

HEALTHCARE IN DENMARK

AN OVERVIEW



Healthcare
DENMARK
INNOVATING BETTER LIFE



MINISTRY
OF **HEALTH**

Colophon

Healthcare in Denmark
- An Overview

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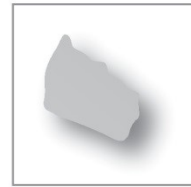
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Introduction to Denmark

Denmark is in Northern Europe and is part of Scandinavia. The official language is Danish.

Denmark has an area of 43,094 km² and a population of 5.7 million people.

Greenland and the Faeroe Islands are part of the Kingdom of Denmark but have autonomous self-rule.

Copenhagen is the capital of Denmark and the most populated city with an urban population of 1.3 million people.

Enacted in 1849, the Danish Constitutional Act lays down the framework of Danish democracy. The Act outlines the citizens' rights or human rights such as freedom of expression and freedom of assembly. The political system of Denmark is that of a multi-party structure where several parties can be represented in Parliament (Folketinget) at any one time. Danish governments are often characterised by minority administrations with one or more supporting parties. Since 1909, no single party has held the majority in Parliament.

Denmark is a member of the European Union, the Nordic Council of Ministers, the United Nations and NATO.

Denmark has the highest employment rate in Europe (74 per cent in 2015). In the last three years, the World Bank has ranked Denmark as the best country for business in Europe and third best in the world after Singapore and New Zealand. In addition, Transparency International ranked Denmark as the least corrupt country in the world in 2015.

The basic principle of the Danish welfare system, often referred to as the Scandinavian welfare model, is that all citizens have equal rights to social security. In the Danish welfare system, a number of services are available to citizens, free of charge.

Education in Denmark is provided free of charge at all levels, and there are nine years of compulsory education in primary and lower secondary school. Public expenditure on education and training corresponds to 7 per cent of the Denmark's GDP and around 13 per cent of total public expenditure.

The Danish healthcare system is universal and based on the principles of free and equal access to healthcare for all citizens. The healthcare system offers high-quality services, the majority of which are financed by general taxes.

Life expectancy in Denmark has increased from 77.9 years in 2005 to 80.6 years in 2015. Danish women have a higher life expectancy (82.5 years in 2015) than Danish men (78.6 years in 2015).

Find more information about Denmark on www.denmark.dk.

Introduction to this Publication

This publication provides an overview of the scope and organisation of health and elderly care in Denmark. Chapter 1 briefly describes the tasks and responsibilities at the different levels of government: the Ministry of Health, the regions and the municipalities, and it explains in overall terms how the healthcare system in Denmark is financed.

Chapter 2 deals with patients' rights in relation to treatment, diagnosis and free choice of hospital, including rules on treatment abroad. The system of patient advisers, complaint procedures and compensation is explained, and a brief overview of the tasks of the Danish Patient Safety Authority related to adverse events and patient safety is also given.

General practitioners fill a key position in the Danish healthcare system. Their work and responsibilities are described in the Chapter 3, which also explains how rehabilitation contributes to public health overall. Vaccinations are mentioned here too.

Chapter 4 covers the hospital system, including planning and distribution of both general and specialised hospital services and emergency units. This chapter also describes the ongoing expansion of the Danish hospital infrastructure and implementation of innovative technology, the aim being to modernise the Danish hospital sector by 2020.

Chapter 5 describes how elderly care is organised, including home care services, reablement programmes for elderly people, nursing homes and preventive measures.

Chapter 6 on psychiatric care describes the new direction taken within psychiatric care in recent years with a view to reducing the use of coercive measures in psychiatric treatment and ensuring equal access and equal status for people with mental illness.

Chapter 7 deals with health promotion and explains how measures within this important field are organised and implemented. It outlines specific initiatives in relation to a number of lifestyle factors, such as alcohol smoking and tobacco, drugs, nutrition, obesity and physical activity. Mental health is covered here too.

Denmark has made significant progress in the digitisation of the healthcare system. Chapter 8 elaborates on some of the goals already achieved as well as on future aims. This includes the use of electronic communication systems within the entire healthcare sector as well as outpatient treatment through telemonitoring of certain diseases. This chapter also includes information on initiatives to promote systematic use of health data to support a more efficient and outcome-oriented healthcare system.

Chapter 9 describes the rules and regulations that govern medicines and pharmacies, including pharmacovigilance, procurement and pricing of pharmaceutical products as well as reimbursement available to patients. This chapter also briefly touches upon health research, including ethical issues.

The last chapter provides a more detailed description of how health and elderly care is financed at regional and local level. It gives a brief account of the annual financial agreements and a special funding system which provides financing for many social and healthcare-related projects.

Throughout the publication you will find a number of fact boxes describing specific areas such as cancer, cardiovascular diseases, chronic diseases and dementia, as well as initiatives to improve healthcare, such as measures related to patient empowerment, the national quality programme, health promotion for children and prioritisation of hospital medicines.

The publication includes a number of figures and tables and a separate section with key indicators on page 52. A more detailed description of the agencies and authorities responsible for the Danish healthcare system can be found on page 58.

1. Organisation of Health and Elderly Care



The healthcare system operates across three political and administrative levels: the state, the regions and the municipalities (national, regional and local levels).

The state holds the overall regulatory and supervisory functions in health and elderly care. The five regions are primarily responsible for the hospitals, the general practitioners (GPs) and for psychiatric care. The 98 municipalities are responsible for a number of primary healthcare services as well as for elderly care.

The Ministry of Health

The Ministry of Health is responsible for establishing the overall framework for the provision of health and elderly care. This includes legislation on the organisation and provision of health and elderly care services, patients' rights, healthcare professionals, hospitals and pharmacies, medicinal products, vaccinations, maternity care and child healthcare. The legislation covers the tasks of the regions, municipalities and other authorities within the area of health.

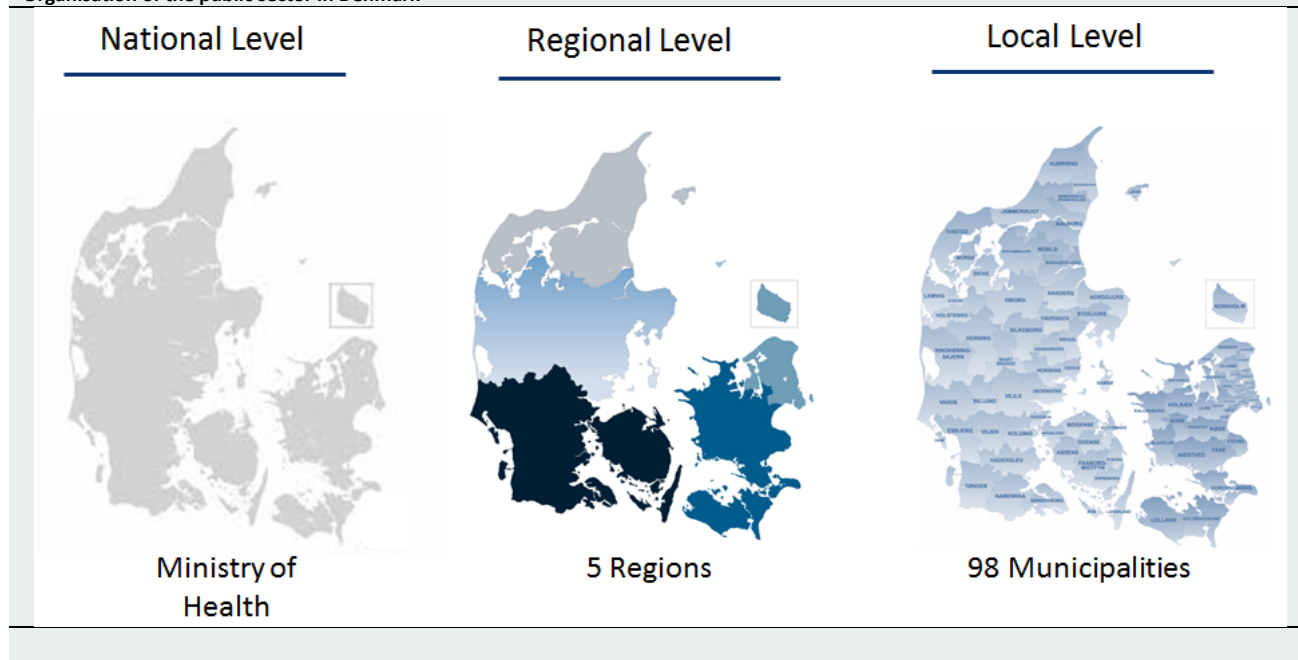
An organisational chart of the Ministry of Health can be found on page 57 together with a brief description of each of the underlying agencies.

The Regions

The five regions are governed by regional councils, each composed of 41 members. The members are elected in regional elections every four years.

The regions are responsible for hospital care, including emergency care, psychiatry, and for health services provided by GPs and specialists in private practice.

Figure 1
Organisation of the public sector in Denmark



The regions organise health services for their citizens according to regional needs, and the individual region may adjust services within the financial and national regulatory framework, enabling them to ensure the appropriate capacity. Moreover, the regions may refer patients to treatment abroad. In some cases the referral is subject to the approval of the Danish Health Authority.

The Municipalities

The 98 municipalities are local administrative bodies governed by municipal councils. The council members are elected in municipal elections every four years.

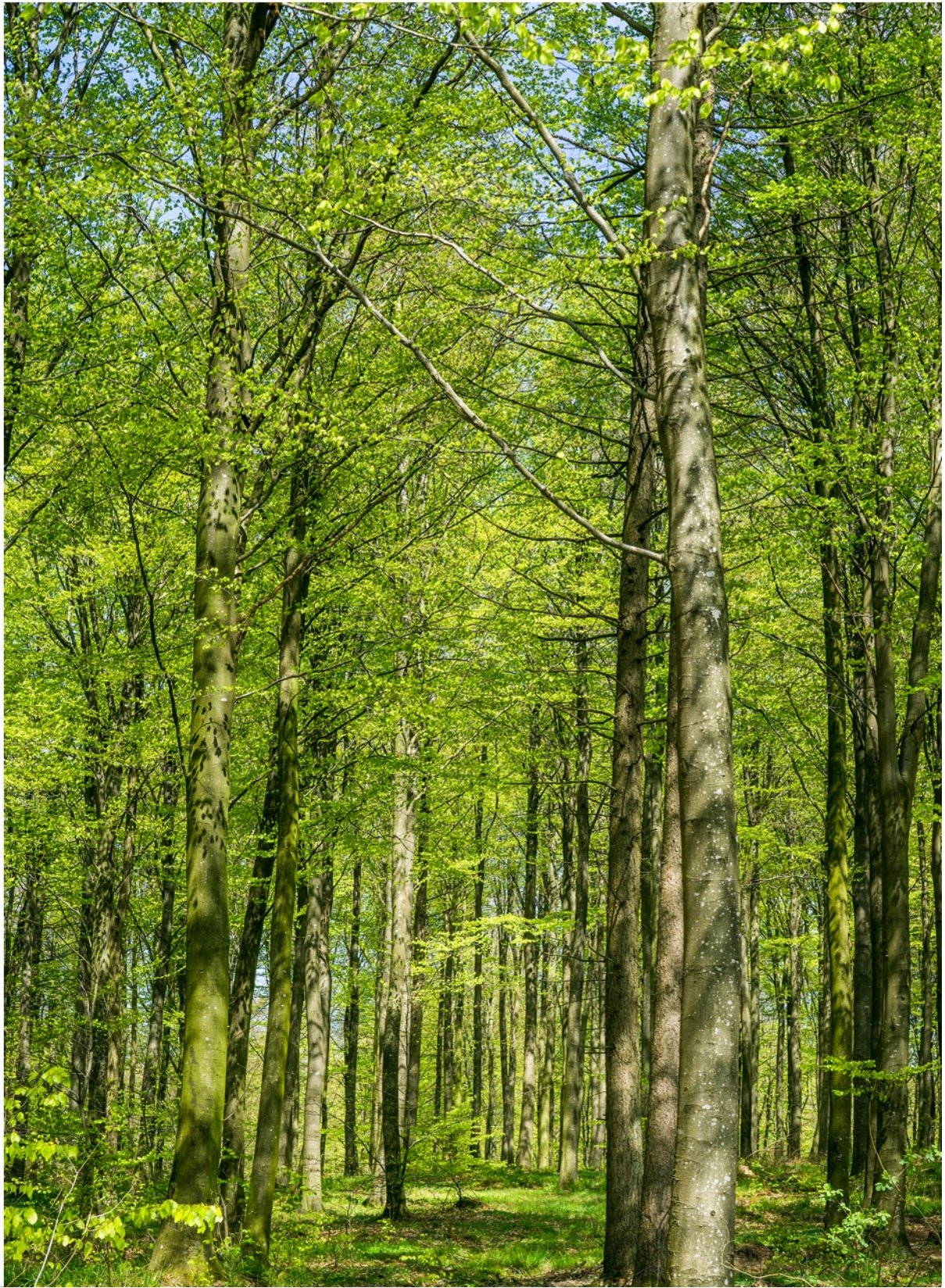
The municipalities are responsible for a number of health and social services. Local health and elderly care services include disease prevention and health promotion, rehabilitation outside hospital, home nursing, school health services, child dental treatment, child nursing, physiotherapy, alcohol and drug abuse treatment, home care services, nursing homes, and other services for elderly people. In addition, municipalities co-finance regional rehabilitation services and training facilities.

Financing

In general, all health and social services are financed by general taxes and are supported by a system of central government block grants, reimbursements and equalization schemes.

Approximately 84 per cent of healthcare expenditure is publicly financed (2015). The remaining 16 per cent are financed primarily through patient co-payments. Public expenditure on healthcare accounts for 30 per cent of total public expenditures (EUR 20.7 billion). In 2014, the Danish healthcare expenditure amounted to 10.6 per cent of GDP, which is more than the OECD average of 9.0 per cent.

Public expenditure on elderly care amounted to 2.8 per cent of GDP in 2014. This figure includes expenditures on services for disabled people and other citizens in need of care.



2. Patients' Rights

All residents in Denmark have access to the public healthcare system, and most services are provided free of charge. National legislation ensures that diagnosis and treatment are provided within certain time limits and establishes a free choice of hospital for patients. A comprehensive set of legal rights governs complaint procedures and compensation for injuries caused by services provided in the healthcare system.



The right to treatment, diagnosis and free choice of hospital

Citizens in need of hospital care may, within certain limits, freely choose any public and some private hospitals.

If the region cannot ensure that treatment will be initiated within 30 days, patients have the right to a so-called 'extended free choice of hospital'. This means that patients may choose to go to a private hospital in Denmark or to a public or private hospital abroad.

The regions are also required to ensure that any patient referred to a hospital is assessed with a view to diagnosis within one month from the date of referral. If, for medical reasons, it is not possible to determine the condition of the patient within one month, the patient must receive a detailed plan to ensure further investigation of his/her health problem, including, for example, further examinations at another hospital. If, for reasons of capacity, the region is not able to provide an assessment with a view to diagnosis within 30 days, the extended free choice of hospital applies, i.e. the patient may go to a private hospital or a hospital abroad to be diagnosed.

The right to treatment, diagnosis and free choice of hospital applies to both mental and physical illness.

Treatment abroad and reimbursement

The regions may refer patients in need of highly specialised treatment to treatment abroad if the treatment is not available in Denmark. The referral is subject to the approval of the Danish Health Authority. The regions may also refer patients to receive research-related treatment abroad if relevant treatment is not available in Denmark.

The regions may also refer patients suffering from life-threatening diseases to receive experimental treatment in private hospitals in Denmark or abroad if public hospitals are unable to offer further treatment. The referral is subject to the approval of the Danish Health Authority.

Denmark is a Member of the European Union and as such subject to the EU-Regulation on the coordination of social security systems¹ and the directive on cross-border healthcare². The regulation lays down detailed rules on the coordination of health insurance for citizens travelling to or residing in EU/EEA Member States and Switzerland. Pursuant to the Directive, residents in Denmark have the right to reimbursement of the costs of healthcare provided in other EU/EEA Member States. This right covers both hospital treatment and treatment provided by GPs, medical specialists in private practice, physiotherapists, chiropractors, dentists and other healthcare providers. In some cases, patients may need prior authorisation from their home region before receiving the treatment abroad.

Regional patient advisers, complaints and compensation

The legal rights of patients are protected by a number of laws which aim to ensure that patients receive the best possible care and regulate complaint procedures and compensation for injuries caused by services provided in the healthcare system.

Regional patient advisers have been established in each region to assist and guide patients in relation to diagnosis, treatment, choice of hospital, waiting time, access to treatment abroad and the procedures for submitting complaints and receiving compensation. The assistance provided by the patient advisers is free of charge and advisers work independently of the region and the staff at the hospital in question.

The Danish Patient Safety Authority serves as a single point of entry for all patients who wish to complain about healthcare professionals and/or treatment provided in the healthcare system (public and private). The Danish Patient Safety Authority is also responsible for making sure that knowledge gained from patient complaints and compensation claims is used preventively. Particularly serious cases may be submitted to the public prosecutor with a view to bringing the case before a court.

The Disciplinary Board of the Danish Healthcare system is an impartial public authority which may express criticism of healthcare professionals not acting in accordance with commonly agreed professional standards.

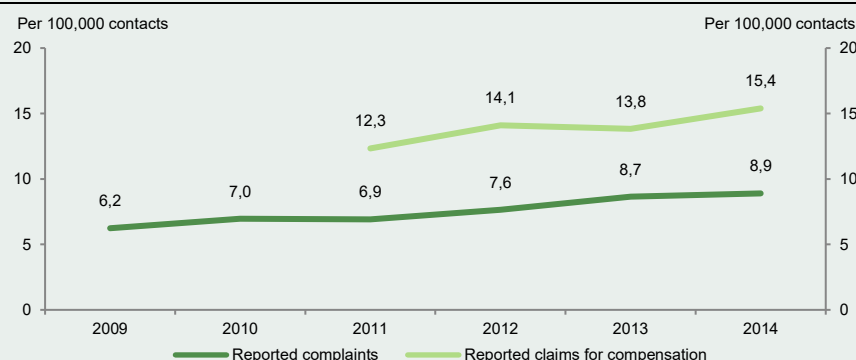
Patients who have sustained injuries caused by treatment in hospitals or by authorised healthcare professionals may be entitled to compensation, and patients can seek compensation by reporting injuries to the Danish Patient Compensation Association. The Danish Patient Compensation Association is responsible for applying the legislation that deals with injuries occurring in connection with treatment in the public and private healthcare system.

The Danish Patient Compensation Association may also award compensation in injuries related to pharmaceutical products, i.e. in cases where patients are injured because of side effects of medicines. Compensation is given for losses and expenses as a consequence of the injuries.

¹ EU-Regulation (EC) 883/2004 on the coordination of social security system.

² Directive 2011/24/EU on the application of patients' rights in cross-border healthcare.

Figure 2
Reported complaints and claims for compensation per 100,000 contacts, 2009-2014



Notes: All contacts and reports in the Danish healthcare system are included, both private and public.
Source: Danish Patient Safety Authority, Danish Patient Compensation Association

The regions cover the costs of compensation except for some treatments provided in the private healthcare system where the insurance company will pay. The Ministry of Health covers the costs of compensation in cases related to injuries caused by pharmaceuticals.

If either the patient or the other party in a case, i.e. the region, disagree with the decision made by the Danish Patient Compensation Association, they can appeal it to the Patient Compensation Appeals Board.

If either the patient or the other party in a case, i.e. the region, disagree with the decision made by the Patient Compensation Appeals Board, the case may be brought before a court.

It is free of charge for patients to seek compensation.

Inspections and sanctions

The Danish Patient Safety Authority supervises the activities carried out by healthcare professionals within the healthcare system. The authority makes inspections based on general supervisory cases and current patient complaints submitted to the independent Disciplinary board of the Danish Healthcare System. If after an inspection the authority finds reason to criticise or sanction the actions and activities of healthcare professionals, the case is brought before the Disciplinary Board of the Danish Healthcare System.

The Danish Patient Safety Board also follows up on organisational circumstances leading to adverse events to ensure that aspects of patient safety are considered and given priority by the hospital management. If general safety issues exposing patients to risks are identified, the Danish Patient Safety Authority has the legal capacity to issue instructions and guidelines for healthcare professionals.

In 2017, the supervisory measures will shift towards a risk-based approach, implying that more resources will be allocated to those institutions and healthcare providers where patients are exposed to the highest risks in order to improve the quality of healthcare services in general.

Efforts are currently being made to adjust the relevant systems in order to provide the necessary register data to support such a risk-based approach.

Adverse events

Denmark was one of the first countries in the world to introduce a compulsory system for reporting adverse events in healthcare. This task was initiated in 2004 for public hospitals and was expanded to include primary healthcare services in the municipalities in 2010. In 2011, patients were given the opportunity to report adverse events.

Healthcare professionals are obliged to report adverse events, but also patients, nursing home residents and their relatives can submit reports. The reporting system is confidential and non-punitive, and reports can be submitted anonymously. The aim of the system is to improve patient safety through the monitoring, analysis and knowledge sharing of adverse events.

The Danish Patient Safety Authority is responsible for the administration of the register of adverse events. After receiving the analysed and anonymised reports from the regions and municipalities, the Danish Patient Safety Authority looks for patterns and trends in selected areas and provides feedback and information to the regions and municipalities regarding specific risk situations. The information is distributed in newsletters, alerts and in reports on specific subjects. All publications are available on the website www.dpsd.dk.

Patient Empowerment through Involvement

Patient Empowerment is about strengthening patients' own resources and abilities with the aim of improving their capacity to develop, control and apply their own resources. The mapping of patient experiences also provides inputs to the work on quality improvement in the healthcare system.

Every year, 250,000 patients are invited to participate in the National Survey of Patient Experience. The survey is conducted on behalf of the five regions and gives hospitals the opportunity to receive systematic feedback from their patients.

The survey includes both inpatients and outpatients in hospitals and covers different aspects such as clinical services, patient safety, patient and staff member continuity, involvement and communication, information, discharge, inter-sectorial cooperation, free hospital choice and waiting time.

The overall objectives are:

- to identify and compare the differences in patient experiences,
- to provide input to quality improvements,
- to follow the development of patient experiences and assessments systematically over time.

The National Survey of Patient Experience consists of four studies focusing respectively on somatic hospitals, maternity rooms, emergency rooms and psychiatry.

National Survey Among Elderly People

Every second year, a survey is conducted among elderly people (aged 67+) who receive either care in their own home or in a nursing facility.

The survey includes questions on satisfaction with the quality of the services, satisfaction with the number of care workers, the stability of the help and whether citizens feel more self-sufficient after receiving help. The participants are also asked if they know about their right to choose between different service providers.

IT-based self-service solutions

eSundhed.dk:

The webpage www.esundhed.dk provides citizens with information about the quality of healthcare services in order to enable patients to make an informed choice of hospital, see page 7. The webpage offers comprehensive information about the clinical and organisational quality as well as studies of patient experience.

Sundhed.dk:

On this webpage, citizens can access a number of personal services and data such as patient records from hospitals (e-journals) as well as general information on health, diseases and patient rights.

Patient reported outcome

Patient reported outcome (PRO) is used as a common term for information about a patient's health condition that is reported directly by the patient. As part of chemotherapy treatment, for example, a cancer patient will reply to a questionnaire about side effects of medicine or functional capacity.

Potentials for a more patient-centred approach

PRO has the potential to support a more patient-centred approach to healthcare. The healthcare professional can use the patients' replies to assess the need for a consultation or use it as an instrument for dialogue and decision making. PRO also has the potential to support patient-centred quality improvement and management.

National initiatives to support the use of PRO

The Danish government, regions and municipalities have agreed to support the use of

PRO in daily clinical practice and in quality development. A new national working group will manage processes to harmonise PRO questionnaires and guidelines for use as well as contribute to knowledge sharing about the use of PRO.

The Danish government and regions have agreed to initiate nationwide spread of the use of PRO at hospitals towards 2019 within three disease areas: prostate cancer, breast cancer and epilepsy.

3. Primary Healthcare



The primary healthcare system covers a number of health services as well as disease prevention and health promotion measures at local level. Primary healthcare services are provided by general practitioners (GPs), other private practicing healthcare professionals such as dentists, physiotherapists, and psychologists and by the municipalities which are responsible for home nursing, prevention measures and rehabilitation.

Health insurance groups

All citizens may choose between health insurance groups 1 or 2. Citizens who choose insurance group 1 are registered with a specific GP who is part of the public healthcare system. Citizens in group 1 have the right to free medical assistance from the GP and the right to free medical assistance from medical specialists in private practice if they have a referral from their GP. No referral is, however, needed for specialist treatment by certain specialists, such as ophthalmologists, otologists and dentists.

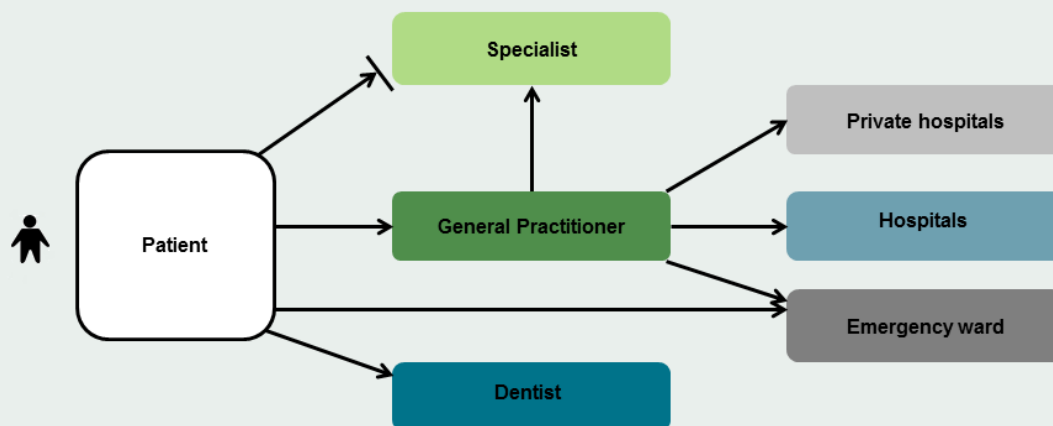
More than 99 per cent of all patients are covered in group 1. Patients covered under health insurance group 2 have the right to receive medical help from any GP and may visit medical specialists in private practice without referral, but services may be subject to co-payments.

The primary healthcare sector also includes services provided by a number of other healthcare professionals such as dentists, physiotherapists, and psychologists. Treatment by these specialists usually involves a co-payment although public subsidies may be available under specific circumstances.

General practitioners

GPs fill a key position in the Danish healthcare system. The GP is the patient's primary contact point to the healthcare system, and citizens contact their own GP with all questions related to health and illness. The GPs play an important role as gatekeepers between the primary level and the specialised healthcare system. When necessary, the GP will refer patients to specialists, hospital care or healthcare services provided by the municipalities, cf. Figure 3.

Figure 3
Access structure of the Danish healthcare system



Note: Not all specialist care, such as dental treatment, requires the referral from a general practitioner.

This means that the GP is responsible for ensuring that patients are offered the best possible and most appropriate treatment. The GPs are assisted by diagnostic and specialist support from the hospitals in the form of laboratory analyses, scans and X-rays.

Some 3,500 GPs are covered by the collective agreement with the public healthcare system. Each GP has an average of 1,600 patients. Whereas every citizen is in contact with the primary healthcare system seven times a year on average, 10 per cent of the population do not use the system within a year. The vast majority of medical cases are handled by the GPs without referral to further examination or specialised treatment.

Many GPs are registered as sole practitioners. However, during the last 20 years, it has become more common for doctors to share a medical practice with one or two other doctors.

Home nursing

Home nursing services are provided by the municipalities. All citizens are entitled to home nursing free of charge when prescribed by a medical doctor or on the basis of an assessment of an individual need. Moreover, the municipalities are required to provide necessary aids and appliances free of charge. Home nurses provide treatment and care for people who are temporarily or chronically ill or dying.

Home nursing enables citizens to stay in their home or close to home for as long as possible. Some municipalities have set up special units where citizens who do not require hospitalisation but are unable to stay in their own home can stay for shorter periods of time and receive intensive treatment and care from trained nurses.

Rehabilitation

The municipalities offer a comprehensive rehabilitation programme for all citizens in need. Rehabilitation includes physical and mental training and other measures aimed at restoring both functional abilities as well as the general ability to take care of oneself, including patient education and initiatives aimed at general education and employment.

The Danish Health Authority issues professional recommendations on training and rehabilitation for different patient groups and gives advice on the coordination of rehabilitation efforts across sectors to increase coherence and quality. Training and rehabilitation may commence at hospitals, and patients discharged from hospital are offered a rehabilitation scheme when necessary. Upon discharge, the hospital will send a rehabilitation plan, describing the functional level and rehabilitation needs of the patient, to both the municipality and the patient's general practitioner, thus passing on the responsibility for rehabilitation and training schemes to the municipality.

Training includes the training of bodily functions and training of activities designed to help patients regain former functional abilities. Rehabilitation also includes initiatives to help the patient become self-sufficient and able to manage everyday life. Patients with severe physical disability due to illness may receive training and treatment free of charge. Other services such as treatment by a chiropodist for patients suffering from diabetes, treatment by psychologists for particularly vulnerable groups, treatment at chiropractors and training supervised by physiotherapists, are partly covered by the municipality if prescribed by the general practitioner.

All patients who are temporarily or chronically ill or dying are entitled to home nursing when prescribed by a general practitioner, and the municipalities are required to provide all necessary aids and appliances free of charge.

Vaccinations

The national childhood immunisation programme provides a number of vaccines for children free of charge. Further information on the national childhood immunisation programme is found on page 28.

The childhood immunization coverage against Diphtheria, Tetanus and Whooping Cough was at 90 per cent or higher in 2015.

Supplementary to the childhood immunisation programme, a number of other vaccinations are available to particular risk groups. A comprehensive immunisation programme has been developed for people who suffer from or are at risk of contracting any form of hepatitis. These include drug abusers, their relatives and all children in risk situations.

Vaccination against influenza is offered to persons aged 65+ and persons with chronic diseases.

All costs related to vaccinations included in national immunisation programmes are covered by the regions, while vaccinations related to private holidaying are at the citizen's own expense.

The Danish Healthcare Quality Programme

In 2016, a new national healthcare quality programme was launched by the government together with the regions and the municipalities. The programme establishes a framework for continuously improving the quality of care in the healthcare system.

Over the past 10-15 years, the quality of care in Denmark has improved, and the vision is to further enhance the quality of healthcare and to provide world-class treatment for each patient. Hence, the vision of the new quality programme is to provide even better quality for the individual patient but also to generate higher treatment standards in a more efficient way.

The Danish Healthcare Quality Programme introduces a new approach that puts even stronger emphasis on the expertise and skills of healthcare professionals and less emphasis on process-related registration requirements. In this way, the new Danish Healthcare Quality Programme is about cutting red tape as well.

The Danish Healthcare Quality Programme thus represents a new and non-bureaucratic way of addressing quality in healthcare, serving as a driving force for regional and local quality improvements.

The programme is implemented through different initiatives. As a first step, Denmark has established a set of ambitious national goals for the quality of care. The national goals reflect the top political priorities in the healthcare system and will serve as a governance tool to ensure that all levels of the system – state, regions, municipalities and GPs – will work towards the same goal of providing world-class healthcare.

The national goals are supported by a number of local goals and activities aiming to achieve local improvements across Denmark. The national goals will also make it easier to assess which areas are in need of improvements and identify efforts that make a positive difference for patients in the Danish healthcare system.

Besides the national goals, the Danish Healthcare Quality Programme presents the following initiatives:

- Systematic consideration of the needs of the individual patient
- Good management at all levels in the healthcare system
- Learning teams that disseminate knowledge and best practice
- Systematic use of data that creates visibility of results
- Governance and incentives to support high treatment standards for the patient

The Danish Healthcare Quality Programme is inspired by inputs from healthcare professionals and their organisations, patients and patient associations as well as by successful approaches abroad. The framework will be further developed and implemented in cooperation with all parts of the healthcare system including the regions, municipalities and patient associations. A pictogram of the national goals can be found on page 57.

4. Hospitals



The regions are responsible for providing hospital treatment to the people living in the region and emergency treatment for all persons in need. Hospital care is free of charge for the patients.

Almost 90 per cent of all treatments provided in hospital are classified as standard hospital treatments that are usually provided at a hospital in the patient's own region. Only very few patients with general complaints are referred to other regions.

Specialised hospital treatment accounts for about 10 per cent of all hospital services and includes highly specialised services (one to three hospitals in the country) and regional functions (one to three hospitals in each region). The definition of specialised services is based on an assessment of the size of the patient group as well as the complexity and cost of the service.

The hospital sector is currently undergoing a complete restructuring. An important part of this transformation is the merging of specialised functions into fewer and larger units. The modernisation of the hospital capacity is based on sustained specialisation and flexibility with the aim of ensuring nationwide access to modern health services and to improve quality of care not only in standard hospital treatment but also in specialised services.

Planning of specialised hospitals

While the regions are responsible for the planning of standard hospital services, the Danish Health Authority is responsible for planning the overall distribution of specialised hospital services. The Danish Health Authority defines and allocates specialist functions among hospitals in close cooperation with medical associations and the regions. The purpose of this centralised planning process is to improve and ensure quality and continuity of care, while at the same time ensuring efficient use of resources.

The specialised regional functions are, depending on the speciality, distributed among one to three hospitals per region, while highly specialised services are located in one to three hospitals in the country. Private hospitals are covered to some extent, in particular those private hospitals which handle specialist functions and which have made agreements with one or more regions to provide services in case of capacity problems at the public hospitals.

New hospitals and sustained hospital services structure

Denmark is investing EUR 6.4 billion in 16 new hospital projects. These projects include greenfield projects as well as extensions and modernisations of existing hospitals, cf. Figure 4. The goal is to ensure national access to modern health services and to improve quality across the entire healthcare system. Designing the new hospitals involves broad-based collaboration with research institutions and private businesses in the field of health.

The process of modernising Denmark's future hospital capacity is based on sustained specialisation and flexibility. The goal is to ensure flexible functions and capacity that can be adjusted, expanded or reduced depending on future demand for treatment and care.

The new hospitals will provide better and more coherent patient flows and contribute to improved efficiency, quality of care and patient safety.

Pre-hospital care and ambulance services

Emergencies are reported on telephone number 112 throughout Denmark. Calls are received by the police and forwarded to a healthcare professional, who will decide if ambulance services and other pre-hospital care are needed.

The dispatcher at the emergency call centre can send paramedics, medical doctors or specialised nurses by car to help at the scene together with the ambulance service. The dispatcher can also send a helicopter manned with doctors to arrive quickly at the scene of an accident, who can begin stabilising and life-saving treatment and ensure fast transport of the patient to a hospital.

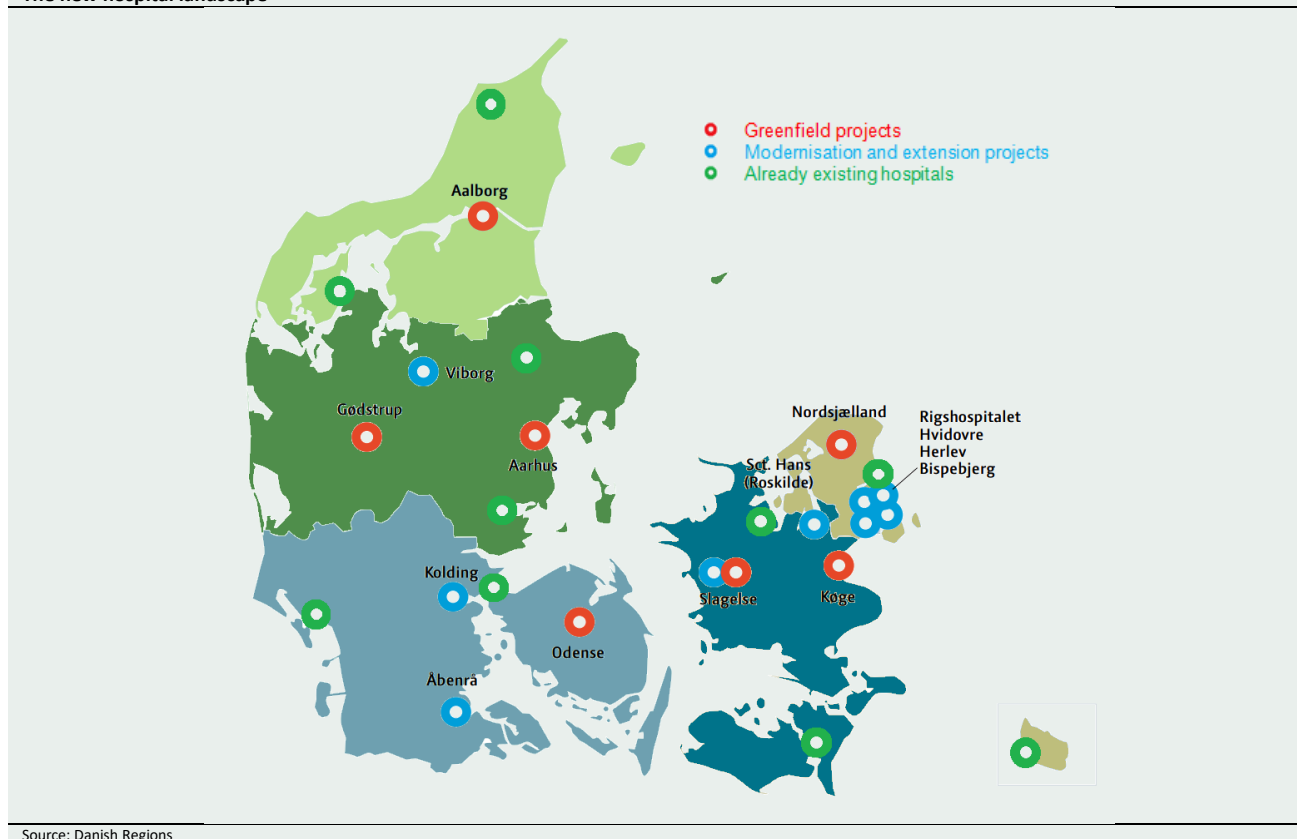
The regions are responsible for offering pre-hospital care and ambulance service free of charge for the patient.

Most regions fulfil the obligation of offering ambulance services by using private contractors or local fire brigades.

The structure of the pre-hospital care and ambulance services is an example of the successful cooperation with private contractors within the Danish healthcare system.

The construction of the new hospitals requires new technologies and solutions to ensure cost-effective care and shorter average admission times. At the same time, ICT (information and communications technology) infrastructure will be a major factor in the development of communication.

Figure 4
The new hospital landscape



Source: Danish Regions

Out of the total budget for new hospitals, EUR 0.9 billion has been earmarked for the procurement of medical equipment and information technology. These investments will broaden the basis for scientific research at most hospitals. Concentrating specialist medical care and enhanced research facilities at the new hospitals will hold opportunities for more wide-ranging collaboration with other research environments, including business and industry.

Furthermore, the investments will strengthen the collection of health data and contribute to the quality of research and development and the documentation of new products.

The modernised hospital infrastructure is expected to contribute significantly towards the vision of placing Denmark among the most attractive countries in the world for developing, testing and manufacturing healthcare solutions based on strong research, fast implementation of innovative new technology, good conditions for public-private collaboration and a well-functioning, development-oriented home market.

As a result of the modernisation process, the number of bed days is expected to be reduced by 20 per cent, and outpatient treatment to be expanded by 50 per cent from 2007 to 2020.

Emergency healthcare services

The aim of the emergency standby system is to ensure safe and fast treatment for people who are injured or have suddenly become seriously ill.

Emergency healthcare services play a crucial role in the modernisation of the Danish hospital structure. 40 emergency departments have been merged into 21 larger units. Emergency care is provided by paramedics, nurses and doctors on the scene, in ambulances or in specially equipped helicopters. Treatment continues at one of the 21 emergency standby departments established at hospitals and staffed with specialists on a 24-hour basis in order to ensure that all patients receive appropriate treatment in case of sudden injury or illness.

Additionally, a number of smaller emergency clinics have been established for patients who are not in need of hospital treatment.

5. Elderly Care



The Danish people are generally healthy and live longer than previous generations. We expect the number of people over 65 years to grow significantly, and it is estimated that by 2040 there will be twice as many people aged 80 or over than there is today.

Danish senior-citizen policy aims at promoting and extending the independency of elderly people and ensuring their continued self-sufficiency and well-being. Local authorities achieve this goal through prevention and

reablement programmes and by providing adequate home care services and nursing facilities free of charge for all citizens in need.

Organising elderly care

Social services for elderly citizens are provided mainly by the 98 municipalities, that are fully responsible for public governance, provision, delivery and financing of elderly care in Denmark. While the Social Service Act constitutes the framework for the services provided by municipalities and their obligations within the entire area of social services, the extended self-rule principle for local government in Denmark means that the municipalities decide on the specific methods and service levels they wish to apply. The municipal council must ensure that services are always provided on the basis of an assessment of individual needs.

In order to promote user influence, all municipalities must establish Senior Citizens' Councils. These councils are elected for four-year terms, and all citizens over 60 have the right to vote or run for the council. The municipality must consult the Senior Citizens Council in any issue relevant to the elderly population in the municipality.

Home care services

Home care services are targeted at elderly people who live at home but are unable to manage everyday life on their own. Home care falls in two categories: practical help (e.g. cleaning and laundering) and personal care (e.g. bathing and shaving). The municipality provides these services free of charge. Elderly people may also receive food services based on an assessment of individual need. In 2015, around 12 per cent of all elderly over 65 received home care services.

Elderly people pay for food services, but a maximum limit for co-payment has been set at national level and the cost cannot exceed average production cost.

The principle of free choice is fundamental to Danish elderly care. The municipality must provide a choice between different service providers of home care and food services. The local authorities are under the obligation to ensure that there are at least two providers of home care services, of which one can be a public provider.

Reablement

Another fundamental principle of home care services is self-reliance. Home care services are always offered after a thorough assessment of individual needs and with the specific aim of restoring, maintaining and improving mental and physical functionality.

The traditional home care services mentioned above are combined with a strong emphasis on rehabilitation and reablement.

Municipalities are required by law to assess if a person in need of home care services could benefit from a reablement scheme in the form of a specific training programme aiming at regaining physical or social functionality and achieving better quality of life. Every reablement scheme must be limited in time and adjusted to the individual needs and capabilities of the elderly.

Nursing homes and home nursing

Nursing homes are for elderly people who no longer have full physical or mental functionality and need special and extensive care. Nursing home facilities are staffed 24 hours a day by healthcare professionals.

It is the responsibility of the municipalities to evaluate if a citizen should be offered to move into a nursing home. Residents pay individually for their residential facilities, food and private expenses whereas nursing and healthcare services are free of charge.

The waiting time for a standard place in a nursing home must not exceed two months from the time of referral. However, if the elderly person wants to live in a specific nursing home or move to another municipality, a maximum waiting time cannot be guaranteed.

In 2015, approximately 4 per cent of elderly people over 65 years lived in nursing homes in Denmark.

Some nursing homes have facilities for residents staying for shorter periods of time during rehabilitation.

All citizens are also entitled to home nursing free of charge when prescribed by a medical doctor or on the basis of an assessment of an individual need.

Preventive measures and home visits

The municipalities are responsible for initiating preventive measures to help people manage their own lives for as long as possible. This includes community based social activities, physical training facilities, organisation of volunteer services and other preventive efforts.

Home visits are a specific preventive effort, aiming to identify the need for individual assistance and discuss the wellbeing and current life situation of the elderly person. Preventive home visits must be offered to vulnerable and socially exposed people aged between 65 and 79 whenever needed and to all elderly persons over 80 years on a yearly basis.

New national action plan for the elderly medical patient

In the Finance Act for 2016, the government has prioritised an annual allocation of EUR 40.2 million to a new national action plan for the elderly medical patient.

The elderly medical patient often suffers from severe disease, several simultaneous diseases and/or impaired functional abilities. As a result, the elderly medical patient is in frequent contact with the GP, the hospital and the municipality.

The national action plan for the elderly medical patient focuses primarily on efforts before and after hospitalisation and on increased coherence across sectors. For instance the plan outlines initiatives to improve the ability of the municipalities to detect early signs of disease, loss of functional ability etc. in order to prevent unnecessary hospitalisation of elderly people and initiatives to support more flexible use of competences across sectors.

The new national action plan also includes a plan for immediate action against hospital overcrowding that provides methods and tools to ensure better use of hospital capacity across departments.

Analysis shows that almost fifty per cent of the patients on medical wards are over 65 years. Many of the elderly people who are hospitalised suffer from a chronic disease or dementia. Chronic obstructive pulmonary disease (COPD) is one of the most frequent diseases among elderly patients on medical wards. A minor percentage of the elderly have two or more chronic diseases.

Dementia

Dementia is a growing challenge for society. In 2014 more than 35,100 people over 65 years had a dementia diagnosis, but the number of people living with dementia today may be considerably higher.

The Danish Dementia Research Centre estimates that the actual number of people with dementia in Denmark is around 80,000*.

The increasing number of people suffering from dementia is a challenge for society and calls for a more comprehensive and coherent cooperation between social and health sectors. The Danish government is currently working on a new national action plan for dementia, involving both citizens living with dementia, relatives, professionals in the field, organisations and others who can contribute with their knowledge and experience.

The action plan will include a number of specific initiatives and inter-sectorial efforts that will benefit people with dementia. The plan is expected to cover areas such as early detection and better diagnosis as tools to ensure appropriate treatment

and care for people with dementia as well as support and counselling for their relatives.

The plan will also address suitable housing design as well as the development of adequate professional skills and research in the field of dementia.

The action plan for dementia will be based on the following three overall objectives:

- Denmark must be a dementia friendly country where people with dementia can live a dignified and safe life.
- Treatment and care of people with dementia must be based on the needs and values of the individual patient. Treatment and care must be provided in a coherent way that ensures early intervention and must be based on the newest knowledge and research.
- Relatives must be actively involved and receive adequate support.

**The difference between the number of people diagnosed with dementia and the estimated number of people with dementia is caused by various factors. For one thing, many people with symptoms of dementia do not contact their GP. For another, many patients are diagnosed in the primary healthcare sector and thus are not registered in a central register.*

6. Psychiatric Care



In recent years, psychiatric care in Denmark has undergone significant development. The number of patients has grown, and treatment methods have changed considerably, both with regard to the face-to-face contact with patients and with regard to an increase in outpatient treatment and a subsequent reduction in the number of hospital beds.

Between 2009 and 2014, the number of patients in contact with psychiatric hospital services increased by 28 per

cent. This increase is partly due to a more open approach to people with psychiatric problems and partly due to a wider definition of psychiatric diagnoses requiring professional treatment. One example is the growing number of adults with ADHD. In the same period, the number of patients in outpatient care increased by 31 per cent, while the number of inpatients increased by only 5 per cent.

The overall responsibility for the provision of psychiatric care lies with the regions and the municipalities. The regions are responsible for psychiatric hospital services as well as for local psychiatry centres. The municipalities are responsible for the provision of social services and for alcohol and drug abuse treatment. Local psychiatry centres are open for all people with psychiatric problems and provide outpatient treatment and extensive support during crisis situations. Patients are not admitted into a psychiatric ward as such, but may stay in the local psychiatry centre until they feel better or until they have been diagnosed with a psychiatric condition. Also, patients who have been discharged from a psychiatric hospital can benefit from the care and support at a local psychiatry centre.

A new direction for psychiatric care

A number of initiatives have been taken to improve the conditions for psychiatric patients.

In 2012, a committee was set up with the aim to develop proposals on how to organise psychiatric care and achieve the best possible results through cost-effective measures.

The committee developed 90 recommendations within six areas:

- Prevention and early intervention
- Stronger coherence and continuity of care
- Quality of care
- Involvement of citizens, relatives and civil society

- Reduction in the use of coercion
- Cost-effective use of resources and better management.

The report emphasised the need to ensure equal status and equal rights for people suffering from mental illness. The individual patient and his or her possibility of recovery should be the starting point of all treatment, and treatment should, to the extent possible, be provided in the local environment to enable patients to carry on everyday life.

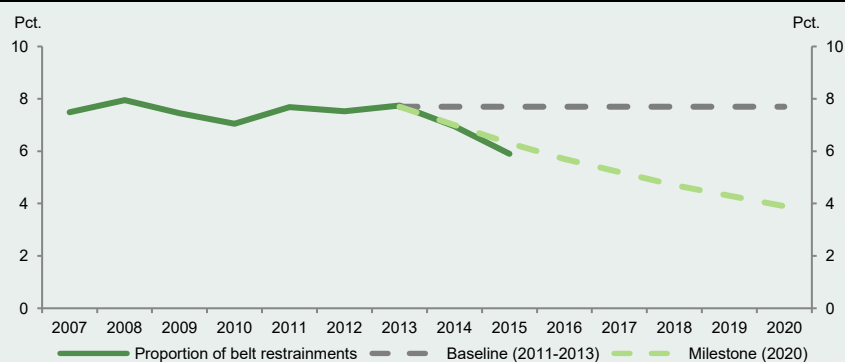
To pursue this new direction, significant resources have been allocated to the field of psychiatric care with the aim of achieving:

- more high-quality capacity
- improved skills in psychiatric care
- modern psychiatric care with better physical facilities and environments
- inter-disciplinary efforts in child and adolescent psychiatry.

The use of coercion

Besides the emphasis on community based care, it was also considered imperative to ensure that people dealing with a psychiatric illness uphold equal rights and equal status with regard to personal self-determination compared to patients with physical illness. In June 2014, a political agreement was made to reduce the use of coercive measures in psychiatric treatment by 50 per cent in 2020, and a task force was set up to monitor progress.

Figure 5
Proportion of psychiatric patients who are belt restrained among the total number of hospitalised psychiatric patients



Source: National Patient Registry, Registry of Coercion in Psychiatry

In May 2015, the Danish Mental Health Act was amended with the aim of improving treatment for people with mental illness and ensuring a reduction in the use of coercive measures. In order to ensure quality in the use of necessary coercive measures and limit the duration of physical restraints, the new rules stipulate a minimum frequency of medical supervision and continuous assessment of whether restraint should cease or continue. Furthermore, the amendment states that belt restraint must only be used for short periods of time.

In order to reduce the overall use of coercion, it is of major importance to expand the capacity in psychiatric care but also to provide better physical environments and more appropriate facilities that will reduce externalising and violent behaviour among patients. The new psychiatric hospital in Slagelse is a good example of how alternative measures for restless patients may help reduce the use of coercive measures.

Psychiatry and drug abuse

In 2014, an initiative was launched to improve coordination of measures aimed at citizens with both mental illness and drug and/or alcohol abuse. This initiative provides guidelines for regions and municipalities, which are required to coordinate healthcare and social efforts in order to ensure a coherent and integrated treatment plan with joint and clearly defined responsibilities.

Regarding other policies related to mental health please see page 33.

New psychiatric hospital in Slagelse

A new way of thinking psychiatric care

In august 2015, a new psychiatric hospital opened in the city of Slagelse located in Region Zealand. With its 44,000 m² and 194 beds, the hospital features new technology, innovative architecture and extensive use of nature and light, which altogether represent a new way of thinking psychiatric care.

Innovative technology, nature and warm surroundings

The architectural composition of the buildings with many roof windows and glass facades allows daylight and views to natural landscape gardens from all rooms. Smaller gardens create space for social activities in small units, and the facilities also include a wellness area and spa and a variety of sports and exercise equipment that can be used by both patients and relatives.

The hospital uses an advanced and unique lighting system, as several studies have shown that light is an important element in treatment, leading to shorter admission times and faster recovery. Patients benefit from an intelligent LED lighting system, providing blue-white light in the morning and reddish light in the afternoon and evening to support a natural day-night cycle.

The hospital also has a special multi-stimuli room in which different light settings, music, natural sounds and pictures of nature can be used to calm down troubled and unrestful patients by giving them appropriate stimuli, instead of isolating patients and removing all stimuli.

Reducing use of coercion

The vision is that all these elements will benefit the treatment of patients in general and reduce medication. However, the main purpose is to reduce the use of coercion by providing pleasant surroundings and focusing on light, extra space, physical exercise, meaningful activities and multi-stimuli rooms.

Health Promotion for Children

All children have the right to preventive health examinations at the GP and health services from the municipalities, including child nursing, school nursing and dental care.

The municipalities are responsible for providing preventive healthcare to all children.

The municipality offers at least five health visits by a nurse (health visitor) to all families during the child's first year of life with the aim of supporting early bonding between the child and parents and supporting the child's general wellbeing and development. Also, the general practitioner carries out seven scheduled preventive health examinations of pre-school children in connection with the Danish childhood immunisation programme.

All school children are offered preventive health examinations by a doctor or school nurse when starting school at the age of 6 and before leaving secondary school. There are also frequent examinations to check eye sight, hearing, height and weight, and children with special needs are offered further examinations, guidance and assistance.

Dental healthcare

All children and adolescents under the age of 18 have the right to free preventive dental care treatment. This service is provided by public dental clinics or by practising dentists, who have an agreement with the municipality. Adolescents aged 16 and 17 may also choose to attend a private practising dentist without agreement with the municipality.

However, as the level of subsidy for treatment at a private dentist must be approved by the municipality, the adolescent may have to pay up to 35 per cent of the cost him- or herself.

Vaccinations

All children are included in the Danish childhood immunisation programme and can be vaccinated against pneumococcal disease (PCV 7), whooping cough (pertussis), diphtheria, tetanus, polio, measles, German measles, mumps and Haemophilus influenza type B. It is also recommended that all girls are vaccinated against cervical cancer at the age of 12, but the HPV vaccine may also be given later.

Children in day care institutions with another child infected with chronic hepatitis B may be vaccinated against hepatitis B upon recommendation by the Danish Patient Safety Authority. Children under 18 may also be vaccinated against hepatitis A and B if they live closely to hepatitis B infected people upon recommendation.

Contraceptives

The GP offers free guidance on the use of contraceptives. Guidance may be offered to children and young people under 18 without parental consent. All children receive comprehensive sexuality education in school.

7. Health Promotion



Public health reflects both the lifestyle of the citizens and the ability of the healthcare system to prevent, treat and cure diseases. The general social and living conditions, such as education, income, housing conditions, work environment and the organisation of the healthcare system, all play an important role in ensuring a healthy life. Other important factors are gender, age and hereditary factors.

Life expectancy in Denmark has increased from 77.9 years in 2005 to 80.6 years in 2015. Danish women have a

higher life expectancy (82.5 years in 2015) than Danish men (78.6 years in 2015).

But even though life expectancy in Denmark has increased, the Danes do not live as long as citizens in some European countries. This is mainly due to lifestyle factors, such as overweight, physical inactivity, smoking and alcohol consumption.

In Denmark, the health and wellbeing of all citizens are considered to be a common concern for the individual, the family and local network, the local community, the municipalities, the regions and the state. The state lays down the overall framework to enable people to live a healthy life, and the municipalities are responsible for ensuring that the local community provides healthy environments as well as health-promoting and disease-preventing activities and facilities.

The specific health-promoting efforts at local level are not defined by law. The efforts of individual municipalities depend on the health conditions of the local population and on local priorities. The municipalities are also given economic incentives to implement effective prevention and health-promoting efforts as they co-finance hospital treatment as well as treatment by the GPs.

Health promotion packages

The Danish Health Authority is responsible for conveying information to the population and to the authorities on the health status of the Danish population, health-related risk factors and the prevention of unhealthy lifestyles.

Figure 6
Life expectancy and daily smokers, 2013



To this end, the Danish Health Authority has developed detailed teaching material, launched information campaigns and provided technical guidance regarding a number of risk factors. 11 so-called 'health promotion packages' were published in 2012 and 2013 to assist decision-makers and healthcare professionals in setting priorities when planning and organising health-promotion efforts at local level. The packages all contain recommendations based on scientific knowledge to support the preventive work of the municipalities. The implementation of the packages is supported by the Centre for Practical Prevention established by Local Government Denmark, the national association of municipalities.

Each health promotion package includes basic level recommendations and performance indicators for four action areas:

- Framework (plans and policies at municipal level)
- Initiatives (counselling, training, treatment)
- Information and education (information, marketing of local preventive services, support of national/central initiatives)
- Early detection (screening and early detection of risk factors)

The health promotion packages cover 11 focus areas: alcohol, tobacco, physical activity, mental health, sexual health, sun protection, indoor climate in schools, hygiene, healthy food and meals, obesity and drug abuse.

Alcohol

Municipalities are required to offer free treatment to citizens with alcohol abuse within 14 days. Many private organisations also work on a voluntary basis to combat alcohol abuse, often in close cooperation with public authorities.

National measures to combat alcohol abuse include legislation that prohibits the sale of alcoholic drinks to persons under the age of 16 and the sale of alcoholic beverages containing more than 16.5 per cent alcohol to persons under the age of 18. Measures also include campaigns to reduce weekly consumption to no more than 14 units of alcohol for men and 7 units for women. The latest campaign focused on the harmful effects of binge drinking.

Smoking and tobacco

Prevention of smoking and tobacco use has been given high priority in Denmark during the last 25 years, resulting in a decrease in the proportion of daily smokers among adults (age 15+) from 44 per cent in 1990 to 17 per cent in 2015. 22 per cent of all adults smoke occasionally.

According to the Smoke-free Environment Act, people in Denmark are not allowed to smoke in public and private workplaces, institutions for children and adolescents, educational institutions, indoor facilities accessible by the public, including means of public transport and in restaurants, bars, cafes and other places of entertainment.

Other efforts to reduce smoking and tobacco use include prevention activities aimed at combatting smoking among young people and smoking cessation courses for heavy smokers. A number of public campaigns have been launched to encourage smoking cessation and most municipalities have established local clinics that offer free smoking cessation programmes.

The sale of tobacco products to persons under the age of 18 is prohibited. Customs duty on tobacco products is relatively high in Denmark, and pictorial warnings on the health hazards of smoking have been introduced on cigarettes and other tobacco products. Tobacco advertising is prohibited.

In spring 2016, the Danish government presented an act to regulate electronic cigarettes. According to the act it is illegal to sell electronic cigarettes (with or without nicotine) to people younger than 18 years and to advertise electronic cigarettes (with or without nicotine).

Drugs

The Danish prevention programme on drug abuse is based on inter-sectorial efforts of both social care and healthcare professionals. It includes collaboration between local and regional authorities, the central healthcare, social and judiciary systems as well as the central customs authorities. The Ministry of Health coordinates and is responsible for the national drug prevention programme, which is administered by the Danish Health Authority.

The Danish Health Authority monitors drug abuse and ensures that new trends and risks are identified and communicated to other authorities. The Danish Health Authority is responsible for the prevention of drug abuse at national level, the development of information and education material and nationwide prevention programmes.

As of 1 March 2009, treatment with medically prescribed heroin for injection has been allowed in Denmark. Five clinics have been established nationwide to contribute to preventive efforts aimed at reducing the deterioration of the patients' health and to qualify and increase knowledge on how to improve the quality of life for drug abusers in terms of health and social integration.

In 2012, it was also made possible to establish and run special premises where drug users over the age of 18 are allowed to take their drugs in hygienic settings and under the supervision of qualified professionals, trained to intervene in the case of overdoses.

Nutrition and obesity

The prevalence of overweight and obesity has increased significantly in Denmark over the last few decades. The percentage of overweight people has increased from 31 per cent in 1987 to 47 per cent in 2013.

The objective of nutrition policy in Denmark is to encourage the population to opt for a diet that promotes health and prevents illness. The highest priority is to reduce the amount of fat consumed by the population and to promote the intake of foods rich in complex carbohydrates and fibres, both having a significant impact on the prevention of cardiovascular diseases and certain types of cancer. It is especially important to ensure healthy diets for children, young people and the elderly.

Information campaigns as well as legislation in areas such as taxation and food labelling are important tools in achieving these objectives. In addition, great efforts are made to highlight the importance of nutrition schemes in public institutions, such as hospitals, nursing homes, and child care institutions. The Ministry of Environment and Food is responsible for policies related to food and nutrition.

Physical activity

Research shows that physical activity can prolong life, diminish the risk of illness and prevent an early death. The municipalities are responsible for prevention measures related to physical activity. The Danish Health Authority contributes by generating awareness and knowledge about the advantages of physical activity through national campaigns. According to the national recommendations, children should be physically active for at least 60 minutes every day and adults for at least 30 minutes every day.

The term physical activity includes all kinds of movement that increases energy exchange and covers both exercise and sports games, as well as daily activities such as walking, climbing stairs or cleaning.

Local involvement by the municipality and local sports clubs are crucial for the success of preventive initiatives concerning physical activity, as most of the practical preventive work must be initiated and carried out in the local community where people live. For children, the public school reform in 2014 introduced an obligation to ensure 45 minutes of daily movement in schools to promote physical activity among children.

Mental health

During one year, 20 per cent of the Danish population will experience problems with their mental health, and awareness of the need to promote mental health has increased in Denmark in recent years. Especially the municipalities are working to promote mental health and have established cross-sectorial collaborations in this field. Also a number of private stakeholders have taken an interest in mental health and are offering activities for the promotion of health and wellbeing focusing on different target groups.

The general approach in Denmark is for mental health efforts to be designed and carried out within the local settings where people live their daily lives – including family, day care centres, schools and work places.

Mental health

Promotion package

The Danish Health Authority has developed a health promotion package on mental health. The objective is to support local efforts to promote citizens' mental health and to strengthen local prevention efforts.

The promotion package on mental health has been well accepted and widely implemented over the last years and has pushed mental health up on the local political agenda.

Cross-sectorial collaborations

Currently, there is increased emphasis on the establishment of cross-sectorial collaborations for the promotion of mental health. The Danish government, the municipalities and the private stakeholders run initiatives that promote the concept of 'inclusion'. For example, in primary care settings and schools, early interventions are introduced to promote equity and combat stigma regarding mental health and mental illnesses.

Mental health at workplaces

The Ministry of Health has initiated a public-private partnership on mental health in the workplace. The aim is to establish binding cooperation between labour market organisations, municipalities and the regions. The focus is on small and medium-sized companies within the public and private sector.

Chronic Diseases

Around one million Danish people suffer from one or multiple chronic diseases. The government has allocated EUR 160 million in 2016-2019 to strengthen the efforts for patients with chronic diseases.

Approximately one million Danes suffer from one or more chronic diseases such as diabetes, arthritis or lung disease – a number that is expected to increase. At the same time, people live longer with their disease today than the previous generations. This means that healthcare expenditure on chronically ill patients is increasing.

Diabetes and chronic obstructive pulmonary disease (COPD) are two of the most common chronic diseases in Denmark: Around 215,000 persons (4.8 per cent of the population) live with type 2 diabetes and around 170,000 live with COPD.

To overcome these challenges, close cooperation between the different units and actors within the healthcare system is needed in order to ensure early detection, diagnosis and adequate treatment for the individual patient. The government has prioritised EUR 160 million in 2016-2019 to

strengthen the efforts for patients with diabetes, COPD, arthritis and other chronic diseases.

The aim is to detect the disease and to begin treatment as early as possible and to ensure that all patients receive comprehensive high-quality treatment regardless of where they live. To this end, it has been decided to strengthen the efforts for chronic diseases by developing individual action plans for all patients with COPD, diabetes and arthritis.

The action plans aim to ensure that each patient becomes fully aware of what to expect after the diagnosis, but also to promote patient empowerment and active participation in the treatment and management of the disease.

Furthermore, the government has presented an action plan for lung diseases to strengthen early detection of COPD and childhood asthma. This plan also includes supplementary and ongoing education for GPs and the expansion of national telemedicine projects for COPD patients.

National Strategy for Personalised Medicine

Around the world we currently see important new developments, where new technologies and molecular knowledge – e.g. about genetics – are increasingly used to provide patients with better and more targeted healthcare (Personalised Medicine).

In Denmark, many hospital departments apply or are planning to apply genome sequencing techniques, and a majority of medical specialties expect to start using genome sequencing in the nearest future. There are already good examples within cancer care, but the technique has great potential within many disease areas.

Many universities and hospitals are conducting research in the area, and research takes place in all stages of the value chain – from basic genome research to research in clinical practice. It is estimated that more than approximately EUR 70 million. Euro have been invested in research infrastructure of relevance to Personalised Medicine in recent years, e.g. in biobanks, genome sequencing equipment and supercomputers capable of processing large volumes of genetic information.

To ensure coordination and direction for the collective efforts in this field, the Danish Government and Danish Regions have developed a National Strategy for Personalised Medicine

2017-2020. The strategy includes the formation of a National Genome Centre

Overall, the focus of the strategy is to:

Establish a foundation for the development of better and more targeted healthcare for patients, through application of new technologies and new knowledge.

Strengthen the ethical, legal and safety aspects related to the use of genetic information in healthcare.

Establish a joint governance structure and strengthen collaborations across the country – both in healthcare and research.

Establish a cooperation about a safe, joint and coherent technological infrastructure.

Initiate relevant research – and development projects.

The National Budget has allocated approximately EUR 13.5 million in 2017-2020 to initiate this project and future expansion of Personalised Medicine is expected to be co-financed by public research resources, regional healthcare resources and private actors.

8. Digitisation and Health Data



The Danish healthcare system is characterised by extensive digitisation, electronic communication between healthcare providers and systematic use of data and digitised working procedures.

Public hospitals and general practitioners (GPs) systematically collect data, and their contact with the patient is sustained over long periods of time. This permits large-scale monitoring and analysis, while records in the national patient register and medication databases permit a significant degree of, for example, patient-compliance monitoring.

The prevalence of common IT standards facilitates electronic communication between healthcare providers – hospitals, GPs, specialists, laboratories, local authorities, home care services and others:

- All GPs keep electronic health records (EHRs), and 98 per cent exchange records electronically.
- GPs receive all laboratory test results from the hospitals electronically.
- 99 per cent of all prescriptions are sent electronically to the pharmacies.
- 97 per cent of all referrals to hospitals are made electronically.
- All referrals to medical specialists and psychologists are made electronically.

Information and communications technology (ICT) and digital workflows are fully integrated in the healthcare system. According to the benchmarking information of the European Commission and the OECD, EU's e-health deployment indicator, Denmark ranks as one of the front-runners in the deployment of e-health.

Extensive digitisation – electronic communication between health service partners

Denmark has a long tradition for thorough monitoring and registration of patients who are in contact with the healthcare system. Extensive digitisation enables the monitoring of patients and the course of their disease over time.

The following IT solutions have been significant in Denmark and have also won international acclaim:

- Implementation of the so-called MedCom³ standards that have digitised much of the communication within the health system.
- Establishment of the health data network for secure electronic communication between all healthcare providers.
- The web portal Sundhed.dk where citizens have access to their own medical data from national health registers, electronic health records (EHR), medication data etc. These data can also be accessed by the patient's GP.
- The Shared Medication Record which gives citizens and healthcare professionals access to a complete electronic record of each citizen's current prescription medications. The Shared Medication Record system simplifies communication concerning medication between healthcare providers and reduces the risk of giving inappropriate medication. The Shared Medication Record is almost fully implemented at hospitals, general practitioners and local health authorities (e.g. municipal nursing homes).

Across the healthcare system, work is currently in progress to link the various IT solutions more seamlessly so that existing patient data can be accessed by different healthcare professionals and care staff, irrespective of where in the health system the data were originally registered. The vision is to achieve a single, cohesive health system in which IT and digital processes support continuity of care across hospitals, GPs and home care services.

Telemedicine

In recent years, Denmark has moved away from many small telemedicine pilot projects to a more coordinated effort to establish large-scale studies reflecting telemedicine in actual operation. The National Telemedicine Action Plan from 2012 operates with five specific telemedicine initiatives, which form the basis for a telemedicine programme to pioneer future telemedicine initiatives. Examples of cross-sectorial large-scale telemedicine studies that are being rolled out are TeleCare Nord and telemedical wound assessment (see page 38).

A national infrastructure for telemedicine is established as part of the large-scale implementation of telemedicine in operation. This includes standards and relevant reference architectures spanning the entire healthcare system, covering data measurement, video, questionnaires and images. The goal is to have a digital infrastructure and IT architecture in place within the foreseeable future, so that relevant information can be exchanged across the healthcare system and other sectors.

Visibility of results

Denmark is a world leader in unique healthcare registers and infrastructure for linking data across registers and databases. Our biobanks and registers provide detailed information on the entire population that can be used for research and improvement of healthcare services.

A reform to improve the "visibility of results" has been initiated and marks a commitment to a national long-term strategy for better use of healthcare data and for creating greater transparency of health outcomes and results.

³ MedCom was established in 1994 as a public funded, non-profit cooperation. MedCom facilitates the cooperation between authorities, organisations and private firms linked to the Danish healthcare system. MedCom is financed and owned by the Ministry of Health, Danish Regions and Local Government Denmark.

Denmark has a long tradition for collecting and using data on both quality of care, activity and costs, and the healthcare system has a comparatively mature infrastructure for data collection and for storing data in national healthcare databases. This provides a potential for better use of data and for realising the benefits of greater transparency of outcomes.

The visibility of results reform will contribute to:

- better treatment and care through systematic monitoring and benchmarking of results and outcomes leading to the dissemination of best practices;
- Targeted prevention based on data that will predict risks, ensure timely diagnosis and enable effective early interventions;
- relevant patient information through easy access to comparing quality of care, waiting time and outcomes, including patient rated outcomes across hospitals and care providers;
- increased access to healthcare data for citizens, journalists, researchers and others who study and compare, for example, variations in treatment standards and quality of care; and
- increased data based management through the systematic use of data to benchmark results and outcomes in order to support a more efficient and outcome oriented healthcare system.

Health data programme

As part of the “visibility of results” reform, a Health Data Programme was established in 2014 to run over a four-year period. The vision of the Health Data Programme is to create “better healthcare through better use of data”, and four separate programme tracks have been defined to support this vision:

- New data model and user interface. Developing a modernised data model and easy accessible user interface that gives better access to relevant healthcare data for healthcare professionals, researchers, administrators and citizens.
- Modernised infrastructure. Developing the IT infrastructure for national health data management at the National Health Data Agency including a modernised data platform.
- Better data quality. Enhancing quality of the healthcare data by establishing a new national governance model for monitoring data quality in order to support higher validity and reliability of healthcare data.
- Better cross-sectorial cooperation. A new governance model for health data management to support cross-sectorial cooperation.

Legal aspects of data collection and the use of data

The Danish data regulations provide good access for using healthcare data for research projects or clinical trials, provided they meet the basic requirements of being of general societal importance, data are handled and used in a lawful, secure and safe manner, and the individual's right to privacy is respected. The Danish Data Protection Agency oversees that the legal requirements concerning healthcare data are satisfied before data are used in research projects or clinical trials.

Telemedicine

The TeleCare Nord project aims at ensuring close monitoring of patients with chronic obstructive pulmonary disease (COPD). Patients measure their oxygen saturation, heart rate, blood pressure and weight a couple of times a week, and the results are transmitted electronically to healthcare professionals at the local hospitals who analyse the data and adjust medication and treatment if needed. By measuring their health, patients also become aware of how they can ease life with COPD – for example by seeing the effects of exercise and diet on oxygen saturation and heart rate. The project helps to bring down the number of hospital admission days, and telemedicine is less time-consuming than ordinary treatment methods.

Tele-Care Nord is a joint partnership between municipalities, the regions and the GPs. This large-scale project, in which all stakeholders in the healthcare system collaborate across organisational levels, is unprecedented in Europe. The results have led to an agreement to roll out tele-health for COPD patients in all municipalities and regions by 2019.

Tele-medical wound assessment

A national roll-out project is designed to expand tele-medical wound assessment throughout Denmark and aims to include up to 70 per cent of all relevant patients by 2017. The method involves a trained nurse who attends to patients' wounds in their own homes or at the local health clinic, taking photographs of the wounds and uploading the information to the patient's online health record, which can be accessed by a specialist at the hospital (and by the patient).

Again, this method reduces hospital admission days, saves time for healthcare professionals and minimises transport time for patients. The project is also expected to improve the skills of the nurses administering wound care and increase patient satisfaction.

Cancer

In Denmark, the cancer mortality rate has declined in the last couple of years. Improving cancer treatment has high priority in the healthcare system, and cancer patients have a number of options for treatment in Denmark and abroad.

Just over 200,000 Danish people have at some point in their lives been diagnosed with cancer. Even though cancer is the most common cause of death in many EU countries – including Denmark – mortality from cancer has decreased over the last decade. In Denmark, the cancer mortality rate has decreased from 260 deaths per 100,000 inhabitants in 2008 to 233 in 2014. The five-year cancer survival rate has increased since the year 2000. In 2012-2014, the survival rate was 61 per cent. This is an increase of 13 percentage points compared to 2000-2002.

A comprehensive development and extension of cancer treatment aims at ensuring fast, skilled and safe treatment for cancer patients. 'Integrated patient pathways' and statutory maximum waiting times ensure a fast track for cancer patients, and the

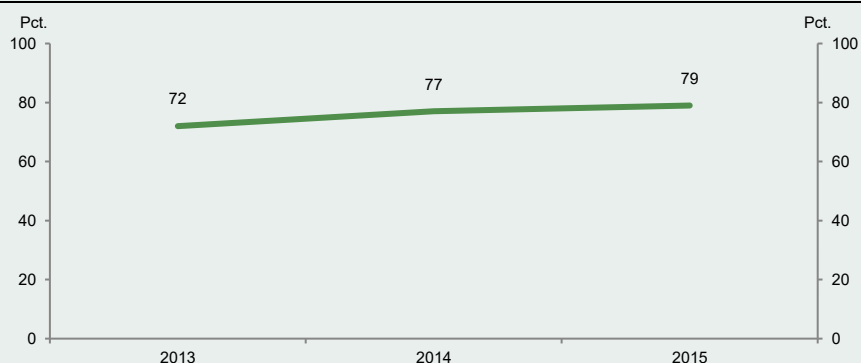
Danish Health Authority monitors progress in the field of cancer treatment.

The government has continuously emphasised the need to strengthen efforts to combat cancer through three national cancer plans. A new fourth Cancer Action Plan was launched in the summer of 2016.

Danish people also have access to a number of vaccination programmes free of charge. The HPV vaccine, which reduces risk of cervical cancer, is part of the Danish childhood immunisation programme and is recommended for girls aged 12-18.

Furthermore, national screening programmes aim at identifying individuals at risk of developing breast cancer, cervical cancer or colorectal cancer. Screening for breast cancer is offered every other year to women aged 50-69. Cervical cancer screening is offered every third year to women aged 23-49 and every fifth year to women aged 50-64. Screening for colorectal cancer is offered every other year to all Danes aged 50-74.

Figure 7
Percentage of patients with cancer treated on time according to the Cancer Action Plan, 2013-2015



Source: National Patient Registry

Cardiovascular Diseases

Denmark has seen the largest decline in the mortality rate related to ischemic heart disease among OECD countries. Continuity of care is ensured by a comprehensive, standardised treatment programme offered to patients with certain types of heart disease.

Heart disease is common in Denmark. In 2011, around 430,000 Danish people suffered from a heart disease.

During the last decades, the mortality rate related to cardiovascular diseases has dropped significantly in Denmark. The same pattern is seen in other EU countries. In Denmark, mortality caused by cardiovascular diseases has decreased by 69 per cent from 2005 to 2012. In 2012, 139 out of 100,000 inhabitants died from cardiovascular diseases in Denmark.

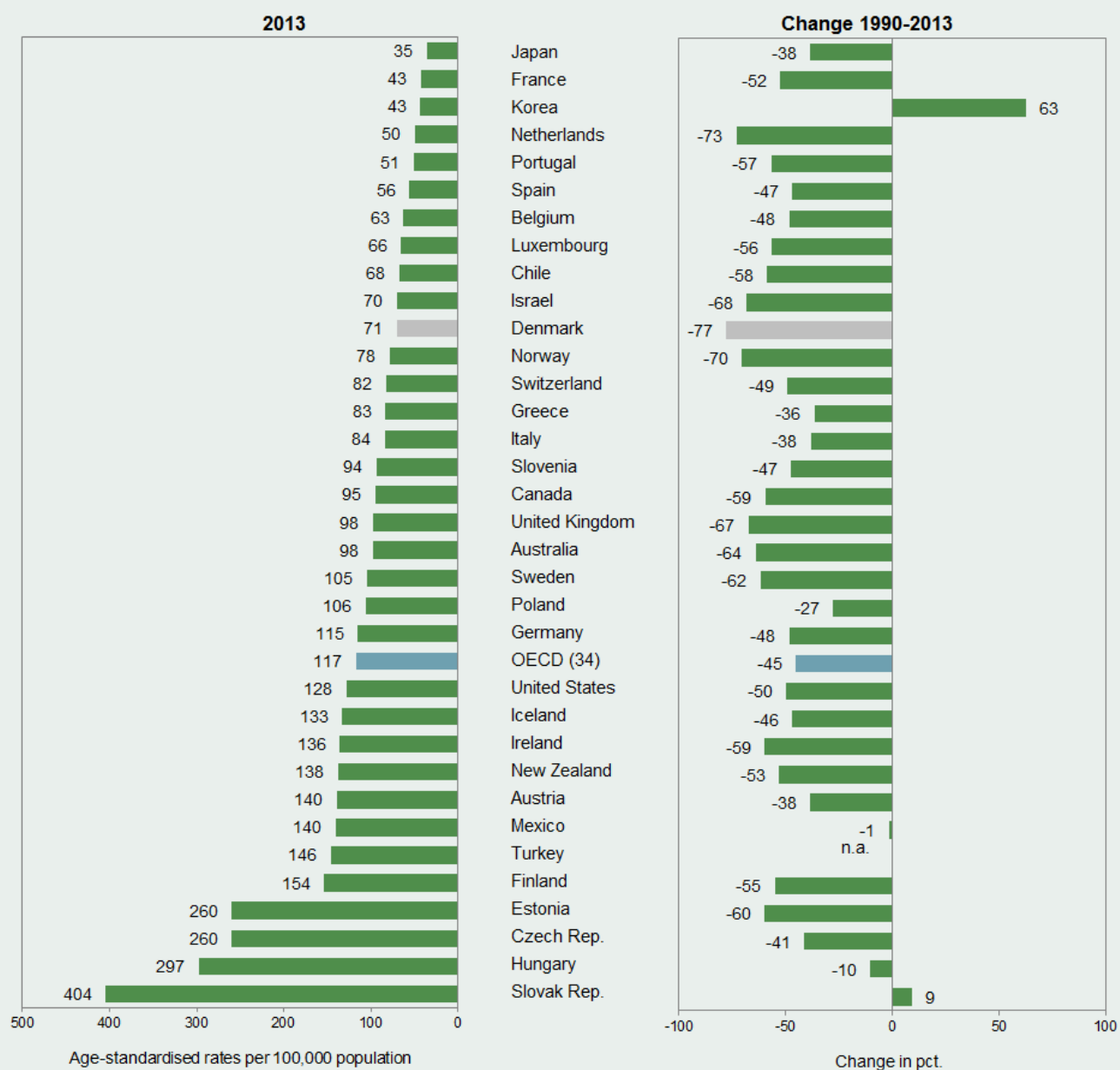
Compared to other OECD countries, Denmark ranks among the countries with the lowest mortality rate related to ischemic heart disease. A report from

2015 (data from 2013) showed that mortality caused by ischemic heart disease had fallen by 77 per cent from 1990 to 2013, and only 71 out of 100,000 inhabitants died from ischemic heart disease in Denmark compared to the OECD average of 117.

Many patients who suffer from cardiovascular diseases require rehabilitation after surgery, and to meet their needs, National Clinical Guidelines on cardiac rehabilitation have been developed. The guidelines describe present knowledge and provide recommendations to support consistent high-quality rehabilitation across regions, municipalities and professional groups. The rehabilitation offered may include physical exercise, support for dietary changes, smoking cessation and psychosocial help.

Since 2010, patients with certain types of serious heart diseases have been offered a comprehensive standardised treatment programme to ensure timeliness, quality and continuity of care. There are also special rules on maximum waiting time for treatment of certain life-threatening heart diseases.

Figure 8
Ischemic heart disease mortality, 2013 and change, 1990-2013 (or nearest available year)



Source: OECD Health Statistics 2015

9. Medicines and Pharmacies



Ensuring equal access to high-quality medicines for the Danish population is important to the Danish healthcare system.

Licensing of medicines and pharmacovigilance

Medicines must be authorised by the Danish Medicines Agency or by the European Commission before they can be placed on the Danish market. With a marketing authorisation follows the responsibility to monitor potential side effects of the medicine as well as an obligation to report them to the authorities

on a regular basis. Data about side effects are published in regular reports by the Danish Medicines Agency.

The Danish Medicines Agency and the European Medicines Agency (EMA) monitor the safety of medicines. Within the EU, the national medicines agencies maintain a register of reported side effects from which information is shared with EMA, the European Commission, national medicines agencies and the pharmaceutical company concerned. EMA registers information about side effects from all EU Member States in one joint pharmacovigilance database (EudraVigilance).

Procurement and medicine pricing

In Denmark, pharmaceutical companies are free to set the official prices of medicine. However, members of the Danish Association of the Pharmaceutical Industry are subject to a price-cap agreement between the Association, the Ministry of Health and the Danish Regions. The procurement and pricing procedures differ between the hospital sector and the primary healthcare sector.

The hospital sector

In Denmark, 99 per cent of all medicines used at public hospitals are purchased through the pharmaceutical procurement service Amgros, which is owned by the five regions. Amgros carries out tendering procedures and purchases medicines for all public hospitals.

All hospital medicines are paid for by the regions, and all treatments in public hospitals, including medicines, are provided free of charge to the patient.

The primary healthcare sector

The actual pricing of medicines for the primary healthcare sector varies depending on whether there are directly competing products. The prices of directly competing medicines from the generic industry are set by

14-day auctions. Following each tender, the pharmaceutical companies will report their prices for the following two weeks to the Danish Medicines Agency. This information is communicated to all pharmacies, which means that prices are the same throughout Denmark. The system has proven to ensure price-transparency and market competition.

Medicines with no directly competing products that have been granted reimbursement by the Danish Medicines Agency are included in the price-cap agreement between the Danish Association of the Pharmaceutical Industry, the Danish Regions and the Ministry of Health.

Reimbursement of medicines

While medicines used in public hospitals are provided free of charge, there is a comprehensive reimbursement system that entitles patients to reimbursement when they buy medicine from a private pharmacy.

The Danish Medicines Agency decides whether a medicine is eligible for public reimbursement. The decisions are based on recommendations given by the Danish Reimbursement Committee.

There are different types of reimbursement. Many prescribed medicines come with general reimbursement which automatically ensures patients reimbursement when they buy medicine. Patients do not need a special authorisation to obtain general reimbursement, but for some medicines, reimbursement is only available if certain criteria are satisfied (for example it may be required that the patient belongs to a certain patient group or suffers from a specific disease). Another type of reimbursement is the individual reimbursement for medicine; i.e. reimbursement which is awarded to the patients personally.

The reimbursement scheme is a needs-based system allocating public reimbursement to patients with the highest consumption of medicines and consequently those with the highest expenses.

The amount of reimbursement is automatically calculated at the pharmacy. Reimbursement rates vary from 0 to 100 per cent depending on the patient's prior consumption of medicine within a period of one year. The maximum amount of patient co-payment is adjusted on a yearly basis. The reimbursement system is based on generic substitution, which means that the amount of reimbursement is calculated on the basis of the cheapest generic medicine. If patients choose to buy a more expensive medicine, they will have to pay the price difference themselves.

Pharmacies

As of 2016, there are about 240 private pharmacies and 140 branch pharmacies, including hospital pharmacies. The regions are responsible for the pharmacies at hospitals and determine the number of hospital pharmacies, while private pharmacies are owned by a proprietary pharmacist and licensed by the Danish Medicines Agency. A license can only be given to a pharmacist and not to a company. The Danish Medicines Agency determines the number of private pharmacies as well as their location. A proprietary pharmacist may establish branch pharmacies within a distance of 75 km. A proprietary pharmacist cannot own more than eight pharmacies, including branch pharmacies.

Private pharmacies have a monopoly on the sale to consumers of prescription-only medicines (POM) and also some over-the-counter (OTC) medicines. A number of OTC medicines can be bought from pharmacies as well as from supermarkets or health and beauty retailers.

Pharmacy mark-ups are regulated by law. Pharmacies receive a dispensary fee whenever they sell a prescribed product, i.e. POM and OTC medicines sold on prescription. Pharmacies and other shops selling OTC medicines are free to set the price of these products.

Medical devices

Medical devices and in vitro diagnostic are regulated by EU directives that are implemented in Danish law.

Only CE marked medical devices can be placed on the Danish market. The CE mark shows that the device meets the legal requirements for medical devices in the EU. The manufacturer must document the product's quality, safety and performance and ensure compliance with relevant technical requirements (conformity assessment).

Depending on the risk class of the device, the manufacturer must choose a notified body to review the documentation in connection with the conformity assessment procedure. A notified body is a private organisation designated by the national health authorities to review and assess whether the manufacturer's documentation meets the legal requirements.

New EU legislation on medical devices and in vitro diagnostic (IVD) is currently underway. The aim is to strengthen patient safety and support innovation in the industry and to further harmonise the rules regarding medical devices and IVD.

Health research

The development of new technologies and treatment options in health is rapidly moving forward. New technologies, treatments and interventions may give rise to a number of ethical issues.

The Danish Council on Ethics is an independent council that advises the Danish Parliament and promotes public debate on biotechnology and genetic technologies that affect humans, nature, environment and food. The work of the Council is based on the respect for people, the integrity and dignity of future generations and respect for nature and the environment.

The overall responsibility for health research and funding lies with the Danish Ministry of Higher Education and Science. However, the Ministry of Health plays an important role in Danish health research and is responsible for legislation on e.g. clinical trials on humans. In cooperation with other relevant authorities, universities and private organisations, the Ministry of Health participates actively in formulating strategic priorities for Danish health research. Furthermore, the Ministry of Health has resources to provide funding for smaller research projects in priority areas.

All research projects in Denmark involving human beings or any kind of human tissues or cells, etc. require authorisation from an ethics committee. In case of trial projects involving medicines and medical devices, the Danish Medicines Agency must also approve the project.

In Denmark, research is carried out under the auspices of many different bodies: in universities and other establishments of higher education, in hospitals, in the primary healthcare sector, in ministerial research institutions and in private companies. This means that the responsibility for and financing of health research are shared among a number of authorities and private institutions.

Statens Serum Institut (SSI) is an agency under the Ministry of Health responsible for the surveillance and control of infectious diseases, biological threats and congenital disorders. SSI also carries out research and development within its areas of activity.

New clinical trials regulation under way

A new EU regulation on clinical trials is expected to come into effect in 2018. In the future, applicants will have access to a single portal for submission of applications via a common EU portal and central database instead of having to apply in each Member State as is the case today. The EU portal and database will also be accessible to the public and provide information about clinical trials conducted in the EU.

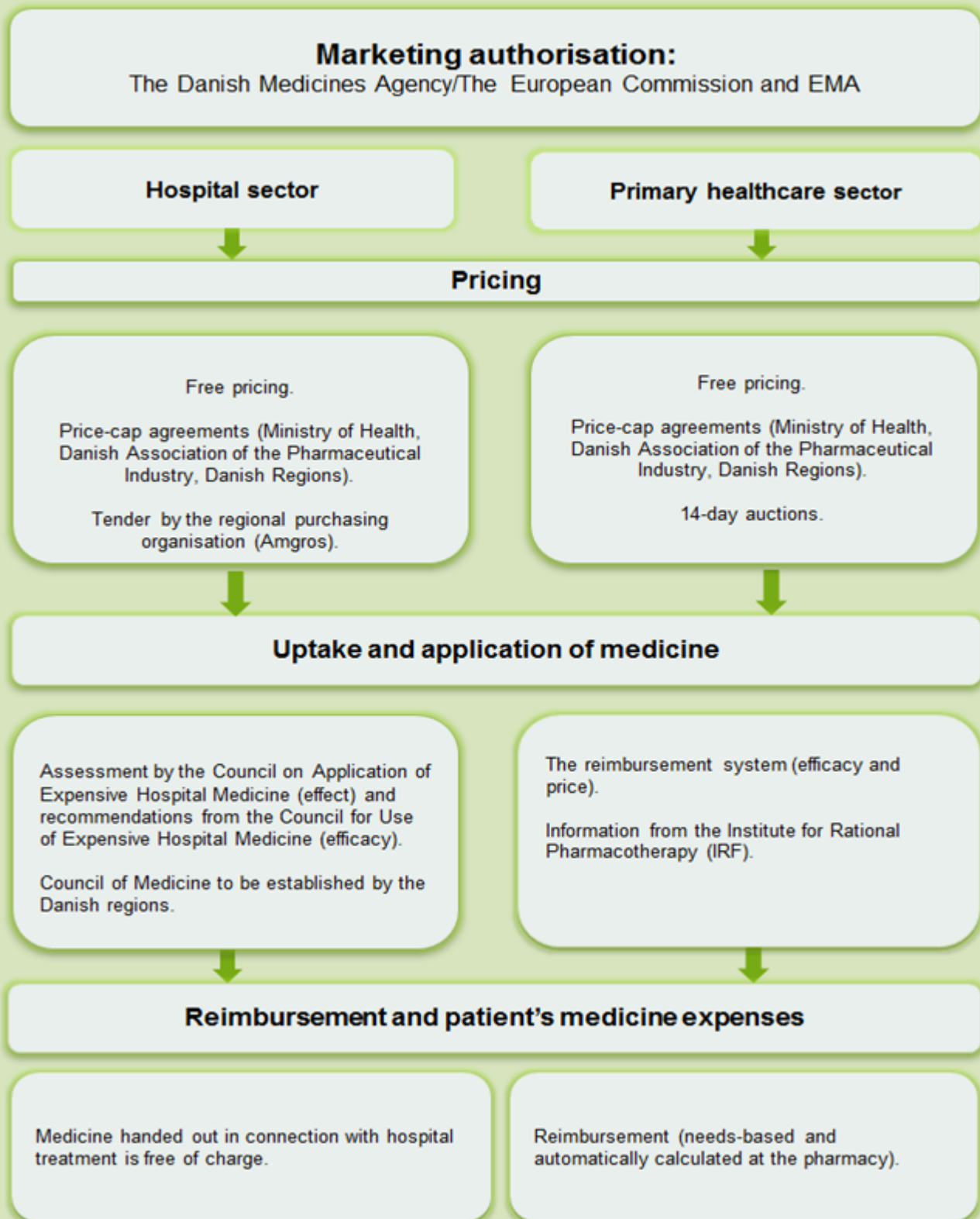
Access to medicine: pricing processes, uptake of medicine and the reimbursement system

For up-take in the hospital sector, the political parties in the Danish Parliament have collectively agreed on seven principles for prioritisation of hospital medicine in recognition of the increasing expenditure.

The principles are:

1. Professional competence
2. Independence
3. Geographic equality
4. Transparency
5. Rapid uptake of new, effective medicine
6. More value for money in health
7. Access to treatment

The principles serve as the basis for the future work of the coming Medicines Council that will be established by the Danish regions. Among other things, the Medicines Council will be in charge of the uptake of new medicine in the hospital sector.



10. Financing of Healthcare and Elderly Care



In Denmark, all citizens are entitled to publicly financed healthcare. In 2014, total Danish health expenditure amounted to 10.6 per cent of GDP. This is above the OECD average of 8.9 per cent, cf. figure 11 on page 51. Public health expenditure alone accounts for 8.9 per cent of GDP.

The financing of healthcare in Denmark is shared by the state and the municipalities.

The regions are responsible for the public hospitals, the general practitioners (GPs) and specialists in private practice, whereas the responsibility for other primary healthcare services, including elderly care, lies with the municipalities.

Healthcare expenditure at regional level is financed by a block grant from the government, an activity-based subsidy from the government, and co-financing from the municipalities.

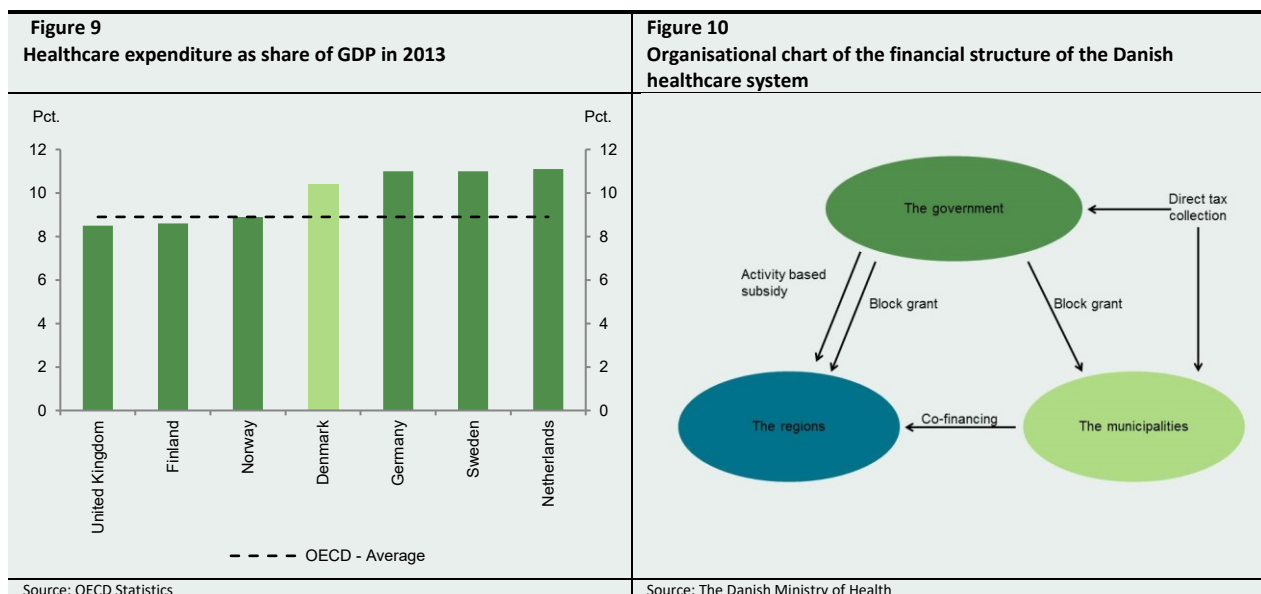
The municipalities also receive a block grant from the state and collect council taxes.

The financing of the healthcare system is based on annual financial agreements between the government, regions and municipalities. The parties agree on a set of objectives for the level of healthcare expenditure for the coming year.

Regional financing

The most significant source of regional financing is the block grant from the government (approximately 75 per cent of the total regional funding). In order to enable all the regions to offer the same level of healthcare services, the subsidy is allocated on the basis of criteria reflecting the specific requirements of each region, including demography and social structure.

Besides the block grant, the regions receive an activity-based subsidy from the government based on the amount of patient-related activity within the hospitals of the region. Patient-related activity is dependent on the number of patients, their diagnoses, whether they need surgery, etc. Furthermore, the regions receive an activity-based subsidy from the municipalities which is described below.



Local financing

The municipalities have the authority to collect taxes, but are also supported by a system of central government grants, reimbursements and equalization schemes. Block grants from the central government are divided among the municipalities in proportion to their tax base. The equalization scheme is included in the block grants and ensures that the municipalities have more uniform conditions for taking care of municipal responsibilities.

The municipalities are encouraged by the government to initiate efficient disease prevention and health promotion policies. The municipalities pay an activity-based subsidy to the regions. The activity-based subsidy depends on the degree to which the citizens of a municipality use the regional healthcare services. It is based on the number of hospitalisations and outpatient treatments at hospitals, but also on the amount of services provided by the GPs. In this way, the municipalities have an incentive to implement effective preventive measures that reduce demand for hospitalisation and other regional healthcare services.

The regions determine the level of activity-based subsidy from the municipalities (a fixed rate of approximately EUR 255 per citizen in 2013). If at least 2/3 of the municipalities in the region oppose a proposal to increase the subsidy, they can veto it.

The annual financial agreements

The annual financial agreements are negotiated every year between the government and the associations representing the regions and the municipalities. All parties act as an equal partner in the negotiations.

The annual financial agreements establish a fixed level of public expenditure. The main purpose of these agreements is to make the regions and municipalities deliver on budget limits and targets. This also means that the regions and municipalities are autonomous in the day-to-day running of hospitals and other healthcare services. An important policy objective of the financial agreements is the requirement of an annual productivity increase of 2 per cent in the regions. If this target is not reached, it will affect next year's budget for that region.

The annual financial agreements are a part of the annual National Budget and as such also a part of the national budget law. The objectives of the budget law are to support the credibility of the fiscal policies, to strengthen governance of public expenditure and to make sure that the overall costs do not exceed the agreed budget. The budget law establishes a limit of public expenditure for four-year period, which is passed by the Danish Parliament.

Special funds

In addition to the general financing, Danish health and elderly care is financed through a special funding scheme covering the social, health and labour market areas called "Satspuljeaftalen". The purpose of this special fund is to improve conditions for disadvantaged citizens and citizens who receive public welfare benefits.

The special funds are allocated to specific objectives on the basis of a political agreement between the political parties in Danish Parliament. Examples of projects could be:

- National action plan for dementia,
- Establishment of special rooms for safe and hygienic drug use, and
- Follow-up home visits for vulnerable elderly people.

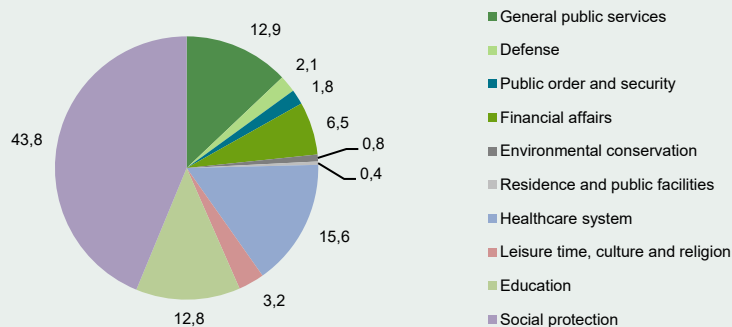
Welfare benefits are regularly adjusted by a rate determined on the basis of the yearly wage development in the private sector. If the wage development exceeds 2.0 per cent, new funds of up to 0.3 per cent of the total public expenditure for welfare benefits may be allocated to the special funding scheme. Hence, the size of the fund is dependent on the wage development.

The Ministry of Health and the Danish Health Authority monitor the use of the extraordinary funds in the area of health and elderly care.

Key Indicators

Figure 11

Public expenditure, percentage, 2015



Notes: The public expenditure is based on operating and capital expenditure.

Source: Statistics Denmark, OFF25

Table 1

Public and private healthcare expenditure in Denmark, 2014

Million, EUR	EUR	% of GDP
Public	23,180	8.9
Private	4,354	1.7
Total	27,534	10.6

Notes: This figure includes expenditures for services for disabled and elderly people in need of long-term care.

Source: OECD statistics

Table 2

Danish public health expenditure, gross domestic product, and share of GDP, 2007-2014

	2007	2008	2009	2010	2011	2012	2013	2014
Public health expenditures, million EUR	18,000	19,000	21,000	21,000	21,000	22,000	22,000	23,000
Gross domestic product (GDP), million EUR	233,000	241,000	230,000	241,000	246,000	253,000	256,000	261,000
Public health expenditures as percent of GDP, Pct.	7.8	8.0	9.1	8.8	8.7	8.8	8.7	8.9

Notes: Public health expenditure covers the goods and services provided to citizens free of charge through the public health system. Public expenditure is calculated as the sum of public production and social benefits minus the sale of goods and services including patient co-payments. Public expenditure consists of both operating cost and capital expenditure. Note the decrease in GDP from 2008 to 2009, which is the reason for the jump in the relative size of the public health expenditures in 2009.

Source: OECD statistics

Table 3**Average experienced waiting time for planned hospital surgery, days, 2001-2015**

Days	2001	2003	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark	90	77	57	58	60	64	67	58	54	52	51	49	48

Notes: The present registration definition was implemented on 1 January 2004. The experienced waiting times for 2001 and 2003 are calculated to enable comparison with the waiting times of the remaining years. The figures include planned activity at public hospitals as well as private hospitals and clinics that are paid for by the public system.

Source: National Patient Registry

Table 4**Number of contacts in the primary sector per 1,000 citizens, 2009-2014**

<i>Per 1,000 citizens</i>	2009	2010	2011	2012	2013	2014
Number of patients per 1,000 citizen	904	897	902	895	894	893
Average number of contacts per patient	11.3	11.4	11.6	11.5	11.4	11.3
Average number of contacts per citizen	10.2	10.2	10.4	10.3	10.1	10.1

Notes: A contact means a contact with a patient that is registered as an activity in the health registry.

Source: National Health Registry

Table 5**Consultations in general practice per 1,000 citizens, 2009-2014**

<i>Per 1,000 citizens</i>	2009	2010	2011	2012	2013	2014
Physical consultation, daytime	4,037	3,990	4,061	3,928	3,827	3,843
Telephone and e-mail consultation, daytime	2,927	2,906	2,935	2,903	2,833	2,893
GP after opening hours	650	643	654	636	655	482
Total	7,638	7,563	7,676	7,490	7,336	7,237

Note: A consultation means a contact with a patient that is registered as an activity in the health registry.

Source: National Health registry

Table 6**Patients and outpatient visits, somatic hospitals, per 1,000 citizens, 2009-2014**

<i>Per 1,000 citizens</i>	2009	2010	2011	2012	2013	2014
Number of patients with outpatient visits	438	441	441	441	445	466
Outpatient visits	1,826	1,892	2,006	2,068	2,151	2,291

Notes: In outpatient treatment, a patient is admitted to a hospital ward, but does not occupy a bed. An outpatient visit means a patient's attendance at an outpatient clinic, at an interdisciplinary clinical service ward, a home visit by a healthcare professional or the reception of a settlement warranted tele-medical service. Outpatient visits are calculated per day per ward. Emergency contact and acute outpatient visits are included. 'Number of patients' is the number of unique patients. All patients who are paid for by the public system are included regardless of being treated in a public or private hospital.

Source: National Patient Registry

Table 7**Patients and hospitalization, somatic hospitals, per 1,000 citizens, 2009-2014**

<i>Per 1,000 citizens</i>	2009	2010	2011	2012	2013	2014
Number of inpatients	122	124	123	121	121	121
Number of hospitalisations	203	207	206	203	202	204

Notes: A hospitalisation means a patient's admission to a hospital ward whereby the patient occupies a bed. Transfers between hospital wards are not included. 'Number of patients' is the number of unique patients. All patients who are paid for by the public system are included regardless of being treated in a public or private hospital.

Source: National Patient Registry

Table 8**Average stay in somatic hospitals, days, 2009-2014**

<i>Days</i>	2009	2010	2011	2012	2013	2014
Denmark	4.1	3.9	3.8	3.7	3.6	3.5

Notes: The average stay in somatic hospitals is calculated as the average number of hospitalisation days for all somatic hospital discharges. A discharge means the last discharge in a course of consecutive hospitalisations at the same hospital when there are less than four hours between the end of one hospitalisation period and the start of a new one.

Source: National Patient Registry

Tabel 9**Patients and contacts, psychiatric hospitals per 1,000 citizens, 2009-2014**

<i>Per 1,000 citizens</i>	2009	2010	2011	2012	2013	2014
Number of patients in contact with psychiatric hospitals	20	21	21	22	23	25
Number of contacts with psychiatric hospitals	161	165	173	189	200	219
Average number of contacts per patient with psychiatric hospitals	8.0	8.0	8.1	8.4	8.6	8.7

Note: 'Number of patients' is the number of unique patients in contact with psychiatric hospitals. All patients who are paid for by the public system are included regardless of being treated in a public or private hospital.

Source: National Patient Registry

Table 10**Patients and outpatient visits, psychiatric hospitals per 1,000 citizens, 2009-2014**

<i>Per 1,000 citizens</i>	2009	2010	2011	2012	2013	2014
Patients with outpatient visits	19	20	21	22	23	25
Outpatient visits	153	158	165	181	192	211

Notes: All patients who are paid for by the public system are included regardless of being treated in a public or private hospital. 'Number of patients' is the number of unique patients in contact with psychiatric hospitals. In outpatient treatment, a patient is admitted to a hospital ward, but does not occupy a bed. An outpatient visit means a consultation with healthcare professionals no matter where the consultation took place.

Source: National Patient Registry

Table 11**Patients and hospitalisation, psychiatric hospitals, per 1,000 citizens, 2009-2014**

<i>Per 1,000 citizens</i>	2009	2010	2011	2012	2013	2014
Number of inpatients	4.4	4.4	4.3	4.5	4.5	4.5
Number of hospitalisations	7.3	7.4	7.6	7.7	7.9	8.2

Notes: A hospitalisation means a patient's admission to a hospital ward, where the patient occupies a bed. Transfers between hospital wards are not included. 'Number of patients' is the number of unique patients. All patients who are paid for by the public system are included regardless of being treated in a public or private hospital.

Source: National Patient Registry

Tabel 12**Beneficiaries of home care service (age 65 or older), pct. population age 65 or older, 2009-2015**

<i>Pct. of population age 65 or older</i>	2009	2010	2011	2012	2013	2014	2015
Beneficiaries of home care service who only receive personal care	1.7	1.6	1.5	1.5	1.5	1.5	1.5
Beneficiaries of home care service who only receive practical help	8.5	7.9	7.2	6.4	5.8	5.6	5.3
Beneficiaries of home care service who receive both personal care and practical help	7.4	7.0	6.3	5.7	5.3	5.1	4.9
Beneficiary of home care service in total	17.6	16.5	15.0	13.7	12.7	12.2	11.7

Notes: Data of 1 January.
Source: Statistics Denmark, FOLK2, AED06

Table 13**Age distribution of the population, 2008-2016**

<i>Pct.</i>	2008	2009	2010	2011	2012	2013	2014	2015	2016
0-17 year	22	22	22	22	22	21	21	21	20
18-40 year	29	29	29	29	29	29	29	29	29
41-64 year	33	33	33	33	32	32	32	32	32
65+ year	16	16	16	17	17	18	18	19	19
Total	100	100	100	100	100	100	100	100	100

Notes: As of 1 January
Source: Health Data Authority

Table 14**Capacity in the primary sector, 2008-2015**

<i>Citizens per practitioner</i>	2008	2009	2010	2011	2012	2013	2014	2015
GP	1,782	1,589	1,578	1,594	1,585	1,585	1,599	1,611
Specialist practitioners	5,598	5,929	5,969	6,072	6,142	6,164	6,237	6,301
Dentists	2,180	2,248	2,290	2,309	2,338	2,351	2,408	2,535
Physiotherapists	4,069	4,185	4,243	4,222	4,219	4,228	4,223	4,302
Chiropractors	21,418	20,812	20,820	20,374	20,684	20,614	20,944	20,935
Podiatrists	-	-	-	6,876	6,485	6,033	5,990	6,124
Psychologists	7,904	6,851	6,737	6,717	6,381	6,619	6,643	6,666

Notes: Dentists is including dental hygienists
Source: CSC Scandihealth & Danish Regions

Table 15**Full-time employees in public hospitals, 2008-2014**

<i>Citizens per employee</i>	2008	2009	2010	2011	2012	2013	2014
Doctors	408	396	385	382	376	369	365
Nurses	181	164	161	162	161	158	157
Other healthcare professionals	479	452	447	450	444	427	418
Nursing assistants	456	445	460	503	546	530	550
Others	190	181	179	181	179	176	174

Source: Personnel data from KRL (Wages office for regions and municipalities) (Kommunernes og regionernes løndatakontor)

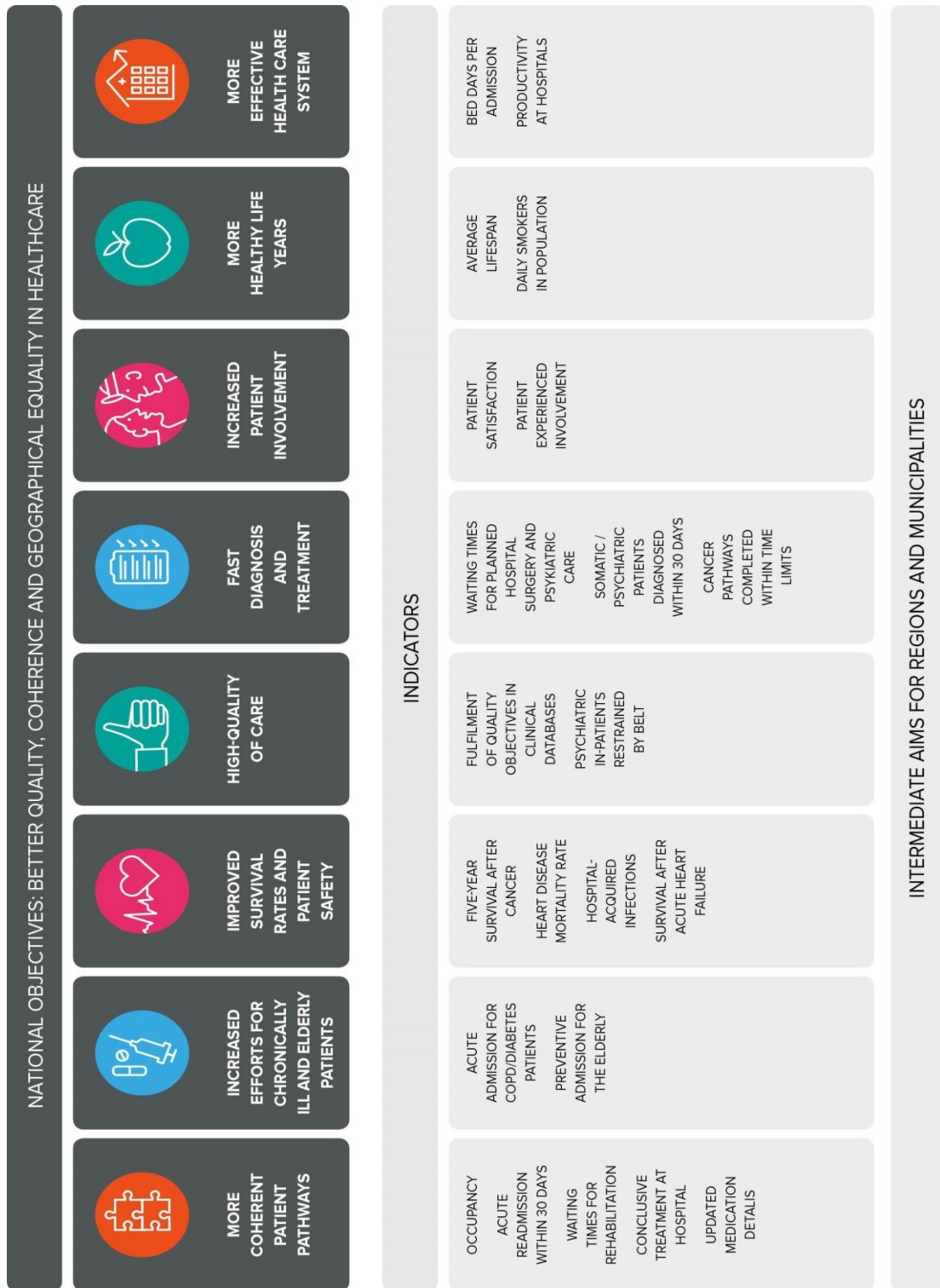
Table 16**Patients, contacts and hospitalisations, public and private hospitals, 2014**

<i>Per 1,000 citizens</i>		Patients	Hospitalisations	Outpatient contacts
Public hospitals		674	1,133	12,606
Private hospitals	- publicly funded	9	10	256
	- privately funded	10	11	228

Notes: A hospitalisation means a patient's admission to a hospital ward, where the patient occupies a bed. Transfers between hospital wards are not included. 'Number of patients' is the number of unique patients. Outpatient contacts include emergency room visits and acute outpatient visits.

Source: National Patient Registry, The Danish Health Data Agency

National Objectives



Organisation of the Ministry of Health



The Ministry of Health

The Ministry of Health is responsible for defining the overall framework for the national healthcare system and health-related social services for the elderly. This includes legislation on the provision of healthcare, patients' rights, healthcare professionals, hospitals and pharmacies, medicines, vaccinations, maternity care and child healthcare. The legislation covers the tasks of the regions and municipalities within the field of health.

The Danish Health Authority

The Danish Health Authority is responsible for advising and supporting the Ministry of Health, the regions and the municipalities on health issues in general. Through 47 national clinical guidelines, the authority ensures uniform healthcare services of a high professional quality across Denmark, including effective health emergency management.

The health authority disseminates knowledge to the population and to public authorities on population health status and on risk factors such as unhealthy lifestyle and elaborates adequate prevention programmes and interventions to support healthy choices. This also includes rehabilitation, prevention and support for elderly people focusing especially on ensuring coherent efforts across the health and social sectors.

The health authority is responsible for planning the distribution of medical specialities among hospitals and for handling the administration and quality development of specialist training and educational programmes for medical doctors and other healthcare professionals.

Other tasks include control and management of infectious diseases and immunisation programmes, establishing guidelines for rational and appropriate use of medicines, elaborating national plans in areas

such as cancer, cardiovascular disease, diabetes and chronic diseases and setting up protective measures against the harmful effects of ionising radiation.

The Danish Medicines Agency

The Danish Medicines Agency authorises and inspects pharmaceutical companies and licenses medicines for the Danish market. The agency monitors side effects of medicinal products; authorises clinical trials; monitors medical devices available in Denmark and supervises adverse events involving medical devices; appoints proprietary pharmacists, organises the pharmacy structure and supervises pharmacies and retailers. The agency contributes to policy development and regulation of the pharmaceutical area, both in Denmark and at European level.

The Danish Patient Safety Authority

The Danish Patient Safety Authority performs a number of tasks designed to strengthen the safety for all patients. This includes the supervision of authorised healthcare professionals and healthcare institutions, the issue and potential withdrawal of authorisations from healthcare professionals and the handling of complaints about infringement of patients' rights and complaints about treatment and care within the healthcare system.

The agency is also responsible for the administration of the reporting system for adverse events and for ensuring that the knowledge derived from the analysis of adverse events, patients' complaints and compensation claims is disseminated to all healthcare institutions and healthcare professionals as a basis for future preventive efforts.

The Danish Health Data Authority

The task of the Danish Health Data Authority is to generate coherent health data and digital solutions that benefit patients and healthcare professionals and which may also support research and serve administrative purposes. The authority is responsible for a number of databases, registers and services that involve data on treatment, population health and medicine consumption.

The Danish Health Data Authority provides access to health data on activity, economy and quality for healthcare professionals, administrators in regions and municipalities, citizens and other interested parties. Setting national standards for digitisation and enhancing data security, the Danish Health Data Authority supports the general digitisation process and promotes a coherent data and IT architecture within the healthcare system and ensures adequate, comprehensive and valid health data that can benefit patient treatment as well as research.

Statens Serum Institut (SSI)

SSI is responsible for the surveillance, prevention and control of infectious diseases, congenital disorders and biological threats. Other tasks include the running of reference laboratories for infectious, autoimmune, congenital and genetic diseases; ensuring the supply of vaccines, other biological products and diagnostic services through production and procurement; ensuring preparedness against biological terrorism and conducting research and development in SSI's areas of activity, including the administration of the national biobank.

The Danish Council on Ethics

The Danish Council on Ethics advises parliament and public authorities on ethical issues related to genetic engineering and biotechnology that affect peoples' lives, our nature, environment and food, as well as other questions related to healthcare.

It follows new developments and initiates projects that seek to clarify the ethical questions that arise with the deployment of new techniques.

The Danish Council on Ethics is an independent and autonomous council that cannot be instructed or controlled by ministers, parliament or others on the issues discussed in the council or in relation to statements, recommendations, public debates or other activities of the council.

National Committee on Health Research Ethics

Under the Committee Act, it is the responsibility of the committee system on health research ethics to ensure that health research projects are carried out in an ethically responsible manner, and that the rights, safety and wellbeing of trial subjects are protected, while at the same time possibilities are being created for the development of new, valuable knowledge.

The special tasks of the National Committee on Health Research Ethics include coordination of activities in the regional committees, laying down guidelines, giving opinions on issues of a fundamental nature, acting as a board of appeal in connection with findings in the regional committees, monitoring the development of research within the health sector and promoting the understanding of the ethical problems in relation to health services and biomedical research environments and considering recommendations to the Minister of Health.

Addresses

Ministry of Health (Sundheds- og Ældreministeriet)

Holbergsgade 6

DK 1057 Copenhagen K

Phone: +45 72 26 90 00

Website: www.sum.dk

The Ministry is in charge of the over-all framework for health and elderly care in Denmark, including legislation and national policy initiatives.

Danish Health Authority (Sundhedsstyrelsen)

Islands Brygge 67

P.O. Box 1881

DK 2300 Copenhagen S

Phone: +45 72 22 74 00

Website: www.sst.dk

The Danish Health Authority assists the Ministry of Health, the regions and the municipalities by providing professional advice on health issues and performs a number of administrative and organisational tasks.

Danish Medicines Agency (Lægemiddelstyrelsen)

Axel Heides Gade 1

DK 2300 Copenhagen S

Phone: +45 44 88 95 95

Website: www.dkma.dk

The Danish Medicines Agency administers legislation relating to medicines, pharmacy, and medical devices.

Danish Patient Safety Authority (Styrelsen for Patientsikkerhed)

Finsensvej 15

DK 2000 Frederiksberg

Phone: +45 72 28 66 00

Website: www.stps.dk

The Danish Patient Safety Authority is responsible for the supervision of registered healthcare professionals and handles complaints about healthcare professionals.

Danish Health Data Authority (Sundhedsdatastyrelsen)

Ørestads Boulevard 5
DK 2300 Copenhagen S
Phone: +45 72 21 68 00

Website: www.sundhedsdatastyrelsen.dk

The Danish Health Data Authority is responsible for providing coherent health data and digital solutions to the benefit of patients and healthcare professionals and in support of research and administrative functions within the healthcare system

Statens Serum Institut, SSI (Statens Serum Institut)

Artillerivej 5
DK 2300 Copenhagen S
Phone: +45 32 68 32 68

Website: www.ssi.dk

SSI is responsible for tasks related to the prevention and control of infectious diseases, biological threats and congenital disorders.

Danish Council on Ethics (Det Etiske Råd)

Holbergsgade 6
DK 1057 Copenhagen K
Phone: +45 72 26 93 70

Website: www.etiskraad.dk

The Danish Council on Ethics advises the Danish Parliament and public authorities and generates public debate on ethical issues related to genetic engineering, biotechnology and other healthcare related questions.

National Committee on Health Research Ethics (Den Nationale Videnskabsetiske Komité)

Holbergsgade 6
DK1057 Copenhagen K
Phone: +45 72 26 93 70

Website: www.dnvk.dk

The National Committee on Health Research Ethics is responsible for ensuring that health research projects are carried out in an ethically responsible way, and that the rights, safety and wellbeing of trial subjects participating in biomedical research projects are protected.

National Institute of Public Health, NIPH (Statens Institut for Folkesundhed)

Øster Farimagsgade 5 A
DK 1353 Copenhagen K
Phone: +45 65 50 77 77

Website: www.si-folkesundhed.dk

The primary purpose of NIPH is to conduct research into the health and morbidity of the Danish population and the functioning of the healthcare system. NIPH also carries out reviews and offers advice to public authorities and participates in post-graduate education.

Institute for Quality and Accreditation in Healthcare, IKAS (Institut for Kvalitet og Akkreditering i Sundhedsvæsenet)

Oluf Palmes Allé 13, 1. th.

DK 8200 Aarhus N

Phone: +45 87 45 00 50

Website: www.ikas.dk

IKAS, the Danish Institute for Quality and Accreditation in Healthcare, develops, plans and runs the Danish accreditation programme for healthcare providers, called the Danish Healthcare Quality Programme (abbreviated: DDKM, referring to the name of the programme in Danish).

Danish Agency for Science, Technology and Innovation (Styrelsen for Forskning og Innovation)

Bredgade 40

DK 1260 Copenhagen K

Phone: +45 35 44 62 00

Website: www.ufm.dk/minister-og-ministerium/organisation/styrelsen-for-forskning-og-innovation

The Agency for Science, Technology and Innovation is an agency under the Ministry of xxx. It works for creating, exchanging and using knowledge in order to generate better conditions for research and innovation for the benefit of society.

Local Government Denmark (Kommunernes Landsforening, KL)

Weidekampsgade 10, P.O. Box 3370

DK 2300 Copenhagen S

Phone: +45 33 70 33 70

Website: www.kl.dk

Local Government Denmark is the national association of municipalities in Denmark.

Danish Regions (Danske Regioner)

Dampfærgevej 22

DK 2100 Copenhagen Ø

Phone: +45 35 29 81 00

Website: www.regioner.dk

Danish Regions is the national association of the five regions in Denmark.

Statistics Denmark (Danmarks Statistik)

Sejrøgade 11

DK 2100 Copenhagen Ø

Phone: + 45 39 17 39 17

Website: www.dst.dk

Statistics Denmark is an agency under the Ministry of Social Affairs and the Interior. It publishes statistical information on the Danish society.

Healthcare DENMARK

Forskerparken 10 H

DK 5230 Odense M

Phone: +45 23 84 00 56

Website: www.healthcaredenmark.dk

Healthcare DENMARK is a partnership supported by public and private actors within Danish healthcare that works to promote the position of Denmark as an international frontrunner in the field of healthcare and to strengthen visibility of Danish healthcare solutions internationally. Inter alia, Healthcare DENMARK coordinates delegation visits for foreign decision makers and press delegations.

Invest in Denmark**Ministry of Foreign Affairs of Denmark**

Asiatisk Plads 2

DK-1448 Copenhagen K

Phone: +45 33 92 00 00

Website: www.um.dk/en/tradecouncil/investindk

Invest in Denmark is governed by the Trade Council, which is the governmental export and investment promotion organisation under the Ministry of Foreign Affairs of Denmark. The Trade Council comprises all governmental activities designed to promote Danish export and foreign investment in Denmark under one roof.



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