on an occasional basis by a hospital physician. Payment is rendered according to the service or consultation performed and falls outside the hospital's global allocation. Hospitals regularly call on some physicians in private practice (called affiliated practice physicians) who are paid a fee per service provided. These fees are included in the hospital global allocation.

There are no salaried physicians in rural hospitals and any private physician may consult there subject to authorization. In these cases the physician may ask patients who are not covered by sickness funds to pay an agreed-upon fee. For patients with sickness fund coverage, the physician may claim 85 percent of the local daily charge per day; for patients qualifying for social assistance, the physician is paid 50 percent of the departmental medical assistance charge. In these two cases the hospital retains 10 percent of fees received.

In certain circumstances nonsalaried physicians operate clinics in public institutions. They are paid on a fee-for-service basis; the level of fees is agreed upon directly with the patient. Physicians pay 10 percent of their fee income to the hospital, which uses the proceeds for improving their stock of medical equipment.

Thus, in public or PSPH hospitals, most payments to medical staff are included in the operating section of the budget and are taken into account in determining the hospital's global allocation. Exceptions to this are fees paid to physicians practicing in rural hospitals and in hospital clinics, and fees received by hospital physicians as part of their private practice.

In private for-profit hospitals, physicians are nearly always paid on a fee-for-service basis and patients are reimbursed by their insurance companies. Nevertheless, an increasing number of private institutions are taking the opportunity to invest in staff (particularly medical staff) by offering the best-trained personnel attractive remuneration packages, particularly in comparison with what the public sector can offer. Physicians' fees in private hospitals are set according to a national fee schedule, but their incomes, other staff incomes, and the number of staff hired are not regulated by government.

HOSPITAL OPERATING COSTS

Financing Model

There are two distinct methods of financing hospital operating costs in France. Public and PSPH hospitals are paid largely through a prospectively fixed budget. Private non-PSPH institutions are paid a daily (per diem) rate for their services; inpatient physician and ancillary services are paid for on a fee-for-service basis.

Public Hospitals

Since 1984-85, public and PSPH hospitals have been subject to a global allocation scheme established by the prefect of the district in which they are located and determined within the framework of federal guidelines. The global allocation scheme replaced a system of controlled rates of increase in per diem prices for public and PSPH hospitals (11). Under the new scheme each hospital receives an annual global allocation to cover the portion of its costs that is paid for by the sickness funds. Hospitals also charge daily rates (*tarifs journaliers de présentations)* to cover that part of a hospital stay not provided for in the global allocation. Daily charges are established for several purposes. Federal and local governments pay a daily charge for patients on social assistance. The

daily charge is also used to determine patient cost-sharing amounts for patient copayments *(ticket moderateur)* and daily flat-rate payments (paid either by the patient or by a supplementary insurance company), and it constitutes the charge for patients who have no insurance coverage.

Hospital Budgets

The hospital budget sets forth estimated expenditures and revenues for the coming year. This budget, like that of any public administrative institution, must conform to certain public accounting principles. It has two sections, as described below:

- The operating section deals with current activities, including the day-to-day running of the hospital and financial management.
- The investment section deals with operations leading to an increase in durable capital assets requiring depreciation (other than stocks), such as permanent capital, real estate and tangible property, stocks and securities, deposits and sureties, and physical supplies.

Expenditures that require authorizations for the operating section of the budget are divided into three groups:

1. expenditures relating to the external purchase of goods and services,
2. staff or personnel-related expenditures, and
3. all other types of expenditures.

A public or PSPH hospital's operating revenue is derived from the following sources:

1. the global allocation described below;
2. income from services (e.g., via daily rate charges or fees);
3. grants, donations, and legacies to be used for operating purposes;
4. other surplus income unrelated to operational activities;
5. income from reserves;
6. the value of liabilities reduced by expire or lapse; and
7. the value of any repairs undertaken or surplus produced by the institution itself (e.g., pharmaceutical products made by the hospital's laboratory).

Appended Budgets

Current expenditures on certain activities and services (e.g., blood transfusion centers, mobile emergency services, data processing centers) must be included in appended budgets. Operating costs are funded from both general and appended budgets.

Authorized expenditures for the coming year must take into consideration the average rate-of-increase guidelines established by the central government's ministries of the economy, budget, health, and social security. The average rate of increase for hospital expenditures is based on general economic trends—in particular, forecasted changes in prices and wages—and on national health and social policies. The guideline rate was 4.2 percent in 1990.

Determination of the Global Allocation

Although a hospital receives a small amount of revenues in addition to the global allocation and daily charges, these two elements are essential to a hospital's ability to provide services. The global allocation is designed to provide enough funds to cover that part of the hospital's expenses that will be paid for by the sickness insurance funds. It represents the difference between total operating costs as set forth in the authorized general and appended budgets and expected hospital revenues other than the global allocation itself, so as to ensure that the hospital's budget will be balanced after taking into account surpluses or deficits from previous years. Annual increases in a hospital's global allocation are based on the federal guideline rate of increase and the hospital's forecasted level of activity.

Patient copayment and daily flat-rate contributions, repayments by mutual fund associations and private insurance companies for their members' expenses, and payments for patients covered by medical or social assistance are not included in the global allocation; they are billed according to the daily service charges established for individual patients.

The global allocation covers costs relating to inpatient care, day and night care in the hospital,

outpatient care,[2] psychiatric care, legal abortions, mobile emergency care units, and long-term care institutions for the elderly.

Determination of Daily Charges

The partial nature of the global allocation makes it necessary to establish a system of charges (tariffs) to recover expenses not paid for through the global allocation. Daily service charges determine the amounts to be paid by federal or local governments, patients, or any organization providing supplementary coverage. Daily service charges are calculated for different types of services by dividing the estimated total costs of each type of service by the estimated number of patient days for each type, after adjusting costs for offsetting receipts and for any previous year's surplus or deficit that has been carried forward.[3]

Service charges are calculated for inpatient care (including specialist and nonspecialist services, services relating to expensive specialties, and medium- and long-term services), day and night care, and home care services. There are also three possible short-term charges for medicine, surgery, and expensive specialties. Because individual hospitals have different budget levels and estimated numbers of patient days for various types of services, daily service charges vary by hospital. In contrast, flat-rate charges for outpatient care and for legal abortions apply uniformly throughout France. Box 4-1 describes the different parties involved in hospital management and supervision, and offers more details on the determination of global allocations and daily rates.

Budget Adjustments

Except in the case of a budget revision, the global allocation is paid on the basis of the amount initially provided for, regardless of the hospital's actual level of activity. If the number of patient days is lower than estimated, the hospital's income (insofar as it relates to its global allocation) remains unaltered.

If a hospital can show that there has been a significant and unforeseen change in its financial circumstances or medical activity leading to a substantial increase in the hospital's costs during the current year, changes to the budget (e.g., an increase in authorized revenues to meet higher-than-anticipated expenses) may be approved. Additionally, in urgent cases the hospital's director may transfer appropriations between the first two groups of authorized expenditures in the general budget and the appended budgets during a financial year. These transfers may not, however, increase or reduce authorized expenditures within these groups by more than 10 percent, reduce appropriations designed to cover unavoidable costs (e.g., social security contributions or taxes), or commit the institution to expenditures beyond the current financial year.

End-of-year surpluses in the hospital's administrative account resulting from more efficient management (e.g., expenses are less than forecasted for the same or higher level of service delivery) are assigned to a compensation reserve account. Such reserves may be used to cover subsequent years' deficits or assigned to another reserve account that can be used to finance operations or investments that do not increase operating

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[2]Actually, only part of the cost of outpatient care is taken into account in calculating the global allocation. In particular, the allocation relating to this area covers the cost of supplying drugs for which the sickness insurance funds are statutorily responsible. It is estimated that on average, 50 percent of outpatient costs are covered by the global allocation. The remainder has to be covered by the patient through a copayment or by a third-party payer other than the patient's sickness fund.

[3]An excerpt from the decree of Aug. 11, 1983, section 32, states specifically that "[t]he estimated cost price shall be equal to total operating expenditures, comprising:

a) direct costs, that is the costs of services belonging to a particular category of charges, excluding the cost of medical treatment, goods and other medical services;
b) the cost of medical treatment, goods and services on the basis of their purchase price or, failing that, of their cost price;
c) other costs included in the operating section of the general budget which are not covered by their own resources, divided among the different categories of charges in proportion to the estimated number of days for each category;
d) where appropriate, that part of the previous financial year's deficit which has been carried forward."

BOX 4-1: Hospital Management in France

Hospitals are managed by a board made up of locally elected representatives (of which the mayor of the municipality concerned is the chairperson), representatives of the social security system, representatives of the hospital's medical and nonmedical staff, and a director who is responsible for implementing the policies developed by the board and approved by representatives of the State. The board's director also authorizes expenditures and issues revenue orders, appoints nonmedical staff, and is the hospital's legal representative.

The supervisory role exercised by public authorities in the budget-making process places strict limits on the degree of managerial autonomy enjoyed by public and affiliated hospitals. Administrative supervision of public and PSPH hospitals operates at every level:

- at the national level through the Hospital Department of the Ministry of Health;
- at the regional level through the prefect of the region (appointed by the government), assisted by the regional Department for Health and Social Services (DRASS); and
- at the district level through the prefect of the district (also appointed), assisted by the district Department for Health and Social Services (DDASS).

The social security system, which is the principal source of funds for hospitals, has no formal supervisory responsibilities but only the right of oversight. Its role has been strengthened over time, however. Social security sickness funds have contributed to the development of hospital policy at the national and local levels through representation on various associations and through their significant oversight rights for financial and medical matters. Additionally, supervisory authorities must consult representatives of sickness funds when drawing up hospital budgets. Furthermore, at the request of the sickness funds, hospital directors must submit quarterly expenditure commitment statements and provide information on staffing. The sickness funds also partially supervise medical decisions, which can mean that a sickness fund would refuse to pay the cost of treatment or would modify the financial terms of a hospital admission that it deemed unjustified or inappropriate. The sickness funds monitor all hospital medical activities but (except with regard to nonpayment of services) exercise a passive form of supervision, as the funds' concerns are not backed up by any sanctions (3).

Financial monitoring of hospitals is the responsibility of the district Department for Health and Social Services; the social security funds, which receive the quarterly expenditure statements; and the hospital accountant (an official of the public treasury service) who ensures that spending commitments comply with relevant legislation and regulations and that the necessary appropriations have been made.

costs in subsequent years. Priority is given to financing services that have contributed to the surplus. Surpluses that do not result from improved management (e.g., if services are lower than forecasted levels or the surplus arises from daily charges or outpatient care) are transferred to a compensation reserve account to cover operating costs in future years.

Any deficits in the administrative account are covered by drawing on the compensation reserve account. If the reserve is not sufficient, the deficit amount is figured into the budget of two years later or can be spread over the following two financial years by adding it to the hospital's operating costs.

Sickness Fund Payments

Each sickness insurance fund in a given hospital's catchment area pays the so-called pivot fund (or main fund in the area) its share of the hospital's

BOX 4-1 (Cont'd.): Hospital Management in France

The budgetary process is relatively long, reflecting the desires of various categories of hospital staff to be involved in the hospital's planning and the strict supervision exercised by external authorities. The director or director-general of the hospital is responsible for preparing and submitting budget proposals, taking account of the previous and current years' activities. Assisted by hospital departments, the director determines the level of expenditure that is essential for the hospital's operations. The draft budget is then submitted to a joint consultative committee and a medical staff committee for comment. Budget proposals are adopted by the hospital's board *(conseil d'administration),* which must express a formal opinion on the director's figures. Budget proposals are then sent to administrative authorities and the regional sickness insurance fund for salaried employees, where they are available for comment.

Hospital budgets, global allocations, and daily service charges are determined by administrative supervisory authorities by January 1 of the relevant year. With the exception of the Paris hospital service (responsibility for which devolves on the Minister of Health), the prefect of the district is responsible for establishing global allocations for the district's public hospitals. This responsibility also involves a critical response to hospitals' budget proposals to ensure that each institution can meet its obligations. The prefect is empowered to increase income and expenditure estimates for hospitals whose estimates it considers too low and to remove or reduce items that it considers unnecessary or too high—taking account of local heath care needs and the federal guideline rate for average increases in hospital expenditures (4). Prefects' decisions are made only after consultations with the social security funds. The opinions of the social security funds and the medical supervisory bodies are recorded by the regional sickness insurance fund.

The district prefect notifies the hospital, the regional sickness fund for salaried employees, and the fund responsible for paying the global allocation (the "pivot" fund) or main sickness insurance fund in the area) regarding the final determination of daily service charges and the global allocation, together with the hospital's approved budget.

The hospital's director is the principal authorizing officer for the budget and maintains a formal record of expenditures. The director submits quarterly accounts (upon request) to the prefect. At the end of each quarter, the director also submits a chart a to the prefect showing the current number of hospital staff.

global allocation.[4] At the end of the financial year, the national sickness insurance fund for salaried employees draws up a statement of contributions required from each fund based on the number of days provided to the fund's members (weighted according to coefficients that account for the different daily costs of hospital care provided, which are determined by a joint ministerial order). Before June 1 of the following budget year, a committee for the apportionment of hospital global allocations must reach a unanimous decision on the final contribution from each sickness fund, taking into account the statement drawn up by the national sickness insurance fund (8).

Recent Reforms

Although the 1991 health reforms did not alter the basic method of global allocations, major changes to the budgetary process were introduced. Under this legislation (whose implementing regulations

4 Under the 1991 reform legislation, the pivot sickness fund makes an initial payment of 60 percent of the global allocation to the hospital on the twenty-fifth day of the month, then 15 percent on the fifth of the following month, and the balance on the fifteenth day of the following month.

were unpublished as of this writing), the budgetary process will start earlier in the year, budget negotiations will be faster and more streamlined, management will be more flexible, and the hospital board will have more autonomy particularly with regard to day-to-day matters (e.g., staffing, loans, internal organization), which will no longer be subject to the district prefect's prior approval. There will be closer cooperation between the authorizing officer and the accounting officer. New provisions will also be made for the investment of and return on funds. Moreover, it will be possible to revise a hospital's global allocation in the course of a financial year to reflect changes in the current volume of services provided as long as it is related to greater patient needs.

Another important innovation included in the 1991 reforms and currently being experimented with in several hospitals is the determination of charges based on the identification of homogeneous patient groups (*groupes homogénes de maladies*), which are in turn based on U.S. diagnosis-related groups (DRGs) (5).

Private Hospitals

Private for-profit and nonprofit institutions that do not participate in the public hospital sector operate on a fee-for-service basis, although fees are usually regulated by the central government's health ministry. An agreement between hospitals and their regional sickness funds fixes the amount of money that the funds will reimburse patients in the coming year. Private hospitals accept a certain number of service obligations (inpatient days and hospital admissions) to sickness fund patients in exchange for guaranteed reimbursement from the funds. If a private hospital has a surplus when it closes its accounts, it is free to distribute that surplus to shareholders or to reinvest the surplus funds. If it has an operating loss, the social security fund does not become involved in any way to cover the deficit.[5]

Daily Rates and Fees

Private hospitals' payments are based on negotiated daily rates that comprise a charge for hotel-type services and nonmedical personnel services (e.g., nurses, social workers, therapists), fees for operating and delivery room services, pharmaceutical fees, and fees for physician services. Patients usually pay physicians' fees directly and are then partially reimbursed by their sickness fund. In the past physicians have been paid separately from the hospital's charges, but physician payment is increasingly being included in the same schedule as the costs for a hospital stay. One advantage of folding in physician payments is that all payments made by the sickness fund for a patient's hospital stay are included in a single document that provides the fund with an overview of total hospital costs.

Physicians' services are reimbursed according to a national fee schedule classified as K, Kc, B, and Z (for diagnostic activities, surgery, biological analyses, and imaging, respectively). One K is worth approximately 12 francs, and one Kc is worth about 13 francs. Reimbursement for physician or surgeon services is supplemented by an operating or delivery room fee (FSO) paid to the hospital. The FSO varies according to region and category of hospital and by levels of K.

Private hospital per diem rates for hotel-type and non-medical staff services are based on a classification of the hospital's specialty and quality ranking. Since 1973 the classification system has assigned points to an individual hospital for each of the following five areas (in order of significance for rate setting):

1. medical services,
2. nonmedical staffing,
3. technical equipment,
4. hotel facilities, or
5. a combination thereof.

Depending on the total number of points obtained, a hospital is classified as A, B, C, D, or E,

[5] The agreement setting forth the responsibilities of all the parties concerned was drawn up by the Ministry of Health between 1975 and 1978 and approved by the Ministry in 1978.

each of which has a particular set of rates per specialty. The classification is decided by the regional prefect after consultation with a joint committee that includes representatives of sickness funds and health care providers.

A total of 800 points is required for category A classification, which indicates consistently high performance; rates fall as a hospital's classification moves from category A to E. Hospitals and clinics classified within each category have the same level of rates wherever they are located in the region. Hospitals have an incentive to invest in technologies, equipment, and staff to improve their ranking to receive higher per diem rates. The process of ranking hospitals is fairly rapid, and a hospital may even have its ranking changed retrospectively. For several years, per diem rates have been regulated and subject to authorized annual increases, expressed in either absolute amounts or percentage terms.

Operating room fees are directly linked to a hospital's rate category. Similarly, the pharmaceutical fee, formerly based on actual costs, is now becoming more uniform. Charges and fees are thus subject to limits and linked to the number of inpatient days delivered by the hospital. There are also government controls on the number of admissions and on the number of authorized beds in private hospitals.

Despite these measures to limit private hospital rates and the number of services, the total volume of medical services provided by private hospitals has not been brought under control. In response, the regional sickness funds require private hospitals to supply information on their activities from which averages and comparisons among hospitals are made. Hospital profiles are also drawn up to identify potential abuses. These profiles serve only as indicators of service provision, however, and are not used as instruments for setting limits or preventing abuses.

As an additional monitoring tool, regular checks of hospital practices are conducted to prevent bad practices. If any are identified, a preliminary letter is sent to the director of the hospital asking for remedial action. If the problem is serious or has occurred before, the hospital's manager is required to make the hospital's case before a committee of administrators of the regional sickness funds. A warning or reprimand may be sent or, after a complex review procedure, the hospital's classification may be downgraded. The ultimate sanction (for which there must be serious grounds) is abrogation of the sickness funds' agreement; costs are no longer paid in advance, and the daily charge is paid at three-quarters of the previous level. Although not applied frequently, these sanctions have had some effect (17).

Supervision

A group of sickness fund physicians supervises agreements between private hospitals and sickness funds that pertain to private hospital staffing levels, current pharmaceutical regulations, standards for operating rooms, and standards regarding the size of patient rooms. A compulsory annual statistical survey of private hospitals must also be provided to regional sickness fund organizations, making it possible to identify any possible problems in a range of areas. The standards and adherence to them have a direct effect on charges for services.

Health Reforms

Although the 1991 health reform act initially retains the principle of fees and rates for private hospital services, the legal framework and the financial basis of for-profit institutions have been altered. The tripartite system, involving the state, sickness funds, and hospitals, may gradually become the norm in the private sector as it has already been for some time in the public sector. The state could become involved in contractual relations regarding the volume of services that have hitherto been the concern only of hospitals and sickness funds.

There are no plans at this time to introduce a global allocation scheme for the private sector. Instead, there is a global ceiling on private hospital expenditures by the sickness funds, subject to a guideline rate of annual increase in this ceiling agreed on between the state and the other two traditional partners in the private hospital sector.

TABLE 4-4: Sources of Financing for Hospital Operating Expenses, by Hospital Sector, 1991

Source	Public and PSPH		Private		Total	
	Million francs	Percentage of total public and PSPH operating expenses	Million francs	Percentage of total private hospital operating expenses	Million francs	Percentage of total operating expenses
Sickness insurance funds	179,778	90.0	52,886	83.4	232,664	88,5
Individuals and private insurance	13,116	6.6	7,848	12.4	20,964	8.0
Mutual fund associations	3,023	1.5	2,329	3.7	5,352	2.0
Federal or local authorities	3,508	1.8	342	0.5	3,850	1.5
Total expenses	199,425		63,405		262,830	

SOURCE: Centre de Recherche d'Etude et de Documentation en Economic de la Sante (CREDES) Programme Eco-Sante, 1990 and 1991.

This ceiling is allocated among regions and by month and may not be exceeded.

The 1991 legislation requires that private institutions analyze their activities, develop an assessment policy, and implement information systems (similar to *programmed medical des systemes d'Information, or* PMSI). It also makes the submission of annual forecasts of activity to the sickness funds a precondition for setting rates or for concluding rate agreements. The implementation of a cost accounting system and a medical information system were intended to lead to a DRG-type of charge system by the end of 1993. An experiment using this new approach was introduced in obstetrics-gynecology units and in volunteer institutions for other specialties beginning on July 1, 1992 (5).

▮ Sources of Funds

The social security sickness funds pay for the lion's share of hospital care in France; they funded 90 percent of public and PSPH hospital operating expenses and over 83 percent of private hospital operating costs in 1991 (table 4-4). Private insurance, mutual fund associations, and individual out-of-pocket payments accounted for a fairly small share of hospital costs (10 percent), even for private hospitals (16.1 percent). These figures reflect sickness fund patients' freedom to choose either a public or a private hospital, and private insurers' and mutual fund associations' minor roles in the French health care system of mainly providing supplementary insurance.

The relatively small part that private hospitals have in France's system is reflected by their share of total hospital expenditures. In 1991, three-fourths of all hospital spending was for care provided in public and PSPH hospitals; the other fourth was for private hospital care (table 4-4).

Federal and local authorities pay hospitalization costs for patients who receive state medical or social assistance. These payments, financed through general revenues, funded 1.5 percent of hospital expenses in 1991 (table 4-4). (Foreign patients who are not residents of France must pay their own hospital bills although there are international agreements between France and certain countries allowing payments to be made through official channels.)

▮ Allocation of Operating Funds

Public Hospitals

Public hospital operating costs were F139 billion in 1988, representing 87.8 percent of aggregate hospital expenditures (which includes capital expenditures) (table 4-5). The largest single item (F90.1 billion, or 65 percent of operating costs)

TABLE 4-5: Operating Funds in Public Hospitals, 1988

Operating costs	Million francs	Percentage of total	Operating revenues	Million francs	Percentage of total
Staff	90,140	64.9	Global allocation	**118,074**	**81.0**
Pharmaceuticals, medical services	12,792	9.2	Service charges	**9,631**	**6.6**
Hotel facilities	8,473	6.1	Daily flat rate contributions	**1,877**	**1.3**
Repairs, maintenance	3,753	2,7	Outpatient care	**2,543**	**1.7**
General management	3,490	2.5	Donations, contributions	**219**	0.2
Mortgages	2,737	2.0	Sales of products	469	0.3
Other	17,451	12,6	Other	13,121	9.0
Total	138,836		Total	145,934	

SOURCES: Ministere de l'Economie des Finances et du Budqet, Direction de la Comptabilite Publique, Les Finances du Secteur Public Local, Hopitaux Publics 1983-1988.

was for hospital staffing costs. (It is not possible to distinguish between medical and nonmedical personnel costs.) Expenses for pharmaceuticals and medical services accounted for 9 percent of hospital operating costs in 1988; hotel-type services made up 6.1 percent, repairs and maintenance 2.7 percent, and management and transport 2.5 percent (table 4-5).

Public hospital operating revenues were nearly F146 billion in 1988, of which the global allocation represented 81 percent, total daily service charges accounted for 6.6 percent, total daily flat-rate contributions were 1.3 percent, and outpatient care charges accounted for 1.7 percent of hospital operating income (table 4-5) (10).

Private Hospitals

In contrast to public and PSPH hospitals, there are no systematic statistics on the revenues or costs of private institutions. A 1985 study by the *Centre d'Etudes des Couts et des Revenus (CERC)* estimated the operating costs of private hospitals and clinics in 1980 at F11.7 billion. Fifty-five percent of this was spent on staff; 17.4 percent on purchases; 17.2 percent on repairs, supplies, and external services; 4 percent on depreciation and provisions; 2.3 percent and 6.4 percent on other costs (l).

Operating Expenditures

Total hospital operating expenditures (which include both operating and capital spending) were F263 billion in 1991, equaling 3.9 percent of the gross domestic product (GDP) and 40.7 percent of national health expenditures (NHE). Hospitals' share of NHE has fallen over the past decade, which was 44.9 percent in 1980, but hospital expenditures as a share of GDP have increased, starting at 3.6 percent in 1980. These trends indicate that health care spending in France has commanded a greater share of the country's financial resources over the past decade, although the hospital sector has contributed less to this trend than have other sectors of France's health care system.

Approximately three-fourths of aggregate hospital outlays went to public and PSPH hospitals in 1991—slightly less than in 1980, when the public sector accounted for 78 percent of hospital spending (2).

HOSPITAL CAPITAL COSTS

Located as they are in a rapidly changing sector that is strongly affected by technological progress, and faced with growing patient demands for the latest technology and more patient amenities, all hospitals are increasingly sensitive to competition and have strong incentives to invest. In contrast to

the private sector, public and PSPH hospital investments are subject to certain financial constraints, although they also benefit from special public assistance.

The private sector is facing increasing competition, and its level of required investment is becoming more and more onerous; thus hospitals in this sector find it necessary to seek new investors. Few figures are available on private sector hospital investment, and most of the information in this section relates only to the capital investments of public and PSPH hospitals. Where appropriate, legislation concerning the investment process and current trends are discussed.

Relationship of Capital and Operating costs

In 1988 the aggregate budget for French public hospitals was approximately Fbillion158, which represented the purchase of goods and services. These costs may be either operating or investment costs, as follows:

- The operating section of the budget includes all consumable goods and services that are short-term; such expenditures relate to day-to-day supplies and to upkeep and maintenance.
- The investment section includes expenditures that are intended either to maintain a capital good beyond its budgeted life or to purchase new capital (3).

The investment section regularly receives transfers from the operating budget through provisions and depreciation accounts. Such accounts represent the depreciation of assets with a view to replacing them; depreciation is recorded as an income item in the investment section and as a cost item in the operating section. Depreciation costs are taken into account in determining the global allocation and daily service charges.

Private for-profit hospitals and certain private nonprofit institutions, even if they participate in the public hospital service, are not entitled to direct reimbursement of depreciation costs because the government is concerned about preventing the accumulation of private wealth at the expense of the sick. Such institutions may, however, receive a remuneration equivalent to 3 percent of their capital (based on the nonamortized value of their assets, where necessary after revaluation). In addition, fixed assets in such institutions are almost never the property of the hospital but are rented. The depreciation of these assets is included in the rent, which is an operating cost.

Hospitals that receive a global allocation are allowed to include interest payments on investment loans as part of their operating costs. This option does not extend to the repayment of loan principals, which are included in the investment section of their budgets.

Another way in which operating and capital costs are related in French public and PSPH hospitals is through the allocation of operating fund surpluses. Under certain circumstances (discussed above), surpluses in the operating section can be used to finance investments that are not expected to increase operating costs in ensuing years. Moreover, any surplus in the appended budget is allocated to the purchase of equipment for hospitals (e.g., blood transfusion centers or computer centers), to other hospital capital investment, or to reduce operating costs in succeeding years.

The impact of capital costs on future operating costs is determined informally. Some hospital boards draw up program budgets as a means of improving quality of forecasting and planning, and assisting management by highlighting the overall impact of an activity in operational *and* investment terms. Activities examined may cover energy saving programs, computerization and major equipment, or hospital buildings.

Capital Financing Model

Investments in new construction, new major medical equipment, or replacement equipment in the public sector can be financed by depreciation (applied to tangible assets such as hospital plant and equipment) or amortization (applied to intangible assets such as insurance policies). In the hospital sector, however, this is inadequate due to the rate of technological innovation, and other funding sources are often required.

TABLE 4-6: Capital Expenditures and Income in Public Hospitals (1975, 1986, 1988) (in millions of francs)

Expenditures	1975	1986	1988	Percentage of 1988 total
Direct expenditures	3,722	8,842	13,456	69.9
Tangible assets	812	4,059	5,723	29.7
Real estate investments	169	434	3,171	16,5
Construction	2,741	4,349	4,562	23.7
Indirect expenditures	884	3,464	5,801	30.1
Total expenditures	**4,606**	**12,306**	**19,257**	**100.0**

Income	1975	1986	1988	Percentage of 1988 total
Subsidies, grants	**985**	**1,707**	**1,583**	**7.6**
Loans	**2,533**	**3,521**	**4,545**	**21.8**
Depreciation	**1,513**	**6,989**	**7,702**	**36.9**
Fixed assets			**4,181**	**20.0**
Other income	**244**	**946**	**2,845**	**13.6**
Total income	5,275	13,163	20,856	100.0

SOURCES: Ministere de l'Economie des Finances et du Budget, Direction de la Comptabilite Publique, Les Finances du Secteur Public Local, Hopitaux Publics 1983-1988.

Self-Financing

Hospitals obtain some of their funds from internal sources, such as the sale of real estate and tangible assets (a fairly unimportant source) and depreciation, which accounted for 37 percent of hospitals' investment funds in 1988 (table 4-6). Since the mid- 1980s, depreciation funds have increased in importance because of trends in the structure of investments and thus their patterns of depreciation. The decline in the acquisition of land and buildings and of repairs with a long (often 30 years) depreciation period and the increase in tangible acquisitions with a short (around 5 years) depreciation life has significantly increased depreciation income and thus the level of self-financing.

Subsidies

Hospitals obtain a portion of their investment funds from several external sources that may be free or may incur a cost. State subsidies—which normally vary between 5 and 40 percent of a hospital's investment funds, depending on the institution's capacity for self-financing-and subsidies from local authorities are free. More than half the subsidies received by hospitals come from the state. Of local authority funding, the regions are the most important source of assistance, followed by the districts and municipalities *(communes).* In 1988, subsidies accounted for 7.6 percent of aggregate investment income (table 4-6).

Loans

The sickness funds have been authorized **to make** interest-free loans to hospitals, which are required to repay only the principal amount. For loans that incur a cost, hospitals normally call on banks for public authorities *(Caisse des Depots et Consignations* and the *Caisse d'Aide a l'Equipement des Collectivites Locales).* Hospitals may also borrow from other banks or even, with ministerial approval, from the financial market (i.e., debenture loans). Such loans represented 21.8 percent of aggregate investment income in 1988 (table 4-6) (3).

Today, state subsidies and sickness insurance fund loans play less of a role in hospital investment financing than they have in the past. Hospitals' own resources now constitute a key element of their capital finances. They even appear to be gaining in importance, given a slight trend toward

a reduced level of debt and a refocusing of investment; that is, investment now seems to be geared toward the acquisition of biomedical equipment, which in turn generates a higher level of depreciation. If sufficiently short periods of depreciation are allowed, a high level of debt generates considerable resources for investment. In fact, hospitals that have borrowed at high rates have not been penalized at all; rather, they have benefited from a budgetary bonus, as the financial costs associated with a high level of depreciation form part of the base from which the initial budget is calculated (9).

Financing from loans is restricted to 60 percent of the estimated cost of an investment. Institutions are required to meet the other 40 percent of the cost (as well as any associated additional operating costs) from their own financial resources. To help cover such costs, hospitals sometimes receive an additional allocation over and above the federal guideline rate for updates to global allocations, although experience shows that this does not occur often. Other internal sources include the use of surpluses arising from improved management. In contrast to the private sector, such decisions are subject to the approval of supervisory authorities (17).

Private Hospitals

Private hospitals (often called clinics) are free to use their profits for investment or to redistribute them to shareholders. Private for-profit clinics have traditionally been owned by physicians. It has become increasingly difficult, however, for clinics to finance investments in new major equipment from their own resources, which they need to keep up with technological progress and the demands of competition (14). Clinics face a difficult problem of finding outside investors mainly because in most cases there is no guarantee that the investment will be profitable. In recent years this "crisis" in the private sector has resulted in a transformation of the structure of such hospitals, which are increasingly passing from the status of a family business to that of a limited company belonging to a major financial group. Large French companies (e.g., Paribas, Suez, Lyonnaise des Eaux) and foreign companies have invested in chains of clinics in search of profits (17).

Determining Capital Requirements

The entire French health care system (both public and private health institutions) is subject to formal health sector planning (15). In general, public hospitals are subject to the provision of public law that governs public works and the placing of public work contracts. Commercial institutions must operating according to private law, which allows them to determine their own investment procedures within the limits of the law. Health care legislation in 1970, however, stipulated that repair programs and projects relating to the creation, extension, or transformation of public and private hospitals would be subject to authorization arrangements. Authorization is forthcoming only if a scheme complies with the health map (*carte sanitaire*).

Health Maps

The foundation for health sector planning in France is the health map. The health map forms the reference point for public authorities in all decisions relating to the level of public and private hospital construction of new buildings, additions of hospital beds, or the acquisition of major medical equipment (15). It is based on a recognition that the private sector must operate alongside the public sector, as the latter is unable to meet all public health care needs. The aim is to meet those needs satisfactorily at the lowest cost by a rational allocation of capital resources.

The health map, drawn up by the Ministry of Health after consultation with regional and national health resources committees (12) was designed to meet three objectives: 1) to control the rapid growth of the hospital sector, 2) to correct regional disparities, and 3) to coordinate public and private sector development. To accomplish these aims, the health map establishes the boundaries of health sectors and regions. Each health sector is a geographical area of about 30,000 to 40,000 inhabitants centered on a hospital with a certain

minimum level of technical facilities. There are currently 21 regions divided into 284 health sectors. The health map also establishes the nature, extent, and location of health facilities of national importance or designed to serve several health regions. For each type of facility, the health map for the particular sector or region concerned specifies the buildings and major items of required equipment. Plans are detailed after an analysis of local and regional needs. The health map also includes an inventory of existing or authorized buildings and a continuously updated record of major items of medical equipment.

Each region draws up its health map in light of directives issued by the Ministry of Health. The work is then submitted for review to sector and regional hospital groups and the regional committee for health and social resources. This is followed by an examination of the health map at the federal level. The Ministry then adopts the provisions of each map after seeking the opinion of the national committee for health and social resources.

This approach, it should be noted, is very broad and general with indicators of need established for major areas of activity (e.g., medicine, surgery, obstetrics-gynecology, medium stays). It is not based on epidemiological or population-based data (2,4).

The Act of December 31, 1970, requires all public and private institutions to secure authorization from the administrative authorities for new buildings or extensions of existing ones with compulsory reference to the health map. (The map's indicators of beds per specialty represent ceilings that may not be exceeded.) The Act also makes it obligatory to obtain prior approval for conversions of hospital facilities, the merging of hospitals, or the installation of major medical equipment.

The prefect is responsible for issuing authorizations after consulting the Regional Health and Social Resources Committee, except in the case of decisions of national importance; these are the responsibility of the Health Minister of the central government after consultation with the National Health and Social Resources Committee.

Reforms

The reforms initiated by the 1991 legislation maintain the health map but substantially broaden its scope with the addition of a new document: the health organization scheme. Both the maps and the schemes are to be drawn up on the basis of the measurement of needs in the population and their changes, with regard to demographic data and technical progress in medicine, following a quantitative and qualitative analysis of existing care provision.

In carrying out this task, the ministers responsible for health and social security (in the case of national and inter-regional maps and schemes) and the regional prefects (in the case of their regional and sub-regional equivalents) will be assisted by health organization committees at national and regional levels. To reflect the need for assessment, each regional health organization committee will have a committee on regional medical assessments of hospitals.

The scope of health planning has been broadened by the health organization scheme to gradually break down the boundaries between inpatient hospital care and outpatient ambulatory care and to develop plans to rationally diffuse particularly expensive or sensitive medical activities associated with ambulatory care. The legislation is concerned with the type of care provided, not with the physical structure of the buildings or the legal context in which the care takes place. Alternatives to hospitals are taken into account (particularly ambulatory surgery) by establishing an equivalence between hospital beds and the number of places providing alternatives to hospital care.

Under the new legislation, public hospitals are also authorized to collaborate with public and private legal bodies, including those at the international level. In connection with these activities, they may sign agreements and participate in inter-hospital syndicates and public and financial consortia. The creation of such consortia enables health institutions to pool their operational or investment resources to undertake activities that their individual resources would not allow. To

achieve greater uniformity of the two hospital sectors, the new legislation also provides for all care institutions and providers to be subject to the same authorization arrangements. The overall aim is to simplify and decentralize the administrative procedures for securing capital investment authorizations.

The reforms also introduce a hospital plan which sets out (particularly in the context of the medical plan) each institution's objectives with regard to medical and nursing atmospheres, social policy, training, management, and information systems. The plan, which must be compatible with the objectives of the health organization scheme, identifies all the resources in terms of buildings, staff, and equipment that the hospital requires to achieve its objectives. It is developed for a period of up to five years (5).

Traditional Public Hospital Investments (16)

In any major hospital and even those of average size, new buildings and expansion of existing facilities form part of an overall medium-term (10- to 15-year) program. Three types of projects may be identified: 1) those of national significance, for which the ministry is responsible; 2) capital projects that are unique to a region and for which the regional prefect is responsible; and 3) capital projects that are the responsibility of the district prefect, who gives approval in view of the overall resources allocated to each district.

Because most investments are carried out with state assistance, investment priorities are spelled out in the national economic and social development plans, which effectively determine the allocation of financial resources set aside for the different sectors of public investment. Receipt of state subsidies for new capital investment is contingent on the proposed investments' inclusion in the plan.

Any building and major medical equipment investment project must pass through several stages (e.g., purchase of a site, initial preliminary design, final proposal) each of which must be approved by the hospital board after they have been considered by the hospital's medical staff committee and the joint technical committee. Each stage is subject to final approval by the supervisory authority.

- The financial appraisal of the project is accompanied by a financing scheme. The financing rules are as follows:
- When state funding is provided, it is always equal to 40 percent of the capital expenditure qualifying for subsidy.
- Local authorities may also contribute to this assistance, bringing the rate of subsidy above 40 percent.
- The balance is met by the hospital from its own resources, by loans from the *Caisse des Depots et Consignations* or the *Caisse 'Aide a l'Equip - ment des Collectives Locales.* In the case of investments that do not receive state funding, the proportion of the cost met from borrowing may not exceed 60 percent.

The different categories of equipment and materials subject to approval are care units equipment, ancillary care and technical medical equipment, and equipment for general services.

In 1974 a national center for hospital equipment (CNEH) was established that reports to the Ministry of Health. It has responsibility for considering problems associated with the functioning of hospitals. The rules governing the financing of the provision of medical equipment are the same as those relating to the building process.

Under the new legislation the supervisory authority will monitor only the legality of contracts entered into by hospital directors. Such contracts will come into force as soon as they are received by the prefect's office.

Private Hospital Investment

Once a private hospital decides to adopt new technologies, provide new services, or expand its hospital beds, it can acquire the necessary physical and staff resources and place them at their patient's disposal, thus putting them to profitable use more quickly than the public sector. Private hospitals can also more quickly provide the resources required to meet an existing need. If an investment turns out to be profitable after the facili-

ties are in place, they can be adjusted to a certain extent by the constant redeployment of resources (particularly of staff), as there are few statutory constraints. Private hospitals face no major impediments to increasing and modernizing their facilities as soon as a decision has been made (17).

Capital Expenditures

Capital expenditures do not correspond to a single year's costs and may figure into the calculation of more than just one year's global allocation and charges. In 1988, capital expenditures of public hospitals equaled F19.3 billion, or 12.2 percent of aggregate hospital expenditures. This represents a more than threefold increase over 1975. (Expenditures for different capital investments are given in table 4-6.) Since 1975 the structure of direct investment expenditure has changed, with the proportion funding real estate investments (e.g., construction of new hospital wings) falling from 78.2 percent in 1975 to 57.5 percent in 1988. There has been an equivalent rise in investment in other capital assets.

Total investment income in 1988 was F20.9 billion (shown by funding source in table 4-6). This amount represents a corresponding threefold increase in investment income over 1975. Over the last decade, the proportion of capital expenditures paid for from internal funds has tended to increase, while the proportion met by grants, and especially by loans, has declined (table 4-6) (13).

FUTURE DIRECTIONS

The containment of health expenditures is a major concern in France. The costs of hospital care represent half of national health expenditures, making the hospital sector a primary target of France's cost containment efforts. The hospital sector has always expanded without much control, and its evolution has been marked by the constant need for an urgent response to perpetually growing demand. The urgent nature of hospital care has often taken precedence over economic rules of efficiency and better management. Prior to 1971, hospitals would present their bills to the sickness insurance funds after having satisfactorily treated patients. The funds would not hesitate to pay their share of expenses, and little attention was given to detailed analyses of hospital bills. Only in the 1970s did national economic conditions demand closer scrutiny of the economics of hospital care. By the end of the 1970s, containment of hospital costs had become a high-priority issue and the primary goal of all reforms aimed at reducing health expenditures since then.

Understandably, it is the public hospital sector that has been most influenced by cost-containment reforms. In 1983, prospective budgeting became the standard in this sector. Its purpose was to control spending by imposing guideline growth rates for hospital spending. However, the determination of budgets across hospitals takes no consideration of changes in activity or volume of services demanded from individual hospitals but merely applies a predetermined increase rate (the federal guideline rate) to the previous year's budget. Budgets are based on historical levels of expenditure, and rates of increase are determined centrally, with little scope for local deviation (11).

The medical program information system (PMSI) was created to achieve a financing system more reflective of an individual hospital's activity and to encourage continuous evaluation. This program systematically produces a standardized discharge form at the completion of each patient's hospital stay and enters the form's data into a patient database. The system allows for detailed analysis of hospital activity to enable comparisons of patient volume among departments or hospitals and to detect morbidity trends. The PMSI was implemented as an initial move toward developing a DRG-type system of homogeneous patient groups and incorporating this classification system into the hospital financing scheme. Implementation of the PMSI is proving to be complex and involved, however, and the full achievement of a DRG-based system in France remains a long-term objective.

A large gap still exists between the public and private hospital sectors in France. The allocation of funds to each sector is based on different mechanisms, and despite the sickness insurance funds' increasing control over the private sector, cost

containment efforts for this sector have not been very successful. A serious shortcoming of the present financing scheme is that private institutions have an incentive to increase the number of medical procedures to compensate for rigidly imposed fees and daily rates.

The 1991 health reform legislation in France is designed to extend government control over the private sector and to narrow the gap between the public and private sectors. The legislation redefines hospitals according to general guidelines, thus providing the private sector with the same "public interest" mission as the public sector. The reform also emphasizes the complementary role of the public and private sectors. Private hospitals are not yet paid through a global allocation scheme, but growth in expenditures for private hospital services are capped under the reforms. Additionally, the PMSI is planned to be extended to the private sector, and current experimentation with a DRG-type system is in place for some special services. Now that the philosophy underlying the DRG system is being tested in the public hospital sector, a relatively smoother implementation of the DRG system in the private sector is likely.

Implementation of the necessary structural arrangements to achieve the objectives of recent reforms will be a long-term task. Both private and public hospitals face new obligations, including maintaining medical records that are readily available for consultation by the patient or the patient's physician, evaluating professional practice, reorganizing health care, analyzing service activity, and implementing information systems that document different conditions and modes of care and treatment (5).

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Hospital Financing in France

4

by Marie-José Sourty-Le Guellec

The French health care system is arguably the most complicated of the European (and Canadian) systems described in this report. Its system includes universal, compulsory social insurance, significant patient cost-sharing, and supplementary insurance on the financing side, and public providers combined with a sizable number of private providers on the supply side. Overlaying both the public and private sectors are strong governmental controls at all levels of government (11).

Almost the entire population (99 percent) is covered by the statutory health insurance scheme, which is part of France's social security system. Statutory health insurance expenditures account for over 70 percent of national health expenditures in France. The scheme is administered by social security sickness funds (*Assurance Maladie de la Sécurité Sociale*). A person's occupation generally determines membership in a particular fund. There is one large fund for salaried workers (CNAMTS), which accounts for nearly 80 percent of the compulsorily insured and about 15 smaller funds cover other workers. The government provides insurance for low income people. Contributions for sickness fund insurance are income-related and shared by employers and employees or paid directly to the relevant fund by nonsalaried or self-employed individuals (11).



Social insurance provides both cash benefits (e.g., sick pay) and benefits in kind (e.g., ambulatory care, hospital care). Depending on the patient's financial circumstances, the patient may be required to pay coinsurance or copayment amounts; for instance, patients may have to pay 20 percent of the cost of hospital services (the *ticket modérateur*) and a daily flat rate contribu-

tion that is currently 50 francs.[1] Employers sometimes provide supplementary insurance for their employees through mutual fund organizations *(mutuelles)* to cover patient cost-sharing amounts and a few benefits not covered by the social insurance scheme. Individuals may also purchase private supplementary insurance. *Mutuelles* and private insurance payments account for about 8 percent of national health expenditures.

France's sickness funds are quasi-autonomous, non-governmental organizations; there are national, regional, and local organizations of these funds. They are subject to national and local management by employer associations and trade unions. They are also closely regulated by the central government; in particular, contribution rates, fee schedules, and pharmaceutical prices are controlled by the central government (11).

Patients can consult any medical practitioner for primary care, and can choose to go to either a public or private hospital. Money follows the patient in the case of private hospitals, but public hospitals are subject to prospectively fixed budgets. Compared with the other European countries in this study and Canada, French patients have relatively large cost-sharing requirements. Patient out-of-pocket payments currently account for about 17 percent of national health expenditures; however, cost-sharing for hospital services is fairly small with only about 4 percent of hospital expenditures financed directly by patients (1 1).

Similar to many other countries, the containment of health expenditures is a major concern in France. Hospital care represents half of national health expenditures, making the hospital sector a primary target of France's cost-containment efforts. Recent reforms have concentrated on effectively controlling sickness fund insurance payments to private hospitals by extending governmental regulation over that sector, and by creating a new balance between the private and public sectors to harmonize their development within an overall program designed to control health spending. Also similar to many other countries, France's health reforms are moving in the direction of making individual hospital budgets based more on each hospital's level of activity and less on historical costs.

STRUCTURE OF THE HOSPITAL SECTOR

France has a mixture of public, private nonprofit, and private for-profit hospitals. Public hospitals tend to be large and well equipped; private hospitals tend to be smaller and to specialize in elective surgery, obstetrics, or long-term care. In 1990 there were 1,072 public institutions; they constituted only 28 percent of all French hospitals, but provided almost two-thirds of total hospital beds, hospital days, and inpatient admissions (tables 4-1 and 4-2). By law, a public institution is a corporate body governed by public law and is responsible for providing a specific public service. Public institutions have full legal status, their own assets and resources, and full legal autonomy. They are, however, subject to various forms of public supervision and financial control. Public hospitals cannot waive their obligations, defined in the Act of December 31, 1970, to:

- provide diagnosis, treatment, and (in particular) emergency care to their patients and those referred to them, including necessary inpatient care;
- contribute to the training of medical and paramedical (nonmedical) staff; and
- participate in medical and pharmaceutical research and health education.

In 1989 the private hospital sector included 2,721 institutions, constituting 72 percent of all hospitals but accounting for only one-third of the total hospital beds, patient days, and inpatient admissions in France in that year (tables 4-1 and 4-2). The private sector is divided into a private for-profit or commercial sector with 1,515 institu-

[1]The exchange rate in **January** 1994 was approximately $USO.17 to F1 .00.

TABLE 4-1: Hospital Shares in France, by Category of Hospital[a]

Category of hospital	Percent of total hospitals	Percent of beds
Public	28	65
Nonprofit, PSPH	12	11
Private nonprofit, non-PSPH	19	5
Private for-c) refit	**40**	**19**

[a]Data for public hospitals are for 1990; data for private hospitals are for 1989.

SOURCES: Documents Statistiques, "Les Etablissements d'Hospitalisation Privee en 1989," Enquete EHP 1989, SESI no. 121, Juillet 1991, Documents Statistiques, "Les Hopitaux Publics en 1990, Resuitats H80, " SESI no. 154, Septembre 1992

tions and a private nonprofit sector with 1,206 institutions. For-profit hospitals are privately funded and subject to the rules of commercial and civil law. Private nonprofit hospitals are run by voluntary organizations, religious orders, employee representatives, mutual fund associations, and social security funds. They are similar to public institutions in that they do not attempt to maximize profits, and their surplus revenues are invested to further their health care objectives.

Private institutions are managed by individuals or a legal entity. They make many of their own management and investment decisions, and their services are governed mainly by market forces, although they are subject to certain government constraints. Fees charged by private institutions are controlled and subject to formal agreements. Increases in the number of beds and high-cost equipment are controlled by the health map *(carte sanitaire),* described later, and require formal au-

TABLE 4-2: Hospital Beds and Inpatient Days, by Category of Hospital[a]

	Public		PSPH		Public and PSPH	
	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1,000s)
Medicine	105,393	29,243	13,879	3,918	119,272	33,161
Surgery	61,282	14,827	8,986	2,315	70,268	17,142
Obstetrics/gynecology	17,337	4,101	1,393	356	18,730	4,458
Medium-stay	42,127	11,943	19,921	5,386	62,048	17,329
Long-stay	63,711	22,289	1,877	638	65,588	22,927
Psychiatry	68,600	18,669	12,733	3,921	81,333	22,590
Total	358,450	101,071	58,789	16,535	417,239	117,607

	Private for-profit		Private nonprofit		Total private	
	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1,000s)	Beds	Hospital days (in 1 ,000s)
Medicine	14,753	2,039	3,943	1,242	18,696	3,282
Surgery	50,820	17,123	4,675	1,484	55,495	18,607
Obstetrics/gynecology	10,083	3,084	882	254	10,965	3,338
Medium-stay	18,123	5,646	15,672	4,525	33,795	10,171
Long-stay	436	140	2,037	722	2,473	862
Psychiatry	13,405	4,767	1,960	637	15,365	5,404
Total	107,620	32,800	29,169	8,865	136,789	41,664

[a]Data for public hospitals are for 1990; data for private hospitals are for 1989.

SOURCES: Documents Statistiques, "Les Etablissements d'Hospitalisation Privee en 1989, " Enquete EHP 1989, SESI no 121, Juillet 1991, Documents Statistiques, "Les Hopitaux Publics en 1990, Resultats H80, " SESI no. 154, Septembre 1992.

theorization. Additionally, the medical activities of private hospitals are supervised by the sickness insurance funds' medical officers.

Private institutions are allowed to participate in the public sector, although to date only some of France's private nonprofit hospitals (467 in 1988) have asked to be incorporated into the public hospital service. These hospitals, called PSPH hospitals, are governed by rules similar to those for public hospitals. There are thus two general categories of hospitals in France: public and PSPH hospitals, and private institutions that do not participate in the public hospital sector.

Financing methods and operating arrangements vary greatly between the public and private hospital sectors. Public and PSPH hospitals are governed by the principles of public accounting, whereas private for-profit hospitals are commercial undertakings that attempt to maximize their surplus revenues. Reform legislation passed in July 1991 and currently being implemented is designed to create a new balance between the private and public sectors and to harmonize their development within an overall program to control health expenditures. The reforms formally recognize that public and private hospitals perform the same basic functions. In the future, the two categories of hospitals will share equal responsibility for ensuring public health through common provisions that affect all types of hospitals. Furthermore, the reforms seek to strengthen and encourage cooperation between public and private hospitals (5).

At present, a statutorily insured patient in France can go to either a public or private hospital, although in practice the decision is usually made by the patient's physician. When the choice is a personal one, it tends to reflect the hospital's geographical proximity, its reputation, or other personal preferences. Under the 1991 reforms, patients' freedom to choose a physician or hospital became an even more integral part of the health care system in France than it was under previous health care legislation.

Many hospitals in France have short-, medium-, and long-stay beds as well as psychiatric beds. It is difficult, if not impossible, to determine the proportion of hospital care in France that is devoted to short-term acute care treatment; therefore, this chapter deals with the French hospital sector as a whole. Purely residential institutions, such as nursing homes, are excluded from data cited herein, however.

PHYSICIANS

In public and PSPH hospitals, the medical staff includes residents or interns, who are physicians in training, and hospital practitioners, who are full-time or part-time with a salaried established post *(titulaire)* or a salaried, nonestablished post ***(non-titulaire).*** Table 4-3 provides a breakdown of hospital physicians in private and public hospitals in 1989 and 1990. The central government controls the growth of salaries and the number of hospital staff in public hospitals.

TABLE 4-3: Hospital Physicians[a]

		Public	PSPH	Private for-profit	Private nonprofit	Total
Salaried practitioners	Full-time	27,913	2,614	596	525	31,675
	Part-time	39,962	4,250	851	2,047	47,110
Nonsalaried practitioners	Full-time		32	8,883	495	9,410
	Part-time		762	22,151	1,912	24,825
	Occasional		590	12,976	1,496	15,062
Salaried residents	Full-time	22,019	1,655	248	236	24,158
	Part-time		233	328	90	651
Nonsalaried residents	Full-time		22	15	11	48
	Part-time			164	8	172

[a]Data for public hospitals are for 1990; data for private hospitals are for 1989.

SOURCES: Documents Statistiques, "Les Etablissements d'Hospitalisation Privee en 1989," Enquete EHP 1989, SESI no. 121, Juillet 1991; Documents Statistiques, "Les Hopitaux Publics en 1990, Resultats H80," SESI no. 154, Septembre 1992.

In certain circumstances hospital physicians are authorized to treat private patients in public hospitals through consultations or the use of public service beds for private patients. In such cases the physician receives a fee from the patient, which may be reimbursed by the patient's insurance company. Income from private fees may not exceed 30 percent of a physician's total income and the number of beds that can be used for private patients may not exceed 8 percent of all public service beds.

Public hospital physicians often confer with office-based private practice physicians (*médecins libérals*). Whether or not payment for the consultation is included in the hospital's global allocation of funds (discussed further below) depends on the regularity of the consults. Any physician in an office-based practice may be consulted on an occasional basis by a hospital physician. Payment is rendered according to the service or consultation performed and falls outside the hospital's global allocation. Hospitals regularly call on some physicians in private practice (called affiliated practice physicians) who are paid a fee per service provided. These fees are included in the hospital global allocation.

There are no salaried physicians in rural hospitals and any private physician may consult there subject to authorization. In these cases the physician may ask patients who are not covered by sickness funds to pay an agreed-upon fee. For patients with sickness fund coverage, the physician may claim 85 percent of the local daily charge per day; for patients qualifying for social assistance, the physician is paid 50 percent of the departmental medical assistance charge. In these two cases the hospital retains 10 percent of fees received.

In certain circumstances nonsalaried physicians operate clinics in public institutions. They are paid on a fee-for-service basis; the level of fees is agreed upon directly with the patient. Physicians pay 10 percent of their fee income to the hospital, which uses the proceeds for improving their stock of medical equipment.

Thus, in public or PSPH hospitals, most payments to medical staff are included in the operating section of the budget and are taken into account in determining the hospital's global allocation. Exceptions to this are fees paid to physicians practicing in rural hospitals and in hospital clinics, and fees received by hospital physicians as part of their private practice.

In private for-profit hospitals, physicians are nearly always paid on a fee-for-service basis and patients are reimbursed by their insurance companies. Nevertheless, an increasing number of private institutions are taking the opportunity to invest in staff (particularly medical staff) by offering the best-trained personnel attractive remuneration packages, particularly in comparison with what the public sector can offer. Physicians' fees in private hospitals are set according to a national fee schedule, but their incomes, other staff incomes, and the number of staff hired are not regulated by government.

HOSPITAL OPERATING COSTS

Financing Model

There are two distinct methods of financing hospital operating costs in France. Public and PSPH hospitals are paid largely through a prospectively fixed budget. Private non-PSPH institutions are paid a daily (per diem) rate for their services; inpatient physician and ancillary services are paid for on a fee-for-service basis.

Public Hospitals

Since 1984-85, public and PSPH hospitals have been subject to a global allocation scheme established by the prefect of the district in which they are located and determined within the framework of federal guidelines. The global allocation scheme replaced a system of controlled rates of increase in per diem prices for public and PSPH hospitals (11). Under the new scheme each hospital receives an annual global allocation to cover the portion of its costs that is paid for by the sickness funds. Hospitals also charge daily rates (*tarifs journaliers de présentations)* to cover that part of a hospital stay not provided for in the global allocation. Daily charges are established for several purposes. Federal and local governments pay a daily charge for patients on social assistance. The

daily charge is also used to determine patient cost-sharing amounts for patient copayments *(ticket moderateur)* and daily flat-rate payments (paid either by the patient or by a supplementary insurance company), and it constitutes the charge for patients who have no insurance coverage.

Hospital Budgets

The hospital budget sets forth estimated expenditures and revenues for the coming year. This budget, like that of any public administrative institution, must conform to certain public accounting principles. It has two sections, as described below:

- The operating section deals with current activities, including the day-to-day running of the hospital and financial management.
- The investment section deals with operations leading to an increase in durable capital assets requiring depreciation (other than stocks), such as permanent capital, real estate and tangible property, stocks and securities, deposits and sureties, and physical supplies.

Expenditures that require authorizations for the operating section of the budget are divided into three groups:

1. expenditures relating to the external purchase of goods and services,
2. staff or personnel-related expenditures, and
3. all other types of expenditures.

A public or PSPH hospital's operating revenue is derived from the following sources:

1. the global allocation described below;
2. income from services (e.g., via daily rate charges or fees);
3. grants, donations, and legacies to be used for operating purposes;
4. other surplus income unrelated to operational activities;
5. income from reserves;
6. the value of liabilities reduced by expire or lapse; and
7. the value of any repairs undertaken or surplus produced by the institution itself (e.g., pharmaceutical products made by the hospital's laboratory).

Appended Budgets

Current expenditures on certain activities and services (e.g., blood transfusion centers, mobile emergency services, data processing centers) must be included in appended budgets. Operating costs are funded from both general and appended budgets.

Authorized expenditures for the coming year must take into consideration the average rate-of-increase guidelines established by the central government's ministries of the economy, budget, health, and social security. The average rate of increase for hospital expenditures is based on general economic trends—in particular, forecasted changes in prices and wages—and on national health and social policies. The guideline rate was 4.2 percent in 1990.

Determination of the Global Allocation

Although a hospital receives a small amount of revenues in addition to the global allocation and daily charges, these two elements are essential to a hospital's ability to provide services. The global allocation is designed to provide enough funds to cover that part of the hospital's expenses that will be paid for by the sickness insurance funds. It represents the difference between total operating costs as set forth in the authorized general and appended budgets and expected hospital revenues other than the global allocation itself, so as to ensure that the hospital's budget will be balanced after taking into account surpluses or deficits from previous years. Annual increases in a hospital's global allocation are based on the federal guideline rate of increase and the hospital's forecasted level of activity.

Patient copayment and daily flat-rate contributions, repayments by mutual fund associations and private insurance companies for their members' expenses, and payments for patients covered by medical or social assistance are not included in the global allocation; they are billed according to the daily service charges established for individual patients.

The global allocation covers costs relating to inpatient care, day and night care in the hospital,

outpatient care,[2] psychiatric care, legal abortions, mobile emergency care units, and long-term care institutions for the elderly.

Determination of Daily Charges

The partial nature of the global allocation makes it necessary to establish a system of charges (tariffs) to recover expenses not paid for through the global allocation. Daily service charges determine the amounts to be paid by federal or local governments, patients, or any organization providing supplementary coverage. Daily service charges are calculated for different types of services by dividing the estimated total costs of each type of service by the estimated number of patient days for each type, after adjusting costs for offsetting receipts and for any previous year's surplus or deficit that has been carried forward.[3]

Service charges are calculated for inpatient care (including specialist and nonspecialist services, services relating to expensive specialties, and medium- and long-term services), day and night care, and home care services. There are also three possible short-term charges for medicine, surgery, and expensive specialties. Because individual hospitals have different budget levels and estimated numbers of patient days for various types of services, daily service charges vary by hospital. In contrast, flat-rate charges for outpatient care and for legal abortions apply uniformly throughout France. Box 4-1 describes the different parties involved in hospital management and supervision, and offers more details on the determination of global allocations and daily rates.

Budget Adjustments

Except in the case of a budget revision, the global allocation is paid on the basis of the amount initially provided for, regardless of the hospital's actual level of activity. If the number of patient days is lower than estimated, the hospital's income (insofar as it relates to its global allocation) remains unaltered.

If a hospital can show that there has been a significant and unforeseen change in its financial circumstances or medical activity leading to a substantial increase in the hospital's costs during the current year, changes to the budget (e.g., an increase in authorized revenues to meet higher-than-anticipated expenses) may be approved. Additionally, in urgent cases the hospital's director may transfer appropriations between the first two groups of authorized expenditures in the general budget and the appended budgets during a financial year. These transfers may not, however, increase or reduce authorized expenditures within these groups by more than 10 percent, reduce appropriations designed to cover unavoidable costs (e.g., social security contributions or taxes), or commit the institution to expenditures beyond the current financial year.

End-of-year surpluses in the hospital's administrative account resulting from more efficient management (e.g., expenses are less than forecasted for the same or higher level of service delivery) are assigned to a compensation reserve account. Such reserves may be used to cover subsequent years' deficits or assigned to another reserve account that can be used to finance operations or investments that do not increase operating

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[2]Actually, only part of the cost of outpatient care is taken into account in calculating the global allocation. In particular, the allocation relating to this area covers the cost of supplying drugs for which the sickness insurance funds are statutorily responsible. It is estimated that on average, 50 percent of outpatient costs are covered by the global allocation. The remainder has to be covered by the patient through a copayment or by a third-party payer other than the patient's sickness fund.

[3]An excerpt from the decree of Aug. 11, 1983, section 32, states specifically that "[t]he estimated cost price shall be equal to total operating expenditures, comprising:

a) direct costs, that is the costs of services belonging to a particular category of charges, excluding the cost of medical treatment, goods and other medical services;
b) the cost of medical treatment, goods and services on the basis of their purchase price or, failing that, of their cost price;
c) other costs included in the operating section of the general budget which are not covered by their own resources, divided among the different categories of charges in proportion to the estimated number of days for each category;
d) where appropriate, that part of the previous financial year's deficit which has been carried forward."

BOX 4-1: Hospital Management in France

Hospitals are managed by a board made up of locally elected representatives (of which the mayor of the municipality concerned is the chairperson), representatives of the social security system, representatives of the hospital's medical and nonmedical staff, and a director who is responsible for implementing the policies developed by the board and approved by representatives of the State. The board's director also authorizes expenditures and issues revenue orders, appoints nonmedical staff, and is the hospital's legal representative.

The supervisory role exercised by public authorities in the budget-making process places strict limits on the degree of managerial autonomy enjoyed by public and affiliated hospitals. Administrative supervision of public and PSPH hospitals operates at every level:

- at the national level through the Hospital Department of the Ministry of Health;
- at the regional level through the prefect of the region (appointed by the government), assisted by the regional Department for Health and Social Services (DRASS); and
- at the district level through the prefect of the district (also appointed), assisted by the district Department for Health and Social Services (DDASS).

The social security system, which is the principal source of funds for hospitals, has no formal supervisory responsibilities but only the right of oversight. Its role has been strengthened over time, however. Social security sickness funds have contributed to the development of hospital policy at the national and local levels through representation on various associations and through their significant oversight rights for financial and medical matters. Additionally, supervisory authorities must consult representatives of sickness funds when drawing up hospital budgets. Furthermore, at the request of the sickness funds, hospital directors must submit quarterly expenditure commitment statements and provide information on staffing. The sickness funds also partially supervise medical decisions, which can mean that a sickness fund would refuse to pay the cost of treatment or would modify the financial terms of a hospital admission that it deemed unjustified or inappropriate. The sickness funds monitor all hospital medical activities but (except with regard to nonpayment of services) exercise a passive form of supervision, as the funds' concerns are not backed up by any sanctions (3).

Financial monitoring of hospitals is the responsibility of the district Department for Health and Social Services; the social security funds, which receive the quarterly expenditure statements; and the hospital accountant (an official of the public treasury service) who ensures that spending commitments comply with relevant legislation and regulations and that the necessary appropriations have been made.

costs in subsequent years. Priority is given to financing services that have contributed to the surplus. Surpluses that do not result from improved management (e.g., if services are lower than forecasted levels or the surplus arises from daily charges or outpatient care) are transferred to a compensation reserve account to cover operating costs in future years.

Any deficits in the administrative account are covered by drawing on the compensation reserve account. If the reserve is not sufficient, the deficit amount is figured into the budget of two years later or can be spread over the following two financial years by adding it to the hospital's operating costs.

Sickness Fund Payments

Each sickness insurance fund in a given hospital's catchment area pays the so-called pivot fund (or main fund in the area) its share of the hospital's

BOX 4-1 (Cont'd.): Hospital Management in France

The budgetary process is relatively long, reflecting the desires of various categories of hospital staff to be involved in the hospital's planning and the strict supervision exercised by external authorities. The director or director-general of the hospital is responsible for preparing and submitting budget proposals, taking account of the previous and current years' activities. Assisted by hospital departments, the director determines the level of expenditure that is essential for the hospital's operations. The draft budget is then submitted to a joint consultative committee and a medical staff committee for comment. Budget proposals are adopted by the hospital's board *(conseil d'administration),* which must express a formal opinion on the director's figures. Budget proposals are then sent to administrative authorities and the regional sickness insurance fund for salaried employees, where they are available for comment.

Hospital budgets, global allocations, and daily service charges are determined by administrative supervisory authorities by January 1 of the relevant year. With the exception of the Paris hospital service (responsibility for which devolves on the Minister of Health), the prefect of the district is responsible for establishing global allocations for the district's public hospitals. This responsibility also involves a critical response to hospitals' budget proposals to ensure that each institution can meet its obligations. The prefect is empowered to increase income and expenditure estimates for hospitals whose estimates it considers too low and to remove or reduce items that it considers unnecessary or too high—taking account of local heath care needs and the federal guideline rate for average increases in hospital expenditures (4). Prefects' decisions are made only after consultations with the social security funds. The opinions of the social security funds and the medical supervisory bodies are recorded by the regional sickness insurance fund.

The district prefect notifies the hospital, the regional sickness fund for salaried employees, and the fund responsible for paying the global allocation (the "pivot" fund) or main sickness insurance fund in the area) regarding the final determination of daily service charges and the global allocation, together with the hospital's approved budget.

The hospital's director is the principal authorizing officer for the budget and maintains a formal record of expenditures. The director submits quarterly accounts (upon request) to the prefect. At the end of each quarter, the director also submits a chart a to the prefect showing the current number of hospital staff.

global allocation.[4] At the end of the financial year, the national sickness insurance fund for salaried employees draws up a statement of contributions required from each fund based on the number of days provided to the fund's members (weighted according to coefficients that account for the different daily costs of hospital care provided, which are determined by a joint ministerial order). Before June 1 of the following budget year, a committee for the apportionment of hospital global allocations must reach a unanimous decision on the final contribution from each sickness fund, taking into account the statement drawn up by the national sickness insurance fund (8).

Recent Reforms

Although the 1991 health reforms did not alter the basic method of global allocations, major changes to the budgetary process were introduced. Under this legislation (whose implementing regulations

4 Under the 1991 reform legislation, the pivot sickness fund makes an initial payment of 60 percent of the global allocation to the hospital on the twenty-fifth day of the month, then 15 percent on the fifth of the following month, and the balance on the fifteenth day of the following month.

were unpublished as of this writing), the budgetary process will start earlier in the year, budget negotiations will be faster and more streamlined, management will be more flexible, and the hospital board will have more autonomy particularly with regard to day-to-day matters (e.g., staffing, loans, internal organization), which will no longer be subject to the district prefect's prior approval. There will be closer cooperation between the authorizing officer and the accounting officer. New provisions will also be made for the investment of and return on funds. Moreover, it will be possible to revise a hospital's global allocation in the course of a financial year to reflect changes in the current volume of services provided as long as it is related to greater patient needs.

Another important innovation included in the 1991 reforms and currently being experimented with in several hospitals is the determination of charges based on the identification of homogeneous patient groups (*groupes homogénes de maladies*), which are in turn based on U.S. diagnosis-related groups (DRGs) (5).

Private Hospitals

Private for-profit and nonprofit institutions that do not participate in the public hospital sector operate on a fee-for-service basis, although fees are usually regulated by the central government's health ministry. An agreement between hospitals and their regional sickness funds fixes the amount of money that the funds will reimburse patients in the coming year. Private hospitals accept a certain number of service obligations (inpatient days and hospital admissions) to sickness fund patients in exchange for guaranteed reimbursement from the funds. If a private hospital has a surplus when it closes its accounts, it is free to distribute that surplus to shareholders or to reinvest the surplus funds. If it has an operating loss, the social security fund does not become involved in any way to cover the deficit.[5]

Daily Rates and Fees

Private hospitals' payments are based on negotiated daily rates that comprise a charge for hotel-type services and nonmedical personnel services (e.g., nurses, social workers, therapists), fees for operating and delivery room services, pharmaceutical fees, and fees for physician services. Patients usually pay physicians' fees directly and are then partially reimbursed by their sickness fund. In the past physicians have been paid separately from the hospital's charges, but physician payment is increasingly being included in the same schedule as the costs for a hospital stay. One advantage of folding in physician payments is that all payments made by the sickness fund for a patient's hospital stay are included in a single document that provides the fund with an overview of total hospital costs.

Physicians' services are reimbursed according to a national fee schedule classified as K, Kc, B, and Z (for diagnostic activities, surgery, biological analyses, and imaging, respectively). One K is worth approximately 12 francs, and one Kc is worth about 13 francs. Reimbursement for physician or surgeon services is supplemented by an operating or delivery room fee (FSO) paid to the hospital. The FSO varies according to region and category of hospital and by levels of K.

Private hospital per diem rates for hotel-type and non-medical staff services are based on a classification of the hospital's specialty and quality ranking. Since 1973 the classification system has assigned points to an individual hospital for each of the following five areas (in order of significance for rate setting):

1. medical services,
2. nonmedical staffing,
3. technical equipment,
4. hotel facilities, or
5. a combination thereof.

Depending on the total number of points obtained, a hospital is classified as A, B, C, D, or E,

[5] The agreement setting forth the responsibilities of all the parties concerned was drawn up by the Ministry of Health between 1975 and 1978 and approved by the Ministry in 1978.

each of which has a particular set of rates per specialty. The classification is decided by the regional prefect after consultation with a joint committee that includes representatives of sickness funds and health care providers.

A total of 800 points is required for category A classification, which indicates consistently high performance; rates fall as a hospital's classification moves from category A to E. Hospitals and clinics classified within each category have the same level of rates wherever they are located in the region. Hospitals have an incentive to invest in technologies, equipment, and staff to improve their ranking to receive higher per diem rates. The process of ranking hospitals is fairly rapid, and a hospital may even have its ranking changed retrospectively. For several years, per diem rates have been regulated and subject to authorized annual increases, expressed in either absolute amounts or percentage terms.

Operating room fees are directly linked to a hospital's rate category. Similarly, the pharmaceutical fee, formerly based on actual costs, is now becoming more uniform. Charges and fees are thus subject to limits and linked to the number of inpatient days delivered by the hospital. There are also government controls on the number of admissions and on the number of authorized beds in private hospitals.

Despite these measures to limit private hospital rates and the number of services, the total volume of medical services provided by private hospitals has not been brought under control. In response, the regional sickness funds require private hospitals to supply information on their activities from which averages and comparisons among hospitals are made. Hospital profiles are also drawn up to identify potential abuses. These profiles serve only as indicators of service provision, however, and are not used as instruments for setting limits or preventing abuses.

As an additional monitoring tool, regular checks of hospital practices are conducted to prevent bad practices. If any are identified, a preliminary letter is sent to the director of the hospital asking for remedial action. If the problem is serious or has occurred before, the hospital's manager is required to make the hospital's case before a committee of administrators of the regional sickness funds. A warning or reprimand may be sent or, after a complex review procedure, the hospital's classification may be downgraded. The ultimate sanction (for which there must be serious grounds) is abrogation of the sickness funds' agreement; costs are no longer paid in advance, and the daily charge is paid at three-quarters of the previous level. Although not applied frequently, these sanctions have had some effect (17).

Supervision

A group of sickness fund physicians supervises agreements between private hospitals and sickness funds that pertain to private hospital staffing levels, current pharmaceutical regulations, standards for operating rooms, and standards regarding the size of patient rooms. A compulsory annual statistical survey of private hospitals must also be provided to regional sickness fund organizations, making it possible to identify any possible problems in a range of areas. The standards and adherence to them have a direct effect on charges for services.

Health Reforms

Although the 1991 health reform act initially retains the principle of fees and rates for private hospital services, the legal framework and the financial basis of for-profit institutions have been altered. The tripartite system, involving the state, sickness funds, and hospitals, may gradually become the norm in the private sector as it has already been for some time in the public sector. The state could become involved in contractual relations regarding the volume of services that have hitherto been the concern only of hospitals and sickness funds.

There are no plans at this time to introduce a global allocation scheme for the private sector. Instead, there is a global ceiling on private hospital expenditures by the sickness funds, subject to a guideline rate of annual increase in this ceiling agreed on between the state and the other two traditional partners in the private hospital sector.

TABLE 4-4: Sources of Financing for Hospital Operating Expenses, by Hospital Sector, 1991

Source	Public and PSPH		Private		Total	
	Million francs	Percentage of total public and PSPH operating expenses	Million francs	Percentage of total private hospital operating expenses	Million francs	Percentage of total operating expenses
Sickness insurance funds	179,778	90.0	52,886	83.4	232,664	88,5
Individuals and private insurance	13,116	6.6	7,848	12.4	20,964	8.0
Mutual fund associations	3,023	1.5	2,329	3.7	5,352	2.0
Federal or local authorities	3,508	1.8	342	0.5	3,850	1.5
Total expenses	199,425		63,405		262,830	

SOURCE: Centre de Recherche d'Etude et de Documentation en Economic de la Sante (CREDES) Programme Eco-Sante, 1990 and 1991.

This ceiling is allocated among regions and by month and may not be exceeded.

The 1991 legislation requires that private institutions analyze their activities, develop an assessment policy, and implement information systems (similar to *programmed medical des systemes d'Information, or* PMSI). It also makes the submission of annual forecasts of activity to the sickness funds a precondition for setting rates or for concluding rate agreements. The implementation of a cost accounting system and a medical information system were intended to lead to a DRG-type of charge system by the end of 1993. An experiment using this new approach was introduced in obstetrics-gynecology units and in volunteer institutions for other specialties beginning on July 1, 1992 (5).

▮ Sources of Funds

The social security sickness funds pay for the lion's share of hospital care in France; they funded 90 percent of public and PSPH hospital operating expenses and over 83 percent of private hospital operating costs in 1991 (table 4-4). Private insurance, mutual fund associations, and individual out-of-pocket payments accounted for a fairly small share of hospital costs (10 percent), even for private hospitals (16.1 percent). These figures reflect sickness fund patients' freedom to choose either a public or a private hospital, and private insurers' and mutual fund associations' minor roles in the French health care system of mainly providing supplementary insurance.

The relatively small part that private hospitals have in France's system is reflected by their share of total hospital expenditures. In 1991, three-fourths of all hospital spending was for care provided in public and PSPH hospitals; the other fourth was for private hospital care (table 4-4).

Federal and local authorities pay hospitalization costs for patients who receive state medical or social assistance. These payments, financed through general revenues, funded 1.5 percent of hospital expenses in 1991 (table 4-4). (Foreign patients who are not residents of France must pay their own hospital bills although there are international agreements between France and certain countries allowing payments to be made through official channels.)

▮ Allocation of Operating Funds

Public Hospitals

Public hospital operating costs were F139 billion in 1988, representing 87.8 percent of aggregate hospital expenditures (which includes capital expenditures) (table 4-5). The largest single item (F90.1 billion, or 65 percent of operating costs)

TABLE 4-5: Operating Funds in Public Hospitals, 1988

Operating costs	Million francs	Percentage of total	Operating revenues	Million francs	Percentage of total
Staff	90,140	64.9	Global allocation	**118,074**	**81.0**
Pharmaceuticals, medical services	12,792	9.2	Service charges	**9,631**	**6.6**
Hotel facilities	8,473	6.1	Daily flat rate contributions	**1,877**	**1.3**
Repairs, maintenance	3,753	2,7	Outpatient care	**2,543**	**1.7**
General management	3,490	2.5	Donations, contributions	**219**	0.2
Mortgages	2,737	2.0	Sales of products	469	0.3
Other	17,451	12,6	Other	13,121	9.0
Total	138,836		Total	145,934	

SOURCES: Ministere de l'Economie des Finances et du Budqet, Direction de la Comptabilite Publique, Les Finances du Secteur Public Local, Hopitaux Publics 1983-1988.

was for hospital staffing costs. (It is not possible to distinguish between medical and nonmedical personnel costs.) Expenses for pharmaceuticals and medical services accounted for 9 percent of hospital operating costs in 1988; hotel-type services made up 6.1 percent, repairs and maintenance 2.7 percent, and management and transport 2.5 percent (table 4-5).

Public hospital operating revenues were nearly F146 billion in 1988, of which the global allocation represented 81 percent, total daily service charges accounted for 6.6 percent, total daily flat-rate contributions were 1.3 percent, and outpatient care charges accounted for 1.7 percent of hospital operating income (table 4-5) (10).

Private Hospitals

In contrast to public and PSPH hospitals, there are no systematic statistics on the revenues or costs of private institutions. A 1985 study by the *Centre d'Etudes des Couts et des Revenus (CERC)* estimated the operating costs of private hospitals and clinics in 1980 at F11.7 billion. Fifty-five percent of this was spent on staff; 17.4 percent on purchases; 17.2 percent on repairs, supplies, and external services; 4 percent on depreciation and provisions; 2.3 percent and 6.4 percent on other costs (l).

Operating Expenditures

Total hospital operating expenditures (which include both operating and capital spending) were F263 billion in 1991, equaling 3.9 percent of the gross domestic product (GDP) and 40.7 percent of national health expenditures (NHE). Hospitals' share of NHE has fallen over the past decade, which was 44.9 percent in 1980, but hospital expenditures as a share of GDP have increased, starting at 3.6 percent in 1980. These trends indicate that health care spending in France has commanded a greater share of the country's financial resources over the past decade, although the hospital sector has contributed less to this trend than have other sectors of France's health care system.

Approximately three-fourths of aggregate hospital outlays went to public and PSPH hospitals in 1991—slightly less than in 1980, when the public sector accounted for 78 percent of hospital spending (2).

HOSPITAL CAPITAL COSTS

Located as they are in a rapidly changing sector that is strongly affected by technological progress, and faced with growing patient demands for the latest technology and more patient amenities, all hospitals are increasingly sensitive to competition and have strong incentives to invest. In contrast to

the private sector, public and PSPH hospital investments are subject to certain financial constraints, although they also benefit from special public assistance.

The private sector is facing increasing competition, and its level of required investment is becoming more and more onerous; thus hospitals in this sector find it necessary to seek new investors. Few figures are available on private sector hospital investment, and most of the information in this section relates only to the capital investments of public and PSPH hospitals. Where appropriate, legislation concerning the investment process and current trends are discussed.

Relationship of Capital and Operating costs

In 1988 the aggregate budget for French public hospitals was approximately Fbillion158, which represented the purchase of goods and services. These costs may be either operating or investment costs, as follows:

- The operating section of the budget includes all consumable goods and services that are short-term; such expenditures relate to day-to-day supplies and to upkeep and maintenance.
- The investment section includes expenditures that are intended either to maintain a capital good beyond its budgeted life or to purchase new capital (3).

The investment section regularly receives transfers from the operating budget through provisions and depreciation accounts. Such accounts represent the depreciation of assets with a view to replacing them; depreciation is recorded as an income item in the investment section and as a cost item in the operating section. Depreciation costs are taken into account in determining the global allocation and daily service charges.

Private for-profit hospitals and certain private nonprofit institutions, even if they participate in the public hospital service, are not entitled to direct reimbursement of depreciation costs because the government is concerned about preventing the accumulation of private wealth at the expense of the sick. Such institutions may, however, receive a remuneration equivalent to 3 percent of their capital (based on the nonamortized value of their assets, where necessary after revaluation). In addition, fixed assets in such institutions are almost never the property of the hospital but are rented. The depreciation of these assets is included in the rent, which is an operating cost.

Hospitals that receive a global allocation are allowed to include interest payments on investment loans as part of their operating costs. This option does not extend to the repayment of loan principals, which are included in the investment section of their budgets.

Another way in which operating and capital costs are related in French public and PSPH hospitals is through the allocation of operating fund surpluses. Under certain circumstances (discussed above), surpluses in the operating section can be used to finance investments that are not expected to increase operating costs in ensuing years. Moreover, any surplus in the appended budget is allocated to the purchase of equipment for hospitals (e.g., blood transfusion centers or computer centers), to other hospital capital investment, or to reduce operating costs in succeeding years.

The impact of capital costs on future operating costs is determined informally. Some hospital boards draw up program budgets as a means of improving quality of forecasting and planning, and assisting management by highlighting the overall impact of an activity in operational *and* investment terms. Activities examined may cover energy saving programs, computerization and major equipment, or hospital buildings.

Capital Financing Model

Investments in new construction, new major medical equipment, or replacement equipment in the public sector can be financed by depreciation (applied to tangible assets such as hospital plant and equipment) or amortization (applied to intangible assets such as insurance policies). In the hospital sector, however, this is inadequate due to the rate of technological innovation, and other funding sources are often required.

TABLE 4-6: Capital Expenditures and Income in Public Hospitals (1975, 1986, 1988) (in millions of francs)

Expenditures	1975	1986	1988	Percentage of 1988 total
Direct expenditures	3,722	8,842	13,456	69.9
Tangible assets	812	4,059	5,723	29.7
Real estate investments	169	434	3,171	16,5
Construction	2,741	4,349	4,562	23.7
Indirect expenditures	884	3,464	5,801	30.1
Total expenditures	**4,606**	**12,306**	**19,257**	**100.0**

Income	1975	1986	1988	Percentage of 1988 total
Subsidies, grants	**985**	**1,707**	**1,583**	**7.6**
Loans	**2,533**	**3,521**	**4,545**	**21.8**
Depreciation	**1,513**	**6,989**	**7,702**	**36.9**
Fixed assets			**4,181**	**20.0**
Other income	**244**	**946**	**2,845**	**13.6**
Total income	5,275	13,163	20,856	100.0

SOURCES: Ministere de l'Economie des Finances et du Budget, Direction de la Comptabilite Publique, Les Finances du Secteur Public Local, Hopitaux Publics 1983-1988.

Self-Financing

Hospitals obtain some of their funds from internal sources, such as the sale of real estate and tangible assets (a fairly unimportant source) and depreciation, which accounted for 37 percent of hospitals' investment funds in 1988 (table 4-6). Since the mid- 1980s, depreciation funds have increased in importance because of trends in the structure of investments and thus their patterns of depreciation. The decline in the acquisition of land and buildings and of repairs with a long (often 30 years) depreciation period and the increase in tangible acquisitions with a short (around 5 years) depreciation life has significantly increased depreciation income and thus the level of self-financing.

Subsidies

Hospitals obtain a portion of their investment funds from several external sources that may be free or may incur a cost. State subsidies—which normally vary between 5 and 40 percent of a hospital's investment funds, depending on the institution's capacity for self-financing-and subsidies from local authorities are free. More than half the subsidies received by hospitals come from the state. Of local authority funding, the regions are the most important source of assistance, followed by the districts and municipalities *(communes).* In 1988, subsidies accounted for 7.6 percent of aggregate investment income (table 4-6).

Loans

The sickness funds have been authorized **to make** interest-free loans to hospitals, which are required to repay only the principal amount. For loans that incur a cost, hospitals normally call on banks for public authorities *(Caisse des Depots et Consignations* and the *Caisse d'Aide a l'Equipement des Collectivites Locales).* Hospitals may also borrow from other banks or even, with ministerial approval, from the financial market (i.e., debenture loans). Such loans represented 21.8 percent of aggregate investment income in 1988 (table 4-6) (3).

Today, state subsidies and sickness insurance fund loans play less of a role in hospital investment financing than they have in the past. Hospitals' own resources now constitute a key element of their capital finances. They even appear to be gaining in importance, given a slight trend toward

a reduced level of debt and a refocusing of investment; that is, investment now seems to be geared toward the acquisition of biomedical equipment, which in turn generates a higher level of depreciation. If sufficiently short periods of depreciation are allowed, a high level of debt generates considerable resources for investment. In fact, hospitals that have borrowed at high rates have not been penalized at all; rather, they have benefited from a budgetary bonus, as the financial costs associated with a high level of depreciation form part of the base from which the initial budget is calculated (9).

Financing from loans is restricted to 60 percent of the estimated cost of an investment. Institutions are required to meet the other 40 percent of the cost (as well as any associated additional operating costs) from their own financial resources. To help cover such costs, hospitals sometimes receive an additional allocation over and above the federal guideline rate for updates to global allocations, although experience shows that this does not occur often. Other internal sources include the use of surpluses arising from improved management. In contrast to the private sector, such decisions are subject to the approval of supervisory authorities (17).

Private Hospitals

Private hospitals (often called clinics) are free to use their profits for investment or to redistribute them to shareholders. Private for-profit clinics have traditionally been owned by physicians. It has become increasingly difficult, however, for clinics to finance investments in new major equipment from their own resources, which they need to keep up with technological progress and the demands of competition (14). Clinics face a difficult problem of finding outside investors mainly because in most cases there is no guarantee that the investment will be profitable. In recent years this "crisis" in the private sector has resulted in a transformation of the structure of such hospitals, which are increasingly passing from the status of a family business to that of a limited company belonging to a major financial group. Large French companies (e.g., Paribas, Suez, Lyonnaise des Eaux) and foreign companies have invested in chains of clinics in search of profits (17).

Determining Capital Requirements

The entire French health care system (both public and private health institutions) is subject to formal health sector planning (15). In general, public hospitals are subject to the provision of public law that governs public works and the placing of public work contracts. Commercial institutions must operating according to private law, which allows them to determine their own investment procedures within the limits of the law. Health care legislation in 1970, however, stipulated that repair programs and projects relating to the creation, extension, or transformation of public and private hospitals would be subject to authorization arrangements. Authorization is forthcoming only if a scheme complies with the health map (*carte sanitaire*).

Health Maps

The foundation for health sector planning in France is the health map. The health map forms the reference point for public authorities in all decisions relating to the level of public and private hospital construction of new buildings, additions of hospital beds, or the acquisition of major medical equipment (15). It is based on a recognition that the private sector must operate alongside the public sector, as the latter is unable to meet all public health care needs. The aim is to meet those needs satisfactorily at the lowest cost by a rational allocation of capital resources.

The health map, drawn up by the Ministry of Health after consultation with regional and national health resources committees (12) was designed to meet three objectives: 1) to control the rapid growth of the hospital sector, 2) to correct regional disparities, and 3) to coordinate public and private sector development. To accomplish these aims, the health map establishes the boundaries of health sectors and regions. Each health sector is a geographical area of about 30,000 to 40,000 inhabitants centered on a hospital with a certain

minimum level of technical facilities. There are currently 21 regions divided into 284 health sectors. The health map also establishes the nature, extent, and location of health facilities of national importance or designed to serve several health regions. For each type of facility, the health map for the particular sector or region concerned specifies the buildings and major items of required equipment. Plans are detailed after an analysis of local and regional needs. The health map also includes an inventory of existing or authorized buildings and a continuously updated record of major items of medical equipment.

Each region draws up its health map in light of directives issued by the Ministry of Health. The work is then submitted for review to sector and regional hospital groups and the regional committee for health and social resources. This is followed by an examination of the health map at the federal level. The Ministry then adopts the provisions of each map after seeking the opinion of the national committee for health and social resources.

This approach, it should be noted, is very broad and general with indicators of need established for major areas of activity (e.g., medicine, surgery, obstetrics-gynecology, medium stays). It is not based on epidemiological or population-based data (2,4).

The Act of December 31, 1970, requires all public and private institutions to secure authorization from the administrative authorities for new buildings or extensions of existing ones with compulsory reference to the health map. (The map's indicators of beds per specialty represent ceilings that may not be exceeded.) The Act also makes it obligatory to obtain prior approval for conversions of hospital facilities, the merging of hospitals, or the installation of major medical equipment.

The prefect is responsible for issuing authorizations after consulting the Regional Health and Social Resources Committee, except in the case of decisions of national importance; these are the responsibility of the Health Minister of the central government after consultation with the National Health and Social Resources Committee.

Reforms

The reforms initiated by the 1991 legislation maintain the health map but substantially broaden its scope with the addition of a new document: the health organization scheme. Both the maps and the schemes are to be drawn up on the basis of the measurement of needs in the population and their changes, with regard to demographic data and technical progress in medicine, following a quantitative and qualitative analysis of existing care provision.

In carrying out this task, the ministers responsible for health and social security (in the case of national and inter-regional maps and schemes) and the regional prefects (in the case of their regional and sub-regional equivalents) will be assisted by health organization committees at national and regional levels. To reflect the need for assessment, each regional health organization committee will have a committee on regional medical assessments of hospitals.

The scope of health planning has been broadened by the health organization scheme to gradually break down the boundaries between inpatient hospital care and outpatient ambulatory care and to develop plans to rationally diffuse particularly expensive or sensitive medical activities associated with ambulatory care. The legislation is concerned with the type of care provided, not with the physical structure of the buildings or the legal context in which the care takes place. Alternatives to hospitals are taken into account (particularly ambulatory surgery) by establishing an equivalence between hospital beds and the number of places providing alternatives to hospital care.

Under the new legislation, public hospitals are also authorized to collaborate with public and private legal bodies, including those at the international level. In connection with these activities, they may sign agreements and participate in inter-hospital syndicates and public and financial consortia. The creation of such consortia enables health institutions to pool their operational or investment resources to undertake activities that their individual resources would not allow. To

achieve greater uniformity of the two hospital sectors, the new legislation also provides for all care institutions and providers to be subject to the same authorization arrangements. The overall aim is to simplify and decentralize the administrative procedures for securing capital investment authorizations.

The reforms also introduce a hospital plan which sets out (particularly in the context of the medical plan) each institution's objectives with regard to medical and nursing atmospheres, social policy, training, management, and information systems. The plan, which must be compatible with the objectives of the health organization scheme, identifies all the resources in terms of buildings, staff, and equipment that the hospital requires to achieve its objectives. It is developed for a period of up to five years (5).

Traditional Public Hospital Investments (16)

In any major hospital and even those of average size, new buildings and expansion of existing facilities form part of an overall medium-term (10- to 15-year) program. Three types of projects may be identified: 1) those of national significance, for which the ministry is responsible; 2) capital projects that are unique to a region and for which the regional prefect is responsible; and 3) capital projects that are the responsibility of the district prefect, who gives approval in view of the overall resources allocated to each district.

Because most investments are carried out with state assistance, investment priorities are spelled out in the national economic and social development plans, which effectively determine the allocation of financial resources set aside for the different sectors of public investment. Receipt of state subsidies for new capital investment is contingent on the proposed investments' inclusion in the plan.

Any building and major medical equipment investment project must pass through several stages (e.g., purchase of a site, initial preliminary design, final proposal) each of which must be approved by the hospital board after they have been considered by the hospital's medical staff committee and the joint technical committee. Each stage is subject to final approval by the supervisory authority.

- The financial appraisal of the project is accompanied by a financing scheme. The financing rules are as follows:
- When state funding is provided, it is always equal to 40 percent of the capital expenditure qualifying for subsidy.
- Local authorities may also contribute to this assistance, bringing the rate of subsidy above 40 percent.
- The balance is met by the hospital from its own resources, by loans from the *Caisse des Depots et Consignations* or the *Caisse 'Aide a l'Equip - ment des Collectives Locales.* In the case of investments that do not receive state funding, the proportion of the cost met from borrowing may not exceed 60 percent.

The different categories of equipment and materials subject to approval are care units equipment, ancillary care and technical medical equipment, and equipment for general services.

In 1974 a national center for hospital equipment (CNEH) was established that reports to the Ministry of Health. It has responsibility for considering problems associated with the functioning of hospitals. The rules governing the financing of the provision of medical equipment are the same as those relating to the building process.

Under the new legislation the supervisory authority will monitor only the legality of contracts entered into by hospital directors. Such contracts will come into force as soon as they are received by the prefect's office.

Private Hospital Investment

Once a private hospital decides to adopt new technologies, provide new services, or expand its hospital beds, it can acquire the necessary physical and staff resources and place them at their patient's disposal, thus putting them to profitable use more quickly than the public sector. Private hospitals can also more quickly provide the resources required to meet an existing need. If an investment turns out to be profitable after the facili-

ties are in place, they can be adjusted to a certain extent by the constant redeployment of resources (particularly of staff), as there are few statutory constraints. Private hospitals face no major impediments to increasing and modernizing their facilities as soon as a decision has been made (17).

Capital Expenditures

Capital expenditures do not correspond to a single year's costs and may figure into the calculation of more than just one year's global allocation and charges. In 1988, capital expenditures of public hospitals equaled F19.3 billion, or 12.2 percent of aggregate hospital expenditures. This represents a more than threefold increase over 1975. (Expenditures for different capital investments are given in table 4-6.) Since 1975 the structure of direct investment expenditure has changed, with the proportion funding real estate investments (e.g., construction of new hospital wings) falling from 78.2 percent in 1975 to 57.5 percent in 1988. There has been an equivalent rise in investment in other capital assets.

Total investment income in 1988 was F20.9 billion (shown by funding source in table 4-6). This amount represents a corresponding threefold increase in investment income over 1975. Over the last decade, the proportion of capital expenditures paid for from internal funds has tended to increase, while the proportion met by grants, and especially by loans, has declined (table 4-6) (13).

FUTURE DIRECTIONS

The containment of health expenditures is a major concern in France. The costs of hospital care represent half of national health expenditures, making the hospital sector a primary target of France's cost containment efforts. The hospital sector has always expanded without much control, and its evolution has been marked by the constant need for an urgent response to perpetually growing demand. The urgent nature of hospital care has often taken precedence over economic rules of efficiency and better management. Prior to 1971, hospitals would present their bills to the sickness insurance funds after having satisfactorily treated patients. The funds would not hesitate to pay their share of expenses, and little attention was given to detailed analyses of hospital bills. Only in the 1970s did national economic conditions demand closer scrutiny of the economics of hospital care. By the end of the 1970s, containment of hospital costs had become a high-priority issue and the primary goal of all reforms aimed at reducing health expenditures since then.

Understandably, it is the public hospital sector that has been most influenced by cost-containment reforms. In 1983, prospective budgeting became the standard in this sector. Its purpose was to control spending by imposing guideline growth rates for hospital spending. However, the determination of budgets across hospitals takes no consideration of changes in activity or volume of services demanded from individual hospitals but merely applies a predetermined increase rate (the federal guideline rate) to the previous year's budget. Budgets are based on historical levels of expenditure, and rates of increase are determined centrally, with little scope for local deviation (11).

The medical program information system (PMSI) was created to achieve a financing system more reflective of an individual hospital's activity and to encourage continuous evaluation. This program systematically produces a standardized discharge form at the completion of each patient's hospital stay and enters the form's data into a patient database. The system allows for detailed analysis of hospital activity to enable comparisons of patient volume among departments or hospitals and to detect morbidity trends. The PMSI was implemented as an initial move toward developing a DRG-type system of homogeneous patient groups and incorporating this classification system into the hospital financing scheme. Implementation of the PMSI is proving to be complex and involved, however, and the full achievement of a DRG-based system in France remains a long-term objective.

A large gap still exists between the public and private hospital sectors in France. The allocation of funds to each sector is based on different mechanisms, and despite the sickness insurance funds' increasing control over the private sector, cost

containment efforts for this sector have not been very successful. A serious shortcoming of the present financing scheme is that private institutions have an incentive to increase the number of medical procedures to compensate for rigidly imposed fees and daily rates.

The 1991 health reform legislation in France is designed to extend government control over the private sector and to narrow the gap between the public and private sectors. The legislation redefines hospitals according to general guidelines, thus providing the private sector with the same "public interest" mission as the public sector. The reform also emphasizes the complementary role of the public and private sectors. Private hospitals are not yet paid through a global allocation scheme, but growth in expenditures for private hospital services are capped under the reforms. Additionally, the PMSI is planned to be extended to the private sector, and current experimentation with a DRG-type system is in place for some special services. Now that the philosophy underlying the DRG system is being tested in the public hospital sector, a relatively smoother implementation of the DRG system in the private sector is likely.

Implementation of the necessary structural arrangements to achieve the objectives of recent reforms will be a long-term task. Both private and public hospitals face new obligations, including maintaining medical records that are readily available for consultation by the patient or the patient's physician, evaluating professional practice, reorganizing health care, analyzing service activity, and implementing information systems that document different conditions and modes of care and treatment (5).

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Hospital Financing in Germany

5

by Reiner Leidl

Germany has a federal political system and 16 states with state-level governments. Like its political system, Germany's health care system is strongly influenced by both the federal and state governments. Germany has both private and public provision of health care. On the supply side, doctors and pharmacists are independent, private providers. Most hospitals are not publicly owned, but more than half of all hospital beds are in public hospitals. On the demand side, statutory health insurance—compulsory for many employees—is organized by associations (called sickness funds) under public law and covers almost 90 percent of the population; private health insurance covers most of the rest.

The statutory sickness funds are primarily financed through income-related premiums. Premium stability requires that the growth of health care expenditures not exceed the growth of employees' incomes. Stability of income contributions has been made a cornerstone of German health policy, which also applies to the hospital sector.

Germany's pluralism in health care is also marked by the influence of several interest groups. Sickness fund and provider organizations exist at different regional levels (including federal associations). These interest groups play a prominent and well-defined role in regulating the provision and financing of health care, subject to legal control by public authorities. An example of a nonpublic regulatory entity is Concerted Action in Health Care *(Konzertierte Aktion im Gesundheitswesen)*, which includes all the major parties involved in the provision of health care and health insurance as well as representatives from labor unions, employers, and public authorities from the community to the federal level. The group issues proposals for problems concerning health



care organization, delivery, and financing, including guidelines for payment negotiations between sickness funds and hospitals. Although Concerted Action has not managed to keep health care costs within the constraint of income growth through its statements (which are not legally binding for the negotiating parties), the group has functioned as a forum for the exchange of ideas; it has thus played a highly relevant role in the development and discussion of reform proposals (9).

The roles of interest groups are quite different in ambulatory and hospital care, which are distinctly separate sectors in Germany. In ambulatory care, physicians who provide care to sickness fund patients must belong to regional and federal associations of office-based physicians, which negotiate payments with sickness funds and regulate the entry of new physicians. In contrast, the regulation of the hospital sector relies much less on interest groups. Membership in hospital associations is voluntary, individual hospitals separately negotiate their budgets with the regional sickness funds, and market access of hospitals is determined almost exclusively by the state.

A 1972 federal framework law *(Krankenhausfinanzierungsgesetz)* addresses the basic regulation of hospital care, including the guidelines for hospital planning and financing. This law is accompanied by federal acts that specify the technical aspects for financing hospital operating costs *(Bundespflegesatzverordnung)* and accounting *(Krankenhausbuchführungsverordnung).* The 1972 law sets out a two-tier system for financing hospital capital and operating expenses:

1. Public authorities at the state level finance hospital buildings, beds, and medical equipment and are responsible for hospital planning.
2. Operating costs are covered by patients and/or their third-party insurers.

The two-tier system was established at a time when hospitals faced tremendous problems with financing their investment needs. This task was thus shifted to the public budget. Despite the two-tier system's difficult design (i.e., those responsible for authorizing hospital capacity and large-scale medical technologies are not responsible for the capital's possible economic impacts on operating costs), the system has survived until today.

States are responsible for implementing the 1972 federal framework law and have established individual state hospital laws for this purpose. One major state activity is the development of the annual hospital plan, which defines hospital capacities and new capital that will be publicly funded. Within this comprehensive framework of regulation, the hospitals are independent economic entities. They act on their own behalf and are responsible for their own economic performance.

Major changes in the German health care system and in hospital financing have taken place in recent years. Two events impede a comprehensive description of the current national hospital financing system: the unification of East and West Germany, and recent approval of a far-reaching health care reform act.

The unification of Germany in October 1990 admitted five new states in which West German economic and political systems were established. The structure of the former West German health system was also adopted for the new states, following a transition period. Restructuring of the former East German health care system involved establishing new state administrative agencies, sickness funds, and doctor and hospital associations. It also required state legislation for hospital planning, discussion of hospital investment needs, and establishment of new documentation systems. The federal hospital financing law came into full force in the new states at the beginning of 1991. Transitional rules—for example, on special investment funding or reduced documentation requirements—were to continue until the end of 1993; federal accounting rules came into force only at the beginning of 1993. Consequently, comparable financial data for unified Germany have not yet become available, and this chapter's observations are often restricted to the situation in the former West German states. (An investigation of the restructuring process, though quite interesting, has also been left out as it is not likely to contribute to the clarity of the health care system's description).

The second recent change is the adoption of the Health Sector Act *(Gesundheitsstrukturgesetz)* effective January 1, 1993 (HSA of 1993). The HSA is designed to protect and improve the structure of the statutory health insurance system (5). The new act introduced important rules regarding hospital care and financing; many of the changes have not yet been implemented. Some rules are transitional, and others establish a schedule for changes to be implemented during the next few years.

The ongoing changes in Germany make it difficult to provide a description of Germany's current health care system. The data presented in this chapter were produced under the old system; however, the paper does represent Germany's hospital financing system as of the beginning of 1995. It discusses reforms included in the HSA, as well as hospital reforms set out in Germany's new act on the financing of hospital operating costs, adopted July 8, 1994. The rules established in this act will come into force for all hospitals by January 1, 1996. Individual hospitals, however, were allowed to implement the new financing system as early as January 1, 1995. The paper also explains relevant parts of Germany's former hospital financing system and its philosophy, which are important for understanding the new acts.

STRUCTURE OF THE HOSPITAL SECTOR

Since 1990, German hospitals statistics have not differentiated between acute and nonacute care hospitals but rather between general and "other" hospitals. General hospitals, which are the focus of this chapter, provide beds in inpatient departments. The definition excludes hospitals that provide beds only for psychiatric and necrologic patients; the latter belong to the "other" hospital category, which also includes day clinics and night clinics. About 90 percent of all hospitals are general, and about 90 percent of all hospital beds are in general hospitals. Inpatient institutions for preventive care and rehabilitation also exist but are not discussed in this chapter.

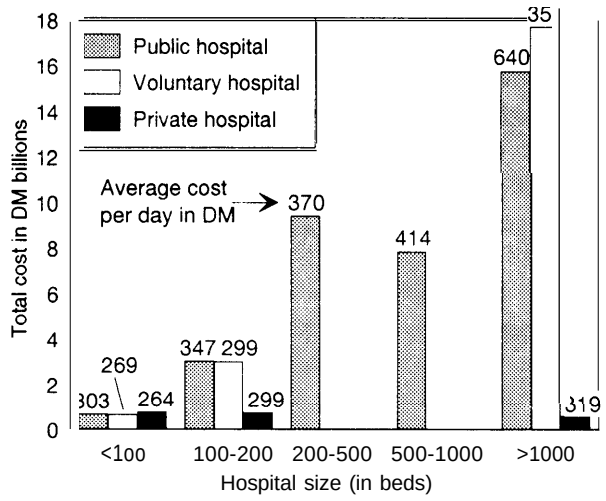
General hospitals are categorized as public, private nonprofit (voluntary), or private for-profit. One of the hospital law's goals is pluralism of owners. Public hospitals are owned by public authorities at the federal, state, regional, or community level; they accounted for 62 percent of hospital beds in 1990 (table 5-1). Some public hospitals are owned by associations of public authorities or by corporations under public law. Because universities are run by states, an important category of public hospitals are the large university hospitals, which accounted for a little more than 8 percent of general hospital beds in 1990 (20). Private nonprofit (voluntary) hospitals, which are owned by churches, welfare organizations, foundations, or other nonprofit associations, accounted for about a third of hospital beds in 1990. Private for-profit hospitals, which are often owned by a head physician, accounted for almost 4 percent of hospital

TABLE 5-1: General Hospitals (Excluding Psychiatric Hospitals) and Hospital Beds by Ownership, 1990

	Percentage of public hospitals	Percentage of private, nonprofit hospitals	Percentage of private, for-profit hospitals	Total number of hospitals and beds
Former West German states				
Hospitals	40.0'%	42.5%	17.5%	1,818
Beds	53.9	41,4	4.8	474,083
Former East German states				
Hospitals	82.2	17.3	0.5	365
Beds	92.8	7.0	0.2	131,160
All German states				
Hospitals	47.0	38.3	14.7	2,183
Beds	62.3	33.9	3.8	605,243

SOURCE: Statistisches Bundesamt, Grunddaten der Krankenhauser und Vorsorge-oder Rehabilitationseinrichtungen 1990, Fachserie 12, Wiesbaden, 1992.

FIGURE 5-1: Operating Cost in German Hospitals by Ownership and Hospital Size, 1990



NOTE Former West German states only, data for 2 of 1,818 hospitals are missing; the height of the bar equals total cost, while the figure above the bar equals average cost per day

SOURCE. Statistisches Bundesamt, Kostennachweise Krankenhauser 1990, Fachserie 12, Wiesbaden, 1992

beds (table 5-1). If they render care to patients who are insured by statutory sickness funds (which they must do to be integrated into the hospital plan and receive funding for capital expenses, as explained below), private hospitals are subject to the same financing and payment rules as other types of hospitals. Prospectively fixed budgets for sickness fund expenditures constrain excess revenues in private hospitals. An important source of revenues for private hospitals, specifically if physicians own the hospital, stems from care provided to privately insured patients.

In summary, nonprofit voluntary hospitals and for-profit private hospitals together account for the largest proportion of hospitals, but public hospitals have the largest share of beds; private owners play only a minor role in the provision of beds. Total operating costs and average inpatient costs per day, by type and size of hospital, are displayed in figure 5-1.

Access to hospitals, except for emergencies, is determinedly referral from an office-based physician. Privately insured people and sickness fund members have equal access to all hospitals included in the hospital plan. Access to departments for private patients in all types of hospitals is restricted to those patients who choose a specific physician and pay extra for that physician's services. In a few cases, private clinics do not participate in the provision of care for sickness fund patients and are accessible only to privately paying patients. However, they do not receive any public funding for capital expenses.

PHYSICIANS

Office-based physicians (both general practitioners and specialists) play a central role in Germany's health care system. The association of office-based physicians holds the right and obligation to ensure medical care for sickness fund members. Physicians fulfill this task and, when necessary, refer their patients to hospitals. Fees for ambulatory services for sickness fund patients are negotiated between sickness fund and physician associations. Physicians can charge privately insured patients up to 2.3 times the fee for statutorily insured patients. In those cases in which hospital-based physicians render ambulatory services, they are reimbursed according to the fee schedule for office-based physicians.

Hospital-based doctors are generally paid a salary. They bill private-paying patients for hospital services according to a federal fee schedule. All revenues from private patients are collected by the head physician of a unit. A portion of the revenues is then distributed to a pool for physicians working in the hospital, either on a compulsory or a voluntary basis, depending on the hospital law in the respective state. Physicians are also required toreimburse the hospital for the use of hospital facilities to treat their private patients. Prior to the HSA, there was only minor federal regulation of hospital cost reimbursement. Reimbursement rules were typically established in the working contract between the head physician and the hospital. The new hospital financing act, however, mandates that 40 percent of private fees (for some types of services, only 20 percent) must be included in the hospital's budget as costs already reimbursed.

This reduces the budget available for other services. An estimate of the total revenue received from privately billed services delivered by hospital doctors is not available.

Although the ambulatory care and hospital care sectors are usually separated in Germany, there is a number of office-based physicians who hold the right to treat patients in hospitals. These physicians bill their patients for hospital services on a fee-for-service basis, and have to reimburse the hospitals for costs incurred. The hospital in turn bills patients at reduced rates and fees.

HOSPITAL OPERATING COSTS

Financing Model

Operating costs in German hospitals that serve sickness fund patients (almost all hospitals, including public, voluntary, and private for-profit hospitals) are financed primarily through annual prospective budgets. A hospital's budget is negotiated each year between the hospital and those statutory sickness funds that paid more than 5 percent of the hospital's previous year's revenues. In practice, the sickness funds form working groups to represent them in negotiations. The regional association of the statutory sickness funds, the organizations of private health insurers, and hospitals participate in budget negotiations.

Negotiations focus on the services that a hospital expects to render to sickness fund members and to the costs that can legally be charged for these services. A prospective daily rate is simultaneously determined with the budget. This daily rate—the result of dividing the budgeted amount by the expected number of inpatient days—functions as the primary payment unit for patients and sickness funds. The daily rate is supplemented by special fees for costly services, and beginning in 1995, by case-based rates also.

Regardless of their insurance, all patients generally pay the same rates. In the past, privately insured patients who chose the service of a specific physician paid a 5 percent reduced daily rate and were extra-billed separately by the physician. Under the new hospital financing act, private patients pay the full daily rate to the hospital and a reduced bill to their private physician.

Flexible Budgets

Germany's current prospective budgeting system has grown out of a system in which the full costs of hospital operations were reimbursed retrospectively (11). Beginning in 1985, a "flexible" prospective budgeting system was introduced, which was designed to fully reimburse costs only for those hospitals that operated efficiently.[1] To assess efficient operation, hospitals were classified into similar groups by types and intensity of care and then compared with respect to cost and activity data. A hospital's budget for the coming year was influenced by cost comparisons with efficient hospitals in its group.

Under flexible budgets, when the actual number of inpatient days delivered was less than the planned number, the hospital still received 75 percent of the daily rate for the missing days in the next round of budget negotiations; when it delivered more than the planned amount, the hospital had to pay back 75 percent of the excess daily rates that it had already collected. Hospitals were therefore partially at risk for overprovision of services.

Negotiations on flexible hospital budgets were quite unfettered. The only external reference for the negotiations—apart from the aim of financing only "efficiently working hospitals"—was Concerted Action's guidelines, which served as proposals for the negotiations. Their nonbinding character is underlined by the fact that Concerted Action itself did not always reach agreement on the guidelines (sometimes providing none at all) and sometimes sickness funds and hospital associations had divergent guidelines. Concerted Action did not effectively limit the growth of hos-

[1] All budget concepts discussed do not include physicians' earnings for treating private patients in hospitals or hospital revenues from elective services, such as private rooms, for which patients are billed directly.

pital expenditures to that of the sickness funds' incomes, as desired.

Fixed Budgets for 1993 to 1995

The HSA of 1993 establishes steps to reform hospital financing, which will be implemented sequentially over a number of years. With cost containment as a top political priority, the HSA enforces the income-oriented policy on growth in individual hospital budgets for the period 1993 to 1995. For these three years, the HSA requires a "fixed" prospective budget that can no longer be adjusted for the difference in the number of inpatient days delivered from the negotiated number. A hospital's 1992 budget will be used as its base, with increases in its budget limited to income growth of the sickness funds. The federal minister of health is to estimate the national increase in sickness funds' incomes by February 15, so as to determine the maximum growth rate for the coming year.

The hospital budget growth rate constraint applies to the sum of the hospital's budget and the revenues from special fee categories, which existed outside of hospital budgets in 1992. The growth rate may be corrected for some factors such as wage increases, as wages for hospital personnel are determined in negotiations between unions and general employers. Budgets may also be corrected for cost increases due to unforeseen legal changes that affect hospital expenses.

Flexlble Budgets in 1996

From 1996 forward, hospitals will again be subject to flexible budgets. The HSA has established that a hospital's budget must provide sufficient revenues for the hospital to provide all of the care needed by its catchment population, based on its function as defined in the hospital plan. In cases in which the hospital cannot meet its obligations, the hospital will even be allowed to receive funding that is greater than the growth in sickness finds' incomes. The basic mechanism of flexible budgets will be the same as that adopted in 1985.

Other Hospital Payments

Although most hospital services are financed through prospective budgets, other payment components received a much greater role in hospital financing under the HSA than they had previously. In addition to the general daily rate, other types of payments for hospital inpatient costs include:

- special daily rates for some hospital departments;
- special fees for costly services, billed in addition to the general daily rate; and
- case-based lump sums, which cover the total cost of inpatient care for a particular hospital admission.

A number of special daily rates for hospital departments have been used in the past. The 1985 federal financing law defined 10 categories, among them high-cost categories (e.g., care for severely burned patients or neonatal intensive care) and low-cost categories (e.g., psychiatric day care) that are financed through special daily rates. The 1994 act on the financing of hospital operating costs requires special rates for all hospitals and all departments beginning in 1996. In fact, the former general daily rate will vanish and will be substituted by two new types of rates. The first type will pay for physician and nursing services that are specific to a given hospital department; this rate will vary depending on the medical department that admits the patient. The second type, the "basic daily rate," will cover the remaining nondepartment-specific costs of hospital stays, such as food and housekeeping, that are common to all departments. The new act envisions that sickness funds and hospitals will agree on a state-level standard price for these "hotel-type" services.

In 1985 the first federal fee schedule for costly services to be funded through special fees included 16 items, among them open-heart operations, transplantations, implantations, and lithotripter treatment. More services could be defined for special fee financing or for case-based rates at the state level. Actual rates were determined in individual negotiations between the hospital and

TABLE 5-2: Examples of Relative Prices for Case-Based Rates and Special Fees in Germany, beginning in 1995 (federal point values)

		Point values			Length of stay	
		Personnel	Equipment	Total	Average	Threshold
Case definition	*Done by hospital physician*					
	12.06: appendicitis non perforata; appendectomy, laparoscopic	2,250	1,330	3,580	6.04	14
	16.01: delivery after completed 37th week of pregnancy; vaginal delivery up to *8* hours, normal presentation	2,360	600	2,960	4,90	**13**
	Done by practice-based physician					
	12.06: appendicitis non perforata; appendectomy, laparoscopic	1,560	1,250	2,810	5.20	13
	16.01: delivery after completed 37th week of pregnancy; vaginal delivery up to 8 hours, normal presentation	2,010	590	2,600	4,90	13
Special fee	*Done by hospital physician*					
	12.1 7: appendectomy, laparoscopic	1,040	650	1,690	NA	NA
	Done by practice-based physician					
	12,1 7: appendectomy, laparoscopic	690	650	1,340	NA	NA

NOTES: NA = not applicable; positions for special fees concerning delivery have not yet been defined; the calculation basis for the development of these schedules has been 1993, with a basis of DM1.00 per point; prices differ as to whether a patient is served by a hospital physician or by a practice-based physician who holds a right to provide care in hospitals (the case of the practice-based surgeon has been chosen here, another schedule applies to practice-based anesthesiologists); average length of stay refers to the population from which this schedule was calculated, outlier patients beyond the threshold length of stay will be billed on a daily rate basis for their excess days. For further explanation, see text

SOURCES: Federal Act on Financing of Hospital Operating Cost *(Bundespflegesatzverordnung)* of *8* July 1994 (author's translation)

sickness funds. These options have been used to some extent but so far have made up only a minor share of total hospital revenues.

The HSA of 1993 clearly aimed to extend these types of financing to achieve more performance-related payments for individual hospitals. The final results from a working group defines 104 special fees and 40 cases in the 1994 hospital financing act. Another 37 special fees and 13 case definitions are expected to be added in 1995 (6). Each of the services or cases carries a point value as a relative price tag, with one point value for personnel input and the other for equipment (table 5-2).[2] The monetary value (i.e., conversion rates) of the fees and case-rates will be determined in state-level negotiations between sickness funds and hospital associations. If the population in a hospital's catchment area has specific needs, rates higher than state-level determined prices can be agreed on during budget negotiations. Additionally, hospitals that are highly specialized might receive lower rates than the state-level prices. It remains to be seen how often these exceptions will be used. At the state level, sickness fund and hos-

2 The point values were constructed on the basis of 1993 cost and utilization **figures (1). Because it was expected that the** average length of stay will decline by 30 percent in the next few years, the calculations accounted for half of this decline (19). Point values are lower for cases in which an office-based physician delivers the service (see table 5-2). To account for lower wage levels in the new states, lower point values for personnel input will be used in state-level negotiations.

pital associations may also agree to introduce more case definitions and special fees.[3]

Outpatient Care

The HSA establishes special financing for hospital outpatient care. Prior to 1992, a standard hospital did not have an outpatient department. The property right for providing ambulatory care services was held by office-based physicians. Outpatient services could be provided by hospitals only in special cases. For instance, a hospital-based physician could provide ambulatory care if a qualified office-based specialist was not available in the area. Hospital departments had to be authorized by the sickness funds or hospital physicians had to be acknowledged as members of the association of office-based physicians to provide the care. Because of their teaching function, outpatient departments in university hospitals also held the right to provide ambulatory care. All ambulatory services were reimbursed by the association of office-based physicians.

The HSA of 1993 now entitles hospitals to render outpatient care on three occasions:

- if it is required to determine whether inpatient treatment is necessary (pre-inpatient care),
- if it is required to assure and improve the effectiveness of inpatient treatment (post-inpatient care), or
- if ambulatory surgery can be substituted for inpatient surgery.

The first two cases are paid by lump sums, the last by a fee schedule that is being developed. The revenue for all three types of services will be included as part of a hospital's prospective budget until 1996.

Coordination of Payment Components After 1995

An important feature of the new financing system for hospital operating costs is how the different payment components will be coordinated. With respect to inpatient care, hospitals will be paid for two main categories of care:

1. care that is reimbursed by the daily rates (departmental and the basic daily rate), and
2. care that is reimbursed by special fees and case-based rates.

Special fees will be added to the daily rates (for surgical interventions, the departmental rates will be reduced by 20 percent), while case-based rates will fully cover the cost of a hospital admission. If a case-based rate can be calculated, the hospital may not bill its patients through special fees and daily rates.

The interplay between the hospital's prospective budget and the other payment components is complex and will change during Germany's transition to a performance-related hospital payment system. Currently, anticipated revenues from case-based rates and special fees, as well as expected revenues from outpatient care, are subtracted from the hospital's accountable costs for calculating the hospital's budget.[4] Until 1998, if revenues from special fees and case-based rates are different from negotiated revenues, half of this deviation will be compensated in the next round of budget negotiations. This means that unexpectedly high volumes of hospital services will be partially compensated. Until 1998, it will also be possible to mutually compensate deviations of actual revenues from negotiated revenues that occur in

3 Another important change introduced in the 1994 act is that inpatient days delivered in a particular case category that are above the federally defined length-of-stay threshold must be reimbursed through the daily rate. However, the hospital will not be paid for days of care for patients readmitted to the hospital for complications if the number of days is within the length-of-stay threshold.

4 Until 1997, however, only 95 percent of the expected revenues from case-based rates and special fees will be subtracted in order to reduce hospitals' financial risks during the introductory period.

opposite directions in the two categories. This will smooth the planning of care in the negotiations.

Beginning in 1998, however, revenues from case-based rates and special fees will be completely separated from the hospital's budget. Surprisingly, the new act on financing hospital operating costs envisions that the volume of care for these categories of services will no longer be negotiated, but will be reimbursed by sickness funds and insurance companies as the services are provided, releasing hospitals from a negotiated volume constraint.

Payment Negotiations

In budget negotiations each hospital has to present its current cost and service figures according to the types of data required by the hospital law (e.g., number of admissions, number of operations, lengths of stays per department). Each hospital also has to present projections of those factors for the coming year. Under the new financing system, the number of special services performed and the number of (defined) cases treated will also have to be presented and projected so that revenues from these services can be accounted for in the hospital's budget.

For cost comparisons, a hospital's figures are compared with those of other hospitals that are similar in departmental structure and in the general level of care. Cost information from earlier negotiations is available to both hospitals and sickness funds. Hospital associations sometimes compile comparative information in advance for their members. Because some sickness funds contract with all of the hospitals, the sickness fund association has a complete picture of comparable hospital costs at the end of a negotiation round.

The actual negotiation process is not public, and little is known about the strategies and tactics of the negotiating parties. From the sickness funds' perspective, the total budget for hospital services for the forthcoming year is constrained by the growth rate of wages and salaries of the insured individuals from whom they receive their premiums. Hospitals try at least to recover their full costs.

If an agreement among the negotiating parties is reached, the result has to be approved by the responsible state authority. In case of disagreement (at the latest after six weeks of negotiation), a referee commission can set the daily rates on application from one of the negotiating parties. This commission consists of a neutral chairperson and the same number of delegates from the hospital and the sickness funds, including private health insurers. The referee commission, the decisionmaking process, and the legal control of its activities are regulated by state law.

In addition to the inpatient components of the budget, lump sums are negotiated at the state level for pre- and post-inpatient treatment. Sickness funds and hospital associations have to consider the opinions of the regional associations of office-based physicians. The same associations at the federal level currently negotiate the fee schedule for ambulatory surgery, which will be used by both hospitals and office-based physicians who deliver those services.

Once a hospital's budget and other payment components are determined, the hospital is free to operate as it deems appropriate. Hospitals retain all surpluses and are responsible for all deficits in their operating budget. There are no general rules for the internal allocation of funds within the hospital. Because all payment arrangements are derived from cost estimates, however, cross-subsidizing across cost centers in the hospital is restricted compared with systems based on charges.

Because negotiations take place each year, there is some danger that individual hospitals will lose surpluses that result from greater efficiency in subsequent year negotiations. The HSA intends to eliminate this disincentive by prohibiting sickness funds from negotiating away such surplus funds. There is a clear need to develop more sophisticated incentive structures in Germany's predominantly nonprofit environment.

The financing law requires a tremendous amount of cost information for the negotiations between hospitals and sickness funds. In addition to the cost and service figures required, information on diagnoses and surgical services delivered

has also been required since 1985, but this has been difficult to obtain. Furthermore, prospective budgeting requires projections of these data. Information on the different types of costs at the hospital level and indicators such as inpatient days by department have always been well documented. Nationwide documentation for these statistics has been available from the Federal Office of Statistics since 1990. In 1993, statistics on hospital discharge by diagnosis began to be produced nationwide. Germany's increasingly case-based payment system will heighten the need for much more sophisticated information on hospital production.

Sources of Funding[5]

Insurance covered about four-fifths of hospital operating costs in 1990 (sickness funds paid 70.7 percent and private insurers paid 8.1 percent). Public authorities directly covered 14.3 percent of hospital expenditures and employers directly paid 5.6 percent (4). (Employers' 50 percent contribution to sickness fund premiums is included in the sickness fund figures.) Public employers also contributed to private patients' hospital costs through the so-called *Beihilfe,* which covers up to 50 percent of hospital care for civil servants. Patients insured by sickness funds directly payDM116 each day for the first two weeks of a hospital stay. Out-of-pocket payments by private patients depend on individual cost-sharing arrangements with private insurance companies. In total, the contribution of direct patient payments is small, accounting for just 1.3 percent of the total bill for hospital care in 1990.

The relative contributions from the various payers for individual hospital revenues depend on the hospital's patient and services mix. Prior to the HSA reforms, the main revenue of a hospital came from the general daily rate. Other revenue sources include special departmental rates, special fees for costly medical services, and special charges for hotel-type services (e.g., private or semiprivate rooms). Prices for additional hotel services are established by the hospital and are paid directly by patients.[7] Special daily rates and special fees varied by hospital under the old system.[8] Of the DM56.3 billion in revenue reported in 1990 for all hospitals that contracted with sickness funds (which only excluded some specialized private clinics), 93.5 percent came from the general daily rate, 4.2 percent from special charges, and 2.2 percent from special fees (16).

Operating Costs and Expenditures

Personnel salaries made up almost two-thirds of German hospital operating expenses in 1990 (table 5-3). Medical equipment and supplies accounted for the other third of operating costs. Capital-related costs do not (yet) play a role in Germa-

TABLE 5-3: Distribution of Operating Costs in General Hospitals, 1990 (percentages)

Personnel	*66.0*
Physicians	*14.1*
Nurses	*123.1*
Other staff	*28.8*
Equipment	33.1
Medical needs	16.6
Other	16.5
Miscellaneous costs	*0.9*
Total	100.0

NOTE: Former West German states only; data for 2 of 1,818 hospitals are missing; miscellaneous costs are composed of the cost of nursing education (0.7%) and the cost of interest on debts incurred during operation (0.2%); total costs were DM59.9 billion, cost per day was DM400.55, cost per case was DM5,384.22, and cost per bed was DM126,308.65.

SOURCE: Statistisches Bundesamt, Kostennachweise Krankenhauser 1990, Fachserie 12, Wiesbaden, 1992.

5 The distribution of financing by payer does not refer solely to acute care expenditures but includes all hospital care and capital expenses.

6 The exchange rate in January 1994 was approximately $US0.58 to DM1.00.

7 In June 1994, the general daily rate ranged from DM332 to DM656 at the state level; the extra rate for a private room was between DM1 11 and DM205 and for semi-private rooms, rates were between DM58 and DM117 (8).

8 Averages are not available at the federal level.

TABLE 5-4: Hospital Expenditures and Costs, 1990

Denominator	Total hospital expenditures, FOS DM65,977 million	Numerator total hospital expenditures, FOS/OECD DM73,651 million	Hospital operating costs, FOS DM63,577 million	Hospital investment, SVR DM5,074 million
Gross national product, FOS, DM2,439,100 million	2.70	3.02	2.61	0.21
Gross domestic product, FOS, DM2,417,830 million	2.73	3.05	2.63	0.21
Total hospital expenditures, DMFOS, 65,977 million	100.00	111.63	96.36	7.69
Total hospital expenditures, DMFOS/OECD 73,651 million	89.58	100.00	86.32	6.89
National health care expenditures, OECD, DM201,220 million	32.79	36.30	31.60	2.52
National health expenditures, FOS, DM303,972 million	21.70	24.23	20.92	1,67

NOTE: Former West German states only; FOS indicators from the financial statistics of the Federal Off Ice of Statistics; FOS/OECD indicator on total hospital expenditure includes DM7.7 million for inpatient rehabilitation expenditures; FOS cost indicators from federal hospital statistics, author's calculations.

SOURCES: Bundesministerium fur Gesundheit, Statistisches Taschenbuch Gesundheit, Bonn, Dezember, 1992; Federal Office of Statistics, personal communication, August 1993; Statistisches Bundesamt, Kostennachweise Krankenhauser 1990, Fachserie 12, Wiesbaden, 1992; Organisation for Economic Cooperation and Development, OECD Health Data File, 1993, SVR: Sachverstandigenrat fur die Konzertierte Aktion im Gesundheitswesen (Baden-Baden, Nomos, 1992).

ny's hospital budgets because the costs of capital are borne almost entirely by state governments and do not show up in hospitals' operating expenses.

The Federal Office of Statistics (FOS) reported DM66 billion in total expenditures for hospital inpatient care in 1990 (this refers to the former West German states only) (table 5-4, column 1). Of the DM66 billion, the statutory sickness funds spent DM45 billion on hospital services (which cannot be disaggregate into acute and nonacute care). This equals about one-third of total health care expenditures by sickness funds. Almost one-third of hospital expenditures (the other DM22 billion) came from private health insurers, employers, public authorities, and directly from patients.

The DM73.7 billion figure used by Organisation for Economic Cooperation and Development (OECD) to represent total expenditures for inpatient care adds DM7.7 billion for inpatient rehabilitation expenditures to the DM66 billion figure (table 5-4, column 2) (12). The amount of DM56.3 billion has been cited as the total revenue for hospitals in the same year (16), whereas the total sum of operating costs reported in federal hospital statistics is DM63.6 billion, exceeding the revenue figure (table 5-4, column 3). Not all costs listed in accounting statements are automatically financed in a prospective budgeting system, but before concluding that the difference between aggregate cost and revenue figures is the result of operating deficits, more detailed analysis would be required.

Hospital expenditures are related to six reference variables in table 5-4. (Investment data are covered later in this chapter.) The reference variables include the OECD's definition of national health expenditures and the Federal Office of Statistics' definition of national health expenditures which includes cash and in-kind benefits re-

9 National health expenditures data from the Federal 0ffice of Statistics that include expenditures for curative and preventive care but not cash and in-kind benefits lies within a 1 percentage point range of OECD's national health expenditures figure and is not reported in table 5-4.

lated to illness. The almost DM8 billion difference arising from the OECD's and FOS's different definitions of hospital expenditures causes hospital expenditures as a share of gross national (or gross domestic) product to increase from 2.7 percent according to FOS's figures to over 3 percent according to OECD's figures. Both definitions produce ratios of hospital expenditures to OECD's national health care expenditures of about one-third, similar to the figure reported by the sickness funds. The FOS's more inclusive definition of national health expenditures results in a 22 to 24 percent hospital expenditures share.

HOSPITAL CAPITAL COSTS

Relationship of Capital and Operating Costs

There is almost no link between operating and capital costs in Germany's health care system. Hospital capacities are established according to hospital plans (described below), and allowable operating expenses are financed as described previously. Generally, capital depreciation and interest costs for capital debt are not allowable operating costs for hospitals included in the hospital plan, as capital investments are usually funded by state authorities.

Integrated economic decisionmaking is lacking with respect to the possible impact of new capital purchases on hospital operating costs. Although the hospital law formally requires hospital planners to consider the impact of investment decisions on operating costs, quantitative economic evaluations of such decisions do not take place on a regular basis. Hearings are held to solicit input from the sickness funds, which are ultimately responsible for paying for any associated increase in operating costs, but sickness funds do not have a right to veto investment decisions.

Sickness funds, however, are only required to finance the costs of efficiently working hospitals. This has led to conflicts about the issue of hospital capacity: sickness funds claim that hospitals operate inefficiently because there is more capacity than needed, while hospitals claim that hospital capacities included in the hospital plan must be financed through operating revenues. This dispute is likely to obtain greater relevance as hospital operating revenues are increasingly based on negotiated volumes of specific types of hospital services (2).

The lack of integration of economic responsibilities in Germany's two-tier system has been criticized for many years. It has survived because of the unwillingness of state authorities to waive their planning powers. State authorities have a seat in the legislature's second chamber, which must approve every federal law. The HSA states the intent of eventually integrating the two separate lines of authority and the financing of capital and operating expenses, while leaving legal control with state authorities.

The 1985 revision of hospital financing allowed for one instance in which capital acquisitions can be linked to their effects on operating costs. Sickness funds and hospitals can contract for investment projects that are expected to reduce subsequent hospital operating costs, called "rationalization" projects. The capital-related costs of these projects can be added to a hospital's operating expenses. Because of resistance from the sickness funds, however, this regulation has not been used often (13).

Another exception to the principle of not passing capital costs to payers through operating charges was introduced in the HSA. Under the act, capital expenditures for investment projects included in the hospital plan may be partially funded via private funds and hospitals will be allowed to include the respective capital depreciation in the calculation of their operating costs.

Capital Financing Model

Prior to adoption of the Health Sector Act, almost all hospital capital expenditures in Germany were funded by state governments (and most funding still comes from the states). Expenditures for hospital construction and medical equipment are part of a state's budget, which is derived from general tax revenues. Several taxes contribute to a state's revenues, including large revenue sources such as

income and value-added taxes. The financial burdens of these taxes fall differently on different income groups in the population and on businesses and households. Therefore, a person's share of payments for hospital capital expenditures depends on the person's share of federal and state tax revenues. There is also no direct link between the source of general tax revenue and the type of government expenditure. A state's treasury determines the amount of funds available for hospital capital investment as part of its decisions on how to allocate the state's budget. Until 1985 both state and federal authorities paid a share of the investment budget; since then, however, only states pay for capital expenditures. Special federal subsidies have been reintroduced for investment needs in the five former East German states.

Financing of hospital capital is fully integrated with hospital planning. The key reference point for funding is a state's annual hospital plan. The state's plan—which includes public, nonprofit voluntary, and private for-profit hospitals—defines the location of each hospital, its specialties, the number of the hospital's beds that will be funded, and the level of the hospital's care (e.g., general care, specialty care only, or top-level care). Some states issue more detailed plans—for example, by determining the number of funded beds for each hospital specialty. The specific criteria used to determine whether a particular hospital is admitted to the state's hospital plan are not publicly available.

If a hospital is admitted to the plan, it will receive capital funding from the state, both in terms of lump sums and through special capital grants, described below. Hospitals not included in the annual hospital plan do not receive public funding for capital investments. Moreover, they cannot claim higher operating costs than comparable hospitals that receive public funding in order to finance their investments from internal funds. This mechanism makes the integrated capital planning and financing system almost universal in Germany. In 1990, more than 96 percent of all beds in general hospitals were included in hospital plans (of the prior West German states) (20).

The general legal framework for hospital planning and investment financing is determined at the federal level, but implementation is left to state authorities who issue the hospital plan. Planning methods are also subject to state law and regulation. Their implementation differs among the 16 states of the Federal Republic of Germany.

Determining Capital Requirements

The hospital capital planning process is ostensibly based on bed-to-population ratios, which establish the number of beds needed in a region. The planning formula is a simple equation: the number of hospital beds needed equals the number of predicted inpatient admissions times the predicted average length of stay (corrected for trends), divided by the occupancy-rate standard (85 percent), times 365 (the number of days in a year). In some states the bed-to-population ratio is differentiated by hospital department and/or by region. Despite the establishment of a formal planning algorithm, there is no evidence that the ratios are used in any regular or fixed way to determine capital funding patterns. Hospital plans are published, but they report on current hospital capacities rather than on future plans or options.

The federal hospital financing law has established a right for hospital owners, and other substantially affected parties, to present their views to state authorities during the state's process of determining hospital capacities and approving applications for new capital purchases. The law's objective is to achieve a consensus among all participants. States have the authority to implement the federal law. In all states the hospital associations, sickness fund associations, and private health insurers participate in such hearings. Other organizations, such as community associations or city and community governments, are represented; for example, there are seven participants in Bavaria and six in Baden-Würthemberg (18). The state authority ultimately retains the right to make final decisions. The actual decisionmaking process (specifically decisions on how to allocate the state's budget by region or by hospital) cannot

be observed by outside researchers and investment schedules are not published.

Applications for large-scale capital investments are drawn up by the hospital's management and sent to state authorities. Once application hearings have been held, the state authorities decide which projects will be funded. Approved investment projects are included in the state's hospital plan and in the individual hospital's construction or investment plans. The rules and procedures governing hospital construction plans are not publicly available. There is no established policy for estimating the revenue implications or costs and benefits arising from new hospital capacities except for the cost-saving rationalization projects described above.

The purchase of construction and equipment by state authorities is subject to general public bidding rules. There are no specific guidelines concerning resale of hospital plant or equipment. Resale of equipment and the use of these funds, however, must be in accordance with the hospital plan. Each state funds capital requirements subject to a binding planning process under which the use and purpose of the investment is exclusively defined in the plan; the capital asset may not be used for other purposes.

All public and private hospitals included in a state's hospital plan are subject to the capital planning and approval process. An important factor undermining the closed-shop system of capital acquisition in Germany's hospital sector is private investment by office-based physicians. In contrast to the strictly regulated hospital system, office-based physicians run their businesses as free enterprises, determine their own capital needs, and have in the past notified the association of office-based physicians only about purchases of large medical equipment. Because of constrained hospital budgets, office-based physicians have substantially influenced the diffusion of many technologies, such as computed tomography, gamma cameras, and nuclear magnetic resonance imagers (table 5-5).

Germany's 1989 health reform law changed this loophole by requiring the coordination of planning for large medical technologies between the hospital and ambulatory care sectors (3). A coordination committee comprising physician associations, hospital associations, and sickness funds was established. The committee defines what is considered to be a large-scale technology, determines the need for these technologies, and decides on the types of setting where they will be provided (e.g., in hospitals or physicians' offices). The committee's decisions are binding in the hospital sector because big-ticket technologies that are not included in the hospital plan (which the hospital associations review) do not receive public funding, and any associated operating costs do

TABLE 5-5: Large-Scale Medical Technology, 1991

Technology	Percentage in hospitals	Percentage In doctors' practices	Total number
Left ventricular catheterization sites	97	3	230
Digital subtraction angiography	78	22	531
Computer tomographs	58	42	707
Nuclear magnetic resonance imagers	51	49‘	159
Gamma cameras, single photon emission CT	56	44	1,257
Linear accelerator	97	3	166
Telecobalt machine	91	9	171
Extracorporeal shockwave lithotripter	96	4	89

NOTE: Former West German states only; author's calculations.

SOURCE: Sachverstandigenrat fur die Konzertierte Aktion im Gesundheitswesen (Baden-Baden, Nomos, 1992).

not have to be reimbursed by sickness funds. The law also prohibits reimbursement for services provided by large-scale technologies in physicians' offices if the coordination committee has not approved the technology.

The coordination committees have not yet effectively integrated major capital purchases in the hospital and ambulatory sectors. Establishment of the coordination committees has been slow (15). Moreover, the HSA generally assumed that large-scale technologies in physicians' offices that had been applied for and were in use in 1992 were approved by the coordination committees, thus resolving all pending decisions in favor of office-based physicians.

Since 1990, capital inventories of large-scale medical technologies have been published regularly at the state and federal levels. Aside from this inventory and the usual statistics on hospital resources, such as number of beds and departments by specialty, information on total hospital capital stock is not available.

Sources of Capital Funds

The state's capital budget is split into lump sum payments for small projects and a part payable on approval for large investment projects. Lump-sum amounts are determined annually by state governments and are based on the number of beds in a hospital and its level of care. State rules differ as to how the amounts are determined; overviews of these determinations are not publicly available. At the end of the 1980s, lump sums of DM2,500 to DM4,500 per bed had been reported for different levels of hospital care (3). The federal hospital financing law set higher sums for the new former East German states for the period from 1991 to 1993; they vary between DM8,000 per bed for hospitals rendering basic care up to DM15,000 for top-level care and specialty hospitals.

Lump-sum payments cover short-term capital goods with an economic life of less than three years and small construction work, defined as costing less than DM100,000 (net of the value-added tax). The hospital is free to decide how to use lump-sum payments to purchase these types of capital goods. Because the payment per hospital bed provides disincentives for hospitals to reduce the number of beds, the HSA has introduced the possibility of using other factors for determining lump-sum payments.

Large investment projects approved by the state are funded from state revenues. Real estate, medium and major construction, reconstruction or restructuring, medical equipment to provide new services, and all large-scale equipment expenditures are subject to the procedure described above.

In contrast to the previous policy of allowing only state funding for capital investments, the HSA has enabled state authorities and hospitals to agree to partial funding of an investment project for hospitals not included in the hospital plan. The hospital is allowed to enter capital depreciation and interest expenses in its calculation of operating costs. State authorities and hospitals are supposed to first achieve a consensus with the sickness funds to cover these costs.

Additionally, capital expenditures for cost-saving investments (rationalization projects) may be financed through operating cost charges. Savings in operating expenses must be large enough to offset the cost of the investment in at most seven years, however. This regulation thus requires an exact calculation of the capital costs and projected associated operating costs. Sickness funds and hospitals must contract for rationalization projects. Because of the sickness funds' resistance to this method of hospital capital financing, the HSA enables hospitals to call on a referee commission in cases in which sickness funds refuse to contract.

Over the long run, the German parliament has declared its goal to substitute for the two-tier financing system a single system that would cover both operating and capital costs. In addition, responsibility for planning and financing is to be integrated in the hands of the sickness funds, although legal control by state authorities would be maintained.

TABLE 5-6: Key Indicators of the Hospital System, 1990

(1) Hospital beds: 75.2 per 10,000 population

(2) Hospital doctors: 16.14 per 100 beds

(3) Hospital admissions: 176.4 per 1,000 population

(4) Inpatient days: 2.37 per population

(5) Average length of stay: 13.4 days

(6) Occupancy rate: 86.4 % of beds

(7) Operating cost per day in general hospitals: DM400.55

(8) Expenditures for inpatient care per sickness fund member: DM820.30

NOTES: Figures refer to the former West German states only; figures 1 and 3-7 refer to general hospitals, figures 2 and 8 to all inpatient care (for definitions, see text); for figure 2, the 1991 number of doctors was used because this figure was not collected in 1990; figure 8 refers to about 90 percent of the German population; figures 7 and 8 are in current prices.

SOURCES: Statistisches Bundesamt, Grunddaten der Krankenhauser und Vorsorge-oder Rehabilitationseinrichtungen 1990, Fachserie 12, Wiesbaden, 1992; Sachverstandigenrat fur die Konzertierte Aktion im Gesundheitswesen (Baden-Baden, Nomos, 1992).

Capital Expenditures

Investment expenditures by state authorities in 1990 totaled DM5,074 million, equaling 0.21 percent of gross domestic product (for the former West German states only) (table 5-4, column 4) (16). This amount corresponds to about DM80 per capita. Among the 11 former West German states, there was a remarkable variation in capital expenditures. In 1990 Schleswig-Holstein spent a low of DM50 per capita and West Berlin spent a high of DM230 per capita.[10] Breakdowns of these figures into expenditures for plant and equipment at the federal level is not available. Capital expenditures ranged from 6.9 to 7.7 percent of aggregate hospital expenditures depending on the definition of hospital expenditures used, and from 1.7 to 2.5 percent of national health expenditures, again depending on the definition of national health expenditures used (table 5-4).

HOSPITAL INDICATORS AND TRENDS

Eight key hospital indicators are presented at the national level for 1990 in table 5-6. Because of data availability, the data refer only to the former West German states. Most of the eight indicators are applicable to general hospitals, although some are for all types of inpatient care. The number of beds, hospital admissions, inpatient days, average length of stay, and occupancy rates in German hospitals tend to be high in a number of international comparisons-for example, with other member states of the European Community and the United States.[11] Comparative analyses of the cost and performance of acute hospital care in Germany, Austria, the Netherlands, France, Sweden, and the United States generally indicate that Germany, in spite of ranking high in the number of beds and inpatient days provided, had very low hospital costs (in fact, the lowest per inpatient day)—although it has not always reached the top level in the quality of care (10).

FUTURE DIRECTIONS

Two major perceived problems with its prior health care system contributed to Germany's recent health reform measures in the hospital sector:

10 Figures are rounded and based on the author's calculations.

11 Similar comarisons of the numbers of physicians **per bed, daily hospital rates, and** hospital expenditures per insured are difficult to make because of the lack of directly comparable data.

the ever present problem of cost containment and problems in the regulation of hospital financing. Cost containment became a major political issue by the mid- 1970s in Germany, leading to almost 60 cost containment measures incorporated within eight health reform acts in the past two decades; this figure does not even include the HSA legislation (17). Many of the interventions worked for some time and in the aggregate contained growth in health expenditures to some extent. Yet they did not completely control costs, nor did they achieve a rationally regulated system of health care financing. Like the other health care sectors, the hospital sector has been the target of cost containment measures—but it is not the chief culprit as is sometimes claimed. The OECD reports a moderate 0.9 percentage point rise in hospitals' share in national health expenditures from 1970 to 1990 (14).

Following a steep rise in health care expenditures, in contrast to prior cost containment acts, the Health Sector Act of 1993 began tackling the basic structure of the health care system, including the role of hospitals and their financing. The main problems with Germany's system of hospital financing have been as follows:

- The daily rate for operating charges is too rough a definition of the services that hospitals deliver. New payment units were introduced in 1985 but have not yet played a major role in hospital financing.
- The full-cost reimbursement principle for operating expenses was formally abandoned in 1985 but continued to be the financing promise for hospitals that indicate efficient operation.
- A two-tier system splits responsibility between those who determine the capacities of the hospital system and those who are responsible for its operation and financing. This problem was tackled with little success in 1985.

The Health Sector Act of 1993 has addressed all three of the foregoing problems. It tightened the budgeting process, linked hospital budget updates to sickness fund income growth, and worked toward the full abandonment of hospital cost reimbursement. It has also set forth a major plan to expand performance-related financing of operating costs by introducing more greatly differentiated payment units. Finally, it has further tom down the borders between the financing of operating costs and capital expenditures, aiming at full integration in the future. (The historical development of hospital financing and its major changes are summarized in table 5-7.)

Because the Health Sector Act was enacted only recently and because it contains detailed plans for future changes, its full implementation and effects are not yet clear. Evaluation will not be easy. There are several payment components for hospital costs, with different groups deciding on price and quantity levels; substitution may occur between various payment components; and different time paths have been set for further development of the various components. It will be difficult to assess the separate impact of various regulations on changes in the growth rate of hospital expenditures and on the efficiency, quality, and availability of hospital care.

Recognizing these problems, anew federal act addressing the financing of hospital operating costs requires that the new system be evaluated by a scientific working group at least over the next three years. The results will be discussed by an advisory committee composed of all major actors in hospital care delivery, planning, and financing.

The Health Sector Act has brought about fundamental innovations in hospital financing policy in Germany. It has not only altered the existing rules of the system but has also explicitly introduced an ongoing process of change. Because the financing rules are defined for certain time periods, future adaptation, evaluation, reconsideration, and further elaboration will be inevitable elements of the process.

TABLE 5-7: Overview of Important Changes in Hospital Financing

	Payment unit, product definitions		Budgeting philosophy	Overall financing design	
1972	(1)	Daily rate	Full-cost reimbursement	(1)	Two-tier system for operating and capital expenses
1985	(1)	Continued	**Flexible budgeting equal to the cost of an efficiently operating hospital**	**(1)**	Continued
	(2)	Some departmental rates		**(II)**	Option to finance cost-saving investments via operating charges
	(3)	Some special fees			
1993	(I-2)	Continued	Fixed budget capped by employee wage and salary growth	(1)	Continued
	(3)	Expanded		(II)	Expanded to include the option to partially finance investments via operating charges
	(4)	Some case-based rates			
	(5)	Outpatient lump sums			
	(6)	Fees for outpatient surgery			
1995 and beyond	(1)	Abandoned	Performance-related pay, and flexible budget constrained by employee wage and salary growth		Approaching single financing system
	(2)	Departmental rates only			
	(3-4)	Expanded			
	(5-6)	Continued			
	(7)	Base rate for hotel services			

NOTE: All budgeting concepts exclude earnings of hospital physicians for services provided to private patients and revenues from hotel-type services extra-billed by hospitals

SOURCE. R. Leidl, 1994.

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Hospital Financing in the Netherlands

6

by J.A.M. Maarse

As in other industrialized countries, the health care sector is an important element of the Netherlands' economy. As a share of gross domestic product (GDP), national health expenditures in the Netherlands rose from 6 percent in 1970 to 8.2 percent in 1980 (23). The growth rate slowed in the 1980s; by 1991, national health expenditures accounted for only a slightly higher share of GDP at 8.3 percent.[1] Health care expenditures grew by a cumulative increase of 185 percent from 1970 to 1981 but by a cumulative increase of only 51 percent from 1981 to 1991 (2). The importance of health care to the Dutch economy is also illustrated by the fact that health care employment accounted for over one-tenth of total employment in 1991, and investments in the health care sector amounted to 8.4 percent of total investments in the economy (18).

Despite the relatively constant ratio of national health expenditures to GDP over the past few years, major reforms of the Dutch health care system initiated in the late 1980s arguably belong to the most radical planned so far for the 1990s in any OECD country (4,22,24). The main objective of the reforms (which are based on a report of the so-called Dekker Committee, *Willingness to Change*) (4) was to combine a national health insurance system with managed competition to improve efficiency and achieve more effective cost containment. Currently, however, there is substantial uncertainty about the future of the Netherlands' re-



[1] In some publications a higher percentage is found. For example, the *Financial Report on Health* (*Financieel Overzicht Zorg*), annually published by the Ministry of Health, mentions a figure of 9.8 percent for 1991 (16). This percentage, however, includes a number of health-related social expenses and, for that reason, should be used carefully in international comparisons.

form process. The stepwise implementation of the Dekker Committee reforms has stopped because of increasing doubts about the ability of managed competition to contain costs and because of strong opposition from some interest groups. The new government that took office in August 1994 has rejected the approach of implementing major reforms to the system, preferring to change its health care system on an incremental basis. Therefore, it is not clear which of the Dekker Committee reforms will be adopted in the future. This chapter presents changes to the system that have occurred and discusses several possible future scenarios.

Prior to the reforms, the Dutch system had (and still has, until or if the reforms are fully implemented) two important social health insurance schemes. The first, the *sickness fund scheme*, which came into force in 1965-66, provides mandatory health insurance to people earning less than a given income and is administered by independent, nonprofit sickness funds. It covers basic health services, which include the services of general practitioners and specialists, ambulatory and outpatient care, and acute hospital care. The scheme is financed by income-dependent contributions from employers and employees (i.e., payroll taxes), determined annually by the central government. In 1991 about 61 percent of the population was enrolled in the sickness fund scheme.

People who earn more than the income ceiling are not entitled to join a sickness fund. Most of these people voluntarily enroll in a private health insurance plan and pay risk-related premiums. The income ceiling explains why the Netherlands has the highest percentage of any national population within the European Community (39 percent) with private health insurance for basic health services. This share is still relatively small, however, compared with the share of the U.S. population that is covered through employer-based private health insurance. Private insurers in the Netherlands offer the same basic benefit package as the sickness funds, but they are more flexible with respect to copayment rates and amenities (e.g., coverage of private hospital rooms). These arrangements, combined with different risk structures of insurance plans, has led to considerable variation in private health insurance premiums. Private health insurers are not allowed to terminate insurance coverage for high-risk subscribers.

The private health insurance industry has a complicated structure. Private health insurers can operate on a for-profit or not-for-profit basis. Additionally, sickness funds have collectively organized their own private health insurance plans to retain subscribers who pass the income ceiling set for the sickness fund scheme. Private insurers may also offer other kinds of insurance besides health coverage to subscribers. In contrast to the sickness funds that traditionally were regionally organized with almost no competition among them (i.e., most have been regional monopolies), private health insurers have operated nationwide in a competitive market. Since 1994, however, sickness funds have been allowed to operate nationwide to stimulate competition between sickness funds and private health insurers (13).

The second important type of health insurance in the Netherlands is the *exceptional medical expenses scheme* established in 1968, which is national in scope. The entire population, irrespective of income status, is compulsorily insured through this system, which is financed primarily from income-related contributions (22).[2] Originally it covered long-term or chronic care (e.g., nursing homes, psychiatric hospitals, care for the mentally handicapped), but as part of the health care reform process, the scheme now also provides some benefits (e.g., pharmaceuticals) formerly covered by the basic sickness fund scheme or private health insurance. The administration of long-term benefits is handled by the individual's insurer for basic services (22).

[2]The exceptional medical expenses scheme also partially funds social services. The whole population is eligible for social services, which includes domiciliary care and old peoples' homes. These services are financed by the exceptional medical expenses fund, general taxation, and patient out-of-pocket payments (22).

Health care funding is derived from several sources. In 1991, almost two-thirds (64.2 percent) of health expenditures were paid by the social insurance sickness funds, 16.4 percent came from private health insurance (which includes the separate system for civil servants), 10.3 percent were paid from general tax revenues, and the remaining 9.1 percent was paid directly by patients out-of-pocket. (The greater part of patient payments are contributions for the "hotel" costs of long-term care facilities.)

One of the cornerstones of the health reform process in the Netherlands is the introduction of a compulsory, unified *basic health insurance scheme* for people of all income levels designed to eventually replace both the sickness fund and exceptional medical expenses schemes. According to the Dekker Committee, basic insurance would cover the bulk of health and social services, perhaps accounting for as much as 85 percent of expenditures on these services, but there has always been considerable political discussion about this percentage (26). Health services not covered by the basic insurance scheme (e.g., some drugs, dental care for adults, cosmetic surgery (22)) could be covered by voluntary supplemental health insurance. Health insurers would decide the premiums for these supplemental services.

Sickness funds and private health insurers will administer the new scheme and the traditional boundaries between them will probably be eliminated. The basic health insurance scheme is to be partially financed by means of income-dependent contributions determined by the national government and paid into a central fund (tentatively estimated to cover 85 percent of health expenditures) and partially by competitive flat-rate premiums paid directly by individuals to insurers (the other 15 percent) (22). The central fund, in turn, will pay a risk-related premium to the insurer (either a private carrier or a sickness fund) chosen by an individual. Insurers would have an incentive to keep flat-rate premiums low (which could differ among insurers) and the quality of care high to attract consumers (25).

The competitive process envisaged for the health insurance market will be managed by government regulation to counteract possible negative effects of free-market competition (6). Government regulation strictly precludes adverse selection, although there are doubts about the effectiveness of this regulation (27). Sickness funds will no longer be required to contract with all providers; all insurers will be free to contract with the most efficient providers of care (22).

To date, implementation of the managed competition health reforms is still not complete because of political obstacles and many uncertainties about the reforms' potential to contain health care costs. Several major policy issues still need to be resolved including the following:

- the relative shares of income-dependent contributions versus flat-rate premiums for financing the basic health insurance scheme,
- which health services should be covered through supplemental instead of basic health insurance, and
- the development of a system of risk-adjusted payments from the central fund to the health insurance agencies that administer the basic health insurance scheme (9,13).

STRUCTURE OF THE HOSPITAL SECTOR

Hospital care in the Netherlands is delivered primarily by private, nonprofit, voluntary institutions. Most former public hospitals (which were often owned by local governments) have been transformed into private entities. Usually, the public proprietor has only formal authority to appoint the members of the hospital board. About 15 percent of acute care hospitals are still public (22). For-profit hospitals were prohibited in 1971 by the Hospital Facilities Act *(Wet Ziekenhuisvoorzieningen)*. (Although most hospitals are nonprofit institutions, they can earn surplus revenues.) In addition, the Sickness Fund Act *(Ziekenfondswet)* and the Exceptional Medical Expenses Act *(Algemene Wet Bijzondere Ziektekosten)* prohibit reimbursement of health services provided by for-profit health centers or private clinics.

Acute hospitals can be divided into three categories: general, academic, and special hospitals. General hospitals accounted for almost three-

fourths of all acute care hospitals in 1990. Special (or categorical) hospitals (about 22 percent of acute hospitals) perform only a limited number of medical functions directed at a single category of patients. Examples of services offered by special hospitals include asthma treatment, pediatric care, rehabilitation, and epilepsy treatment. Academic hospitals (about 5 percent of acute hospitals) are best understood as quasi-public entities. The Minister of Education appoints the members of the board, and employees have the status of public servants. Academic hospitals receive supplemental funds from the Ministry of Education for teaching and research activities.

PHYSICIANS

Acute care hospitals are the domain of medical specialists. Organized in small professional units, specialists deliver inpatient and ambulatory care and daycare within hospitals. Only a small group of hospital physicians, such as ophthalmologists, psychiatrists, plastic surgeons, and orthopedic surgeons, practice part-time outside of a hospital. This may change in the near future, however, as the number of freestanding ambulatory care centers increases.

The majority of medical specialists are paid on a fee-for-service basis. Although the exact number of medical specialists who receive fees for services is not available, a rough indication is that in 1986 about 63 percent of all registered specialists worked on a fee-for-service basis. Unlike the incomes of salaried specialists, their earnings are not included in a hospital's budget. Fee-for-service specialists often pay the hospital in which they work for the use of certain facilities (e.g., personnel in the outpatient setting, supporting physicians, space). Not much is known about these arrangements.

Fees for specialist care are determined in negotiations among the National Association of Sickness Funds *(Vereniging van Nederlandse Ziekenfondsen),* the National Association of Private Health Insurers *(Kontaktorgaan Landelijke Organisatie van Ziektekostenverzekeraars),* and the National Association of Medical Specialists *(Landelijke Specialisten Vereniging).* Negotiated fees require approval by the Central Agency for Health Care Tariffs (COTG) (see the discussion of hospital operating costs). If the parties do not reach an agreement, the COTG is authorized to establish fees unilaterally. According to the Health Care Tariffs Act, the Minister of Health may give binding instructions to the COTG for specialists' fees (10).

A continuing inefficiency in Dutch health care is that specialists' compensation is often very generous. Since the end of the 1970s, expenditures for specialist care have been a source of great concern and several initiatives to reduce them have not had much success. In 1984 the Ministry of Health and the National Association of Medical Specialists negotiated an agreement that in part extended the practice of reducing fees when specialists overprovided services. Implementation of the agreement was a great failure, however, because in part it was impossible to detect when individual specialists overprovided services and there was no explicit expenditure target in place.

Patient cost sharing was introduced in 1988 as a means of curbing the costs of specialist care. Sickness fund patients were required to pay out-of-pocket Dfl25 when visiting a medical specialist.[3] Heavy criticism of this requirement (which was echoed by critics in the parliament) brought an early end to this practice (10).

An interesting development took place in 1989 when a Five-Parties Agreement (*Vijf Partijen Accoord, or VPA)* was negotiated among the National Association of Sickness Funds, the National Association of Private Health Insurers, the National Association of Civil Servants Health Insurance, the National Association of Medical Specialists, and the National Hospital Association. The VPA is a good example of self-regulation: the Ministry of Health did not act as a formal partici-

[3]The exchange rate in January 1994 was approximately $US.0**PENDIXES**52 to Dfl1.00.

pant in the negotiations but merely approved the results. The VPA had important repercussions for specialists' fees. First, the 1989 level of expenditures was accepted as an expenditure target for specialist care for the 1990 to 1992 period. If the target were exceeded, fees would be retrospectively reduced to compensate for the difference between target and actual expenditures. A second part of the agreement further equalized fees paid by the sickness funds and private health insurers. (Private insurance fees had always been much more generous than sickness fund fees.) Third, fees were restructured to reduce the income inequality among different medical specialties. Fees for some specialties were lowered (e.g., cardiac surgical fees were reduced by 30 percent, cardiology fees by 12.5 percent, and radiodiagnostics fees by 15 percent), and fees for other specialties were raised (e.g., pediatrics fees were increased by 10 percent, and psychiatry and rehabilitation fees by 25 percent) (10).

Not surprisingly, specialists who lost income under the agreement heavily opposed the VPA. Some blamed the National Association of Medical Specialists for the poor bargaining outcome and founded their own association *(Nederlandse Specialisten Federate).* At the other end of the spectrum, another association *(Netherlandse Specialisten Genootschap)* was formed that criticized the National Association of Medical Specialists for its exaggerated attention to earnings and its lack of attention to the quality of care.

Aggregate expenditures for fee-for-service specialist care increased moderately in the 1980s (table 6-l). The ratio of expenditures for specialist care to expenditures for general and special hospitals rose only slightly during the past decade, from 21.2 percent in 1983 to 22.4 percent in 1991 (table 6-2). Nevertheless, government goals with respect to specialist care were not achieved; for instance, from 1986 to 1987, expenditures for specialist care exceeded government goals by about Df1100 million. In addition, spending on specialist care has been escalating since 1989 (table 6-l). The Ministry of Health estimated that outlays exceeded the target by Dfl174 million in 1990 and Df1360 million in 1992, although these amounts were disputed by the National Association of Medical Specialists.

There are several possible explanations for the failure of expenditure targets. The number of medical specialists has increased and the demand for health services continues to expand. Also, be-

TABLE 6-1: Growth in Expenditures for Fee-for Service Specialist Care, 1980-91

Year	Percentage increase over the previous year
1982	8.0
1983	3.8
1984	0.2
1985	3.2
1986	4.3
1987	1.8
1988	2.1
1989	3.8
1990	5.8
1991	10.5

NOTE Expenditures for dental specialists (orthodontists) are included in the figures.

SOURCE Ministry of Health, *Financial Report on Health* (The Hague. Ministry of Health, various years).

TABLE 6-2: Hospital Expenditures, 1983-91

Millions of Dfl	1983	1991	Change (in percent)
General, special, academic (A)	11,608	14,151	27.9
General and special (B)	8,882	11,064	24.6
Fee-for-service medical specialists (C)	1,887	2,47	31.2
Total hospital expenditures (THE) (A+C)	12,995	16,528	27.2
Share of THE in national health expenditures (%)	33.5	31.3	-2,2
Share of THE in gross domestic product (%)	3.4	3.1	-0.3

SOURCE: Ministry of Health, *Financial Report on Health* (The Hague Ministry of Health, various years)

cause the provision of services by other physicians affects an individual physician's income under an expenditure target if that target is exceeded, each physician has an incentive to provide more services to counteract anticipated declines in income from retrospectively reduced fees.

As a result of these and other factors, expenditures for fee-for-service specialist care have risen rapidly in recent years and are likely to continue to do so in the future if nothing changes. Downward adjustments of fees in reaction to target overruns have led to fierce reactions among specialists, who argue that the overruns are caused mainly by the increasing demand for health services. This appears in part to be a false argument, however, because the growth of the population and the share of the elderly in the population have not accelerated since 1989, and it is unlikely that medical technological innovations spurred demand to the extent that specialist care expenditures have risen (12).

HOSPITAL OPERATING COSTS

Financing Model

Funding of hospital operating costs can best be conceptualized as a two-level decisionmaking process. At the national level, the policy issue is the share of the country's total health care resources that should be spent on hospital care. At the local level, decisions must be made about the amount of financial resources allocated to individual hospitals during the year.

Aggregate Hospital Budget

The national government decides the total amount of funds available to fund hospital services. Since the 1970s, the Ministry of Health's annual *Financial Report on Health* (*Financiceel Overzicht Zorg*) has presented an evaluation of past spending on health care and statements about future spending (8). Initially, those statements were merely projections of health outlays; however, over the past decade, they have evolved from expenditure projections to expenditure targets that have not used coercive instruments to achieve spending goals, and ultimately to expenditure limits that are accompanied by coercive instruments to ensure that the limits are not exceeded. The most frequently used instrument is the reduction of aggregate hospital funds in the following year to offset cost overruns in the previous year. The *Financial Report on Health* has therefore become an important policy document.

Decisions on the aggregate hospital budget are political and largely dictated by a policy of budgetary restraint that has affected all sectors of public spending since the end of the 1970s. Cost containment and expenditure cuts have become top-priority themes in public policy. Hospitals were accustomed to rapid growth of funds prior to the 1980s but have been confronted with increasingly scarce financial resources.

Individual Hospital Budgets

At the local level, the 1980s saw several major changes in hospital funding. The most radical change occurred in 1983 when the traditional hospital funding scheme was replaced by a new scheme called hospital budgeting.

The Legal Framework

Prior to 1983, payment of hospital services was regulated by the Hospital Tariffs Act *(Wet Ziekenhuistarieven)*. The act, enacted in 1965, was a typical product of the 1960s when neo-corporatist (i.e., self-regulatory) arrangements were popular in policymaking. Decisions on hospital funding were dominated by the Central Agency for Hospital Tariffs (*Centraal Orgaan Ziekenhuistarieven or COZ*), in which representatives of the national hospital and sickness fund associations played an important role. The COZ was responsible for developing policy guidelines for hospital reimbursement. Those guidelines resulted from negotiations between representatives of the hospitals, which wanted generous reimbursement levels, and representatives of the sickness funds, which wanted to pay less. The COZ also approved each hospital's annual budget estimate, which often required an intensive, line-by-line screening procedure. The Ministry of Health's authority in this process was limited (8).

Beginning in 1982, hospital payment changed under the Health Care Tariffs Act, which created a more integrated decisionmaking structure for hospital rates and strengthened the national government's influence over hospital financing. The new act introduced a Central Agency for Health Care Tariffs (*Centraal Orgaan Tarieven Gezondheidszorg, or COTG*). The structure of this agency was a political compromise between the government, which wanted more authority, and the representative organizations, which had a strong lobby in the parliament and did not want to abandon their influence. The COTG is a quasi-nongovernmental body that performs four main tasks:

- developing policy guidelines,
- reviewing and approving rate proposals,
- giving advice to the Minister of Health on rate affairs, and
- providing arbitration in case of conflicts during rate negotiations.

The Ministry of Health has strengthened its formal position in several ways. First, the Minister of Health appoints the members of the COTG board based on consultations with the national associations of employers, employees, health insurers, and health care providers. Several committees (*kamers*) operate within the COTG; their members are representatives of the national associations. Second and more importantly, the law grants the Minister of Health the formal authority to give the COTG binding instructions on the development of policy guidelines. These instructions limit the room for negotiations within the COTG and its committees. (The introduction of hospital budgeting in 1983 was based on such an instruction.) Finally, the Minister has the authority to approve COTG rate guidelines (10).

Introduction of Hospital Budgeting

Prior to 1983 each hospital prepared an annual budget estimate that was required to take account of COZ guidelines, which regulated allowable hospital costs that could be funded. There were dozens of guidelines, including the maximum amount of spending per patient-day for nursing staff for hospitals of different sizes; the maximum number of occupied beds per nurse; the maximum number of administrators per 100 occupied beds; and the estimated life and annual depreciation of each class of equipment and building (8). The budget estimate was screened by the local sickness fund and required formal approval from the COZ.

Per diem charges operated as the main unit of payment for sickness funds and private health insurers. Per diem charges were calculated by first subtracting from the approved hospital budget those projected revenues from outpatient care and other services for which health insurers were charged separately (*nevenopbrengsten*) and then by dividing the remaining part of the budget by the projected number of patient days.

This traditional funding scheme was open ended because the COZ guidelines did not control the volume of hospital services. Guidelines mandating the maximum number of personnel to patient-days or occupied beds had a perverse effect, giving hospitals an incentive to provide a high level of services to prevent financial deficits and to achieve the growth considered necessary for high-quality care. The funding scheme was also open ended in other ways. In case of hospital deficits, temporary surcharges on the per diem rates were often approved.

Two major handicaps of the hospital funding scheme were that it did not have strong cost containment incentives and it did not encourage hospitals to provide services more efficiently. Policymakers believed that the scheme had contributed considerably to the escalating growth in hospital services and expenditures. Another problem was the labyrinth of COZ regulations, which strongly restricted the autonomy of hospitals.

The introduction in 1983 of a new funding scheme called hospital budgeting (with per diem charges maintained as the primary payment unit) meant that each hospital received an annual prospectively fixed budget under which most of its expenses had to be covered. Interest and depreciation expenses largely remained subject to full reimbursement (after recalculation), however, because they vary widely among hospitals.

Additionally, hospital budgets did not include fees paid to medical specialists as a political compromise to encourage specialists to accept hospital budgeting. The National Association of Medical Specialists effectively prohibited the incomes of their members from becoming part of hospital budgets, fearing that such an arrangement might restrict their professional autonomy and reduce their incomes. This exception has resulted in many managerial problems and is a continuing source of criticism and reform discussions. The major complaint of hospital managers has been that effective cost containment in hospitals cannot be achieved as long as physician fee-for-service payment remains outside of the budget and, therefore, outside the control of hospital management.

Hospital budgeting severed the traditional link between the provision of services and revenues. Because the new funding scheme was designed to improve efficiency, if a hospital spent less than its budget, it could add the surplus to its reserves. Hospitals were held responsible for deficits, however. Budget adjustments to relieve financial problems were no longer allowed.

Hospital budgeting also enhanced the decision-making autonomy of hospitals by eliminating many COZ guidelines that were no longer needed under a fixed budget. The National Hospital Association supported the adoption of the new budgeting system in exchange for greater autonomy.

From Historical to Functional Budgeting

A problem in any budgeting system is how to determine the initial budget level and subsequent budget increases for individual hospitals. When hospital budgeting was introduced in 1983, the pragmatic approach of "historical budgeting" was chosen. Each hospital received funds equal to its 1982 level of expenses plus an adjustment for general inflation and wage increases. In 1983 the government also approved a 0.5 percent increase in aggregate hospital budgets, but funds were reduced in 1985 and 1986.

Historical budgeting made rapid adoption of hospital budgeting feasible and prevented major funding shifts among hospitals. It also created problems, however. Hospitals with relatively low expenses in 1982 claimed that historical budgeting punished efficient hospitals and rewarded inefficient ones—a claim that has been justified by empirical research (11,14). Historical budgeting was also inflexible. Budgeted amounts did not reflect changes in the workload of hospitals, and adjusting budgets to changes in hospital capacity (e.g., beds and medical specialists) also proved difficult because of the absence of clear guidelines.

After some interim steps to address these problems, functional budgeting for general hospitals was implemented in 1988.[4] Functional budgeting rests on a normative allocation model under which the primary goal is to provide equal budgets to hospitals that perform the same tasks or functions. To achieve this, the functional budgeting scheme has three budget components: *availability*, *capacity*, and *production* (or service volume). The availability component part of a hospital's budget is determined by the size of the population residing in the hospital's clinical catchment area. The capacity component's share is determined by the number of authorized beds and medical specialist units.[5] The production component's share is established in annual negotiations between the hospital's management and sickness funds and private health insurers regarding the projected volume of services to be provided to the sickness funds' or insurers' members (but they do not negotiate the prices for these services, which are set by the COTG). Production (volume) contracts are

[4] Funding of special and academic hospitals differs in some respects from the funding scheme for general hospitals (see box 6-2).

[5] Under the Hospital Facilities Act, hospitals need a certificate of need (CON) for each bed and medical specialist unit to receive social health insurance payments for these facilities (*Wet Ziekenhuisvoorzieninger*).

negotiated for the expected number of hospital admissions, inpatient days, outpatient visits, and daycare visits.[6] Additional contracts are required for some specific high-cost treatments, such as cardiac surgery or renal dialysis (these payment rates are also determined by the COTG) (see box 6-1 and table 6-B1).

The availability component averaged 15 percent of hospitals' budgets in 1992, the capacity component averaged 34 percent, and the production component averaged 48 percent. The remaining 3 percent was for specific high-cost treatments (18).

The availability and capacity components are designed to cover the fixed portion of a hospital's operating costs, and the production component is designed to cover the variable portion. Production contracts act as an instrument for adapting a hospital's funding to changes in demand for its services, making the budgeting scheme more flexible. Production contracts have also increased the role of health insurers in the budgeting process, which was marginal under historical budgeting, and have made the process more decentralized.

The transition from historical to functional budgeting was accompanied by major funding shifts among hospitals. The difference between a hospital's historical and functional budget can either be positive, indicating that the hospital was underfunded under historical budgeting, or negative, indicating that it was overfunded according to the normative allocation model that underpins the functional budgeting scheme. These reallocations may be substantial; for example, if functional budgeting had been introduced immediately and not in increments, 14 hospitals would have faced a negative reallocation of more than 8 percent and 20 hospitals a positive reallocation of more than 8 percent (1). To dampen these effects, a phase-in period required that a hospital's budget could be adjusted by at most +2 or -2 percent of its budget from the previous year.

The introduction of a production component has made the budgeting scheme more open ended than historical budgeting. The historical budgeting scheme was more or less a closed system, enabling the Minister of Health to impose a cap on aggregate hospital expenditures. The Health Ministry, however, cannot effectively control the volume of production contracts. Production contracting means that the Ministry can only issue expenditure targets for a specific year. If total expenditures are higher than the target for a given year, expenditure cuts in subsequent years are needed to compensate for these overruns.

Hospital Charges

The determination of a hospital's budget is different from the way in which hospitals get paid. Hospitals receive most of their funds (85 percent in 1992) through per diem charges for inpatient care. Per diem charges are determined by subtracting outpatient services (e.g., outpatient visits, daycare visits, outpatient ancillary services) from the hospital's budgeted amount (consisting of the availability, capacity, and negotiated production components). The net budget is divided by the contracted number of inpatient days, which are weighted by the class of hospital accommodations contracted for (classes usually refer to a private versus a double room) to arrive at the hospital's per diem charge.

Since the beginning of hospital budgeting, hospitals have continued to charge insurers separately for outpatient activities. With respect to inpatient services, each hospital has developed its own policy as to whether it charges insurers an all-inclusive per diem rate (i.e., the costs of surgery and ancillary services are included within the per diem charge) or charges insurers separately for each of

[6] A daycare visit is one in which a patient undergoes minor surgery or other minor treatment in a hospital. After treatment, the patient must stay in the hospital for several hours for recovery and monitoring. The patient does not stay overnight in the hospital, however. An outpatient visit is one in which a patient sees a specialist, receives diagnostic services (e.g., x-rays, echograms, lab tests), or even has minor surgery (e.g., a vasectomy) but leaves the hospital directly after receiving the services.

BOX 6-1: An Illustration of Functional Budgeting in the Netherlands

The table below illustrates the practice of functional budgeting for a hypothetical Dutch general hospital, The hospital's scores for the various budget parameters (column 3) are multiplied by the corresponding COTG-approved rates (column 2) to arrive at the amount of funds to be budgeted for each budget component (column 4). Rates applied to the availability (a) and bed capacity (b) components are the same for all hospitals. Rates applied to the medical specialization units (c) vary according to the type of specialty and depend on the estimated average utilization of hospital resources for that specialty (for instance, a higher rate is assigned to cardiac surgery than to pediatrics). The rates of the production items (d through h) depend on the size of the hospital, with a larger hospital receiving a higher rate than a smaller facility. This arrangement is justified by the argument that larger hospitals often perform more difficult and expensive treatments than smaller hospitals.

Interest and depreciation expenses (i) are subject to retrospective reimbursement because these expenses vary widely among hospitals, which makes it difficult to develop general policy guidelines for payment. Hospitals receive a normative budget for investments in medical and other equipment (j). Hospitals also receive a normative budget for the number of salaried physicians in the hospital (k). Table 6-3 also shows that the revenues of hospital physicians who are paid on a fee-for-service basis are not included in the hospital's budget. The reallocation amount of the hospital's budget (1) depends on whether the hospital was underfunded or overfunded under historical budgeting. The hospital budget may contain several fixed amounts for specific activities (m) (e.g., a budget for the treatment of AIDS patients or for the utilization of high-cost pharmaceuticals, such as erythropoietin).

TABLE 6-B1: Determination of the Hypothetical Budget of a Hospital, 1988

Budget parameters (1)	Rate (Dfl) (2)	Score (3)	Budget component (4)
a. Catchment area (persons)	130	78,000	10,140,000
b. Beds	11,000	350	3,850,000
c. Specialist units (average)	350,000	35	12,250,000
d. Admissions	900	7,500	6,750,000
e. Inpatient days	45	89,500	4,027,500
f. Outpatient visits	115	28,000	3,220,000
g. Daycare visits	115	3,500	402,500
h. High-cost treatments			PM
i. interest/depreciation			PM
j Budget for investments in equipment			PM
k. Budget for salaried physicians			PM
1. Reallocation amount			PM
m. Other			PM
Total Hospital Budget			40,640,000 + PM

NOTE PM= *Pro memori:* terms for which no figures have been given in the example

SOURCE: Budget parameters and rates are from Centraal Orgaan Tarieven Gezondheldszorg (COTG), *Annual Report (Jaarverslag), 1990;* scores and the resulting budget components are hypothetical and were provided by the author (J.A.M. Maarse, 1994)

BOX 6-2: Funding of Special and Academic Hospitals

Special hospitals have been subject to historical budgeting since 1983. The development of a normative scheme, however, does not make as much sense for special hospitals as for general hospitals as most special hospitals are not comparable with each other; for example, there is only one hospital for ophthalmological diseases. Nevertheless, a budgeting system somewhat similar to the functional budgeting scheme for general hospitals has been used for special hospitals. In 1985, production contracts with health insurers were introduced; as with general hospitals, such contracts have increasingly determined a larger proportion of a hospital's budgeted amount. Additionally, the COTG has used some elements of the functional budgeting scheme for general hospitals to determine allowable reimbursable costs for special hospitals. Finally, patient per diem charges are used as the primary unit of payment.

Arrangements for financing capital investments for special hospitals are similar to those for general hospitals. After government approval, interest and depreciation payments are covered through per diem charges. Special hospitals are also subject to Article 18 regulation.

Funding for academic hospitals differs in many respects from the funding of general hospitals. To begin with, academic hospitals receive a budget from the Ministry of Education for teaching and research activities. In 1991 this budget amounted to 25 percent of the total budget for academic hospitals. Moreover, since 1985 budgets for academic hospitals have been based mainly on production contracts with health insurers for an extensive list of high-cost treatments. Examples include neonatology, MRI, open-heart surgery, kidney transplantation, PTCA, renal dialysis, chronic ambulatory peritoneal dialysis, radiotherapy, bone marrow transplantation, rehabilitation, heart transplantation, and IVF. Rates for these treatments are determined by the COTG. Availability or capacity components do not determine any part of an academic hospital's budget. Instead, academic hospitals are paid a much higher rate for high-cost treatments than are general hospitals; academic hospitals receive the entire costs of high-cost treatments, whereas general hospitals are paid only for that portion of the costs not covered by the availability and capacity components. Academic hospitals argue that a considerable discrepancy often exists between allowable rates and the actual costs of providing high-cost services, in part because the rate-setting process often lags behind the growth of medical innovation in academic hospitals, An important similarity between academic and general hospitals is that patient per diem charges are the most important unit of payment. As with general hospitals, there is a trend toward uniform "output pricing" for some inpatient surgical and ancillary services.

Another difference between academic and general hospitals relates to the financing of capital investments. Until 1988, capital investments of academic hospitals were financed by the government, however, capital financing arrangements are now similar to those of general hospitals.

SOURCE: J.A. M. Maarse, 1994

these inpatient services. Because of the different policies: per diem rates charged by different hospitals cannot be directly compared with each other.

The current trend, however, is toward uniform "output pricing" for some inpatient surgical and ancillary services. The COTG has developed uniform, country-wide rates for along list of inpatient clinical services for which hospitals must now charge separately. Charges for these services will no longer be included within the hospital's inpatient per diem rate, making per diem charges less inclusive. Another trend is that hospitals are increasingly required to charge COTG-determined rates for some high-cost treatments (e.g., renal dialysis, bone marrow transplantation, open-heart surgery) that cover not only the costs of the medical treatment itself but also the costs of ancillary

services such as intensive care and nursing services. Under the reformed health system of managed competition, the COTG has set maximum rates for all services. At least in theory, hospitals can compete by charging lower rates.

Until 1992, inpatient per diem charges rose rapidly in part because hospital costs were increasing and in part because of the somewhat paradoxical effect of using per diem charges as the main unit of hospital payment. If a hospital delivers fewer inpatient days than it contracted for in determining its prospective budget, the hospital is entitled to receive compensation for those undelivered days. The hospital makes up the shortage in its budget through surcharges (i.e., temporary additional charges) on its per diem rates in subsequent years. The higher per diem rates might even include interest payments on funds the hospital borrowed to cover deficits in operating costs in the previous year. The paradox is that a more efficient delivery of hospital services that results in the provision of fewer inpatient days correlates with an increase, rather than a decrease, in inpatient per diem charges in subsequent years. The trend toward output pricing should mitigate this effect since more services will be charged for on a per-service basis. Currently, per diem charges are estimated to account for about 70 percent of total hospital revenues, down from 85 percent in 1992.

If a hospital delivers more outpatient and daycare visits than it contracted for in determining its prospective budget, the hospital must pay back the surplus in the subsequent year by temporarily lowering its per diem rate. On the other hand, if a hospital provider fewer visits than contracted for, the hospital still gets paid for these undelivered services through temporary surcharges on per diem rates in subsequent years.

Revision of Functional Budgeting

The functional budgeting scheme has been a continuing target for criticism. Hospitals have argued that the initial model was too crude; health insurers warned of certain perverse incentives in the scheme and also advocated a stronger position for themselves in the budgeting procedure. These criticisms prompted a second major revision of the scheme in 1992, the most important elements of which were as follows:

- The rate for a daycare visit was raised to stimulate substitution of daycare for inpatient care.
- A built-in weakness of functional budgeting was that it encouraged hospital mergers because the rates for production items (e.g., admissions) increase with the size of the hospital. This merger effect was halved.
- The rates for admissions and first outpatient visits were weighted according to the average utilization of hospital resources. The weights were derived from those of the medical specialist units.
- The share of the production component was raised to 51 percent. The rationale for this change was to emphasize production factors and increase the flexibility of hospital budgeting.
- The budgeted amount that hospitals receive for services ordered by general practitioners (mainly laboratory services and x-rays) was increased. To obtain a good fit between the budgeted amount and actual production volume, the budgeted amount was made dependent on production contracts with health insurers.
- Radiotherapy was added to the list of specific high-cost treatments for which separate production contracts were required.

These changes have tempered criticisms of the functional budgeting scheme, although there is no reason to believe that they have ended. The revisions to the functional budgeting scheme have added to its complexity because the number of parameters has increased along with the need for more adequate and timely information.

Summary

Adoption of the functional budgeting scheme in the Netherlands was the result of political influences and compromises. The fundamental compromise concerned how to achieve the goals of central cost control, on the one hand, and decentralized decisionmaking, on the other. Centralized cost control could be maximized by making

TABLE 6-3: Sources of Hospital Funds, 1991 (as percent of total funds)

Source	General and special hospitals	Academic hospitals	Fee-for-service specialists
Sickness funds scheme	64.0	47.0	45.2
Exceptional medical expenses scheme	5.5	0.2	5.5
Private health insurance	28.0	23.3	46.3
Taxes	0.0	25.2	0.0
Other	2,5	4.1	3.0

NOTE: Percentages may not add up to 100 percent due to rounding.

SOURCE: Ministry of Health, *Financial Report on Health* (The Hague: Ministry of Health, 1992)

the hospital budget solely dependent on its capacity characteristics. Decentralized decisionmaking, however, would require more room for negotiations between hospitals and health insurers at the local level. The compromise was found in the introduction of a production component in the hospital budget. The price of this compromise is that the scheme has again become open-ended.

Another important political compromise was the decision not to include specialists' revenues within hospital budgets. The open-ended payment scheme for specialists has placed hospital management under pressure to contain costs and has also contributed to more open-ended hospital expenditures.

Political decisions and compromises also centered around more technical questions, such as these: Which parameters should be selected? What should be the weight of the parameters? Which services should be singled out for special "financial treatment" in the budget? Why do hospitals receive a special budget for AIDS patients and not for other categories of patients? The resolution of these questions is likely have important repercussions for hospital budgets.

■ Sources and Allocation of Operating Funds

Table 6-3 demonstrates the major role of the sickness funds in financing hospital expenditures. In 1991, sickness funds paid for almost two-thirds of general and special hospital care, almost one-half of academic hospital care, and 45 percent of payments to fee-for-service specialists working in those hospitals. The role of the exceptional medical expenses scheme is very limited, funding only about 6 percent of general and special hospital expenses in 1991 (table 6-3). This is hardly surprising, as that scheme finances mainly long-term care. Tax resources are important only with respect to the funding of academic hospitals (25 percent of their funds in 1991), which obtain most of their money from the Ministry of Education. Private health insurance finances a relatively large share of hospital expenditures, especially with respect to payments for medical specialists. In 1991, private insurers paid for slightly more of their costs than did the sickness funds, and funded approximately a quarter of all hospital care (table 6-3).

In 1989, about 60 percent of aggregate hospital expenses went to pay for staffing salaries and 13.5 percent was for medical supplies. Depreciation and interest accounted for 14 percent of hospital operating expenses. The other 12.5 percent was for miscellaneous expenses.

■ Operating Expenditures

The introduction of hospital budgeting has had many effects (see, for example, 15), but only the financial ones are discussed in this chapter. A distinction is made between financial effects at the aggregate level and those at the hospital level.

TABLE 6-4: General and Special Hospital Budgets and Hospital Expenditures, 1979-91

Year	Aggregate budget for hospital care (million of Dfl) (A)	Change in budget over previous year (in percent) (B)	Aggregate hospital expenditures (millions of Dfl) (C)	Change in aggregate expenditures over previous year (in percent) (D)	Difference between budgeted amount and aggregate expenditures[a] (E)
1979	No budget	-	**6,995**	9.0	--
1980	No budget	--	**7,639**	9.2	--
1981	No budget	--	**8,219**	7 6	--
1982	No budget	--	**8,812**	7.2	--
1983	8,812	--	**8,874**	0.7	-0.7
1984	9,058	**2.8**	**8,835**	-0.4	2.5
1985	9,097	0.4	**9,043**	2.3	0.6
1986	9,165	0.7	**9,228**	2.0	-0.7
1987	9,242	0.8	**9,250**	0.2	-0.1
1988	9,457	2.3	**9,439**	2,0	0.2
1989	9,706	2.6	**9,86**	4,5	-1.7
1990	10,034	3.4	**10,399**	5,4	-3.6
1991	10,656	6.2	**11,064**	6,4	-3.8

[a]A negative percentage in column E indicates that actual aggregate expenditures were greater than the budgeted amount for that year
SOURCE: Ministry of Health, *Financial Report on Health* (The Hague: Ministry of Health, 1992).

Table 6-2 summarizes key information on the growth of hospital expenditures over the past decade. (Total hospital expenditures as calculated in this chapter include hospital payments to medical specialists, which are not included in the OECD's estimates of hospital expenditures.) On average, aggregate hospital expenditures increased by 27 percent over the eight-year period from 1983 to 1991—a very moderate amount under hospital budgeting when compared to growth in the 1970s. For example, for the pre-budgeting period from 1974 to 1983, expenditures for general and special hospital services increased by almost 174 percent.

Table 6-4 compares the aggregate budget for general and special hospitals with actual expenditures over the 1978 to 1991 period. Column A displays the aggregate amount budgeted for hospital care, beginning with the adoption of historical budgeting in 1983. After 1987, budgets may best be considered expenditure targets because of the incorporation of a production component in the flexible budgeting process. The figures in columns A and B indicate that the growth in the aggregate budget was very limited during the first years of hospital budgeting but has increased in more recent years. Table 6-5 indicates that more than 80 percent of this growth was to accommodate general inflation and wage increases. This large increase is somewhat alarming from the viewpoint of cost control because it suggests that a policy of budgetary restraint is only a temporary option. It maybe possible to curb expenses initially, but after some period of time, increases in hospital expenses may be inevitable. Current and past adjustments of the aggregate budget to relieve work pressures on nursing staffs point in the same

TABLE 6-5: Structure of the Aggregate Hospital Budget, 1991 (millions of Dfl)

Final budget from 1990	10,216
Inflation	87
Wage increases	343
Adjustment for delays in negative reallocations	-22
Construction activities	66
Bed-reduction	-45
Top-clinical care	11
Total aggregate budget, 1991	10,656

SOURCE: Ministry of Health, *Financial Report on Health* (The Hague Ministry of Health, 1992).

direction. These adjustments are a result of political action by hospital workers who do not want to accept the consequences of a policy of budgetary restraint.

Columns C and D in table 6-4 suggest that there have been three distinct periods of hospital spending trends in the Netherlands. During the pre-budgeting period from 1978 through 1982, aggregate hospital expenditures grew by 33 percent. This growth rate decreased dramatically after the introduction of hospital budgeting. Growth of aggregate expenditures for hospital care declined to about 5 percent over the 1983 to 1987 period. Since the implementation of functional budgeting in 1988, however, aggregate expenditures have tended to rise again, increasing by 19.6 percent over the period 1988 to 1991 period. These figures look different when expenditures are adjusted for the effects of general inflation. Unadjusted expenditures increased an average of 2.8 percent annually over the period from 1986 through 1990, but adjusted growth averaged only 0.2 percent a year (17). The inflation-adjusted figure is even less than the annual growth of the population.

The Ministry of Health claims that hospital budgeting has been a success from a cost containment point of view because the excessive growth in aggregate expenditures prior to budgeting has stopped. This is obviously true for the 1983 to 1988 period, and for the 1989 to 1991 period in which annual increases in aggregate expenditures were still below those in the pre-budgeting period. Nevertheless, the figures allow for conclusions only about the gross effect of hospital budgeting and not about its net effect. The fact that hospital services are increasingly being delivered on an outpatient basis may imply that some of the costs formerly borne by hospitals themselves have been shifted to other sectors of the health care system. Unfortunately, studies of the cost-shifting effect of the substitution of outpatient for inpatient care are not available.

Another test for the effectiveness of hospital budgeting to contain costs is a comparison of actual aggregate hospital expenditures with the aggregate budget for hospital services. Such a comparison is presented in column E of table 6-4. The figures demonstrate that hospital budgeting was successful over the 1983 to 1988 period. From 1989 to 1991, however, there were sizable gaps between expenditure targets and actual hospital expenditures (i.e., aggregate hospital budgets). Moreover, these gaps coincided with considerable increases in aggregate hospital budgets during those years (see columns A and B).

There are several complementary explanations for the recent gaps between expenditure targets and actual expenditures. First, the government has not sufficiently accounted for the growing demand for hospital services in establishing the targets. Decisions on aggregate funds for hospital care are essentially political, dictated by the necessity to constrain spending. They do not necessarily reflect the growth of hospitals' workloads or cost increases due to technological innovations. This is a general weakness in the system of hospital budgeting. The National Association of Hospitals has repeatedly stressed these points but without much success; politicians simply argue that hospitals should be more efficient.

A second explanation for the excess spending is related to the role of production contracts in the budgeting process. These contracts have weakened the ability of the Ministry of Health to control the aggregate budget for hospital care. The Ministry has displayed too much optimism in setting its expenditure targets, underestimating the total volume of production contracts, perhaps for political reasons. The capacity component in hospital budgeting operates in a similar way. Any delay in the implementation of bed-reduction programs automatically translates into a higher aggregate budget for hospital care, as individual hospital budgets also depend on their bed capacities. It is fair to state that the Ministry has always been overly optimistic about the pace of implementation of its bed-reduction programs.

Third, the gaps between expenditure targets and actual expenditures can be explained in part by the presence of certain expenditure-increasing incentives in functional budgeting that have been overlooked in setting expenditure targets. The first mechanism is the merger effect. If two hospitals merge, the overall budget of the newly merged

hospital exceeds the sum of the budgets that the two hospitals would have received had they remained separate entities. This is because rates for production items are higher for larger hospitals than for smaller ones. As noted earlier, this merger effect has now been halved.

A second mechanism stems from the arrangement whereby interest costs for loans to cover deficits from hospital payment shortages are fully reimbursable. This arrangement does not motivate hospitals to urge a quick payment of their full budget. Total deficits amounted to Dfl1.7 billion in 1991, but this amount was reduced by Dfl500 million in 1992, and administrative measures have been taken by the COTG to prevent new shortages in payments.

A fourth explanation for the failure to achieve the expenditure targets may be that hospitals reacted to the introduction of hospital budgeting by postponing certain investments and other activities. Eventually, costs began to increase again because investments could not be postponed indefinitely. According to this argument, the initial effectiveness of hospital budgeting is in fact partially an illusion. Further research is needed to test this hypothesis.

The growing gaps between the Ministry of Health's aggregate budgets and aggregate expenditures have resulted in increasing political tension between the Ministry and the hospital sector. Problems are caused by the fact that the Ministry requires compensation when its expenditure targets have been exceeded. To the degree that these targets have failed because the volume of production contracts is too high, it can be argued that the Ministry has behaved somewhat inconsistently. On the one hand, it prefers a certain degree of decentralization in the budgeting procedure; on the other, it does not accept the result of decentralized decisionmaking if the result does not satisfy its expenditure target.

The policy of budget restraint has affected the financial position of individual hospitals. Many hospitals have not been able to keep their expenditures within budget. According to studies by the COTG, the proportion of hospitals with deficits has varied between 50 and 70 percent since 1986 (18). At the same time, the proportion of hospitals with a negative reserve has risen from 10.9 percent in 1986 to 15 percent in 1990. These figures clearly illustrate that the introduction of hospital budgeting has placed many hospitals under financial pressure. It is no wonder that hospitals have always associated hospital budgeting with expenditure cuts.

HOSPITAL CAPITAL COSTS

Relationship of Operating and Capital Costs

Although investments in hospital construction and certain types of major medical equipment require regional and central government approval, such investments are not financed directly by the government; hospitals take out loans from private banks to financing major capital investment projects. Depreciation and interest payments are fully recoverable through increases in inpatient per diem charges. In contrast to Germany, for instance, there is no dual financing system in the Netherlands as both operating and capital expenses are paid for through hospital charges to health insurers or patients.

Until recently, hospital loans were guaranteed by the national government, which is estimated to have decreased interest payments by 1 percent on average. This arrangement was recently ended to encourage hospitals to behave like other private market companies in obtaining loans for capital investments. Banks regretted this change and even alleged that hospitals had lost much of their attractiveness as investment partners.

Determining Capital Requirements

Hospital Construction

Major hospital capital expenditures in the Netherlands have been subject to strong public regulation during the past two decades. Governmental approval of new hospital construction occurs during the hospital planning process regulated by the Hospital Facilities Act (*Wet Voorzieningen Gezondheidszorg*), initially implemented in 1971 and revised in 1979. Hospital construction re-

quests must be included in the regional hospital facilities plan for each of the 27 regions in the Netherlands. This plan is prepared by regional governments and comes into force after final approval by the Ministry of Health. Sickness funds are not permitted to pay the operating costs of services provided with capital equipment that has not received government approval.

The process of regional hospital planning has not been a great success. At the end of 1988, only one regional plan had been approved by the Minister of Health, and two plans had been sent to the Minister for approval. Hospital planning is generally considered a very bureaucratic process. This is due in part to the complicated framework of the Hospital Planning Act, which gives all interested parties numerous opportunities to delay the planning process. Planning is also hindered by political competition among hospitals for investment approvals.

Because of delays in hospital planning, the Ministry of Health created new instruments to bypass the Hospital Facilities Act. The most important instrument was a hospital building ceiling introduced in 1974 that limits hospital capital expenditures. This ceiling equals the sum of the approved building expenditures for one year, assumed to be 50 percent of total investment expenditures. The use of ceilings has strongly reduced building production (7). In 1980 the ceiling was 1.7 percent of total health care expenditures but in 1990, it was only 1.2 percent. The low ceiling has resulted in a huge backlog of building projects, estimated at Dfl6.6 billion at the end of 1989. Hospitals are concerned about the backlog, emphasizing its possible consequences for the quality of care.

The Netherlands' aggregate hospital investment budget is divided into several sections. At present there are 12 provincial sections, a section for national projects, a section for small investments for which a more rapid procedure applies, and a general reservation section for bottlenecks and calamities. Nineteen criteria have been developed to allow for preparation of a priority list for investments for each section that is published annually by the Ministry of Health. As this list indicates, a greater priority has been given to the nonacute care hospital sector. The share of general and special hospitals in total investment spending was 60 percent in 1988, dropping to 39 percent in 1991.

Regional governments play a major role in deciding which hospital projects will be funded at the regional level, subject to the central government's priority list. Hospitals use all their political muscle to lobby for a favorable decision. The General Account Office has concluded that factors that influence final decisions are difficult to comprehend and generally ad hoc.

In 1991, the approval procedures prescribed in the Hospital Facilities Act were simplified to reduce bureaucracy and to enhance hospitals' autonomy with respect to investment decisions. To achieve those goals, the category of investments not subject to government approval has been extended considerably. The COTG has developed a model for budget allocations for these investments, with the amount of resources for each hospital dependent on the number of square meters of the facility. Annual depreciation has been set at 10 percent of investment costs for all hospitals. Hospitals still need government approval for new large construction projects, however.

Investments in Major Medical Equipment

Article 18 of the Hospital Facilities Act enables the Ministry of Health to regulate high-cost care and investments in medical equipment. By means of a licensing system, the Minister concentrates equipment in certain hospitals to improve the quality of care, reduce expenses, and prevent uncontrolled growth. Hospitals have a strong interest in obtaining Article 18 facilities because these facilities confer greater status and a larger budget.

Medical technologies are regulated under Article 18 if they are very expensive, require very specialized knowledge, or are ethically controversial. In 1990, Article 18 applied to renal dialysis, kidney transplantation, radiotherapy, complex neurosurgery, heart surgery, percutaneous transluminal coronary angiography, neonatology, clinical genetic research, and in vitro fertilization

TABLE 6-6: Number of Hospitals with Article 18 Facilities, 1990

Article 18 facilities	Hospitals
Renal dialysis	48
Kidney transplantation	8
Radiotherapy	21
Neurosurgery (main centers)	16
Heart surgery	14
PTCA diagnostics	50
PTCA treatment	12
Neonatology	11
Clinical genetic research	9
In vitro fertilization	12

SOURCE: Ministry of Health, *financial Report on Health* (The Hague: Ministry of Health, 1992).

(table 6-6). In 1993, bone marrow, liver and pancreas transplantation, and positron emission tomography were added to the list. Computed tomography, nuclear medicine, and magnetic resonance imaging are not regulated by Article 18.

Article 18 does not work very well in practice. One of its defects is that licensing procedures are too slow and time consuming. Many hospitals invest in facilities before they have been licensed under the article (3). Another criticism is that Article 18 suffers from lack of information on costs and effects as well as lacking flexibility. Building activities tend to be much more effectively regulated than investments in major medical equipment.

Minor Investments

Hospitals must cover smaller capital investments that do not require a license from their own budgets, which contain a special component for such investments. A fixed lump sum allows hospitals to make their own decisions about small capital purchases.

Capital Expenditures

According to the Central Office for Statistics, total investment in the institutional health care sector (excluding academic hospitals) amounted to Dfl l.2 billion in 1983, equaling 3.1 percent of national health expenditures. In 1990, investments increased to Df1 2.6 billion (including academic hospitals), equaling 5.3 percent of national health expenditures.

HOSPITAL INDICATORS AND TRENDS

One of the most pervasive trends in the Netherlands' hospital sector has been consolidation of acute care hospitals during the past decade, as evidenced in table 6-7. This process has led to an almost complete disappearance of small general hospitals; only 13 general hospitals had fewer than 200 beds in 1992. The average number of beds in general hospitals increased from 349 in 1981 to 437 in 1990 (table 6-8). A similar process of consolidation also took place in special hospitals (table 6-7). However, special hospitals are still usually small in terms of bed size (e.g., 10 hospitals had fewer than 50 beds in 1992).

Rapid consolidation within the hospital sector has resulted largely from hospital mergers. Merging is often the only way for small hospitals to survive. Hospitals also consider mergers as a way to improve the quality of care, strengthen their organizational and financial capabilities, end rivalries among hospitals in times of scarce financial resources, and reduce uncertainties associated with health care reform. Recent mergers of medium-sized general hospitals are mainly the result of an

TABLE 6-7: Concentration of Acute Care Hospitals, 1981-90

Number of acute care hospitals	1981	1990	Change (in percent)
General hospitals	172	120	-30.2
Academic hospitals	7	9	+.28.6
Special hospitals	48	36	-25.0

SOURCE: National Hospital Institute, De *Intramurale Gezondheidszorg in Cijfers* (The Inpatient Sector in Figures), 1991.

TABLE 6-8: Capacity of Acute Care Hospitals, 1981-90

	1981	1990	Change (in percent)
General hospitals			
Number of beds	60,021	52,423	-12,7
Number of specialists	5,057	5,830	15.3
Beds per hospital	349	437	25.2
Academic hospitals			
Number of beds	6,748	7,579	12,3
Beds per hospital	964	842	-12.7
Special hospitals			
Number of beds	6,143	4,687	-23.7
Number of specialists	422	350	-17.1
Beds per hospital	128	130	1.6

SOURCE: National Hospital Institute, *De Intramural Gezondheidszorg in Cijfers* (The Inpatient Sector in Figures), 1991

unintended incentive in the hospital funding scheme, discussed earlier.

The decreasing number of hospitals and hospital beds has also been stimulated by Ministry of Health policies. The Ministry has been eliminating the perceived overcapacity in the acute care sector, arguing that "a built bed is a filled bed." The bed-to-population ratio decreased from 4.2 per thousand population in 1981 to 3.5 in 1990 (18). The latest Ministry target is 2.8 beds per thousand population.

Ironically, the Ministry is concerned that the trend toward larger hospitals, which often seek the latest in medical technology and treatment facilities, will result in an oversupply of high-technology clinical care. A recent government report raised the issue of whether these second-wave mergers are a desirable development from the perspective of cost containment and quality of care (20).

Since the mid- 1980s, consolidation in the acute care sector has been accompanied by an increasing number of freestanding ambulatory care centers. Den Hartog and Janssen (5) counted 44 private health centers *(priveklinieken)* in 1992. This development reflects the spirit of entrepreneurial medicine and is clearly linked to the increase in market-oriented thinking within the Netherlands' health care system. It is unclear yet to what extent these centers will become a permanent element of the Dutch hospital system. Currently, such centers have contracts only with private health insurers as the Sickness Fund Act does not permit sickness funds to contract with private health centers.

The declining number of hospital beds and the concurrent growing number of specialists in general hospitals reflect another trend in hospital care. The hotel functions of hospitals have lost importance and the treatment of patients has received more emphasis than ever before. The specialist-to-population ratio increased from 3.5 medical specialists per 10,000 population in 1981 to 3.9 in 1990, and the specialist-to-bed ratio increased from 8.4 to 11.1 over the same period.

Another trend, evidenced in table 6-9, is the substantial decline in the volume of inpatient care over the 1981 to 1990 period, accompanied by substantial growth in outpatient care and daycare. The percentage of same-day surgeries in seven main categories of surgery increased from approximately 15 percent in 1985 to 28 percent in 1990. The growth of outpatient care and daycare appear to be mainly the result of new developments in medical diagnostics and treatment. Another important stimulating factor was the introduction of hospital budgeting for inpatient services in 1983, which gave hospitals an incentive to expand outpatient and daycare.

The nursing home sector has surpassed the acute care hospital sector with respect to the volume of inpatient days, exceeding that volume by more than one million days in 1990. The prominent position of nursing homes in the Dutch health

TABLE 6-9: Provision of General Hospital Services, 1981-90

	1981	1990	Change (in percent)
Admissions (in thousands)	1,392	1,308	-6.0
Inpatient days (in thousands)	18,149	13,882	-23.5
First outpatient visits (in thousands)	3,364	5,625	67.2
Outpatient visits (in thousands)	16,276	18,757	15,2
Daycare (in thousands)	0	365	NA
Average length of stays (in days)	13.0	10,6	
Average occupancy rate	82.8%	72.5%	-18.5%
Production per 10,000 inhabitants			
Admissions	974	871	10.6
Inpatient days	12,704	9,248	-27.2
Outpatient visits	11,393	12,496	9.7
Daycare	0	243	NA

SOURCE: National Hospital Institute, *De Intramurale Gezondheidszorg in Cijfers* (The Inpatient Sector in Figures), 1991

care system is also illustrated by the fact that the total number of nursing home beds for long-term care increased by more than 9 percent during the last decade—from 47,380 in 1980 to 51,682 in 1990-where as the number of acute care beds declined by more than 11 percent between 1981 and 1990.

FUTURE DIRECTIONS

Before analyzing the future of hospitals in the Netherlands, the Dutch hospital budgeting scheme's strong and weak points are assessed. The budgeting scheme is only an instrument for allocating financial resources to hospitals. Hospital budgets can be used in combination with a policy of cost restraint and expenditure cuts or in combination with a more generous funding policy.

The main advantages of the scheme areas follows:

- Hospital budgeting has improved cost control over the earlier traditional, open-ended funding scheme. Cost control was most effective under the historical budgeting scheme; functional budgeting has been less successful. Yet increases in aggregate hospital expenditures before the introduction of hospital budgeting exceeded growth of expenditures after the adoption of functional budgeting.
- The introduction of production contracts between hospitals and health insurers has contributed to the flexibility of the budgeting scheme. These contracts have made it possible to more easily adjust hospital budgets to changes in workload.
- Hospital budgeting has enhanced the prospects for more efficient delivery of hospital services. If a hospital spends less than its budget, it can add the surplus to its reserves. Hospitals, however, are held responsible for their deficits; budget adjustments to relieve financial problems are no longer allowed.
- Hospital budgeting has improved hospital management by giving hospitals greater decisionmaking autonomy. The traditional open-ended scheme did not encourage effective management.
- The transition from historical to functional budgeting has improved the equitable allocation of funds among hospitals.

The scheme's main disadvantages are as follows:

- Government decisions on the aggregate amount of financial resources for hospital care are essentially political, dictated by the necessity to constrain expenditures. They do not necessarily reflect the growth of hospital workload or cost increases due to technological innovation.

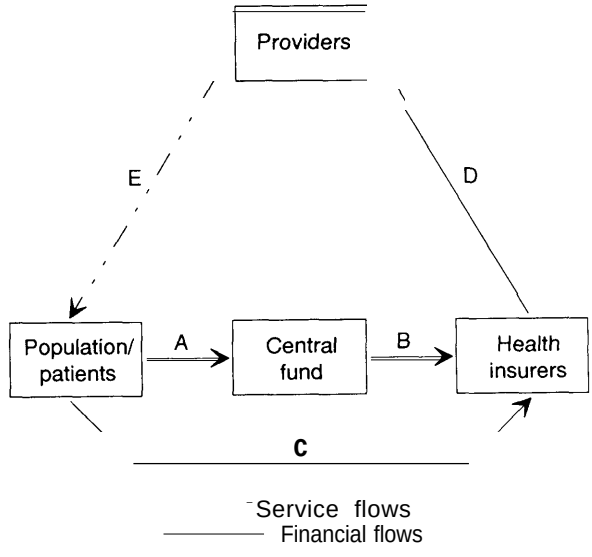
- Hospital budgeting may negatively affect the quality of care.
- There is some inconsistency in the functional budgeting scheme. On the one hand, the Ministry of Health has accepted the introduction of production contracts to increase flexibility; on the other, it does not accept overruns of its expenditure targets when the volume of production contracts is higher than expected.
- From an administrative point of view, it would be simpler to transfer to each hospital one-twelfth of its budget every month. However, such payments are incompatible with a multitude of health insurers. The system of inpatient per diem charges and additional charges has been maintained, but this has made hospital budgeting more complicated.
- The incomes of hospital-based medical specialists who are paid fees for their services are not included in the hospital budget, which adds to the complexity of hospital management.
- The financial situation of many hospitals appears to have deteriorated after the introduction of hospital budgeting. The degree to which this has happened appears to depend on the quality of hospital management, however.

Certain aspects of the future of hospital financing can be investigated by exploring the impact of ongoing health care reforms in the Netherlands. Such an investigation can be only speculative at present, however, because many uncertainties persist concerning the eventual fate of the health care reform process.

Figure 6-1 shows that under the reformed health care system, there will be two flows of payments from the population/patients to health insurers. Each person will pay income-dependent payroll taxes into a central fund (A), which will then be channeled to health insurers through a system of risk-adjusted payments (B).[7] The second flow consists of flat-rate premiums collected directly from consumers that are determined by health insurers (C). Health insurers contract with physicians, health care institutions, and other providers to deliver services to the insurers' members (D). Health insurers eventually will be allowed to contract selectively with all providers, although currently, selective contracting applies only to noninstitutional providers. Providers deliver health services to patients (line E). Figure 6-1 is a simplification insofar as individuals can opt for some cost sharing when selecting insurance coverage.

The new framework for health care has important implications for health insurers. Under the traditional scheme, sickness funds were reim-

FIGURE 6-1: Health Care System Flows After Reform



SOURCE: J.A.M. Maarse, 1994

7 Under health system refom, payments from subscribers to sickness funds for health-related expenditures have changed to a new system called "sickness fired budgeting." Since 1993, risk-adjusted payments from the central fund to the sickness funds have been based on age and gender, but a large part of the difference between the budget of a sickness fund and its historical expenditures is calculated to prohibit gross reallocations among sickness funds. This difference will be gradually reduced according to a sliding scale until only risk-adjusted payments are made. When, or if, the new health care financing system is fully operational, both sickness funds and private health insurers will be reimbursed according to the system of risk-adjusted payments.

bursed through employee/employer payroll contributions for all of their payments to hospitals if these costs were reasonable and conformed with national guidelines. The arrangement did not encourage sickness funds to enter into hard negotiations with hospitals or other providers because extensive bargaining over costs did not benefit the funds (11). In contrast, the introduction of risk-adjusted payments under the new system compels insurers to pay more attention to costs. Risk-adjusted payments impose a limit on financial resources from the central fund to health insurers. Flat-rate premiums also introduce incentives for cost containment. If an insurer does not effectively control its expenses, it will have to raise its premiums, perhaps weakening its competitive position and causing it to lose subscribers. Because private health insurers are allowed to operate as an administering agency under the reforms, they too now have to deal with the new budgeting system (27).

Although the eventual fate of health care reform in the Netherlands is still uncertain, it already has had a substantial impact on the health insurance industry. One of the most conspicuous changes is mergers between sickness funds, which have resulted in a decrease in the number of funds from 53 in 1985 to 26 by the end of 1992. During the same period the number of private health insurers decreased from 69 to 59. There has also been a rapid growth in strategic alliances between sickness funds and private health insurers, mainly to increase market share. Mergers strengthen their organizational and financial position in the health insurance market and give them some protection against the uncertainties and financial risks related to ongoing health reforms.

Health care reform will continue to have a large impact on the role and position of health insurers. Cost containment and improved efficiency have gained more importance in recent years. In theory, there are three major strategies for health insurers to contain costs. The first is to practice some form of medical underwriting. As noted earlier, this strategy has been formally prohibited, although the regulations may not be entirely effective (27). The second strategy is to control insurance administrative costs. The third focuses on the insurer-provider relationship. One of the goals of health care reform is to encourage health insurers to be stronger bargaining agents for the purchase of health services than they were under the previous system. The transition from the traditional supply approach to controlling health care costs (e.g., control of beds and specialist units) to a demand approach is expected to improve efficiency and the quality of care and may also help reduce health care bureaucracy. The new purchasing role for health insurers has caused them to redefine their relationship with hospitals.

Health insurers face at least four major problems, however, in adapting to their new role under the reforms. The first problem is the mismatch between the financial responsibilities that health insurers are required to bear under the reformed system and the instruments they have to fulfill these responsibilities. This is particularly acute with respect to capital investments. The Hospital Facilities Act strongly limits the decisionmaking power of insurers by creating an institutional separation between the planning and financing of investments. Planning and investment decisions are made during the planning process, but insurers have to pay any increase in operating costs associated with these decisions. Transferring more financial responsibility to health insurers necessitates a much greater voice for them in investment decisions. The National Association of Sickness Funds has already expressed its desire to obtain formal authority to influence the capacities of hospitals. To date, the planning of hospital capacities is still under the jurisdiction of regional and national governments, and the partial dismantling of that system has been slow.

The second problem concerns contracting for hospital care. As noted previously, decisions about the aggregate budget for hospital care are political and do not necessarily reflect hospitals' workloads. Health care reform means that hospital budgets will now be determined by health insurers, which are expected to negotiate with hospitals regarding the expected volume of care. But for how much care should an insurer contract? What knowledge is necessary to contract for sufficient

care? What if a patient sues an insurer for not having contracted for sufficient care? Instead of negotiating with hospitals for production contracts, it might make more sense for health insurers to negotiate charges for hospital services or to develop a system of case-based payments using diagnosis-related groups or patient management categories. There is still a long way to go because health insurers lack such experience. Insurers may also secretly prefer that government continue to regulate planning affairs because government guidelines protect them against patient complaints about waiting lists.

The third problem is that health insurers have to negotiate with hospitals over the costs of services, but the necessary cost information is still largely unavailable. In the past, such information was unnecessary.

Fourth, health insurers need a strategic management approach to their relationship with providers. They can no longer afford to maintain a mere administrative, pay-the-bill attitude. The development of a strategic management approach to negotiating contracts with providers is a time-consuming process, however, and it requires new investment in personnel and knowledge.

Whatever the outcome of such transition difficulties, there is no doubt that health care reform will fundamentally change the relationship of health insurers and hospitals in several ways. To begin with, health insurers are likely to become much more involved in hospital affairs than they were in the past, which hospitals will increasingly have to accept. Detailed, complex negotiations between hospitals and insurers are inevitable. Many insurers have already used production contracts to induce shifts of inpatient care to outpatient settings. There is also ample evidence that negotiations with hospitals have been broadened to include other issues, such as investments in medical equipment, beds, specialist units, and other facilities.

Furthermore, there is speculation that functional budgeting will eventually be dissolved and replaced by other, more decentralized schemes. Health insurers have often criticized their restricted role in this scheme, and hospitals have always argued that the scheme is not flexible enough.

Additionally, hospitals may have to deal with more health insurers under the new system than they do now. Hospitals currently conduct most of their financial business with one sickness fund—the regional monopoly—along with a large number of private health insurers that appoint one insurer as their regional representative. Often the regional sickness fund pays for 60 to 70 percent of hospital costs. The trend toward rapid concentration of health insurers and increasing competition among them may erode the strong bilateral relationship of a hospital and its principal health insurer. Under one possible scenario, the group of principal insurers negotiating contracts with an individual hospital will become more diverse, in which case the hospital will have to negotiate with three or four big insurance carriers. An alternative scenario is that the relationship of a hospital and its principal insurer will grow more intense as a result of health insurer mergers.

As a reaction to changes in the insurance sector, hospitals may begin to develop networks to strengthen their market position and to preclude a "divide and conquer" policy by health insurers. Networks might consist of agreements between different types of providers at the regional level to provide a full range of inpatient and outpatient care or may consist of a group of hospitals providing a particular type of care, such as acute care.

Hospitals and health insurers have begun to manage the changes in their relationship. Hospitals that have had good negotiating experiences with health insurers over production contracts often consider health insurers as potential partners instead of opponents with skewed interests in cost control. Some insurers have been willing to find solutions to a hospital's financial problems by adjusting contracts to its needs. Recent experiences have convinced many hospitals that health insurers may be even more promising partners in the future than are regional or national governments. Health insurers may also be willing to provide extra funds to hospitals to reduce waiting lists so that

the insurers are better able to market themselves and attract more subscribers.

A good partnership with health insurers is also indispensable to hospitals now that the government has stopped guaranteeing investment loans. Long-term contracts with health insurers for services are essential for hospitals to establish financial credibility with commercial banks. Commercial banks are expected to become important stakeholders in hospital financing, which may affect hospital decisionmaking. How their role will develop remains to be seen.

Health care reform will also affect the relationship of medical specialists and hospital management. The introduction of hospital budgeting placed this relationship under substantial pressure. Most specialists are still paid on a fee-for-service basis, giving them an incentive to maximize their personal income; hospital management is responsible for keeping costs within the tight limits of the hospital's budget. Some argue that the political compromise that produced this situation represents an obstacle to fully integrated and comprehensive hospital management. The introduction of an aggregate budget for medical specialist expenditures in 1988 as part of the Five Parties Agreement aggravated this problem as individual specialists have an even stronger incentive to provide more services.

In 1994, the report *Gedeelde zorg: betere zorg*, released by a commission chaired by the Netherlands' former prime minister (Mr. Biesheuvel), strongly recommended that specialists' revenues be brought under the constraints of hospital budgets. The recommendations of the Biesheuvel commission have been accepted by the new government as an important part of its health care reform program. Perhaps not surprisingly, specialists did not welcome the recommendations, although there have been some local experiments with reforming specialists' reimbursement methods. It is expected that these local experiments will eventually result in a new payment scheme for specialist care under which specialists' revenues become part of the prospectively negotiated budget between hospitals and health insurers. One proposed idea would be to link specialists' revenues and hospitals' production contracts with health insurers.

The hospital financing system in the Netherlands has been undergoing rapid changes since the beginning of the 1980s. This process, which began with the introduction of hospital budgeting, will lead to further changes. Those changes are not only financial; they also have a large effect on the relationships among the three parties involved in hospital care: hospital management, medical specialists, and health insurers.

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Hospital Financing in Sweden

7

by Eric M. Paulson[1]

Sweden is situated in northern Europe. Despite a rather small population (8.7 million in 1992), the country is the fifth largest in area in Europe. Most of the population lives in the southern parts and the coastal areas, leaving many parts sparsely populated. The demographic transition to an aged population is more accentuated in Sweden than other countries. In 1992, 18 percent of all citizens were 65 years or older.

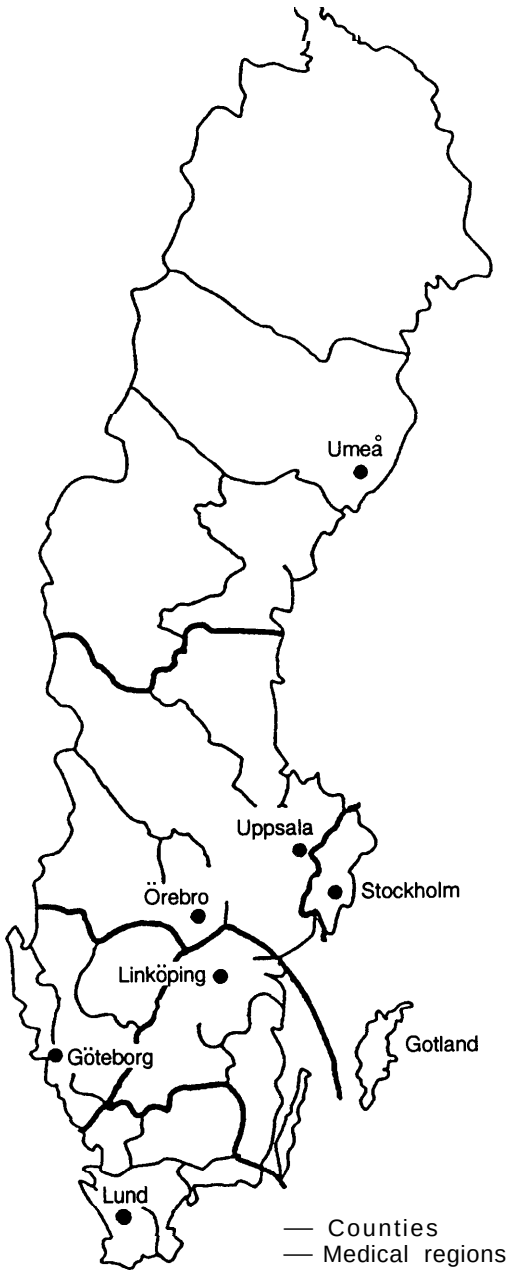
All Swedish citizens are entitled to health care regardless of where they live or their economic circumstances. Health care is considered a public sector responsibility. Close to 90 percent of Swedish health care expenditures are publicly financed, most of the health care facilities are publicly owned, and most physicians publicly employed. Responsibility for health care is, to a large extent, decentralized to the county council level. Sweden has three political and administrative government levels: the national government, county councils, and local municipalities. All levels of government are represented by directly elected politicians with the authority to levy taxes. The three levels have extensive functions in the social welfare system and are also involved in different aspects of health care.



The national government is responsible for ensuring that the health care system develops efficiently and in keeping with overall objectives, based on the goals and the constraints of social welfare policy and macroeconomic factors. The *Ministry of Health and Social Affairs* is part of the government office. It prepares Cabinet business and draws up general guidelines in fields such as

[1]The body of this chapter describes the situation in Sweden through mid-1993. An addendum at the end of the chapter describes some key recent developments.

FIGURE 7-1: County Council Areas and Medical Care Regions in Sweden[a]



[a]Regional hospitals are indicated by dots.
SOURCE: E. Paulson, 1995.

health care, social welfare services, and health insurance. The *National Board of Health and Welfare* is a central administrative agency formatters concerning health care and social welfare services. The tasks include supervision and evaluation of the developments in all areas of social policy, including health services. All medical personnel, whether employed by the county councils or in private practice, come under the supervision of the Board.

Swedish health care is both financed and provided largely by the *county councils.* According to the Health and Medical Services Act of 1982, these councils are required to promote the health of residents in their areas. It is also their responsibility to offer all inhabitants equal access to good medical care. The legislation requires county councils to plan the organization of health care based on the aggregate needs of the county population. Planning must also include health care provided by organizations other than the county councils, such as private practitioners and industrial health services.

Sweden is divided into 23 county council areas and three municipalities (City of Gothenburg, City of Malmo, and the island of Gotland) that also have the same responsibilities as the county councils. The term "county councils" will be used in this chapter to denote all 26 of these units. The populations of the county councils ranged from 60,000 to 1.7 million inhabitants (averaging 300,000) in 1992 (see figure 7-l). County councils are members of the *Federation of Swedish County Councils,* which provides services to its members and represents their interests. The federation also serves as a central negotiating body for concluding financial agreements with the national government.

Sweden's 286 *local municipalities are* mainly responsible for social services, child care, and primary and secondary school education. Since 1992. this level of government has also been responsible for providing medical care (except phy - sician services) and other services in local nursing

(i.e., long-term patients who have already been homes and other specific accommodations for the elderly and handicapped. Local municipalities also finance the care of so-called "bedblockers," treated for their acute illness but remain in short-term county council hospitals).

The Swedish health care system is decentralized with considerable freedom for each county council to decide about the organization of health care. Several allocation mechanisms for hospitals are working in parallel in Sweden today. This country chapter gives an overview of the Swedish system with special reference to hospital financing followed by specific examples of hospital financing in two county councils.

SWEDISH HEALTH CARE SYSTEM REFORMS

Structural changes in health care are on the political agenda in Sweden today. Several reviews of the current system and options for change have been published (1,2,3,4,12). One of the main themes of discussion is a separation of the financing and provision functions of health care to increase productivity by competition. Another issue suggesting structural change is the demand for consumer choice within health care. The traditional and well defined catchment areas of health centers and hospitals are being increasingly questioned. Consumer preference is also considered in the debate to be one mechanism for allocating resources to "effective" providers.

There are many areas of interaction between the health services and other sectors of the Swedish social welfare system, such as the national health insurance and the social services provided by local municipalities. The question of whether the current administrative structure in Sweden has created artificial barriers between sectors, thereby preventing efficient use of resources, is also being debated.

A national governmental committee was established in March 1992 to study the financing and organization of health care. The committee was instructed to investigate different approaches to reforming the Swedish health care system, focusing on three models in particular:

1. *Reformed county council model:* County councils would still be responsible for the financing and the supply of health care; however, market mechanisms would be introduced within the framework of the existing system. Public and private providers would compete equally.
2. *Primary care-based model:* Health care resources would be allocated at the primary care delivery level. Each citizen would be given the opportunity to register with a family practitioner. The practitioner would be responsible for all health care costs of the registered patients. (This model has some similarity to the "general practitioner fundholding" concept recently introduced in the United Kingdom.)
3. *Compulsory health insurance model:* Health care would be financed by one or more insurance organizations and the existing authority for taxation would be removed from the county councils.

Despite some problems, the existing health situation and the health care organization in Sweden has many positive aspects. National health care expenditures are not high compared with those of other OECD countries, when differences in population age structures are taken into account. Life expectancy at birth was higher in Sweden than in all other countries except for Iceland and Japan in 1988 (14). Sweden's infant mortality rate is among the lowest in the world (9). The health status of the population, of course, is affected by actions in many sectors of society. However, the statistics are compatible with a well-functioning health care system. A recent review of the Swedish health care system by a group of foreign health economists concluded:

> What Sweden has is a set of problems—whose solution is admittedly by no means easy—that are shared with nearly every other country in the developed world. Moreover, Sweden has these in a form that is often less severe than can be found elsewhere and is already containing them in ways that seem superior to the

ways adopted in at least some other developed countries. (3).

THE HEALTH CARE DELIVERY SYSTEM

There were about 900 local health centers and about 90 short-term hospitals in Sweden in 1991. The number of hospital beds was relatively high compared with other OECD countries, at 13.3 per 1,000 inhabitants in 1988 (of which 4.1 were general, 2.4 psychiatric, and 6.2 long-term). There were also about 5 places per 1,000 inhabitants in municipal homes for the elderly.

County Council Providers

The financing and provision of health care in Sweden is, to a large extent, integrated within the county council system. The public providers in the traditional county council model are structured in three levels: primary care, county hospitals, and regional medical care (although emergency care is available at any institution).

The *primary care* level is usually organized in districts that are primarily responsible for the health of the population in their areas. Each district includes one or more health care centers for ambulatory care. At the health centers, general practitioners and in some cases specialists, provide medical treatment, advisory services, and preventive care. The primary care system includes district nurses and midwives and also operates clinics for child and maternity health care. When primary care resources are insufficient for diagnosis or treatment, the patient is referred to the county or regional medical care level. At the *county hospital level,* one or more short-term hospitals provide both outpatient and inpatient services. These county hospitals, which are owned and operated by the county councils, are divided according to their size and degree of specialization, into:

- district county hospitals with at least four specialties (internal medicine, general surgery, radiology, and anesthesiology); and
- central county hospitals with up to 15 to 20 specialities, usually one hospital for each county council. These hospitals also serve as district hospitals for their neighborhoods.

The *regional medical care* level is responsible for patients whose problems require the collaboration of a large number of specialists and perhaps also special equipment. Sweden is divided into six medical care regions, each serving a population of about one to two million. Each region has 1 or 2 regional hospitals (figure 7-1). These hospitals are affiliated with medical schools and are thus involved in teaching and research activities. Each regional hospital is owned by the county council where it is located and it also serves as county hospital for the local area.

Private Providers

Private providers deliver a small share of health care services in Sweden. An estimated 7 percent of beds for health care in 1989 were in private institutions, which mainly provided long-term nursing care (13). About 5 percent of physicians worked full-time in private practice in 1989.

PHYSICIANS

Sweden had about 25,000 physicians, or one per 340 inhabitants in 1989. The number of physicians is expected to grow to more than 28,000 by the year 2000. Physicians make up about 4 percent of all county council employees in health care were 1989. Swedish physicians work either in hospitals or in primary care with a large proportion in hospitals. These physicians are usually involved in both inpatient and outpatient services. The proportion of physicians working as general practitioners (in primary care) is small compared to most other OECD countries.

The annual number of visits to physicians in Sweden is rather low in relation to many other OECD countries, at about 3.1 visits per person in 1989. There were an additional 2.7 visits per person for paramedical care, e.g., to district nurses, midwives, and physiotherapists. In 1989, 39 percent of doctor visits took place in hospitals, 39 percent were to physicians within the primary care

system, 13 percent were to doctors in private practice, and 9 percent were in other settings.

A large majority of Swedish physicians are salaried employees of county councils and have no remuneration based on the fee-for-service principle. Hospital physicians are integrated into the departmental organization of public hospitals in Sweden. The same general terms of employment apply to general practitioners working in public health centers. Minimum salaries for different kinds of positions are negotiated nationally. Within this restriction the salary of the individual physician is decided in a local agreement. Information on the proportion of short-term hospital expenditures related to physicians is not available in the regular Swedish statistics on health care.

A few percent of Swedish physicians work full-time in private practice. A large majority of private practitioners are affiliated with the national health insurance system, which reimburses them on a fee-for-service basis. Prices for various kinds of services are decided prospectively in consultations between a national administrative agency *(Riksyforsakringsverket)* and the Swedish Medical Association.

NATIONAL HEALTH CARE EXPENDITURES

National health care expenditures totaled SEK122 billion in 1991.[2] This figure corresponds to about SEK14,000 per inhabitant or to 8.5 percent of the gross domestic product (GDP) (15). Public health care consumption and capital investments amounted to 78 percent of the total health care expenditures. An additional 10 percent was related to subsidies for drugs and private practitioners. The remaining 12 percent of the health care expenditures was for private consumption and capital investments.

It is important to describe what is defined as "healthcare" when making international comparisons. In 1991, nursing homes were included in health care expenditures in Sweden but care for the mentally retarded was not apart of this definition. However, in 1992, local nursing homes were reclassified as "units for specific accommodation" and are no longer included in health care expenditures.

Total expenditures (operating costs and investments) for public hospitals were estimated at about SEK70 billion in 1991 by the Federation of Swedish County Councils (5). According to these statistics about SEK55 billion of this sum was for short-term somatic hospital expenditures.

SOURCE OF FUNDS

Public Funding

As noted earlier, close to 90 percent of Swedish health care expenditures were publicly financed in 1991, mostly through county councils. The expansion of county council expenditures slowed down during the 1980s and reversed to a decrease in fixed prices in 1991. During the 1970s, the total county council expenditures showed an annual growth rate of between 4 and 5 percent in fixed prices. In the first half of the 1980s the average rate of expansion in fixed price was limited to 2.5 percent yearly and it then decreased to just over 1 percent in the second half of the decade. Growth in 1991 was about zero and 1992 data point toward a 1.2 percent decline in expenditures in fixed prices (8).

The sources of revenues for the county councils in 1991 are given in table 7-1. The most important

TABLE 7-1: Sources of Revenue for Swedish County Councils in 1991

Source of revenue	Percentage of total
County council income taxes	69
National health insurance	10
State subsidies	9
Patient fees	3
Other revenues	9
Total revenues	100

SOURCE: E. Paulson, 1995.

2 The exchange rate in January 1994 was approximately $U.S.0.67 to SEK1.00.

source is the county council income tax, which represented 69 percent of total revenues. This revenue is a proportional tax on personal income from work. The tax rate varies among county councils, in 1991 ranging from 12.2 to 14.5 percent, and averaging 13.9 percent.[3]

In the traditional funding model, county council representatives decided on the rate of the county council income tax and estimated the financial resources available for the next year's health care budget. However, since 1991, there have been national limits to economic expansion of the county councils and local municipalities. According to the 1991 Finance Plan (*Finansplanen*) of the Ministry of Finance, annual increases in county councils' and local municipalities' expenditures in fixed prices must be restricted to no more than 1 percent. In an effort to control total spending, the national government has placed restrictions on most kinds of county council revenues. By a temporary law, county councils were not allowed to increase tax rates at 1991 and 1992, and the restriction was extended into 1993 through an agreement between the national government and the county councils.

About 10 percent of county council revenues came from national health insurance contributions and 9 percent were state subsidies in 1991 (see table 7-1). National health insurance is a part of the social insurance system. It covers some allowances for medical expenses, sickness benefits, and maternity and parental benefits. National health insurance is financed from tax revenues and contributions from the national government's social insurance budget.

The principles of payments from the insurance system were changed in 1985 (under the "Dagmar reform"). A fixed sum of money for each county council, mainly based on capitation, replaced the previous activity-based reimbursement. The new system produced a cap on health care spending at the national level. The total amount of resources transferred by the national government to the county councils has decreased after adjustment for inflation since the 1985 reform.

As noted earlier, a large majority of private practitioners are reimbursed through the national health insurance. This cost is subtracted from the amount transferred to county councils from the health insurance system. However, the county councils have the power to restrict the number of private practitioners eligible for reimbursement by the health insurance.

Patient Fees

In 1991, 3 percent of county council revenues were raised through direct patient fees. County councils are free to decide on patient cost-sharing amounts for various kinds of ambulatory services, although maximum amounts for inpatient services are still established by the national government. There is also a nationally determined annual limit on patient payments, amounting to SEK1,600 per person in 1993. Hospital care, primary care, and drugs are free after a patient has spent this amount for health care (7).

The main function of patient fees in the Swedish system is not to generate revenues but to influence the consumption of health services. Several county councils try to influence patient flows towards less expensive services through pricing mechanisms. For example, in the Stockholm county council, the patient's cost for an outpatient visit to a hospital in 1993 was SEK200 as compared with SEK100 for a visit to a primary care physician.

Private Health Insurance

Private health insurance represents a new but still infrequent source of financing for health care in Sweden. The number of people covered by such schemes was estimated to be 25,000 in 1991, which corresponds to about 0.3 percent of the population (4).

[3]A proportional tax is one in which the average tax rate is the same at all income levels. The *fraction* of an individual's income paid as taxes, therefore remains constant whether income increases or decreases.

ALLOCATION OF FUNDS

Decisions on the organization of health care in Sweden, are to a large extent, decentralized to the county councils. The advantage of decentralized decisionmaking is the opportunity to adjust the health care organization to local conditions. Consequently there are no nationally defined rules for financing hospitals in Sweden. This is true for both operating and capital expenditures.

There is considerable variation among county councils, and sometimes also within the same county council when it comes to financing hospitals. However, it is possible to describe a traditional Swedish model and outline some general trends of development in the funding of county council hospitals.

Traditional Allocation Model

Under the traditional financing model, county council health care funds are allocated to hospitals and health care centers through an annual budget negotiation process. Historical costs have been a major determinant of future budgets. Each hospital clinical department has a rather crude production target, which is described in bed-days, number of admitted patients, and outpatient visits. In this traditional system, cost control is achieved through aggregate fixed budgets at the county council level.

The one major exception to prospective, fixed budgets occurs when a patient is referred from an outside county council for specialized care to a regional hospital. In these cases, the county referring the patient pays the actual cost of the treatment. This has created an incentive to develop patient related cost accounting in some regional hospitals.

The hospital department is a strong and rather independent organizational level in Swedish hospitals. Budgets are allocated to this level and hospital beds belong to individual clinical departments. Patients are administratively discharged from departments and not from the hospital itself as in most other OECD countries. From a functional perspective a hospital can be divided into three different kinds of units (departments):

1. clinical departments (e.g., general surgery),
2. medical service departments (e.g., diagnostic radiology), and
3. general service departments (e.g., catering services).

Under the traditional model each department in a Swedish hospital has its own budget. This structure results in a weak connection between authority and accountability for resources. For example, a radiology investigation ordered for a patient by the surgery department is a cost within the budget of the diagnostic radiology department and not the surgery budget. It has been estimated that for some hospitals operating under the traditional model, only about half of the costs generated by surgeons consumed resources within the budget of those surgeon's own clinical departments. To increase the accountability for consumption of resources several county councils have introduced changes in the way hospital departments are funded. Some general trends are identified below.

Internal Hospital Markets

One trend is the creation of "internal markets" within the hospital. There should be no "free services" available to physicians. In this new situation, service departments are financed by activity-based revenues instead of a fixed budget. The revenues are generated by selling services to other departments. In 1992, 25 out of 26 county councils had at least one service department financed mainly through the sale of services (6). Developments along this line have been most pronounced for general service departments. Clinical departments may still be financed under this new model through fixed budgets. The traditional budget of a clinical department is then expanded to include estimated costs for all hospital services (including medical and general services) needed by patients admitted to the department.

Purchasing of Hospital Services

Several county councils have also implemented more profound changes in the organization and funding of hospitals. One general trend is to sepa-

rate financing and provision of services within the county council system. Under this new model the resources for health care within a county council are allocated to a purchasing organization. This unit is then responsible for financing all health care consumption for a defined population through contracts with health care providers.

There is a considerable variation in the implementation of the general principle. The purchasing function may be carried out by a central organization or by several local units within each county council. There are also different solutions for how purchasers reimburse providers. Financing mechanisms for clinical departments in hospitals may be in the form of block contracts, per-case payments, or fee-for-service payments. In 1992, seven county councils used per-case payments based on diagnosis-related groups (DRGs) to at least partially finance hospital services (6). The DRG system has been tested in Sweden since the late 1980s (10).

Even under new hospital financing schemes, all purchasers and more or less all hospital providers are still within the county council system. Consequently, most payments are internal transactions within different branches of the same organization. There are no legal barriers preventing a "renegotiation" of funding retrospectively in such a system.

A few county councils began implementing new funding arrangements for hospitals on a limited scale in 1992 and several county councils are still in the process of defining or adjusting their new organizational models. Two county councils systems are described later in this chapter to illustrate some of the hospital funding mechanisms currently working in parallel in Sweden.

HOSPITAL CAPITAL COSTS

Decisions on investments are made at the county council level. There is currently no national planning for hospital structure or other investments in the health care sector. There is, however, a planning organization within each of Sweden's six health care regions for consultations on health services at the regional level. These organizations include representatives of all the county councils within a particular region.

The amount of investment and rules for financing are decided on by each county council. Under the traditional model annual budgets are established for investments, but the costs for buildings and expensive equipment are not included in the operating budgets allocated to individual hospital departments. New models for financing investments are now under development by many county councils. One trend is to allocate rents for facilities and costs for investments to hospital departments. The rationale is to make it possible for hospital departments to substitute different kinds of inputs (e.g., labor versus high-technology equipment) for providing health services.

Two county councils and two public hospitals within these councils are described below to illustrate financing methods that are being used in Sweden today. The examples are a 250-bed district county hospital with both global budgets and case-based funding, and one large 1,800-bed university hospital with both traditional and fee-for-service funding.

EXAMPLE I: THE STOCKHOLM COUNTY COUNCIL

The Stockholm county council takes in the city of Stockholm and surrounding areas. The county is rather small in geographical terms, but its population is unusually large (1.7 million, or 20 percent of the total 1992 population) compared with other Swedish county councils, Stockholm being the country's biggest urban area. Within the Stockholm county council, there are four administrative decisionmaking levels for hospital care: central county council, health care area, hospital, and hospital department. The first two levels are governed by politicians and the other two are administrative only. General rules for financing and providing health care are decided on by the political board at the central county council level. Issues at this level are principles for financing hospitals and systems for quality assurance. Large investments are also decided at this level.

The Stockholm county council is divided into nine health care areas. The total county council budget for health care is allocated to these nine areas based on the needs of the population. Needs are estimated through a formula that includes the number of people, the age distribution and the socioeconomic status of the population. Each health care area has a board of politicians that is responsible for financing the health care provided to their respective populations.

There were 10 county council-owned and two private short-term hospitals within the county's boundaries in 1992. The two private hospitals were small and combined had about 200 beds. Two of the public institutions were university hospitals affiliated with medical schools. It was decided in 1992 that 10 percent of the services provided by the county council should be "privatized" to increase competition.

Beginning in 1992, the Stockholm county council changed from prospectively determined budgets to a new method for allocating resources to hospitals (the "Stockholm model"). Since 1992, four kinds of clinical departments (general surgery, obstetrics/gynecology, orthopedic surgery, and urology) have been funded mainly from revenues based on activity levels. The new financing scheme was extended to all somatic (nonpsychiatric) clinical departments in short-term hospitals in 1993. Reimbursement for inpatient care is similar to the prospective payment system (PPS) for Medicare inpatients in the United States. Modified Medicare and Norwegian DRG cost weights together with standard amounts based on historical costs are used in the Stockholm county council application.

Ambulatory surgery is financed in the same way as inpatient surgery although price levels in 1992 were set at 60 percent of the corresponding inpatient DRG rate. Care of other types of outpatients are reimbursed according to locally constructed classifications of patient visits. Some specific cost items (research, development, and education) continue to be financed through a prospectively determined annual budget.

The change from fixed budgets to activity-based financing introduced a potential risk of escalating health care costs. However, a number of measures have been taken to maintain cost containment within the new system. The initial DRG rates were set 10 percent lower than estimated historical costs based on previous prospective budget amounts. All transactions (except for the private hospitals) are internal to the county council, because the hospitals are owned by them. This creates the opportunity to make retrospective adjustments in funding arrangements in a way not possible between independent organizations. It was decided in advance that renegotiation of DRG rates would take place if total service production for all hospitals in the Stockholm county council area increased by more than 10 percent.

It is obviously too early to draw firm conclusions about the overall effects of the new funding system for hospital care. Preliminary data indicate a greater than 10-percent increase in production and a reduction in waiting lists. Major investments in new capacity in county council institutions are still controlled at the central county council levels. A central planning process will probably suggest a reduction both in the number of clinical departments and county council general short-term hospitals.

Nacka Hospital

The Nacka hospital is an example of a short-term public hospital within the Stockholm county council. It is a 250-bed district county hospital with about 800 employees (full-time equivalents) and an estimated turnover of SEK270 million in 1992. The hospital was financed according to two different methods. About 30 percent of revenues came from an annual fixed budget and the remaining 70 percent was based on the activity level. The hospital was organized into seven units of which five were clinical departments and two were general service departments. In 1992, the two surgical departments were financed based on their activity levels.

Heads of departments are responsible for balancing their annual budgets. They have considerable freedom in organizing the health care within their departments. The clinical departments are

billed for services consumed by their patients in other departments within the hospital. Services bought from organizations outside the hospital must also be paid for by the individual department.

Capital Costs

There is no separate capital investment budget for the hospital. New investments in buildings and equipment are financed from operating revenues. Existing buildings are rented by the hospital from a department (the central estate department) within the county council. Rents reflect the location and the quality of the buildings and are based on a calculated market value. All new equipment for the hospital valued above SEK100,000 is purchased by the county council's leasing department. The equipment is then rented to the hospital.

The organizational level with the authority to decide about an investment depends on the amount of the transaction. Investment decisions costing up to SEK200,000 may be made by the heads of departments, and up to SEK3 million by the hospital director. However, all investments above SEK100,000 in value must be leased from the central county council level.

EXAMPLE II: THE UPPSALA COUNTY COUNCIL

The Uppsala county council had 279,000 inhabitants in 1992 and is situated northwest of Stockholm county. The turnover of the county council was SEK5,700 million in 1990 and it had 19,000 employees. There were three county council owned short-term hospitals and one small private hospital (17 beds) within the geographic boundaries of the county council in 1992. The private hospital was carrying out elective surgery mainly. The Uppsala county council has a more traditional organization for funding hospitals than the "Stockholm model," described above, and is also adopting change more gradually. The primary care level within the county council is responsible for health care center services as well as the estimated costs of outpatient visits to hospitals and private practitioners.

A part of the Uppsala county council is operated under special financial arrangements, as a demonstration project. A purchasing committee for the Enköping/Håbo district received all resources for medical care of the population in its district. The purchasing committee then buys services from providers of primary and hospital care.

University Hospital of Uppsala

The University Hospital of Uppsala (*Akademiska sjukhuset*) is the major public hospital in the city of Uppsala. In 1992 it had 1,800 beds and close to 10,000 employees (54 percent of whom worked full time). The main tasks of the hospital are health care, research, and education. Health care is delivered to both county council residents and to patients referred for specialist care from other county councils. Funds flow to the hospital from several organizations and are allocated according to different payment methods. The hospital's estimated revenues in 1992 totaled about SEK2,600 million (16) (see table 7-2). The diverse funding of the hospital reflects both the complexity of functions in a large university hospital and the transition period between different funding methods.

Approximately half of the hospital's financing was derived from prospectively fixed budgets. Inpatient services for people living within the county council accounted for 46 percent of total revenues and was funded by fixed budgets from the central county council level. (An exception was patients from the Enköping/Håbo district, whose care was reimbursed by an activity-based system, described below.) The other fixed budget component was only 6 percent and included compensation for extra costs in the health care process due to the education and research functions of the hospital. These funds derive from the national government.

The other half of the hospital's revenues related to services for which it was reimbursed according to activity-based principles. The most important

TABLE 7-2: University Hospital of Uppsala's Budget, 1992 (in millions of SEK)

Source of revenue	Amount	Percentage
Revenues from prospectively fixed budgets		
Inpatient from own county council	1,188	46
Additional costs due to education/research	152	6
Activity related revenues		
Patients from other county councils	755	29
Outpatients from own county council	235	9
Inpatients from Enkoping/Habo district in own county council	105	4
Direct patient fees	40	2
Other revenues	124	5
Total Revenues	2,599	100

SOURCE Uppsala County Council, *Preliminar budget for Akademiska sjukhuset 1992 (Preliminary Budget for Uppsala University Hospital 1992)* (Uppsala: Uppsala County Council, 1991).

part of this financing (29 percent of the total) came from patients referred by other county councils for regional specialist care. Traditionally, the hospital has been paid the "actual costs" of treatment on a fee-for-service basis for these patients. However, since 1993, some services have been paid for by fixed prices decided on in advance, in accord with agreements between the hospital and the seven county councils in the Uppsala health care region.

Since 1992, the hospital has been paid for outpatient services to county council residents from the primary care level budget, based on the number and types of visits. Prior to 1992, resources for outpatient services had been incorporated into the hospital's annual fixed budget.

Revenues from inpatients paid for by the Enkoping/Habo purchasing committee were 4 percent of the hospital's total revenues. Direct fees paid by the patients amounted to an additional 2 percent. Other revenues came from several sources (see table 7-2). The main source was laboratory services sold to other institutions. Revenues received from local municipalities are also included under this heading. Municipalities are required to pay for patients who are still in the hospital although their acute illness has been treated.

The Uppsala University Hospital has aboard of county council politicians. This body determines the number of beds that are authorized and the preliminary budget (expenses and also revenues when relevant) for each clinical department. The hospital has a complex organization. Traditionally, it has had about 30 clinical, 10 medical service, and several general service departments. Because it has been difficult for hospital management to be in contact with over 40 independent units, the departments are currently being organized into about 10 divisions. From a financing perspective, hospital departments and divisions are divided into budget-funded and income-funded units. In 1992, all clinical departments were of the former type, and all medical and general service departments (except one) were of the latter type. A preliminary budget and estimated production targets are established for each division or clinical department. Budgets are defined for expenses and also for revenues, when appropriate. Production targets are expressed as the number of admitted patients, bed-days, and outpatient visits. There is a trend toward adding measures of more well-defined services (production groups).

Capital Costs

Planning of investments and purchasing of equipment is to be made through a central department of the county council and the hospital. Every year a plan of investments is established for the hospital. This document is based on the planning of the individual hospital departments. The investment plan, which is specified for each department, is confirmed by the hospital director. Investments decisions costing up to SEK100,000 may be made by heads of department if the sum is within the

current expenses budget (direct depreciation). Larger amounts are decided by the hospital director. Rental contracts may be signed by the heads of departments unless the amount exceeds SEK100,000 and the duration is more than three years. The limit of SEK100,000 does not apply to heads of divisions. However, all rental contracts for buildings must be signed by the hospital management. The hospital pays rent for buildings to the central estate department of the county council. The total sum was about SEK400 million in 1992. In that year, the rent was not allocated to the individual departments; however, there were incentives for heads of departments to reduce the need for building space. If building space was reduced, the department received compensation amounting to half of one year's rent. Costs for construction or modification of existing facilities are included as operating expenses at the departmental level.

CONCLUSIONS

The Swedish health care system is characterized by ongoing organizational change. New models for funding hospitals are being applied within the framework of the county council system. A common theme is the separation of the provision and financing of services both within hospitals and within county councils. There is considerable variation in how the new principles for funding hospitals are being implemented. The diversity is not surprising given the decentralized nature of the Swedish health care system. Variation is also a consequence of the fact that many county councils are still in the process of defining or adjusting new organizational models. It is still early to draw conclusions from the scant empirical evidence available about the effects of new funding models for Swedish hospitals.

Some policymakers see a considerable potential for market mechanisms to improve Swedish health care. Traditional budget-based funding has been criticized for creating a rigid structure that has prevented efficient use of resources. However, there may be hidden costs in the new market-driven mechanisms. For example, administration of the health care system may become more complex (and expensive), and it is important that those costs not outweigh the savings realized by increased productivity in the delivery of services.

High productivity in health care is not itself a goal. What is more important is to have "value for money," that is maximizing health benefits in relation to resources spent on health care. From a theoretical perspective, it would be more relevant in a market-oriented system to pay for results obtained than for "products" of health care like hospitalizations, days of care, and patient visits. However, due to practical considerations, market systems are often to a large extent focused on the price of such intermediate products. It is also important to include quality of care incentives to improve the delivery of health care services.

The traditional health care budgeting system in Sweden has been successful in containing costs over the last ten years. Under a more market-oriented system, driven by what seems to be an unlimited demand for health care, it will be necessary to implement new restrictions on health care utilization to prevent a loss of overall cost control.

The decentralized structure of Swedish health care creates opportunities to test new approaches to health care organization on a limited scale, as well as to adjust health care models to local conditions. This is an important advantage, as the conditions for health care are rather different in a densely populated urban area like Stockholm compared to a sparsely populated county in northern Sweden. The nature of medical specialties also varies to a considerable extent (e.g., thoracic surgery versus psychiatry), and allowances for these differences also are important.

Demonstration projects may be valuable in learning how the new concepts of health care organization are working in practice in Sweden. Step-by-step implementation of new concepts make it possible to learn from experience and to make necessary adjustments in the evolving health care organization.

ADDENDUM

Since this chapter was first drafted, two major changes have taken place that affect the health care

system: a general decline in the Swedish economy and a change in the political leadership of the country. The Swedish GDP decreased by 5 percent from 1991 to 1993 and unemployment has increased to high levels. These changes have put a strain on national public finances and resulted in a large national budget deficit. Decreased personal earnings also affect county councils by reducing revenues from the county council income tax. In fact, total county council expenditures have decreased in the period 1992 to 1994.

The fall 1994 election brought a shift in power from a nonsocialist to a social-democratic national government. The government committee (HSU 2000) mentioned earlier in this chapter received new instructions from the government in December 1994. The committee is no longer considering different options for financing and organizing health care, but instead is working on several specific issues within the existing county council system. These issues include: measures to strengthen the position of patients in health services; projecting health care needs up to the year 2010, with specific reference to the needs of the elderly; principles for the national control of health services; evaluating new organizational arrangements within county councils; paying for pharmaceuticals in ambulatory care; and reassessing public health responsibilities by the different levels of government.

Several county councils have instituted internal divisions between purchaser and provider functions, within the overall county council framework. However, there has been a general shift in emphasis during the last year from competition among providers to cooperation and health care planning. Examples include specialization and sharing of services among hospitals in a given area, and a reduction in the number of short-term hospitals with full 24-hour acute surgical services in urban areas.

Patients' freedom to choose among providers (at the primary care and hospital levels) has increased over the past few years. Patients are now usually free to seek elective care at any public hospital within the county council. In some parts of Sweden the freedom of choice is extended to hospitals in neighboring county councils. However, there is a potential conflict between the patient's choice of health care provider and the cost containment and planning efforts at the county council level. It is not clear if patients' freedom of choice will be given priority over contracts established between the purchasing organizations and the providers in county councils.

Private health insurance and private inpatient care are still very small but expanding sectors of Swedish health care. About 40,000 people (less than 0.5 percent of the population) had private health insurance in 1994, but the number of policies has doubled since 1990 (11). Private institutions represented 4.5 percent of all Swedish hospital beds for somatic short-term care in 1994, an increase of 60 percent since 1992.

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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 COSTS[1]

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 patient'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

qua lity 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	34	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).

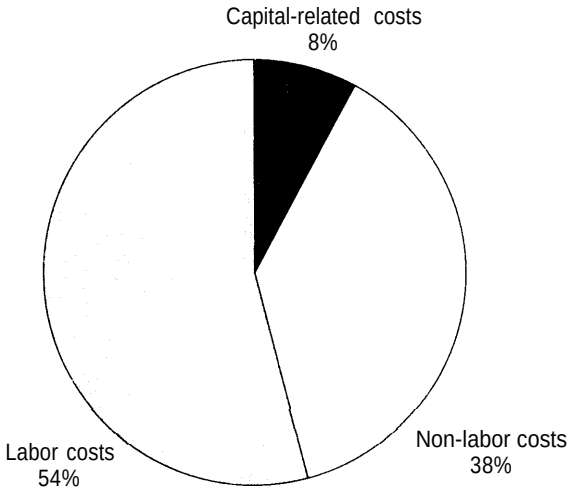
Because approximately 37 million people were not covered by any form of third-party insurance in 1993—representing 14.7 percent of the U.S. population (15)—hospital charges to insured people partially pay for the "bad debts" of those who cannot pay for their own care. In addition, public insurers appear 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-l).

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 significantly 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 decreased 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 re moved (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 replace ment 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. Corn--petition 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 admission[4] 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 administrative 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.

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