



Introduction

Government and recent political history

Denmark became a constitutional monarchy in 1849. The Danish parliament is a unicameral chamber and its 179 members are elected at least every four years on the basis of proportional representation. Denmark joined the European Union (EU) in 1973.

Population

The population is estimated to be 5.3 million, with 85% living in urban areas and just over 30% living in the greater Copenhagen area.

Average life expectancy

At 74.5 years for men and 79.2 years for women (in 2001) average life expectancy is lower than the EU average. Between 1970 and 1995, increases in life expectancy in Denmark did not match increases in other western European countries. Since 1995, however, average life expectancy has increased at a higher rate than in other countries.

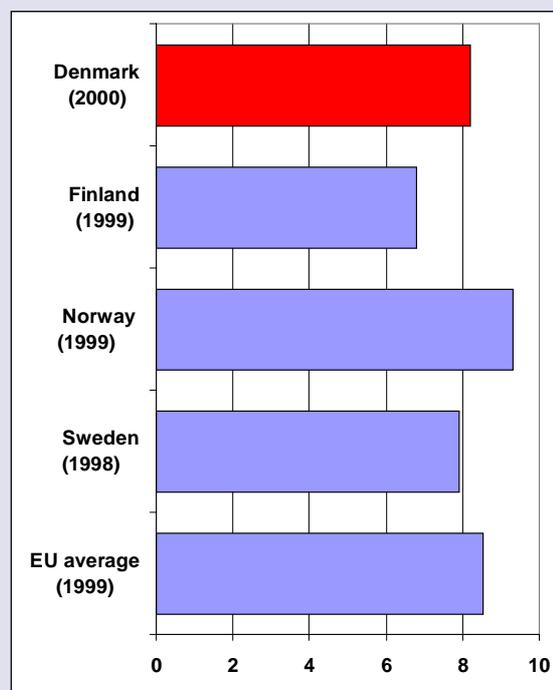
Leading causes of death

The leading causes of death for people of all ages are cardiovascular diseases and cancer. Standard death rates (SDR) for cancer are the highest in the European Union. SDR for all causes of death in Denmark were roughly equal to the EU average in 1985, but by 1996 they were substantially higher.

Recent history of the health care system

The Danish health care system has been the responsibility of the counties and municipalities since 1970. Since the abolition of social health

Fig. 1. Total health care expenditure as % of GDP, comparing Denmark, selected countries and EU average



Source: WHO Regional Office for Europe health for all database.

insurance schemes in 1973, health care has been funded mainly through local and national taxes.

Reform trends

There has not been any major restructuring since 1970 and the establishment of a national system of health insurance in 1973. A 1993 reform allowing patients to be treated at any hospital in the country and the creation of the Copenhagen Hospital Corporation in 1994 represented

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deviations from the structural arrangement of county provision of health care for a geographically defined population. Other national initiatives have aimed to link hospital finances to activity levels, to reduce waiting lists, to improve the quality of care and to strengthen patients' rights.

Health expenditure and GDP

In 1999 total expenditure on health care in Denmark accounted for 8.4% of GDP and US\$ 2275 per capita (in current prices PPP). Public expenditure on health care accounted for 6.9% of GDP and private expenditure accounted for 1.5% of GDP.

Overview

Health care was a major issue during the elections of November 2001, largely due to intense media interest in waiting lists. Nevertheless, levels of public satisfaction with the health care system are high, particularly for general practitioner services, and there continues to be strong political and public commitment to a universal health care system based on equal access for equal need and health care provided free at the point of use.

Organizational structure of the health care system

The Danish health care system is predominantly financed through local (county and municipal) taxation with integrated funding and provision of health care at the local (county) level. Most primary care is provided by privately practising general practitioners, who are paid on a combined capitation and fee-for-service basis. The counties control the number and location of general practitioners, and their fees and working conditions are negotiated centrally. The municipal health services provide health visitors, home nurses and school health care. Hospital care is mainly provided by hospitals owned and run by the counties (or the Copenhagen Hospital Corporation in the Copenhagen area). Private

hospital providers are limited, accounting for less than 1% of hospital beds.

The central government plays a relatively limited role in health care. Its main functions are to regulate, coordinate and provide advice. Its main responsibilities include establishing goals for national health policy, preparing health legislation, formulating regulation, promoting co-operation between different health care actors, providing guidelines for the health sector, providing health and health care-related information, promoting quality and tackling patient complaints.

The role of the Ministry of the Interior and Health is largely administrative. It is responsible for health policy, guidelines and legislation, including legislation on health care provision, personnel, hospitals, pharmacies, pharmaceuticals, vaccinations, maternal health care, child health care and patients' rights. The Ministry of Finance plays a key role in setting the overall economic framework for the health sector.

Established in 1932 and now linked to the Ministry of the Interior and Health, the National Board of Health is responsible for the technical aspects of health care, such as supervising health care personnel and institutions and advising different ministries, counties and municipalities on health issues.

Most health care in Denmark is funded and provided by the counties, whose responsibilities include:

- funding primary and secondary care
- regulating general practitioners
- owning and running prenatal care centres
- owning and running hospitals
- owning and running special institutions for disabled people
- providing district psychiatry services
- preventing ill health and promoting health.

The municipalities (also run by councils elected every four years) are responsible for providing the following services:

- nursing homes
- health visitors (including prenatal and postnatal home visits)
- home nurses
- home help (assistance with daily activity)
- municipal dentists
- school health services
- preventing ill health and promoting health.

Planning, regulation and management

Although there is no national plan or national planning agency, legislation enacted in 1994 requires the counties and municipalities to develop a plan every four years for the coordination of all their preventive and curative health care activity. The coordination process varies from county to county, but is often based on meetings, seminars and joint committee work focusing on specific areas, such as child health, the health of elderly people or mental health. These plans must be submitted to the National Board of Health for comments.

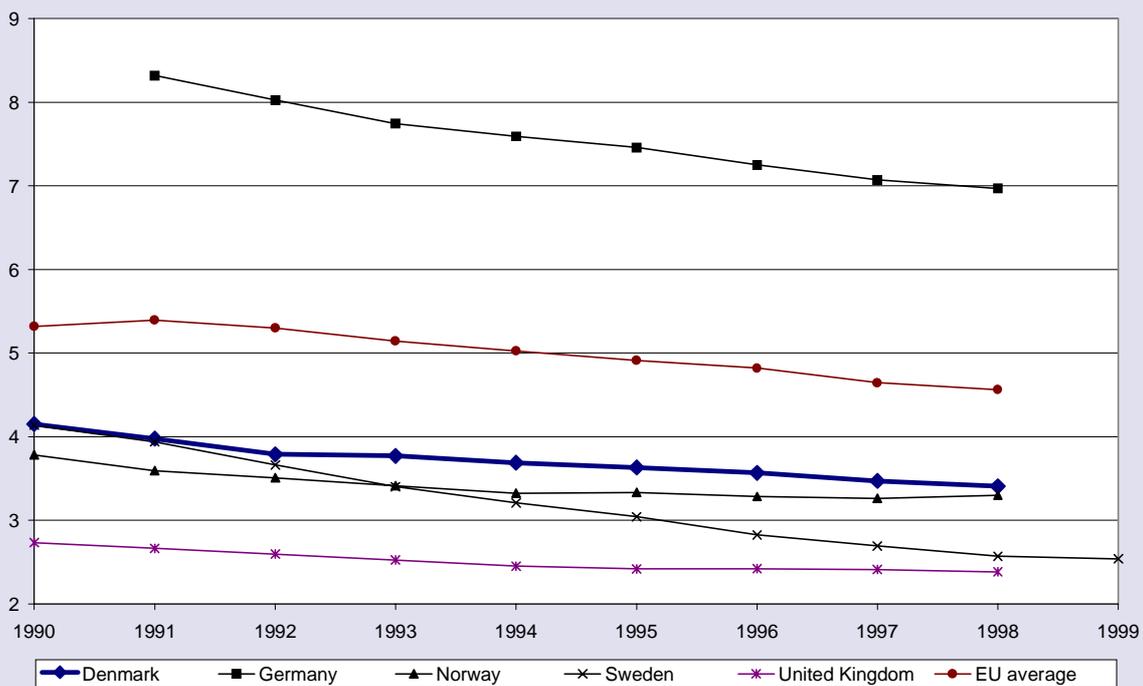
An annual budget negotiation between the different political and administrative levels sets the overall economic framework for the health care system (see below). In recent years the central government has increasingly tended to use the negotiation as a means of influencing the direction of the health care system. It does this by highlighting priority areas such as cardiac surgery, cancer treatment or waiting times, and making available earmarked grants to assist counties and municipalities in achieving targets such as reducing waiting times for surgery, increasing the number of heart bypass operations or expanding psychiatric services.

The National Board of Health exerts some control over the supply of health care professionals, as it authorizes medical personnel and is particularly influential with regard to post-graduate training.

Decentralization of the health care system

Hospital care has been the responsibility of the towns and counties since the eighteenth century,

Fig. 2. Acute hospital beds per 1000 population, Denmark, selected countries and EU average



Source: WHO Regional Office for Europe health for all database.

and local communities took responsibility for local health services in the nineteenth century. But since the 1930s central government has taken financial responsibility for the overall health service and in 1970 the Danish parliament further delegated responsibility to the counties and municipalities as part of a radical administrative restructuring and reform of local government that reduced the number of counties from 25 to 14 and the number of municipalities from 1386 to 275. Several health care activities that had previously been carried out by the state and the municipalities were transferred to the counties, so the change resulted in both decentralization and centralization. Since 1970, most decisions regarding the form and content of health care activity have been taken at county and municipal level. However, there are important channels for coordination and negotiation between the state and the counties and municipalities and between the counties and the municipalities. In recent years the political focus on controlling health care costs has encouraged a greater degree of formal cooperation.

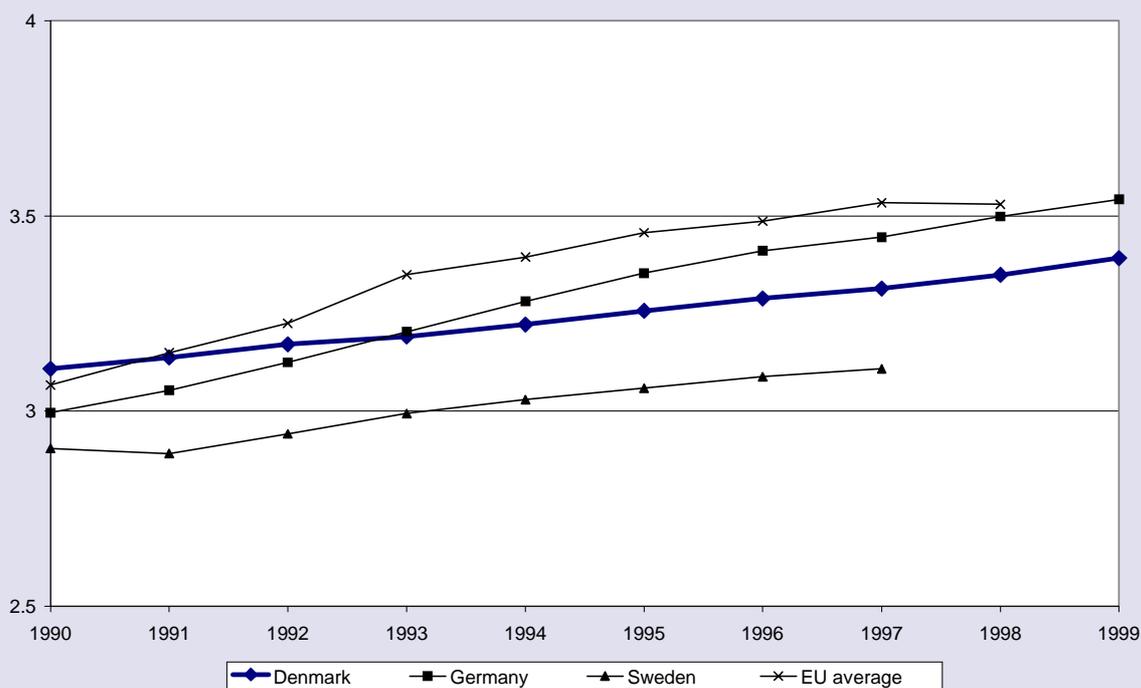
Health care financing and expenditure

Health care benefits and rationing

In 1999 82.2% of total expenditure on health care in Denmark was financed by a combination of state, county and municipal taxes. Local taxes are supplemented by state subsidies that are calculated annually according to the size of local tax revenues. In addition, resources are transferred between counties and municipalities on the basis of a formula that takes into account the following factors: age distribution, the number of children in single parent families, the number of people living in rented accommodation, the rate of unemployment, the number of uneducated people, the number of immigrants from non-EU countries, the number of people living in socially-deprived areas and the proportion of elderly people living alone.

Access to general practitioners and hospital care is free at the point of use for all Danish

Fig. 3. Physicians per 1000 population, Denmark, selected countries and EU average



Source: WHO Regional Office for Europe health for all database.

residents. It is not possible for Danish residents to opt out of the statutory health care system. Individuals choosing the Group 2 option (see below) must pay part of the cost of visits to general practitioners and specialists.

There is no positive list of the benefits provided by the statutory health care system in Denmark, except for some health checks for children and pregnant women. Certain types of treatment must be considered to be useful or necessary by a doctor in order to qualify for public funding. For example, cosmetic surgery will only be performed free of charge if a doctor finds it to be necessary on psychological grounds. These decisions are taken by individual doctors on a case-by-case basis. Infertility treatment is unusually carefully regulated, with fixed restrictions for some procedures such as assisted or in vitro fertilisation. The statutory health care system does not pay for treatment that is considered to be “alternative” (for example, zone therapy, kinesiology, homeopathy and spa treatment) and spectacles (unless patients have very poor sight). The costs of physiotherapy, dental care and pharmaceuticals prescribed in a primary care setting are only partially covered by the statutory health care system. Statutory reimbursement of pharmaceuticals is based on a positive list of drugs drawn up by the National Medicines Agency.

Complementary sources of finance

Private expenditure on health care comes from out-of-pocket payments (16.2% of total expenditure and voluntary health insurance (1.4% of total expenditure).

There are no user charges for non-clinical services in Denmark. User charges in the form of co-payments (a percentage of the total cost) are applied to physiotherapy, dental care and spectacles. The size of dental co-payments varies according to the procedure undertaken, but they are generally large and have therefore caused some controversy, as many claim they are inequitable. User charges for general practitioner visits and hospital stays have been discussed as

a means of reducing unnecessary utilization, but have always been rejected for fear of reducing the use of health services by people on low incomes.

Drugs prescribed in a primary care setting (that is, outside hospitals) are subject to varying levels of co-payment whereby patients pay 100%, 50%, 25% or 15% of the cost on the basis of an individual’s drug expenditure during a defined period. Chronically ill patients with a permanent and high utilisation of drugs can apply for full exemption from co-payments once their expenditure on drugs has reached an annual ceiling of DKr 3600. Special rules for pensioners have been abolished, although pensioners who find it difficult to pay for pharmaceuticals can apply to their municipality for financial assistance. Patients with very low incomes can receive partial exemption from drug co-payments on a case-by-case basis. Patients in Group 2 must pay for visits to general practitioners and specialists. Out-of-pocket payments are not exempt from tax.

About 30% of the population purchases complementary voluntary health insurance (VHI) to cover the cost of statutory co-payments. Supplementary VHI (providing policy holders with access to treatment in private hospitals) has developed rapidly in the past 5 or 6 years due to the perceived shortcomings of the statutory health care system (waiting lists, etc.). Supplementary VHI is now included in many job contracts and sometimes in centrally-negotiated work agreements in particular sectors or firms. This type of VHI policy mainly covers people of working age. Since diseases are less prevalent in this group and all acute illnesses are treated immediately in the public sector, these policies have so far been put to limited use. Overall, the market for VHI appears to be driven by a degree of “hype” about the poor quality of the statutory health care system; as individuals and employers become more aware of its limitations, and the government increases public spending on health care, it is possible that the demand for VHI will stagnate or fall. Levels of supplementary VHI

coverage are not known as there is no central source of data; voluntary health insurers are reluctant to reveal aggregate figures and there are no detailed studies of the characteristics of those covered by VHI.

Health care expenditure

In 1999 total expenditure on health care in Denmark accounted for 8.4% of GDP. Public expenditure on health care accounted for 6.9% of GDP (or 82.2% of total expenditure on health care) and in 1999 private expenditure accounted for 1.5% of GDP (17.8% of total expenditure on health care). As a percentage of GDP, health care expenditure in Denmark is higher than the EU average (7.9% of GDP in 1999). Danish health care expenditure calculated in US\$ PPP per capita (current prices) is also higher than the EU average (US\$ 1849 in 1999).

Expenditure on health care as a proportion of GDP fell during the 1970s, 1980s and early 1990s, but has risen slowly since the mid-1990s. The sudden rise in health care expenditure as a percentage of GDP in 1980 is largely due to a change in the definition of expenditure on health care to include nursing homes, which had previously been excluded from calculations of health care expenditure. According to national data, total health care expenditure experienced an annual growth rate of 2.3% between 1988 and 1999. Most of this growth has taken place since 1992 and is mainly due to increased public expenditure on hospitals.

Between 1980 and 1999 hospital expenditure increased by a total of 20% in real terms; public expenditure on pharmaceuticals and primary care increased by 115% and 50% respectively. Most noteworthy are the relative increases in private expenditure, individual health services and administration.

Public expenditure on health care has decreased steadily as a proportion of total expenditure on health care, although it rose slightly between 1998 and 1999. Private expenditure as a proportion of total expenditure on

health care has risen from 12.2% in 1980 to 17.8% in 1999.

Between 1980 and 1990, out-of-pocket payments increased by 41.2% from 11.4% of total expenditure on health care to 16.1%. Growth was much smaller between 1990 and 1998 (3.1%) and in 1998 out-of-pocket payments accounted for 16.6% of total expenditure on health care. In an international comparison, private expenditure as a percentage of total expenditure on health care is moderate in Denmark. At 18.1% in 1998, it compares to an EU low of 7.6% in Luxembourg and an EU high of 33.1% in Portugal. However, levels of per capita private expenditure are high compared to other EU countries.

Health delivery system

Health care in Denmark is provided by:

- self-employed health care professionals – general practitioners, specialists, physiotherapists, dentists, pharmacists and chiropractors;
- hospitals – mainly funded, owned and operated by counties or the Copenhagen Hospital Corporation; private hospitals exist but account for fewer than 1% of all hospital beds;
- municipalities – nursing homes, health visitors (including prenatal and postnatal home visits), home nurses, home help (assistance with daily activity), municipal dentists and school health services.

Primary health care (PHC)

Primary health care is provided by self-employed health care professionals and municipal health services.

General practitioners play a key role in the Danish health care system as the patient's first point of contact and as gatekeepers to specialists, physiotherapists and hospitals. Since the free

choice of hospital system was introduced in 1993, general practitioners also fulfil an important function in advising patients on which hospital to choose.

Since 1973, Danish residents over the age of 16 have been able to choose from two general practitioner options known as Group 1 and Group 2. Access to general practitioners is free at the point of use for individuals in Group 1, but individuals in Group 2 must pay part of the cost of a general practitioner visit. Individuals in Group 2 are free to visit any general practitioner and any specialist without a general practitioner's referral, but must pay part of the cost of all services except hospital treatment. Only 1.7% of the population have opted for Group 2, partly due to the extra costs involved and partly due to general satisfaction with the general practitioner referral system.

General practitioners operate private practices, either on their own (about a third of general practitioners) or in collaboration with other general practitioners. As a result of collaboration between different practices, general practitioners' services are available 24 hours a day. Many hospitals provide open emergency services, although some counties have restricted access to these services to cases referred by general practitioners or brought in by special emergency services.

Public health services

Some public health services are integrated with curative services, while others are organized as separate activities provided by specialist institutions. In 1999 the central government initiated a 10-year national target-oriented programme of public health and health promotion, with an overall target to improve public health and reduce social inequality, as well as 17 specific targets. In 2002 a new and slightly different programme was launched by the new government. Responsibility for the surveillance and control of communicable diseases lies with public health officers employed by the Ministry of the Interior and Health who have the power to

close institutions to avoid infection. General vaccination programmes are carried out by general practitioners and funded by the counties on a fee-for-service basis. Children have access to free health examinations, while schools provide sex education as part of their general education programme. Pregnant women have access to free antenatal services provided by general practitioners, midwives and obstetricians in hospital obstetric departments. Cancer screening includes systematic screening for cervical cancer, and in recent years a few counties have also provided systematic screening for breast cancer for women aged between 50 and 69 years.

Secondary and tertiary care

The majority of hospitals in Denmark are owned and financed by the counties. Exceptions to this include hospitals in the Copenhagen area and private for-profit hospitals. The latter provide fewer than 1% of the total number of hospital beds. Each county has at least one central hospital and smaller district hospitals, but the size of the hospital sector varies between counties. The total number of beds in general and psychiatric hospitals in Denmark has declined substantially since the early 1980s, from around 40 000 in 1980 to around 28 800 in 1990 and around 23 000 in 1998/1999, reflecting a trend that has taken place in almost all western European countries.

The number of beds per 1000 population fell from 7.6 (6.0 in general wards) in 1980 to 4.9 in 1995 (4.1 in general wards) and 3.7 beds in 1999. The relative reduction was most significant in psychiatric hospitals, largely due to a policy of de-institutionalisation. The general decline in the number of beds in both general and psychiatric hospitals has been associated with a large increase in the number of outpatient visits. Average lengths of stay have fallen from 13.3 days in 1980 to 5.6 days in 1999. The decrease in the average length of stay can largely be attributed to decreasing lengths of stay for patients aged over 65.

Since 1993, many counties have introduced "soft" contracts for hospitals, which supplement

the global budget and are intended to raise awareness of costs and increase activity by setting targets for activity, service and quality. In some cases contracts provide incentives in the form of activity-based financing or bonuses for particular areas of treatment. A related trend has been to delegate management and financial responsibility to even lower levels, such as hospital departments, in order to create greater awareness of costs and stronger economic incentives at the point of delivery.

Prior to 1993 there were strict rules regarding referral to hospital and patients were usually only referred to hospitals within their county of residence. Since 1993, however, patients can choose to be treated at any hospital in the country, so long as it is at the same level of specialization as the hospital they have been referred to. So far only a limited number of patients have taken advantage of this reform (5–10% of all non-acute admissions). To date, the reform's strongest impact has been in the area of planned surgery.

Political and media interest in the issue of waiting lists or waiting times for treatment during the 1990s has resulted in a number of centrally-initiated investigations and reports. More concrete initiatives have involved allocating additional funds to the counties and the declaration of maximum allowable waiting times for specific treatments. The most recent waiting time guarantee came into effect in July 2002 and guarantees patients access to treatment within two months.

Social and community care

Most social care in Denmark is provided by municipalities, including: the provision of social welfare allowances (sickness allowances and disability pensions), non-hospital based home care of elderly people, disabled people and people with chronic diseases (including mental disorders), and community mental health centres (in some areas). Municipalities are also responsible for providing housing for mentally

disabled people and homeless people. The counties provide some social services for special groups, such as the distribution of special technical aids and care for seriously mentally or physically disabled people and the treatment of drug addicts.

Human resources and training

The number of doctors per 100 000 population has increased by about 30% in the last two decades, rising from 218 per 100 000 population in 1980 to 284 in 1999. However, the rate of increase is slightly slower than in other EU member states, largely as a result of limited access to medical training programmes in the 1970s and 1980s. Currently, the number of doctors in Denmark per 100 000 population is well below the EU average. Approximately 60% of doctors (around 9000) are employed by hospitals. About 23% of doctors (3400) are general practitioners. Whereas general practitioners are fairly well distributed across the country, the 787 full-time practising specialists are concentrated in the capital and other large urban areas. The recruitment of nurses is currently the most serious staffing problem in the Danish health care system, besides the lack of doctors in some parts of the country. The shortage of nurses is mainly the result of low salary levels, a heavy workload and poor working conditions.

Pharmaceuticals

Pharmaceutical products are distributed by privately-owned pharmacies in the primary care sector and by hospital pharmacies in the secondary care sector (with each county running several hospital pharmacies). Private pharmacies are subject to strict regulation and their number and geographical location is decided by the Ministry of the Interior and Health. Since October 2001, other outlets have been authorised to sell non-prescription drugs. Hospitals purchase approximately 90% of their drugs from hospital pharmacies.

Health care technology assessment

The Danish Institute for Health Technology Assessment (DIHTA) was established in 1997. A key function is to implement the National Strategy for HTA issued by the National Board of Health in 1996. DIHTA carries out HTA in cooperation with a range of stakeholders. The Institute is now merged with the Centre for Hospital Evaluation.

Financial resource allocation

The most significant resource allocation mechanism in Denmark is the national budget negotiation that takes place once a year between the Ministry of the Interior and Health and the Ministry of Finance and the Association of County Councils and the National Association of Local Authorities. The aim of this negotiation is to set overall limits for the average growth of county and municipal budgets and levels of funding.

Payment of hospitals

Public hospital resources are mainly allocated through prospective global budgets set by the counties in negotiation with hospital administrators and based on past performance and modified at the margin to account for new activities, changes in tasks and areas of specific need. A number of initiatives have been introduced by the central government and by the counties themselves to counter the negative aspects of the global budget system, including (since 2000) the introduction of full DRG payments for patients treated at hospitals outside their own county (under the free choice of hospital scheme). Previously, treatment of these patients was reimbursed on a per diem basis. The 1999 budget negotiation also set out plans for a global financing system based on an adaptation

of the DRG system and negotiated activity targets for each hospital. Under this system each hospital will receive an up-front budget frame corresponding to 90% of the DRG rates related to the case mix in the negotiated activity target, with the remaining 10% allocated according to actual activity (the so-called 90/10 model). Hospitals that perform more treatments than their negotiated “target” will thus receive extra funds, thereby combining the advantages of global budgeting with activity-based financing.

Payment of physicians

General practitioners’ remuneration is a mixture of quarterly capitation payments for the patients on their list and fees for service. On average about a third of their remuneration comes from capitation. The remainder comes from fees per consultation and fees for individual procedures. County-licensed specialists are paid on a fee-for-service basis. Public hospital staff (including doctors) are paid a salary.

Health care reforms

National and local reforms initiated during the last ten years have focused on increasing productivity and quality and reducing waiting lists for non-acute care, notably through the introduction of free choice of hospital (1993), contracts or target-based management in hospitals, restructuring delivery on the basis of “functional units” (usually a matrix structure connecting units in different locations), DRG classification (1999), 90/10 activity based financing (2000), the development of quality indicators (2000–2002) and waiting time guarantees (1993, 1995, 1999 and 2002). There have also been attempts to improve public health services by increasing coordination between the different administrative levels of the health care system.

Conclusions

Although no major restructuring of the health care system has taken place in the last ten years, a series of national and local reform initiatives have aimed to increase efficiency and quality in health care. These initiatives are gradually changing the way in which health care is delivered within the overall framework of a tax-financed, decentralized health care system.

Primary care continues to be a key strength of the Danish health care system and a source of high levels of public satisfaction, although a shortage of doctors may pose problems for the ambulatory sector in future. Most current initiatives focus on hospitals and inpatient care.

Whether changes to this sector are sufficient to maintain the legitimacy of the Danish health care system remains to be seen.

In recent years, health care has become a major issue in Danish politics, largely as a result of intense media interest in waiting lists for non-acute treatment. The liberal/conservative government that was elected in November 2001 has committed itself to reducing waiting lists and increasing national health care expenditure. While it signals some further structural changes, including a greater willingness to make use of the (currently small) private sector, its rhetoric and the general political consensus remain committed to welfarist ideals of tax financing and universal access to health care.

Table 1. Inpatient utilization and performance in acute hospitals in the WHO European Region, 2000 or latest available year

Country	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days	Occupancy rate (%)
Denmark	3.3 ^a	19.2 ^e	5.5	79.9 ^a
Finland	2.4	19.3 ^d	4.3	74.0 ^e
Norway	3.1	14.5 ^d	6.0	85.2
Sweden	2.5	15.9 ^d	5.5 ^a	77.5 ^d
EU average	4.2 ^a	17.1 ^e	8.2 ^b	77.0 ^b

Source: WHO Regional Office for Europe health for all database.
Note: ^a 1999, ^b 1998, ^c 1997, ^d 1996, ^e 1995, ^f 1994, ^g 1993.



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The Health Care Systems in Transition (HiT) profiles are country-based reports that provide an analytical description of each health care system and of reform initiatives in progress or under development. The HiTs are a key element that underpins the work of the European Observatory on Health Care Systems.

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