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Access and Cost: What the US Health Care System Can Learn from Other Countries.

Health care in Denmark: an example of a single-payer system

Summary

The Danish health care system provides easily accessible, comprehensive and universal coverage for all citizens. The system is known as a "single-payer" system, in which funding for medically necessary care is provided by the regional governments through taxes – with guidance and some funding from the state and municipalities. Patients are free to choose among providers, and GPs serve as gatekeepers to specialist care.

The strengths of the Danish single-payer system can be summarized as follows:

- The system is simple and very easy to use
- All citizens have access to care; no one may be denied services on the basis of income, age, health or employment status
- Benefits are the same for all citizens
- Administrative costs are minimal as providers and insurers have no need to market themselves
- The regional governments are able to set and enforce overall budgetary limits
- Physician fee schedules are negotiated with the nation medical associations and are binding
- Co-payments are capped for pharmaceuticals and there are no co-payments for generals practice, out-patient care or inpatient care
- A maximum 30 day waiting time guarantee is enforced for most elective surgery
- Patient' satisfaction is very high – Consumer Powerhouse ranks the Danish health care system second in Europe.

Outline

The structure of the Danish health care sector

The Danish health care sector has three political and administrative levels: the state, the regions and the municipalities (national, regional and local levels). The health care service is organized in such a way that responsibility for services provided by the health service lies with the lowest possible administrative level. In practice, this means that basic services, such as home nursing or non-specialized physical rehabilitation, are the responsibility of the municipalities, while more specialized care is taken care of by the regional level.

The municipalities

The 98 municipalities are local administrative bodies run by democratically elected municipal councils. The municipalities have a number of tasks, and health care merely represents one of these. In the health field, the municipalities are responsible for home nursing, public health care, school health service, child dental treatment, prevention and rehabilitation. The municipalities are also responsible for most of the social services, for example nursing homes with care facilities and associated care staff for the elderly.

The regions

Efficient provision of high quality hospital services requires a larger population than the average municipality, and this responsibility thus lies with the five regions. The regions run and own most of the hospitals. The regions are also responsible for the practice sector, including contracting with for instance general practitioners and private practice physiotherapists. The regions organize the health service for their citizens according to regional wishes and available facilities. Thus, the individual regions can adjust services within the financial and national legal limits. The regions are run by regional councils that are democratically elected.

The state

The role of the state in health care provision is first and foremost to initiate, coordinate and advise. One of the main tasks is to establish the goals for a national health policy. The Ministry of Health and Prevention, in its capacity of principal health authority, is responsible for legislation on health care. This includes legislation on health provision, personnel, hospitals and pharmacies, medicinal products, vaccination, pregnancy health care, child health care and patients' rights.

The Health Care System

The Danish health care system can be divided into two sectors:

- Primary health care
- The hospital sector.

The primary health care sector deals with general health problems and its services are available to all. Long-term nursing care, home care and preventive programs are organized by the municipalities. About 25% of the elderly around the age of 65 re-

ceive long-term care services at home, and 5% receive long-term care in institutions[1]. There is no co-payment for home care but income-dependent co-payment for long-term care in institutions. The hospital sector deals with medical conditions requiring more specialized treatment, equipment and intensive care.

In the health care service, the general practitioners act as "gate-keepers" with regard to hospital and specialist treatment. This means that patients usually start by consulting their general practitioner. It is normally necessary to be referred by a general practitioner to a hospital for medical examination and treatment, except in cases of an accident or acute illness. In such cases, all residents have direct access to all hospitals.

Denmark had 3.5 practising physicians per 1000 population in 2009, higher than the OECD average of 3.1. Patients contact their general practitioner on average 6,6 times a year. Including other practicing specialist the primary sector handles approximately 90 % of all patient contacts. The primary sector spends about 25% of the total health budget including primary sector pharmaceuticals. The number of hospital beds in Denmark is 3.5 per 1000 population, significantly lower than the OECD average (4.8 beds). The average length of stay was in 2013 3.1 days. Table 1 provides an overview of the activity and spending in the regional health sector.

Table 1: Number of contacts and regional spending (2009 data)[2]

Regional Health Care	1000 contacts	Visits Per capita per year	Regional spending 1000 mil DKK (%)
GP contacts	37,105	6.6	8.0 (8.3)
Practicing Specialists Doctors	5,028	0.9	3.0 (3.1)
Other practicing specialists	21,800	3.9	2.8 (2.9)
Primary sector pharmaceutical	n.a.	n.a.	6.9 (7.2)
Somatic discharges	1,257	0.2	} 75.5 (78.5)
Somatic outpatient visits	6,600	1.2	
Psychiatric discharges	46	0.01	
Psychiatric outpatient visits	792	0.14	
Total	72,628	12,969	96.3 (100%)

Financing of the Danish Health Care System

The Danish health care system is based on the principle of free and equal access for all citizens. Thus, the vast majority of health services in Denmark are free of charge for the users. In 2011, total health care expenditure in Denmark constituted 10.9% of GDP, which places Denmark above the OECD average of 10.6% of GPD. However, a new report questions these figures, since Denmark has a practice of reporting certain

[1] Source: Prof. Tina Rostgaard
[2] Source: Ministry of Health and Prevention. Sundhedsvæsenet i nationalt perspektiv, 2010

expenses for social care (such as nursing homes with care staff) to the OECD[3] as health care expenses. If these social care expenses are subtracted in line with the reporting practice used by most other countries, the Danish expenditure on health care drops from number 7 out of 34 OECD countries to number 19[4].

In 2012, the public expenditure constituted 85% of the total health expenditure, and private expenditure the remaining 15%[5]. Private health care expenditure mainly covers out-of-pocket expenditure for pharmaceuticals and dentistry.
The majority of regional and local health care expenditures are financed by tax on income, VAT etc. collected by the national government.

The regional health care services are financed by three kinds of subsidies: A block grant from the state (78%), a state activity-related subsidy (2%) and a local activity-related contribution (20%)[6]. In order to give the regions equal opportunities to provide health care services, the subsidy is distributed by a number of objective criteria that reflect expenditure needs (e.g. demography and social structure). Furthermore, part of the state financing of the regions is a state activity-related subsidy. The purpose of this is to encourage the regions to increase the activity level in hospitals.

The municipalities also contribute to financing of the regional health care. The purpose of the local contributions is to encourage the municipalities to initiate efficient preventive measures for their citizens with regard to health issues.

The administrative cost of the Danish health care system constitutes 4.3% of the total spending[7].

The Hospital Sector

The hospital sector is the responsibility of the five regions. The regions are to provide free hospital treatment for the residents of the region and emergency treatment for persons who are temporarily resident. The obligation to provide citizens with hospital treatment is normally fulfilled by the individual region's own hospitals.

The Ministry of Health and Prevention (through the National Board of Health) contributes to health care planning in the form of guidance and regulation regarding the definitions of basic and specialized treatments and functions in the hospital services. It also regulates how different forms of treatment should be organized, including coordination of the different levels of treatment.

The regions are required to make agreements among themselves regarding the use of highly specialized departments, in order to provide patients equal access to neces-

[3] Source: OECD Health Data 2013
[4] Source: Magasinet Regio, De Danske Sundhedsudgifter ligger lavt, marts 2014

[5] Source OECD Health Data 2013
[6] Source: Ministry of health and prevention
[7] Source: Danish Regions

sary specialized treatment irrespective of which region they live in. Furthermore, the regions may, upon authorization from the National Board of Health, refer patients to highly specialized treatment abroad, paid for by the state. The regions can also refer patients to approved hospitals abroad and pay for the services themselves. These options are primarily used for treatment of rare conditions or for highly specialized treatment that cannot be offered in a relatively small country like Denmark.

Free Choice of Hospitals

Since 1 January 1993, citizens in need of hospital treatment have been free to choose, within certain limits, in which hospital they wish to be treated. Citizens may choose among all public hospitals offering basic treatment and a number of smaller, specialist hospitals owned by associations, which have agreements with the regions. If following a medical evaluation a citizen is judged to be in need of specialist treatment, he/she has a further choice between hospital departments in Denmark offering treatment on the same specialized level. Citizens may choose among private hospitals or clinics in Denmark or abroad, if the waiting time for treatment exceeds one or two months (depending on condition), and if the chosen hospital has an agreement with the region's association regarding treatment.

Primary Health Care Services

All residents in Denmark are entitled to public health care benefits in kind. Citizens do not pay any special contributions to this scheme, as it is financed through taxes. The Regions administer both the public hospitals and the primary health care scheme, whereas local administration of the primary health care service lies with the municipalities.

All general practitioners, specialists, dentists, physiotherapists, chiropractors etc. are licensed by the state. The public health care scheme subsidizes treatment for persons. This treatment is provided by general practitioners, specialists etc. who have made collective agreements with the public health care scheme. The Regions' Board for Wages and Tariffs enters into collective agreements with the organizations that represent the various professions. The tariffs are binding and are typically renegotiated every second year.

General Practitioners

Any person who is entitled to public health care benefits can choose between being covered in Group 1 or Group 2. Persons covered in Group 1 have to register with a specific general practitioner, and persons in Group 2 have the right, but not the obligation, to register with a specific general practitioner of their choice. Persons in Group 2 may visit any specialist without visiting a general practitioner first. All Danes can freely choose their general practitioner, who is obliged to take on all new patients. If too many patients wish to be assigned to the same practitioner, he/she can temporally stop accepting new patients on the list.

Persons covered in Group 1 have the right to free medical services from their general practitioner or specialist. Persons insured under Group 2 have to pay part of the cost of medical help from a general practitioner or specialist. The subsidy to persons insured under Group 2 corresponds to the cost of similar medical help from a specialist for persons in Group 1. About 98% of the Danish residents belong to Group 1.

Dentists

All residents in Denmark are free to choose their own dentist. There are approx. 4,600 authorized dentists. Around 2,500 dentists are included in the collective agreement with the public health care scheme[8]. The majority of the costs for dental treatments for adults are paid for by the users themselves as out-of-pocket payments. However, the public health care scheme pays a minor subsidy per visit for preventive and other dentistry treatments. Reference from a general practitioner is not required. Children under the age of 18 receive free dental care. Furthermore, there are special arrangements, with limited user payment, for those who have difficulties using the ordinary public dentistry services due to low mobility or mental or physical disability.

Physiotherapists

There are approximately 2,100 physiotherapists[9]. The public health care scheme pays part of physiotherapy treatment, but persons with serious physical disabilities are entitled to physiotherapy free of charge. The treatment is only subsidized if prescribed by a general practitioner.

Home Nursing

The municipalities must provide home nursing free of charge, when it is prescribed by a general practitioner. Moreover, the municipalities are obliged to provide all necessary appliances free of charge. Home nursing provides treatment and nursing at home for people who are temporarily, chronically or terminally ill.

Medicine

Most medicine is sold by pharmacies which are authorized by the state. The Ministry of Health and Prevention decides the number of pharmacies and where they may be situated. General reimbursement is granted for the costs of medicinal products which have been authorized for reimbursement by the Danish Medicines Agency. In general, reimbursement is granted for medicinal products which have a certain and valuable therapeutic effect when used on a well-defined indication. Furthermore, the

[8] Source: Ministeriet for Sundhed og Forebyggelse, Health Care in Denmark, 2008, ISBN: 978-87-7601-237-3

[9] Source: Ministeriet for Sundhed og Forebyggelse, Health Care in Denmark, 2008, ISBN: 978-87-7601-237-3

price of a given medicinal product must be proportionate to the effect of the product.

The reimbursement will be calculated on the basis of the price of the cheapest medicinal product among the different products with the same effect and the same active ingredients. The pharmacy is obligated to give patients the cheapest product. Chronically ill patients can be included in a special reimbursement scheme with a yearly ceiling of DKK 3,600 (US$ 600) by the Danish Medicines Agency. Otherwise the patient pays 15% of the cost above the yearly ceiling. All pharmaceuticals prescribed as part of specialized hospital treatment are provided free of charge to the patient.

Quality and Patient Safety

The Danish Institute for Quality and Accreditation in Healthcare and the National Indicator Project has been established to create Danish standards and indicators and to conduct the accreditation of Danish health care.

Data generated through the Danish Quality Model is made available to health professionals and the general public. The results are available on the integrated web portal for health matters in Denmark www.sundhed.dk, serving both professionals and the general public. On the web portal citizens can view their own medical record (treatment at hospitals) and the prescription medication they have purchased, using their personal digital signature.

Every second year, the Danish Regions and the Ministry of Health and Prevention conduct a survey of patients' experiences in hospitals. The objective of the survey is to compare patient experiences at hospital level and at medical specialties level. The survey includes questions on, for instance, clinical services, patient safety, patient and staff member continuity, co-involvement and communication, information, course of treatment, discharge, inter-sectorial cooperation, physical surroundings, waiting time and free hospital choice.

The surveys generally show that the patients' overall impression of the hospitalization process is positive. They also identify areas in which the patients see a potential for improvement.

A national reporting system for adverse events was established in 2004. The reporting system aims to collect, analyze and communicate knowledge of adverse events, in order to reduce the number of adverse events in the health care system. Patients and relatives can report adverse events, and all health care professionals are required by law to report any adverse events they become aware of in connection with health care services.

Patients can seek compensation for injuries caused by examination or treatment in hospitals or by authorized health care professionals in private practice through the Patient Insurance Scheme. According to the Act on the Right to Complain and Receive Compensation within the Health Service, compensation will be granted in the follow-

ing situations: If it can be assumed that an experienced specialist would have acted differently in the given circumstances, thereby avoiding the injury; if the injury is due to the malfunction or failure of technical instruments; if the injury might have been avoided using another available and just as effective treatment technique or method; or if the injury occurred as the result of examination or treatment in the form of infections or other complications that were more extensive than the patient should reasonably have to endure. Patients may also receive compensation for injuries caused by medicinal products.

Health Outcomes

In an international perspective, health status in Denmark can generally be characterized as good. Surveys show that Danish citizens continue to consider their own health as being good. In a questionnaire survey from 2010, 85% of the population perceives their own health status as "excellent" or "very good"[10].

The Danish life expectancy is rising again after a period of stagnation in the '80s. Since the mid '90s, the Danish life expectancy has been improving and at an average of 80.1 years is in line with the OECD average. Life expectancy for women is 82.1 years, compared with 78.1 for men[11]. Historically high smoking rates and high alcohol consumption are typically blamed for the relatively low life expectancy.

The proportion of regular smokers among adults has shown a marked decline over the past twenty-five years in most OECD countries. In Denmark, the percentage of adults who report to smoke every day has decreased by almost two-thirds, from 46.5% in 1985 to 17% in 2013. Smoking rates among adults in Denmark is now slightly below the OECD average (20.9% in 2011). At the same time, obesity rates have increased in recent decades in all OECD countries. In Denmark, the obesity rate among adults was 13.4% in 2010, up from 9.5% in 2000. The average for the OECD countries was 15.0%[12].

The Euro Health Consumer Index (EHCI) ranks 35 national European health care systems on 48 indicators, covering six areas that are essential to health consumers: Patients' rights and information, Accessibility of treatment (waiting times), Medical outcomes, Range and reach of services provided, and Pharmaceuticals and Prevention**.** In 2013 Denmark, was ranked second among the 38 countries. Denmark scores especially high on patient rights, information and range and reach of services provided. Denmark scores relatively low in the prevention and health outcomes subdisciplines[13].

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[10] Source: Sundhedsprofil2010
[11] Source: OECD Health Data 2013
[12] Source: OECD Health Data 2013 and Sundhedsprofil2013
[13] Health Consumer Powerhouse, Euro Health Consumer Index 2013, ISBN 978-91-980687-2-6