

# Hospital Financing in Sweden

## 7

by Eric M. Paulson<sup>1</sup>

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.

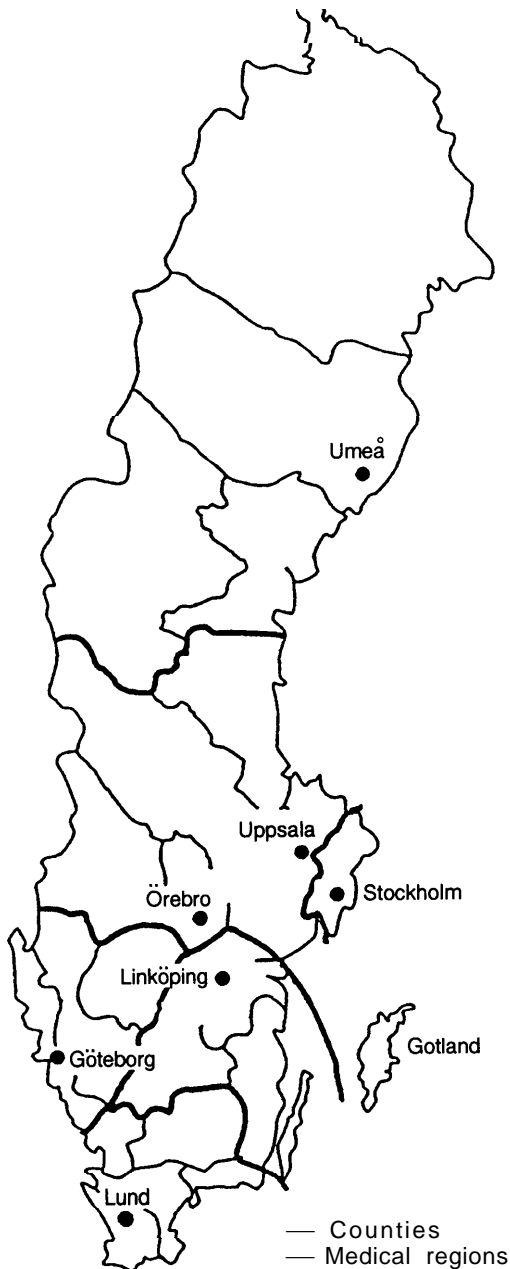
All Swedish citizens are entitled to health care regardless of where they live or their economic circumstances. Health care is considered a public sector responsibility. Close to 90 percent of Swedish health care expenditures are publicly financed, most of the health care facilities are publicly owned, 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



<sup>1</sup>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<sup>a</sup>**



<sup>a</sup>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 Malmö, 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 7-1). 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 physician 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 specialties, 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 (*Riksforsakringsverket*) and the Swedish Medical Association.

## NATIONAL HEALTH CARE EXPENDITURES

National health care expenditures totaled SEK122 billion in 1991.<sup>2</sup> 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.

<sup>2</sup> 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.<sup>3</sup>

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).

<sup>3</sup>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 in-

clude 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 es-

calating 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 esti-

mated 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 Enköping/Habo district in own county council	105	4
Direct patient fees	40	2
Other revenues	124	5
<b>Total Revenues</b>	<b>2,599</b>	<b>100</b>

SOURCE Uppsala County Council, *Preliminary 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 Enköping/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 a board 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. Traditional-

ly, 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 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.

## REFERENCES

1. Berleen, G., Rhenberg, C., and Wennström, G., *The Reform of Health Care in Sweden*, Spri report No. 339 (Stockholm: Spri, 1992).
2. Calltorp, J., Ham, C., and Rosenthal, M., (eds) "Special Issue: Swedish Health Services at the Crossroads," *Health Policy* 21:95-186, 1992.
3. Culyer, A.J., "Health Care and Health Care Finance in Sweden: The Crisis that Never Was; the Tension that Ever Will Be," Occasional Paper No 33 (Stockholm: Swedish Centre for Business and Policy Studies, 1991).
4. The Federation of Swedish County Councils, *Crossroads. Future Options for Swedish Health Care* (Stockholm: The Federation of Swedish County Councils, 1991).
5. The Federation of Swedish County Councils, *Statistisk årsbok för Landsting 1992/93 (Statistical Yearbook of County Councils, 1992/93)* (Stockholm: The Federation of Swedish County Councils, 1992).
6. The Federation of Swedish County Councils, *Enkät om ekonomistyrning i landstingen 1992. Redovisning av enkätsvaren (Survey*

- on Economic Planning and Management in the County Councils 1992. Presentation of the Survey Answers) (Stockholm: The Federation of Swedish County Councils, 1992).
7. The Federation of Swedish County Councils, *Från sjukrona till aveglering. Landstingen och patientavgifterna (From "Seven Crowns" to Deregulation. The County Councils and Patient Fees)* (Stockholm: The Federation of Swedish County Councils, 1993).
  8. The Federation of Swedish County Councils, *Health Care Utilization and Resources in Sweden 1980-1992* (Stockholm: The Federation of Swedish County Councils, 1993).
  9. Organisation for Economic Cooperation and Development, *OECD in Figures. Statistics on the Member Countries, 1992 Edition*, Supplement to the OECD Observer No. 176 (Paris: OECD, 1992).
  10. Paulson, E., "Sweden: A Health Care Model in Transition," J. Kimberly and G. Pourvourville (eds) *The Migration of Management Innovation* (San Francisco: Jossey-Bass Publishers, 1993).
  11. Rehnberg, C., Garpenby, P., *Privata Akörer i Svensk Sjukvård (Private Participants in Swedish Health Care)* (Stockholm: Swedish Centre for Business and Policy Studies, 1995).
  12. Saltman, R. and von Otter, C., *Planned Markets and Public Competition. Strategic Reform in Northern European Health Systems* (Buckingham: Open University Press, 1992).
  13. Statistics Sweden, *Hälsan i Sverige. Hälsostatistisk årsbok 1991/92. [Health in Sweden. Yearbook of Health Statistics 1991/92]* (Stockholm: Statistics Sweden, 1991).
  14. Statistics Sweden, *Statistisk årsbok för Sverige 1992 (Statistical Yearbook of Sweden 1992)* (Stockholm: Statistics Sweden, 1991).
  15. Statistics Sweden, *The Swedish National Accounts* (Stockholm: Statistics Sweden, 1993).
  16. Uppsala County Council, *Preliminär budget för Akademiska sjukhuset 1992 (Preliminary Budget for Uppsala University Hospital 1992)* (Uppsala: Uppsala County Council, 1991).