

**The Role of Outpatient Hospital Care in Sweden and Stockholm County**

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## **I. Introduction**

A well-functioning health care system has a certain seemingly organic character. More than simply a collection of different provider entities arrayed on an organizational chart, an effective system involves a substantial degree of interplay among these entities, both in terms of the types of care delivered and the treatment path of individual patients. From the system's perspective, patients receive a coordinated pattern of services delivered at the least intensive, least expensive level compatible with the medical condition of the patient. From the patient's perspective, there is a strong continuity to the care received, with each separate provider playing a well-orchestrated role in the broader healing and/or care process.

Such a seemingly organic character is extremely difficult to achieve. In the most recent period, this more interactive approach has been described in the United States as "managed care" while in Europe it is referred to as "integrated care." This type of seamless care process, simultaneously meeting the needs of both patients and providers, has been the objective for publicly operated health care systems in the Nordic Region for over a generation. The first stirrings toward such a system emerged in the effort to develop a fully fleshed, comprehensive system of primary health services, which went beyond simply the curative acts of a general practitioner to responsibility for understanding and monitoring each patient's health needs, and to coordinating care across the boundaries of the different hospital, outpatient, primary physician, nursing home, and home care boundaries. In Sweden, the first statement of this objective came in a 1947 Hojar Report, written by the head of the Swedish National Board of Health. It is an indicator of the complexity of attaining this objective that it took 25 years before legislation – in the form of the 1973 Primary Care Act – began to put the necessary organizational ground work into place. Finland enacted a similarly focused Primary Care Act

in 1972. Both of these acts envisioned establishing Primary Health Centers for each municipality, staffed by general practitioners, nurses, health educators, and social workers, which could coordinate care with both less intensive and more intensive providers, and which could take “population responsibility” for the health of the municipality’s inhabitants. This Swedish/Finnish approach varied quite dramatically from the Danish or Norwegian pattern, which continued to rely on individual general practitioners in their separate offices, whose referrals were required for hospital level care, and who were supported by a system of district nurses and home care services that assist patients in their homes.

A central dimension of these Nordic efforts to develop an integrated system of care has concerned the appropriate balance of services and access among hospital inpatient, hospital outpatient, and primary care services. While the broad policy objectives have been similar, the four European Nordic Countries have sometimes pursued different strategies to achieve them. For example, while in all four countries access to inpatient hospital care requires a referral from a general practitioner (the gatekeeper model), in Sweden patients also in most counties have the right to go directly to a specialist in an outpatient hospital clinic without referral. However, to reduce unnecessary visits, many Swedish hospitals charge self-referring patients a substantially higher co-payment of up to 260 SEK (until patients reach the nationally mandated annual ceiling for all ambulatory co-payments of 900 SEK, approximately 100 USD) (Hakansson and Nordling, 1997). Patients in all four countries also have the right to go directly to the hospital emergency room (although again, in Sweden, there is a relatively high co-payment). In Denmark, some 5% of citizens choose the more expensive Group Two coverage, provided by the public county council system, which enables them to self-refer directly to outpatient hospital specialists (Krasnik and Vallgård , 1997). In Finland, there is a separate parallel public insurance structure that partially subsidizes any citizen who self-refers

to private office-based specialists (Saltman and von Otter, 1992). Overall, however, most citizens in all Nordic countries, except Sweden, do require a referral from their primary care physician in order to visit an outpatient hospital specialist in a publicly funded hospital. It is important to note that this referral process also helps facilitate the transfer of diagnostic and clinical information about the patient's condition and treatment between the outpatient and primary care doctor.

This paper reflects the integrated character of health system structure behavior, and the degree to which the configuration of specifically outpatient hospital services reflects the overall framework of both health policy and health care organization. To clarify these structural interconnections, the paper will concentrate on the health system in Sweden, and, for purposes of comparison with the city of St. Petersburg, on the Stockholm metropolitan region. The paper begins with brief overviews of the epidemiological and national health policy profiles in Sweden. The paper then describes the organizational responsibilities of Swedish county councils - the regional level of government that is responsible for both funding and delivering health care services - with particular emphasis on the growth of entrepreneurial activities inside the public sector. Subsequently, based on this organizational context, the paper provides information on the organization of outpatient services in Sweden. The paper concludes with an assessment of the impact of ambulatory activities on the need for inpatient beds in Sweden and in Stockholm county, along with a section that provides specific responses to the questions put in the paper's terms of reference.

## **II. Epidemiology**

Sweden has a population of 8.9 million people and is sparsely populated (21 inhabitants per square kilometer). The population is mainly concentrated to the coastal regions and to the

south. 20 percent of the population lives in the Stockholm Region. Close to 80 percent of the total population live in 115 municipalities with 20 000 inhabitants or more. In total, Sweden has 283 municipalities. Sweden has the oldest population in the world, with some 18% over age 65.

Sweden has had substantial immigration for more than 50 years. At present 11 percent of the Swedish population (980 000) was born in a foreign country. In Botkyrka, a municipality with more than 70 000 inhabitants in the south of Stockholm region, 20 percent of the population has a foreign citizenship, mostly from countries outside the Nordic Region. In Stockholm, some 19% of the population were born abroad. These immigrants typically have more health problems and utilize more health care and especially more hospital outpatient care than people with a Scandinavian background. On the other hand comparisons with the needs and standardized for age and gender show that immigrants as well as low income groups and unemployed persons on average utilize less health care resources (especially psychiatric care) than would be indicated by their health problems.

The infant mortality in Sweden is currently the lowest in the world, around 3.5 per 1000 newborn during the first living year. The child mortality (1-17 years) is also the lowest in the world and has been so for many years (due to e.g. immunization, clean water and child safety precautions in the homes, at the roads and in the cars). These figures include immigrants who still hold foreign citizenship.

The average life expectancy in Sweden is 77 years for males and 82 years for females. For males only Japan has a longer life expectancy. The differences between the county councils are fairly small and are decreasing, 1.8 years for females and 2.3 years for males. At the

municipality level, differences are larger. One county council (Vasterbotten in the north) that has increased its life expectancy more than the others, has put more emphasis on health promotion activities in co-operation between the hospitals (in Skelleftea and Umea, which also is a teaching hospital), the primary health care, municipalities, voluntary organizations, the mass-media and the public/population.

Contributing to the improved life expectancy in Sweden is a big decrease in the smoking habits, from around 35 % down to 20 % of the population 15 years or older. During the last years, however, the number of smokers among young females has increased and the average weight of both males and females has increased.

Other contributions to an improved health have come from a more healthy life-style in general for many Swedes. This includes drinking less alcoholic spirits and more wine, eating a lower fat diet, and higher rates of exercise. However, variations in life-style remain large. There are still areas where more than 35 % of the population smoke. In Stockholm County Council, the difference in life expectancy between the North-East District and the South District is about four years for males. The North-East District has the longest life-expectancy for males in the whole of Sweden and the South District the shortest. Behind this difference lie mainly socioeconomic factors.

Prevailing health problems in Sweden are related to mainly circulatory diseases (as in the whole of northern Scandinavia), which cause 49 % of the deaths in Sweden. Smoking is considered a key underlying factor. 23 % of deaths are caused by cancer (tumors). There are great variations between north and south of Sweden, as well as between large cities and smaller municipalities due to life-style, eating habits and genes. Heart problems and diabetes are much

more common in the north, with cancers more common in the south and in the large cities. Elderly people (65 years and older) have improved their health status significantly during the last 25 years. This has had an important impact on inpatient care and care of the elderly.

Females, immigrants, elderly people, and people in low income groups and areas have more health problems than national average, and they also see doctors and nurses more often on average. In-patient care, however, is not always delivered according to health problems (needs). For in-patient care, a recently published doctoral thesis showed a difference according to income in surgery for prolapse, appendicitis, heart problems, hernia and prostatic diseases (Steen Carlsson, 2000). More care was provided to higher income groups. The differences are not very big, but they are statistically significant.

### **III. National Health Policy in Sweden**

Health care is an important part of the Swedish welfare system. A fundamental principle, incorporated in the 1982 Health Services Act, is that all citizens have the right to good health and equal access to health care services, regardless of where they live or their economic circumstances. The following conditions are especially characteristic for the Swedish Health Care System:

- It is mainly a public responsibility.
- This public responsibility belongs to regional political authorities - 21 county councils – whose members are elected every fourth year concurrent with the general and municipal elections, and who mainly represent the same political parties as in the National Parliament. At present, the three biggest counties (50 % of the total population in Sweden) have conservative governments, and the National Parliament is governed by a Social Democratic minority government.

- The county councils levy a flat income-tied tax directly on the population (which provides 70 % of total county council income). Other sources of income are national government grants and tax equalization to poorer county councils and municipalities, as well as fees charged by the county councils for certain services.
- The health care system is also supported by a national health insurance system that helps fund ambulatory physician visits and other social welfare services.
- The county councils own and operate nearly all hospitals and primary health centers. Physicians working in these facilities are county employees.

The national health insurance fund was adopted in legislation in 1947, and introduced in 1955 (Heidenheimer, 1982). Its purpose was to pay for outpatient hospital care and other ambulatory physician visits. Implicit here was an effort to put more emphasis on outpatient-care, although not specifically on GP-based primary health care. At the time of adoption, outpatient care at hospitals was difficult to obtain, and it was expensive for patients. Out-patient care provided by private doctors in the big cities was also rather expensive for patients. This problem was resolved by the Seven Crown Reform of 1970, which established a low standard co-payment for ambulatory physician visits (Heidenheimer, 1982).

In the 1970s, the eight teaching hospitals were transferred from National Government to the county councils. Psychiatric hospitals had been transferred to the county councils from the National Government in the 1960s. During the 1970s and 1980s most were closed down and the patients placed in various types of community homes and half-way houses.

In 1992, a major reform was made to the delivery of residential services for the elderly. This Adel Reform transferred staff and beds at nursing homes from the county councils to the

municipalities, and an equivalent reform occurred with community half-way homes for the mentally ill in 1995. Already in the 1970s and the 1980s, faculties for the mentally retarded had been transferred in the same way. The Adel Reform sought to reduce the number of elderly “bed blockers” still in hospital after finishing their inpatient care, and to better coordinate hospital inpatient services with primary and home care services.

In an effort to increase the operating efficiency of publicly owned provider institutions in Sweden, a degree of competition has been introduced. This process is at present moving very fast in the largest cities, especially in Stockholm County Council. These competitive forces are only being utilized, however, on the production side of the health system, in hospitals and in primary health centers. There is no use of competitive forces on the funding side, where revenues are still raised via government-levied taxes. As OECD figures indicate, more than 80% of total health care expenditures (inclusive drugs and dental care) is still financed through the public sector taxes (Andersson and Poullier, 1999). Patient co-payments account for 3 % of the total health care budget (perhaps 7 % of outpatient expenditures and much less of inpatient expenditures). For dental care and drugs, the patients on average pay more than 50 % of the total expenditures. For pharmaceuticals, a sliding co-payment scheme is capped at 1300 SEK per year. More than 50 % of dental care for adults is provided privately. For persons below 20 years, dental care is provided free of charge in county-run facilities.

Approximately 70 000 Swedes have private insurance, mostly paid for by small companies for their senior executives. It is not possible to reduce individual or corporate taxes by deducting the costs of private insurance. More and more elderly people are having surgeries done, if the surgery can improve quality of life. This will have an impact on health care expenditures in the

future, since the number of persons 85 years and older will increase during the next ten years by about 22 % in Sweden.

Regarding expenditures, in 1998 Sweden spent 7.4 % of GDP (Gross Domestic Product) on health care and another 4.5 % on care of the elderly and handicapped. The latter has increased from 2.1 percent in 1991 (before the reform of the care of the elderly started ). The care of the mentally retarded was transferred already from the counties to the municipalities in 1985 (0.55 % of GDP). The GDP has increased faster than has health care expenditures in 1999 and 2000, so the latter are expected to decrease further to about 7.0 %.

#### **Catchment areas for hospitals and health centers.**

Sweden has reduced the number of publicly operated hospitals substantially during the nineties, through mergers and closures. At present (March 2000), Sweden has 71 acute/emergency/short term hospitals with altogether 30 700 beds. In the past three years, 15 hospitals have closed down or merged. Of the remaining hospitals, 10 have more than 800 beds and 27 have less than 200 beds; 21 hospitals have between 200 and 500 beds. All hospitals provide both in-patient and out-patient care. Nine of these hospitals have a regional role and eight are teaching hospitals. These figures do not include Sweden's seven privately owned hospitals. They do include one publicly owned hospital in Stockholm that is currently under private management on a three-year contract (see below).

The catchment area for an acute district hospital in Sweden is not set according to any national standard, and in practice varies quite a bit. One of the biggest catchment areas is for the South Hospital in Stockholm, which covers close to 450 000 people. Other big catchment areas are covered by large teaching hospitals, like Karolinska Hospital in northern Stockholm. Acute

hospitals in more rural parts of the country often have catchment areas of 100,000 or sometimes less.

The catchment area of Visby hospital on the island of Gotland is around 60,000 people during the winter-season, but in June, July and August the population is 200-300,000. Given this small regular population, the hospital is organized to focus particularly on outpatient activities and co-operation with the primary health care and the care of elderly including home care.

The average number of people registered or visiting a publicly employed G.P. is around 2,500 at present, with considerable variation. The target in many county councils is to reduce the number of people per G.P. to 1 500 within the next several years.

#### **V. The County's Role and Responsibilities**

The county councils have gradually taken over responsibility for funding and delivering health care from the national government. According to the Health Services Act of 1982, health care is a county council responsibility. This shift in formal responsibility reflects the culmination of a long process of deliberate measures to decentralize as much power as possible from the national government to county councils and local authorities.

During the nineties, a new process of regional consolidation began. In response to improved transportation and more spread-out living patterns, two new "super-counties" were formed. Five county councils in the metropolitan Gothenburg area and three in Malm ¯ legally combined. This re-structuring is intended to create more efficient management of hospitals across former county lines. The new county councils are Skane with 1.1 million inhabitants around Malmoe-Lund-Kristianstad, close to Copenhagen, and Region West-Sweden around

Gothenburg with 1.5 million inhabitants. Other county councils also have started co-operating across county lines not only by utilizing each other's hospitals (e.g. due to free choice of provider for patients), but also through closer co-operation in planning hospital services.

At present, there are 21 county councils ranging from 60 000 inhabitants (the island of Gotland in the Baltic) to 1.8 million (Stockholm County Council). In the early and mid 1990s, most county councils introduced some type of internal purchaser/provider split. This entailed separating the existing public county health organization into two distinct categories: service purchasers and service providers. Since both components remained wholly public in nature, this purchaser/provider split created the possibility of introducing contracting inside the public sector, with the expectation that purchasers could extract higher quality and lower prices from service providers (particularly hospitals). This reform also reflected broad recognition by both health system administrators and physicians that improved medical technology and procedures would continue to increase the percentage of outpatient surgery, and that the hospital sector would suffer increasingly from overcapacity. Thus, the fear felt by hospitals and doctors (who are hospital employees) that their institution might be closed served to make them very interested in making changes to secure contract for care in order to survive. In this sense, Swedish public hospitals become a type of "public corporation", no longer paid on a regular budget but instead required to earn revenues through negotiated contracts. This status is now being formalized into publicly operated companies in Stockholm County and elsewhere.

The contracting process in Sweden is entirely public in character. It also is different from traditional neo-classical economic understandings of a market in that these contracts can not directly steer patients. Since 1991, Swedish patients had the right to break out of their officially assigned catchment areas, and to decide themselves which public health center and

which public hospital they should attend for care. Consequently, while county purchasers can negotiate contracts, they can not require patients in their districts to receive care only from contracted providers. Hence, these contracts are nominal rather than definitive. One purchaser, in the Western District of Stockholm County, sought to overcome this problem by negotiating contracts that provided for higher quality and continuity of care, in a (successful) effort to convince patients that they should voluntarily choose to receive care from the same institutions where the district purchaser already had negotiated a volume-tied contract.

One interesting element in the adoption of this purchaser/provider split by Swedish counties has been the tendency to subdivide the county into several separate purchasing districts. Stockholm County, for example, with its 1.8 million inhabitants, was divided into 9 (later consolidated into 6) separate public purchasers. Each district was headed by a senior political person, accompanied by a team of clinical and financial personnel. The South District, as one example, purchases hospital and primary care services for its 270,000 inhabitants from hospitals both that are within its district as well as from other hospitals located elsewhere in Stockholm County. In Dalarna County, in the north-center of the county, there are 15 purchasing boards, composed of the elected members of the county council from within each of those districts. In effect, the implementation of the purchaser/provider split has often further decentralized decision-making authority below the county level to sub-county units of purchasers and providers.

The process of creating competition among health service providers in Stockholm County has recently been given an additional twist. Not only are hospitals and, to a lesser degree, primary health centers in competition with each other to attract patients (and with them, revenue), but the conservative party leadership of the county has introduced a further process regarding the

internal management of these publicly owned service providers. They have placed the management of one hospital (St. Görans) and, beginning in November 1999, the management of each of 16 primary health centers in South District, out to bid. In the case of St. Görans, as of December 1999 it is being managed on a contract basis by Bure AB, which is itself a public firm (20% of the stock is owned by the Swedish State) that also issues stock on the Swedish bourse. Depending upon the bid selected, the right to operate each of the primary care centers could be given to their current staff, to a group of doctors bidding privately, to Bure, or to a private physician (cooperative) company called Praktikerstjänst, or to some other medical group. For both the hospital and most primary health centers, the ownership of the physical buildings will remain in the hands of another public company owned by Stockholm County, called Locum AB, which owns and manages all of the county's public property. In effect, by putting hospital and health center management out to bid, the County is further reinforcing the competitive process on the production side of the County's health care system by installing what it hopes will be more entrepreneurially minded decision-makers at the head of each provider institution.

Sweden has kept this process of establishing more entrepreneurial providers under tight regulatory controls. In Stockholm County, for example, the contracts negotiated by public purchasers have clear quality measures and require monthly reporting by the hospitals of key performance measures. Stockholm County also owns the hospital and outpatient buildings, through the public company Locum, which keeps control over building renovation and new construction projects. Moreover, since the entrepreneurial managers do not own the buildings, their latitude to obtain outside (e.g. bank) capital financing is restricted to operating-related expenditures. At the national level, provider organizations organized as public companies require licenses from the National Board of Health and Welfare, and are subject to newly enhanced regulatory

authority put in place in the wake of a 1995 scandal involving a poorly performing private laboratory (Orn, 1996). In addition, the same national processes of monitoring and evaluating concerning performance, and also physician discipline, continue to apply to all providers regardless of who operates them. Lastly, there is the Swedish press, which has a long tradition as a watchdog of investigating health institutions and publicizing irregularities in quality as well as finances.

During the nineties the county councils also have taken over the responsibility for financing the private care and the drug expenditures. In 1998, excluding drugs and dental care, 62 % of the health care expenditures were spent at the hospitals, 17 % in primary health care, 10 % in psychiatric care, 6 % in geriatric care and 6 % for central administration, ambulances, helicopters and other transport, and other expenditures. Drugs take at present around 15 percent of the total health care expenditures (inclusive all private care, dental care and building investments, but excluding care of the elderly and health care at nursing homes provided by the municipalities and private contractors).

There is great variation in the expenditure level between the county councils. After standardization for age, distance, mortality and morbidity there are still variations of more than 30 %, but 15 years ago there were differences of around 45 % also when the care of elderly was included.

In addition to hospital closure, one way of coping with an increasing bed-surplus has been to offer available capacity to other county councils in areas where there is a shortage of specialized staff. Currently the shortage is greater in Stockholm e.g. for eye-surgery (cataracts and also near-sight/astigmatism laser surgery, the latter being paid for by the patients

themselves). Another solution to surplus beds is to take patients from abroad if there is a payer for the care provided. For example, Stockholm Care sells beds at different hospitals in Stockholm. Similar organizations also work at other specialized teaching hospitals.

## **VI. Hospital OPD Structure and Services**

Outpatient departments are found in every acute care public hospital in Sweden. Typically, each inpatient specialty at the hospital also has an outpatient clinic as well. These clinics typically are housed either in the same building as smaller hospitals, or in a specially built facility at the larger teaching hospitals. They usually see patients during normal daytime hours, and they are staffed by the hospital's regular salaried clinic (e.g. inpatient) specialists, who work in these OPD departments as part of their regular hospital hours. These outpatient clinics are administered and operated separately from the hospital's emergency room.

Patients make an appointment both to the clinic and to a specific specialist. They also are given a specific appointment time. Generally patients are seen by the doctor relatively close to their scheduled appointment time. Several kinds of patients are seen in the OPD: former inpatients who are receiving follow-up care; referrals from primary care doctors; self-referrals who elect to pay the higher co-payment in order to go directly to a specialist; and certain types of patients with chronic conditions that require regular control visits (e.g. dialysis patients).

Outpatient clinics in Stockholm County hospitals are paid according to a specific ambulatory payment mechanism known as KOKS. Developed by Stockholm County, this system pays the hospital for each outpatient visit according to the services of the specialist physician. It comprises all OPD-diagnoses that are relevant in Sweden, and the payment includes the cost of

the specialist physician. It is used in all Stockholm County hospitals and similar systems are employed elsewhere in Sweden.

Patient copayments are nominal, but vary considerably with the individual county council. They depend on whether the patient has a referral from primary care (no co-payment), and whether the patient has already paid out the maximum legal co-payment for ambulatory physician visits for that year (see above). Copayment for a self-referred visit can be as high as 260: SEK (30 USD).

Coordination between the outpatient department and primary care is an important concern. The results from laboratory tests ordered by primary care are sent by the primary care physician to the outpatient department, and normally are not re-taken unless there is good medical reason to do so. Information about diagnosis and treatment are conveyed by the specialist back to the primary care physician, so as to guide subsequent patient care. Since both outpatient specialist and primary care physician are salaried employees, there are not instances in which the specialist “steals” the patient permanently (as can happen when physicians are paid fee-for-service).

Sweden has four private hospitals that have outpatient as well as inpatient facilities. One of these is St. G<sup>ö</sup>rans in Stockholm, which, as noted earlier, is privately managed on a contract basis by a public corporation (Bure A.B.). The three privately owned hospitals have relatively small 50-bed inpatient departments, and all four of these hospitals have substantial day surgery and outpatient departments. Co-payments for outpatient care vary with the hospital and the service provided, and also with whether the patient is covered by a private insurance policy. A few wealthy patients do pay out-of-pocket the full charge for outpatient care.

During the last years a new model has been introduced in Stockholm County Council, namely to have specialized outpatient care in small privately managed outpatient hospitals which are situated in densely populated areas. These take patients on emergency basis, and they are planned to reduce the number of patients at the emergency departments at the big hospitals.

In the South District of Stockholm County, South Hospital is at present supported by two private hospitals/outpatient centers with emergency departments open daytime Monday to Friday and a number of public and private health centers open daily or Monday to Friday and with specialized consultants available in many of them. Some health centers are also open until 22 hours Monday to Friday and daytime Saturdays and Sundays. All health centers in Sweden usually have well trained and experienced G.P.s´, district nurses and physiotherapists available, although there is a scarcity of G.P.s´. Many physiotherapists and private doctors with specialization also work alone or in groups in the biggest cities, especially where many people live or work.

There has been a dramatic increase in outpatient surgery in Sweden over the past decade. As the following two examples indicate, some procedures are now provided predominantly on an outpatient basis. The percentages for 1999 are expected to be still higher.

Ambulatory day surgery as a % of total surgeries for Sweden:

	<u>1990</u>	<u>1996</u>
Hernias	27 %	52 %
Cataract surgery	48 %	90 %

Sweden is now believed to provide outpatient day surgery on almost as high a basis as the United States, where more than 40% of all procedures are now conducted on an outpatient basis. Sweden, however, has not experienced the patient concerns that have emerged in the United States about procedures being done inappropriately on an outpatient basis (e.g. mastectomy) or patients being sent home in inappropriate condition (e.g. still on intravenous feeding, etc.). Sweden also has a well-developed and publicly funded set of medical home care services that would ensure that patients treated on an outpatient surgical basis receive adequate care once they return home.

Psychiatric outpatient care is sometimes given at specialized outpatient-care units (often situated at local somatic hospitals without an emergency department) and often in close co-operation with the municipalities. The number of visits to doctors are around 0.1 per inhabitant in 1973 as well as in 1998. Outpatient activities involve a lot of other staff as well.

The number of visits to doctors have always been low in Sweden, relative to all other industrialized countries. The total number of visits to doctors has only increased from 2.8 per inhabitant in 1973 to 3.0 in 1998. The number of visits to G.P.s (including private) have increased from 1.1 to 1.4. The visits to doctors at hospitals are about the same for medicine (0.4 per inhabitant) and a decrease for surgery from 0.70 to 0.55. Visits to private specialists (other than general medicine) have remained the same between 1973 and 1998 (0.4 per inhabitant).

Around 1.4 visits per inhabitant were made in 1998 to nurses, district nurses and auxiliary nurses. The number has decreased since the care of elderly reform in 1992, as these activities are now provided also within the home care provided municipalities. Visits to physiotherapists

have increased substantially since 1973, from 0.1 visits per inhabitant to 0.4 in 1998 for public care and from 0.1 to 0.6 per inhabitant in private care.

## **VII. Reduction in Beds and Length of Stay**

There has been a dramatic fall over the last two decades in the number of hospital beds in Sweden. This reduction reflects figures, noted earlier, that across the country during the 1990s, some 17 hospitals had been closed, leaving 71 still operating. In Stockholm County alone, four out of ten acute hospitals have been closed and transformed into outpatient ambulatory facilities.

The highest level of hospital beds per inhabitant was in 1973; 5.3 beds per 1000 inhabitants for medicine and surgery (2.5 beds for medicine and 2.8 for surgery) and 4.2 for psychiatric care (excluding nursing homes). In 1980 there were 5.1 beds per 1000 inhabitants in somatic acute care (medicine and surgery) and 3.2 in psychiatric care (excluding private nursing homes). In 1998 there were 2.6 beds per 1000 inhabitants in somatic acute care (1.3 for medicine, 1.1 for surgery and 0.2 for mutual /integrated beds) and 0.7 in psychiatric care.

The average length of stay also has been reduced substantially, but here there are great variations between different specialties and hospitals. Given the rapid increase in the volume of outpatient surgical activities, one would have expected to see an increased average length of stay for the remaining patients, who also are older and older for every year. In fact, the opposite occurred.

Some examples of shortening the length of stay (average figures for Sweden) are;

	<b>1970</b>	<b>1996</b>
Internal Medicine	14.1	5.5
General Surgery	11.3	5.3
Paediatrics	10.8	4.1
Obstetrics	6.6 (1973)	3.7
Gynaecology	5.9 (1973)	3.7
Dermatology and VD	25.5	11.1
Infectious Diseases	16.2	6.7
Lung Diseases	46.2	6.8
Neurology	22.6	6.8
Ortopaedic Surgery	13.3 (1973)	5.3
Rheumatology	32.3 (1973)	11.9 (1994)
Oncology, (general)	11.0 (1973)	5.7
Urology Surgery		5.1 (1994)
Eye Diseases	6.2	3.1
Ear, nose and throat diseases (ENT)	4.5	2.6

The number of admittances could increase every year through 1995, thanks to shorter stays and in spite of a substantial reduction in the total number of inpatient days;

	<b>1980</b>	<b>1985</b>	<b>1990</b>	<b>1995</b>	<b>1996</b>	<b>Index 1980= 100</b>
Somatic acute care at hospitals	100	109	108	110	108	
(medicine and surgery):						
Psychiatric inpatient-care	100	92	84	83	80	
(excluding nursing-homes)						

All these changes – reduced number of beds and hospitals, reduced length of stay, and increased outpatient surgical procedures – are part of a concerted effort by Swedish counties to shift patient treatment to less expensive hospital outpatient, primary care, and home care sites. The financial and clinical advantages of increased outpatient activities and primary health care have been studied many times in Sweden and in other countries. This year, professor Lars Borgquist, of Linköping University published a report, in which he and a colleague state that there is a positive impact from well functioning primary health care on the level of inpatient care, and that an expansion of primary care is thus efficient and useful from a patient and a tax payers perspective. Most of the studies Lars Borgquist et al. refers to are from U.S. and U.K, but there are also Swedish studies.

Another report (Spri reports 323-326; Health and Care on Municipality Level, 1992) analyzed 115 municipalities with at least 20 000 inhabitants (covering 80 % of the Swedish population) with an in-depth study of the parishes in Stockholm, Gothenburg and Malmö. It concludes that the combined efforts of primary health care and the care of the elderly, when taken together, has an impact on reducing the needed level of hospital inpatient care in Sweden. A key has been the expansion of home-care and especially of the number of hours per patient, but of course, this has to be integrated with inputs from the primary health care.

The impact of outpatient care in hospitals on inpatient care is clear in the way that many more procedures are being performed in e.g. day-surgery. As with primary health care, more is done at a specific visit than before, with elderly people also getting more time per visit to be treated.

### **VIII. Specific Answers to questions**

## Summing up answers to the specific topics

- 1) *There are no specific population based standards for determining the capacity of outpatient departments in Sweden. Comparisons are made with other similar departments and the size and structure of the catchment area.*
  
- 2) *There are no minimum standards for equipment, staffing etc, but to have 24 hours emergency a certain number of doctors, nurses and so on is needed. This is worked out locally at the hospitals.*
  
- 3) *The size of the catchment area varies a lot, as has been commented upon above. For internal medicine a transport/travel distance of one hour is a maximum standard. For surgery a longer travel distance usually can be accepted. Some specialties are only available at teaching hospitals.*
  
- 4) *There is no designated list of procedures to be performed on an outpatient basis. There is, however, a lot of professional exchange of working methods. Differences between medical practice are published and discussed.*
  
- 5) *There are differences between the county councils regarding referrals. In some county councils the patient needs a referral from the primary health care to be able to visit a hospital department. The fee system usually favours the patients that visit the primary health care instead of going directly to the hospital. The specialists outside the hospital departments are supposed to have a close collaboration with the specialists at the hospital. These specialists are usually private, working alone or in groups.*

- 6) *The reimbursement system for hospital outpatient departments is e.g. in Stockholm County Council done according to a specific system for outpatients, named KOKS. The system gives different reimbursement for different measures. The funding for in- and outpatients is from the same source.*
- 7) *Impact of expansion of hospital outpatient departments. This has been commented on above. Deliberate measures have been taken to transfer surgeries and other activities to outpatient care, which has reduced the inpatient utilization. By expanding the primary health care the hospitals receive less patients. The referrals from primary care are on average 8-9 % of the total number of visits.*

#### Appendix A

As an example of how one district in Stockholm County has prioritized its resources, this appendix shows the final accounts/actual expenditure for South District (270 000 inhabitants) in 1999. The health care budget presented below covers the utilization of one large acute hospital as well as all other health care (excluding dental care) that the population utilizes in all other districts, including private care and drugs paid for by public sector tax monies.

#### **South District Health Care Expenditures in percentage distribution. Final accounts 1999**

	%
Somatic acute care at hospitals and private urban health centers	36
Both in- and outpatient-care (can be separated by approximate calculation; 12 % out of 36 % was spent on hospital outpatient care, or 12 % of total 100 % (24 % on inpatient care at hospitals)	

Geriatric care (mostly inpatients)	9
External rehabilitation (in other districts/counties, private and abroad)	2
Technical aids (for handicapped)	3
Psychiatric care	13
Primary health care (excluding private health centers)	12
Private health centers, doctors (G.P. 's and consultants) and physio-therapists	10
Drugs	12
Other expenditures (central administration, politicians, R&D, transport, interpretation)	3
TOTAL	100

As can be seen from the table the drug expenditures are fairly low in South District. Included is the subvention to high-consumers of health care and drugs. Most of this subvention is subsidized from National Government. Comparing the annual accounts for 1997-1999 it will be found that the hospitals and local urban health centers as well as the drugs have increased their

shares on behalf of the psychiatric care, primary health care and the geriatric care. On the other hand the private doctors and physiotherapists have increased their shares and they are part of these sectors (psychiatric and primary health care). It can also be seen that the number of inpatient days at hospitals have decreased and the specialized ambulatory visits to doctors (at hospitals and private urban health centers) have increased. The admittances for inpatient-care at hospitals have increased by a continued shortening of the length of stay. More day surgery is performed at both private and public hospitals for the population of the South District.

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