The healthcare system and the provision of oral healthcare in European Union member states. Part 9: Sweden

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Key points

- Highlights that of the clinical active dentists in Sweden, around 50% work in the public sector.
- Highlights that all children, up to 21 (and soon to be 24) years of age, have free oral healthcare, including all specialist treatments.
- Suggests the public financing of oral healthcare for adults in Sweden is generous by EU standards.
- Shows that most fixed prosthetics, such as crowns, bridges and implants, are reimbursed up to 85%.

Equally accessible and affordable dental services for all population groups have been a political goal in Sweden for almost a century. All political parties have shared the idea that a person's social background should not have consequences for his or her dental status. Strategic tools to achieve this ambitious goal have been the wide use of publicly provided oral healthcare services, covering even sparsely populated areas, focusing on preventive care and significant subsidies for necessary treatments. Besides free care for children and young adults, oral healthcare is reimbursed from public funds. The public subsidy was particularly generous in 1975–1999 when a 'full clearance' of adults' dentitions was undertaken both by the public and private providers under fixed prices and high reimbursement levels for all treatment measures. Today, preventive oral healthcare for the elderly is given higher priority as most Swedes have been able to keep their natural teeth.

Introduction

Sweden is the third-largest country by area in Western Europe after France and Spain. It is sparsely populated with ten million inhabitants, giving a population density of only 23 inhabitants per square kilometre with an uneven distribution. For the EU, the corresponding average is above 100 inhabitants. Around 25% of the Swedish population is above 65 years and 5% are more than 80 years old.

To provide equally accessible and affordable oral healthcare services has been a political goal in Sweden for almost a century. All political parties have shared the idea that a person's social background should not have consequences for his or her dental status. Preventive oral healthcare, starting from an early age, has been given high priority for a long time. Typical for Swedish dentistry even today is a relatively large public sector along with a private sector. A new change in legislation will continue to improve free dentistry for 'children/adults', up to 22 in 2018 and to 23 years in 2019.

General healthcare is largely tax-funded in Sweden, a system that ensures everyone has equal access to these services. The responsibility for healthcare lies primarily with the county councils. Every county council must provide its residents with good quality health and medical care, and promote good health for the entire population.

Aim

The aim of this paper is to describe the system for provision of oral healthcare in Sweden and its development, within the frame of the healthcare system in the country.

The healthcare system in Sweden

The healthcare system in Sweden has for a long time been largely publicly funded and provided. A national healthcare law from 1982 stipulates that all citizens have the right to healthcare of good quality on equal terms. This fundamental principle has been repeated in the new healthcare law that came into force on April 1, 2017.[1] The practical implications are that all Swedes expect to get the best possible quality of care and not be treated differently than anybody else. This expectation puts constant pressure on the system to deliver high quality care to everybody, irrespective of where they live or who they are. A need-based principle is steering health service delivery but the need is defined by the individual who has the right to seek care for any condition he or she feels deserves attention.

The major source of healthcare financing in Sweden is the county council/regional income tax of around 12% paid on personal earnings. This tax financed 71% of the county council services in 2015.[2] Much of the remainder comes from national level funding and a small part, 4%, from fees. Patients pay a fee for most

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services that corresponds to around £25 for primary care services and £50 for specialist services. Children are exempted from fees in most counties.

The total cost of health services in Sweden in 2015 was approximately £30 billion. The health expenditure per capita corresponds to £3,400 per person, out of which 16% is private.[3] This shows the dominant role of public financing. Total healthcare spending represented 11% of gross domestic product (GDP).[3] An international comparison of national healthcare expenditure in OECD countries, places Sweden in 5th place.[4]

Responsibilities for healthcare services in Sweden rest primarily with the county councils (in some instances called regions).[5] The counties/regions are 20 geographically defined areas. In addition, one municipality (the island of Gotland in the Baltic) takes care of its own health services. Each county/region is governed by a council, to which members are elected every fourth year in general elections. The council is responsible for the total healthcare system in their county/region. They decide on the use of total financing of the services. The primary source of income is a county tax that is levied on personal incomes. Services are organised through primary care, delivered through primary care centres or family doctor clinics, hospitals with other specialised services at secondary level and then university hospitals as regional referral hospitals in seven defined regions. Parallel to this, there are also private specialists in smaller to medium-sized clinics providing services, usually under contracts with the county council/region.

The fact that health services are largely governed and financed with regional/county funds has created a decentralised health system with independent counties. A prominent element in the history of health services development over the past 20 years has been the quest at the national level, represented by the Department of Health and Social Services in the Government, to steer the county councils towards a common agenda and health system. The means to do so have been laws, regulations, monitoring and supervision and financial incentives to the county councils to influence their priority setting and service provision.[6]

When the three major councils/regions in Sweden have been ruled by the parties in opposition at national level, there have been constant conflicts over health systems organisation between those counties and the government. For instance, in 2006, the Social Democratic government pushed through a law in the parliament that prevented the counties from privatising emergency hospitals (the 'Stop law'). After the subsequent elections, when the conservative-liberal coalition won to form a new government, they quickly abolished the 'Stop law' in 2007 and instead established a 'Start law' which was meant to stimulate and facilitate private companies to enter into the healthcare sector.

Traditionally, the counties have not only financed services but also operated them. Over the past decades, there has been a move towards contracting out services to private providers and today around 12% of public funds for healthcare are spent on private providers.[7] While the private provision of care, and welfare service in general, has attracted much attention in the public debate, private provision of care has in fact grown slowly over the past decade.

With regard to human resources, in 2014 Sweden had 40,637doctors, 118,856 nurses and 12,867 physiotherapists.[8] The number of doctors corresponds to around 417 doctors/100,000 inhabitants. Even so, there is shortage of professionals in some parts of Sweden, especially in the countryside and in the northern part of the country. The situation in this respect is similar to dental care.[9]

One of the major functions in the health system at national level is that health services are provided in line with the national law, that is, that they are of good quality and given on equal terms. Hence, health services are monitored through several government agencies, such as The Health and Social Care Inspectorate ('Inspektionen för Vård och Omsorg', IVO).[10] Quality indicators are collected through the National Quality Registers[11] under the responsibility of The National Board of Health and Welfare. This is done with much engagement of the professionals in health services. The National Board regularly publishes open and publicly available comparisons of outputs, quality, patient satisfaction and more.

There is a wealth of information on health services in Sweden available to everyone. Generally, the data suggest that quality of care is high, but that significant differences exist between regions and hospitals in the country. It poses a challenge to the national government to reduce these quality gaps as the government does not have direct control of services, as described earlier. With regard to patients' experience of services, a national survey covering all counties shows that a majority of patients (60%) in most county councils have confidence in the services and 84% feel that they have access to the services they need.

The oral healthcare system in Sweden

Since 1938, the county councils in Sweden have been responsible for organising public dental services in the whole country. They are primarily delivered at the Public Dental Service (PDS) ('Folktandvården'). In early years, before 1938, most of the services were handled by private dentists and PDS clinics were meant for school children only and financed by tax revenues, but soon adults were offered emergency care for a smaller payment than in private practice.[12] Subsequently, when governmental financing increased during the following decades, adults could choose between out-of-pocket private dental clinics or subsidised public dental services in areas where population density permitted private enterprises.[13]

In 1974, a national dental insurance programme ('Tandvårdsförsäkringen') came into force, covering all adult inhabitants from the age of 20 years. The aim was to make the full range of oral healthcare affordable for all citizens. For almost 25 years, both the public and private sectors used the same fixed patient fees and all treatments – even prevention and prosthetics – were generously subsidised (up to 75%) by the state, using national tax revenues. In addition, a high cost protection system gave extra support to those with great treatment needs.[14] The reform led to a huge increase in oral healthcare consumption and in spite of smaller cuts in the benefits during the years, spending on oral healthcare was at that time considerably higher in Sweden than in neighbouring countries.[15]

In 1999, the State Dental Tariff ('Tandvårdstaxan') was deregulated and free pricing was introduced in both public and private sectors.[16] In the PDS, the county councils set their own prices. For the free oral care of children and adolescents the treatment providers were paid under a capitation scheme. Parents could choose between private and public oral healthcare for their children. However, most treatment for children (>95%) is carried out in PDS clinics. Reimbursement of basic oral healthcare for people of working age was lowered considerably, but the elderly (65+) received extra support. High cost protection was kept. In 2008, a more radical reform was conducted aiming to maintain and improve

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the good results achieved during the previous years' regarding quality, accessibility and patient satisfaction.[17]

Today, all oral healthcare for the young is still free and all adults receive a low annual subsidy (General Dental Grant, 'Allmänna Tandvårdsbidraget' [ATB]). Those with the greatest treatment needs receive more support, for example, in the form of a high cost protection. Also new subvention concepts with targeted tax financing were introduced for adults belonging to special groups (disabled, sick and elderly; about 3–6% of the population), such as 'necessary oral healthcare for the disabled and elderly', 'short term dental care in case of severe medical problems', and 'long term dental support in case of chronic medical problems which can hazard the oral situation'. They pay for oral healthcare in the same way as for medical care, that is, a relatively low fixed fee per visit.[18]

Today, all adults receive a support of £14–28 per year for basic care to be used either in the public or private sector. After that, they pay all costs up to £280 according to the reimbursement fee scale set by the Dental and Pharmaceutical Benefits Agency ('Tandvårds- och läkemedelsförmånsverket' [ATB]).[19] This fee is lower than the true treatment costs. The high cost protection system reimburses costs over £273 at 50% and costs over £1,363 at 85%. As mentioned before, the county councils receive separate funding for the oral healthcare of special needs groups and they also arrange free, out-reach dental screening of certain groups and oral health education for carers working in old people's homes.[18]

The county councils are responsible for arranging specialist dental treatment for the whole population. The services can be contracted out to the private sector, but the major part of specialist care is provided at the PDS clinics. In Sweden, there are many specialists in orthodontics, paediatric dentistry, periodontology, oral surgery, endodontics, prosthodontics, oral radiology and stomatognatic physiology. They usually work in PDS clinics. Oral surgeons may also be employed in hospitals, as part of a general surgical team. Some private specialist clinics have established themselves in bigger cities.

Historically, private dentistry in Sweden has been operated from small practices owned and run by one dentist, but nowadays there are also many group practices. The advent of the state dental insurance for adults in 1974 created a need for administrative support and business management by the dentists concerned. This led to the creation of 'The new Praktikertjänst' in 1977 – an amalgamation of one medical part and one dental part. It is owned by the dentists and doctors working within it and has a structure like a producer cooperative.[20] Slightly less than 50% of private dentists are today associated with Praktikertjänst. Later, another similar company called 'Colosseum Smile' was established in the Nordic countries Sweden, Denmark and Norway.[21] Another example is 'City Dental', a company owned by venture capitalists offering discount care and customer-friendly opening hours.[22] More companies, owned by individual entrepreneurs, were established and dentists formed group practices to meet the higher investment costs for expensive equipment, such as CAD/CAM (computer-aided design and computer-aided manufacturing) and CT (computed tomography) scan technology. Nowadays, it is difficult to sell small private dental clinics with few patients. The big companies Praktikertjänst, Colosseum Smile and others are buying well run larger clinics.

Oral healthcare work force

As mentioned above, there are around ten million inhabitants in Sweden and, in 2014, 7,777 clinically active dentists (equal numbers of men and women), which represents a mean of 80 dentists/100,000 inhabitants with a large geographic variation (63–88) in the country.[23] Most of them (4,156) work in the public sector, slightly fewer than half (3,400) in the private sector and about 5% in education and administration.[24] There were 885 specialist dentists in 2014. A substantial number of Swedish dentists, some 770, were registered with the UK's General Dental Council in 2015.[25] A large number of Swedish trained dentists arrived in the UK during the period 1995–2004 because of difficulties in finding a job in Sweden.

Of the 4,177 dental hygienists, 86% are currently working in oral healthcare. They can operate independently from other dental services and a number of them own their clinics/offices. They are allowed to diagnose caries and periodontitis and refer patients to a dentist. However, most hygienists are working in close collaboration with dentists. The number of dental technicians is estimated to be about 1,600.[24] They are working in 450 laboratories all over the country, but with a concentration in the western and southern regions. There are about 12,000 dental nurses in Sweden.[9]

Education of oral healthcare personnel

Four dental faculties, linked to the universities in Stockholm, Göteborg, Malmö and Umeå, educate dentists in Sweden. For nearly 20 years, dental education has taken five years. There is no vocational training period after examination. All dental schools are publically funded. The clinical practice training and theoretical studies are combined during education. After graduation, the dentists need to apply for a licence to practice from the National Board of Health and Welfare ('Socialstyrelsen'). It takes three years of full-time studies to become a specialist dentist (four years for oral surgery). The curriculum and the number of training places are regulated by The National Board of Health and Welfare.

There are six dental hygienist schools in Sweden. They are located in Stockholm, Göteborg, Malmö, Umeå, Jönköping and Kristianstad. The dental faculties have extended the hygienist training from two to three years. It leads to a bachelor degree and is comparable to many other health professional degrees. Up to June 2017, 36 Swedish dental hygienists have taken a PhD. Dental nurses are trained in 20 cities in Sweden. The training-programme is called 'Higher Vocational Education', HVE ('Yrkeshögskola') and their training takes 18 months.

The Swedish Dental Association ('Tandläkarförbundet'), many private dental companies and the PDS arrange shorter and longer continuing education courses for dentists, dental hygienists and dental nurses. There are no formal requirements to take these courses in Sweden.

Oral health and the use of oral healthcare services

In Sweden, 85–95% of children and young people (3–21 years) are seen by PDS and the rest by private dentists.[15] Seventy-eight per cent of adults are regular attenders and 22% irregular or non-attenders.[26] About 50% of adult attenders are treated by private dentists and 42% at PDS. People with low incomes or in receipt of sickness benefits, or single parents, or people living in remote areas or immigrants have been shown to be overrepresented among people who only use services occasionally, mostly when the needs for dental services are apparent. Persons who have been unemployed for long periods or who have been on sick leave for more than 90 days often use emergency services only.

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The mean DMFT-index values among the young are low; in 2010 the national mean DMFT index for 12-year-olds was 0.8.[27] There has been great improvement of oral health of most people during the past 20–30 years. They have more often natural teeth, fewer carious teeth, and less fillings than before. In a survey, 89% of the respondents felt that their oral health was good[30] and 88% reported that they had their own teeth and/or crowns and bridges.[28]

Cross-sectional studies in 30–80-year-old have been carried out every tenth year since 1973, the so called 'Jönköping studies'.[29] The frequency of edentulous individuals aged 40–70 years was 16, 12, 8, 1, and 0.3% in 1973, 1983, 1993, 2003, and 2013, respectively. During this 40-year period, the mean number of teeth in the age groups 30–80 years increased. In 2013, for example, nearly all 60-year-olds had complete natural dentitions. Both caries and periodontal diseases were also improved and the authors concluded that 'The continuous improvement in oral health and the reduced need of restorative treatment will seriously affect the provision of dental healthcare and dental delivery system in the near future.'[30]

Financing and costs of oral healthcare

Children's and adolescents' dental care is financed solely by county council taxation and the cost in 2016 was £2.3 billion.[31] Adult dental care is financed by patient fees and national tax revenues. The total cost of all dental care for adults was, in 2015, about £2.3 billion.[32] Most (80%) of the state subsidy £410 million was used to subsidise 'high cost treatment', while £100 million was to cover the low general dental contribution (used by 75% of the patients). Of the patients, 22.5% have had reimbursements exceeding the lower high cost limit and 2.5% the higher limit. In addition, about 300,000 special needs patients in the county councils have had special dental contributions; £74 million in 2013 separately financed by the state. Of this, £54 million was used for necessary dental care of 147,000 persons, £2.5 million for out-reach dental screening of certain groups, and £4 million for education of personnel working in elderly people's homes.[33]

Changes of oral healthcare provision

Along with improvements in oral health and societal changes, the oral healthcare provision system, and especially the reimbursement of adult dental care, has been changed or at least been modified on numerous occasions. As mentioned above, the 'third wave' of the new state support system was conceived in 2008 and started in 2013. Its aim was to improve oral healthcare of widely defined special needs patient groups, for example, 'those most in need of support' and to double the number of recipients of benefits in this scheme.[15]

In 2008, the PDS introduced a new payment model called 'Frisktandvård' (Contract Care)[34,35]to stimulate regular and preventive care based on individual needs. This model, 'Dental Care for Health (DCH)', is based on capitation rather than on the traditional 'Fee For Service (FFS)', and is offered by all county councils. Before a patient can sign a contract, a dentist or dental hygienist undertakes an examination and evaluates the future needs for dental treatment. Afterwards, the patient is offered an individually tailored 'home-care-programme', based on the risk classification for the next three years, against an annual or a monthly fee. The contract covers all examinations, preventive and conservative care, including single crowns, and emergency care. The contract can be transferred within Sweden when the patients move. In January 2015, around 700,000 patients had such contracts.[36]

Conclusion

The Swedish oral healthcare provision system is easily accessible and, in comparison with many other systems, equitable. The Swedes can be proud of their oral health systems that are easily accessed by all citizens.[37] In the early 1990s, political rhetoric for oral healthcare changed. For example, free choice of care provision for children's oral healthcare was introduced.[15] In Sweden, the PDS continues to cater for the majority of the young; their use of private services has remained at a low level. Frequent examinations and comprehensive and preventively orientated care cover practically all children and adolescents. The resources used are significant in relation to treatment needs, but they are considered justified. A strong tradition of provision of dental services to all, continued improvements in oral health and satisfied parents and staff contributes to this.

As regards adult dental care, the public and private sectors continue to complement each other, rather than compete with each other. Both sectors have their roles in adult dental care. Sweden had an early start with organised oral healthcare in the form of the PDS. Later, the generous reimbursement system of dental care costs of adults in both sectors during the 43 years from 1974 onwards resulted in great improvement of adult dental health. Marketisation of services and adjustments in the adult dental care reimbursement system around the turn of the millennium are worth noticing. Cuts in subsidies and adjustments of beneficiary groups were not only made due to economic concerns, but also due to greatly changed treatment needs among the adult population. Across OECD countries, average out-of-pocket payment for dental care represents about 55% of total dental care expenditure, compared to an average of 20% out-of-pocket spending for general healthcare.[38] Thus, the public financing of oral healthcare for adults in Sweden is generous by EU standards. The more recent changes aim to give more support to those with greatest needs, for example, the sick and elderly and those having the highest costs, rather than supporting everybody.

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