# **Denmark** Health system summary 2024



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This Health system summary is based on the *Denmark: Health System Review* published in 2024 in the Health Systems in Transition (HiT) Series. Health system summaries use a concise format to communicate central features of country health systems and analyse available evidence on the organization, financing and delivery of health care. They also provide insights into key reforms and the varied challenges testing the performance of the health system.

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# How is the health system organized?

## ORGANIZATION

The national health system in Denmark serves around 5.9 million inhabitants. It is mainly tax-funded and organized into three administrative levels: the state, the regions and the municipalities. The state holds the overall regulatory, supervisory and fiscal functions. It is also responsible for many strategic, coordinative and soft regulatory functions. Responsibility for primary, secondary and tertiary care is decentralized. The five regions are, among other things, responsible for hospitals, as well as for planning and paying for primary care

services delivered by self-employed health care professionals. The municipalities are responsible for rehabilitation, home and institutional long-term care, dental care for children, adolescents and vulnerable groups, and public health. Information on the capacity of the Danish health system to develop and implement policies is outlined in Box 1.

Denmark has a universal and tax-financed health system with a relatively decentralized organizational structure

#### Box 1 | CAPACITY FOR POLICY DEVELOPMENT AND IMPLEMENTATION

Overall, the Danish health system has responded well to the challenges it has faced in the past decades. Effective policies to control expenditures and increase activity levels have been implemented, and overall results are positive. Denmark handled the COVID-19 pandemic well, with very limited excess mortality and rapid and flexible adjustment of testing and treatment capacity. Overall, this testifies to a system with good capacity to develop and implement suitable policies.

## PLANNING

Planning is an integral part of the Danish health system and reflects the decentralized nature of the health system: the regions and municipalities are the planners and providers of health care services, and the state is the provider of the overall framework. However, some specific planning activities, such as the distribution of medical specialties, are done centrally. The annual financial agreement between the state and the regions/municipalities determines the overall budgets and municipal taxes.

## PROVIDERS

The state is responsible for the overall regulation of health care organizations and professionals. In addition, it issues guidelines, standards, and policy initiatives. The five regions are responsible for providing hospital, somatic, and psychiatric care and financing private practitioners (such as general practitioners (GPs), specialist doctors, dentists, physiotherapists, chiropractors and so on) providing statutory services. More than 95% of hospital beds are in public hospitals. Private clinics and hospitals play a limited role, paid out-of-pocket (OOP), through private insurance or contracted by the regions to meet treatment waiting times guarantees or for specific interventions, such as bariatric surgery.

# **How much is spent on health services**?

# FUNDING MECHANISMS

The state derives most of its revenue from a progressive personal income tax payable on wages. The municipalities derive their revenue from a proportional income tax, proportional land tax and block grants from the state. The block grants are distributed to the municipalities in proportion to the population and a number of sociodemographic factors. The funds are then redistributed between the municipalities to equalize disparities in expenditure needs and taxation bases. This is done to ensure a more uniform relationship between tax levels and service standards. The regions derive their revenue from a block grant from the state (around 83% of their income) combined with performance-based financing m reflecting continuity of care (around 1%) from the state and municipal co-payment

Danish residents are entitled to a comprehensive benefits package, but outpatient prescription medicines and adult dental care require copayments and account for most out-of-pocket spending

for services provided to the residents in the municipality (around 16%). Each region's share of the state's block grant is weighted by the number of residents and certain sociodemographic criteria, for example, the number of older people (65+ years) living alone.

#### FIG. 1. TRENDS IN HEALTH EXPENDITURE, 2000–2021 (SELECTED YEARS)

**Notes:** GDP: gross domestic product; PPP: purchasing power parity. **Source:** WHO, 2023.



# **HEALTH EXPENDITURE**

According to WHO data, Denmark's total health expenditure as a share of GDP increased significantly from 8.1% in 2000 to 10.6% in 2010, reaching 10.8% in 2021 (Fig. 1). In 2021, it exceeded the averages for the European Union (EU)/European Economic Area (EEA)/United Kingdom (9.6%) and the WHO European Region (8.7%). Health expenditure per capita increased from US\$ 2327 in 2000 to US\$ 7140 in 2021 (2024 prices), a more than twofold increase, surpassing the level in neighbouring Finland (US\$ 5613) and Sweden (US\$ 6784) but less than in Germany (US\$ 7607) and Norway (US\$ 8146) (Fig. 2). In 2021, public expenditure accounted for 85.2% of total health expenditure (THE), with private expenditure at 14.6%, largely made up of out-of-pocket (OOP) payments (12.4%) with voluntary health insurance (VHI) payments playing only a minor role (2.2%). Around 42% of the population purchases voluntary complementary insurance to cover user charges for outpatient medicines, dental care, and other services, while around 32% purchase supplementary insurance for expanded access to private providers.

# FIG. 2. CURRENT HEALTH EXPENDITURE IN US\$ PPP PER CAPITA IN THE WHO EUROPEAN REGION, 2021



Notes: CHE: current health expenditure; EEA: European Economic Area; EU: European Union; PPP: purchasing power parity. Data refer to 2020 unless otherwise indicated.

Source: WHO, 2023.

# **OUT-OF-POCKET PAYMENTS**

According to OECD and Eurostat data, OOP spending accounted for approximately 13% of current health expenditures in 2021 (Fig. 3).<sup>1</sup> Patients mainly pay out of pocket for outpatient prescription medicines (with a

cap) and adult dental care, as these require a co-payment. Direct payments are required for glasses, over-thecounter medicines and cosmetic surgery. Informal payments are not a feature of the Danish health system.

#### FIG. 3. COMPOSITION OF OUT-OF-POCKET PAYMENTS, 2021



Note: VHI also includes other voluntary prepayment schemes. Source: OECD, 2023a; Eurostat 2023a (data refer to 2021).

## COVERAGE

All registered Danish residents are entitled to publicly financed health care services, which are largely free at the point of use. Coverage is universal, independent of contributions, and not tied to membership in any insurance scheme. Non-residents are entitled to acute care but not to elective treatment. Asylum seekers have access to so-called necessary health care. The statutory benefits basket is considered generous and covers primary and preventive care, specialist care, hospital care (including prescription medicines for inpatients), mental health care, long-term care and dental care for children/young people under 20 (since 2023), increasing to 21 (in 2025). Additional information on coverage is provided in Box 2.

# **PAYING PROVIDERS**

Regional financing of hospitals is predominantly through global budgets (Fig. 4) combined with performance monitoring. GPs are reimbursed through a mixture of weighted capitation and fee-for-service payments. Specialists working outside hospitals and dentists are reimbursed fee-for-service, and as with GPs, they contract with the regions to agree a schedule of fees for their remuneration. Pharmacies derive their income from the sale of prescribed medicines, over-thecounter medicines, and other goods. The pharmacies' profits are regulated by the state, which sets a limit on gross profits.

<sup>1</sup> The slight difference between this data source and WHO data, listed on page 4, is due to differences in the methodologies used in the respective databases.

#### Box 2 | WHAT ARE THE KEY GAPS IN COVERAGE?

While Danish residents enjoy universal access to a comprehensive package of health services, and unmet needs for medical care are generally low, there are still some gaps in coverage: expenditures are concentrated on outpatient prescription medicines and dental care. Together, they contributed to 44% of total OOP spending in Denmark in 2021 (OECD, 2023a). Because outpatient medicines and dental care are less well covered, OOP spending can be substantial for some patients, and thus, unmet needs for medicine and dental care are higher, particularly among lower-income groups, despite subsidies and caps on overall OOP spending for outpatient medicines. In 2021, 42% of pharmaceutical spending was publicly covered, compared to 59% across the EU (OECD, 2023a). Experimental or costly new pharmaceuticals are not systematically covered (Palm et al., 2021). Lastly, there are restrictions on access to some reproductive health services. For example, public facilities do not provide fertility treatment for women aged over 40 years, and most regions only cover up to three rounds of IVF treatments (Palm et al., 2021).



#### FIG. 4. PROVIDER PAYMENT MECHANISMS IN DENMARK

Note: FFS: fee-for-service.

Source: Authors.

# What resources are available for the health system?

## **HEALTH PROFESSIONALS**

Despite a relatively high per capita number of practicing doctors and nurses, Denmark faces a shortage of health professionals, particularly among nurses and nurse assistants (social care and health care assistants). The number of practicing doctors per 100 000 population has followed an upward trend, reaching 438 per 100 000 population, which is lower than in Norway but surpassing the EU/ EEA/United Kingdom average

Workforce shortages are being addressed through a mixture of short and long-term measures (415 per 100 000 population) (Fig. 5a). By contrast, the number of practicing nurses has not increased at the same rate, reaching 1024 per 100 000 population in 2021, above the EU/EEA/United Kingdom average (750 per 100 000 population) (Fig. 5b).

There are doctor shortages within some medical specialties, such as psychiatry, radiology and general practice, especially outside the larger cities. The current staffing challenges for nurses are found mainly in anaesthesia departments, intensive care units, internal medicine units and operating rooms, where all regions have vacant positions. The government is seeking to address this through a combination of short-term investments to reduce waiting times and mid- to long-term solutions to staff shortages. With the spring 2022 reform package, the volume of GP training positions was increased, and a Resilience Commission was established to address other staffing shortages. However, the planned establishment of 25 local hospitals could also exacerbate shortages of health care staff at existing hospitals (see section on Primary and ambulatory care).

# FIG. 5A. NUMBER OF PHYSICIANS PER 100 000 POPULATION IN DENMARK AND SELECTED COUNTRIES, 2000–2020 (OR LATEST AVAILABLE YEAR)



Notes: EEA: European Economic Area; EU: European Union; UK: United Kingdom. Source: Eurostat, 2023b.

# FIG. 5B. NUMBER OF NURSES PER 100 000 POPULATION IN DENMARK AND SELECTED COUNTRIES, 2000–2021 (OR LATEST AVAILABLE YEAR)



Notes: EEA: European Economic Area; EU: European Union; UK: United Kingdom. Source: Eurostat, 2023b.

# HEALTH INFRASTRUCTURE

The hospital sector has been transformed during the past 15 years through a process of consolidating hospitals and the centralization of medical specialties, including a reorganization of the acute care system (see below). The number of acute care hospital beds in Denmark has declined substantially since 2000 (Fig. 6), reflecting a trend in almost all western European countries. In 2021, there were 190 acute somatic hospital beds per 100 000 population.

There is limited national information available from hospitals and primary care facilities on existing medical equipment and its use. In 2021, there were 4.4 CT scanners per 100 000 population (both in hospitals and the ambulatory sector) in Denmark (Eurostat, 2023c).

#### FIG. 6. ACUTE SOMATIC CARE BEDS IN HOSPITALS PER 100 000 POPULATION IN DENMARK AND SELECTED COUNTRIES, 2000–2021 (OR LATEST AVAILABLE YEAR)



Notes: EEA: European Economic Area; EU: European Union. Data only refer to curative care beds in hospitals for somatic care, as data for Denmark are not available for psychiatric care through the Eurostat Database. Source: Eurostat, 2023d.

# DISTRIBUTION OF HEALTH RESOURCES

The distribution of hospitals in Denmark reflects geographical differences in population density. Thus, the Capital Region has the largest hospital network, and the largest distances are between hospitals in the less populated Central Denmark Region and Northern Denmark Region. Still, because Denmark is a relatively small country, most residents have a hospital nearby, and no resident is more than 50 km away from a hospital with an emergency room. There are, however, differences in the distribution of specialized health care services that tend to be centralized in the larger cities across Denmark, but transport infrastructure is good, so these differences do not constitute a major barrier to accessing care.



## **PUBLIC HEALTH**

Public health services are extensive and dispersed between different sectors with clear divisions of responsibility internally, but sometimes without clear lines of intersectoral responsibility or coordination. Public health services are partly organized as separate activities run by the municipalities and specific institutions, including NGOs and the private sector, and partially integrated with curative services under the regions.

Under the auspices of the Ministry of Health, the Danish Health Authority carries out different public health functions, including advice on health promotion, disease prevention and the child vaccination programme. It also assesses the national screening programme and contributes to managing emergencies, outbreaks and other infectious diseases. Since 2009, no new overarching national public health

programmes have been issued. From July 2022, new so-called health clusters will facilitate collaboration across hospitals and primary and local care, particularly for older people and those with chronic conditions and mental health needs.

Care integration between regions, municipalities and the

private sector, including

## PRIMARY AND AMBULATORY CARE

GPs play a key role as the first point of contact for patients and 90% of all patient contacts are treated at the primary care level. GPs act as gatekeepers, referring patients to hospitals, specialists, physiotherapists, psychologists and selected municipal services. They have a multitude of diverse tasks, including investigating, diagnosing and treating suspected diseases. Key strengths and weaknesses of primary care in Denmark are examined in Box 3. Specialized ambulatory care is mostly provided in hospitals. Patients also have free access to the full range of private specialists practicing outside hospitals upon referral from a GP.

With the health care reform in 2022, it was agreed that up to 25 local hospitals will be established in areas that, in a Danish context, are far from the nearest hospital. The local hospitals are planned for specialized outpatient procedures, including uncomplicated diagnostic examinations such as X-rays, blood tests or ECG, and outpatient follow-up, but they will not have beds. The implementation of the decision is still awaiting a broader health system reform initiative, which is expected in 2024 (see also Section on Reforms).

#### Box 3 | WHAT ARE THE KEY STRENGTHS AND WEAKNESSES OF PRIMARY CARE?

General practice is central to the Danish health care system functioning cost-effectively. Strengths include good geographical coverage and accessibility, very high patient satisfaction and good continuity of care. Weaknesses seem to be maintaining coverage in remote rural and disadvantaged urban areas, increasing demands and pressure on primary care without increased capacity, fragmentation of the health system and quality assurance.

# **HOSPITAL CARE**

Most secondary and tertiary care occurs in public hospitals owned and operated by the regions. Hospitals have inpatient and outpatient clinics, and some also have 24-hour emergency wards. Most public hospitals are general hospitals with different specialization levels. Following an administrative structural reform in 2007, centralizing and modernizing the hospital structure has continued. Several smaller hospitals have been closed or converted to other types of health care facilities, the number of acute hospitals has been reduced to 21, and the first of six new super-hospitals opened in 2021. A super-hospital is a large hospital with a range of medical specialties and a 24-hour emergency department. The last is projected to open in 2025 (see also Section on Reforms).

The demographic transition, marked by a larger

proportion of older people and those with chronic conditions, have necessitated an increased focus on strengthening local and primary care capacity to reduce to pressure on the hospitals. This emphasis has aimed to prevent unnecessary admissions and provide care for patients who can be discharged earlier. Municipalities have developed more structured approaches to rehabilitation and home care, and local and primary care services have tried to adhere to new guidelines. Municipalities have also introduced different facilities to provide care before potential admissions and after discharge. Efforts are being made to improve cooperation between GPs and hospitals by appointing coordinators to work closely with hospital departments and report back to the GPs. Likewise, new health clusters aim to create greater continuity of care (see Box 4).

#### Box 4 | ARE EFFORTS TO IMPROVE INTEGRATION OF CARE WORKING?

To strengthen the coordination between primary care, secondary care and municipal services for people with chronic conditions, the Danish Health Authority launched a national strategy on chronic disease management in 2012. It developed a generic model for chronic disease management programmes with the regions and municipalities. This model describes general prerequisites for integrated care, the principles for self-monitoring and treatment by patients themselves, patient education, and how services should be coordinated for conditions such as type 2 diabetes, chronic obstructive pulmonary disease (COPD), cardiovascular diseases, dementia and some mental health conditions. Disease management programmes for the five main areas have been implemented in all regions, while the other six programmes are not yet fully implemented in all five regions.

Several other measures have also been introduced to promote continuity of care and integration in Denmark, including mandatory health agreements, care coordinators, responsible physicians for patients with complex care needs and the new health clusters. However, these have all shown their limitations in not being implemented systematically and, in many cases, only addressing care paths within individual sectors and for specific patient groups.

# PHARMACEUTICAL CARE

Community pharmacies are private but subject to comprehensive state regulation on price and location to ensure that everyone has reasonable access to medicines. In rural areas, shops under the supervision of a pharmacy are allowed to act as over-the-counter sales or medicine delivery facilities. A total of 83% of pharmacies offer online medicine services, and their use increased significantly due to the COVID-19 pandemic (Danmarks Apotekerforening, 2021a). Popular apps have been developed, where patients can see and renew their prescriptions, see the stock status, prices and subsidy level, and get reminders to take their medicine. Since 2019, pharmacies can provide repeat prescriptions for certain types of drugs if the prescription has recently expired.

# MENTAL HEALTH CARE

Public services for patients with mental health conditions are provided through cross-sector collaboration between the health and social care sectors. The regions are responsible for psychiatric health care services. The municipalities are responsible for community psychiatric services, except for some community psychiatric institutions, which are still managed by the regions but financed by the municipalities. Consequently, there are partial overlaps within some psychiatric services provided by the regions and municipalities.

A report published in 2022 by the Danish Health Authority has formed the basis for a comprehensive 10-year plan for the development of psychiatry that is currently being implemented. The report includes nine key themes, outlining challenges and recommendations aimed at enhancing mental health support and strengthening efforts for people with mental health needs across sector boundaries within each theme.

### **DENTAL CARE**

Oral health care for children and adolescents and the most vulnerable citizens, such as people experiencing homelessness, is provided by municipal dental services free of charge. Dental health for children and adolescents is essentially school-based, and the participation rate is nearly 100%. In contrast, oral health care for adults (older than 21 from 2025 onwards) is offered by private dental practitioners and is subsidized by the regions, but residents cover a substantial part of the cost themselves.



Following a major structural reform in 2007, which changed the administrative landscape of the public sector, an ongoing centralization and modernization of the hospital structure has occurred through a major hospital reform. The consolidation reduced the number of acute hospitals from 40 in 2006 to 21 in 2022 (see Box 5). Alongside this process, a long-term major investment programme in new hospitals and improvements to existing ones are continuously transforming the sector. Hospital building projects in all regions, including six new super-hospitals have received funding through a quality fund of DKK 25 million ( $\notin$ 3 billion).

As part of the new reform package from the spring of 2022, it was agreed to allocate DKK 4 billion ( $\notin$ 536.2 million) to establish up to 25 local hospitals throughout the country, aiming to further strengthen local capacity to provide chronic care. The whole reform package can be seen as the latest in a long line of initiatives aimed at solving the difficult issues of integration across care levels and preparing for the higher volume of older and chronic care patients. While the intentions of the package are clear, it is unclear whether the measures

will be sufficient. The implementation of the plan has also been delayed in anticipation of a new major reform proposal, expected to be announced in 2024 by the government which is made up of the Social Democratic Party, the Liberal Party, and the Moderates, and which came into power in December 2022.

Mental health care has suffered from a lack of prioritization in the past decades. In December 2022, investments in psychiatry over the next 10 years were prioritized so that a new mental health plan is now funded with DKK 4 billion ( $\notin$ 536.2 million) annually.

A 10-year plan for mental health is highly anticipated

#### Box 5 | KEY HEALTH SYSTEM REFORMS OVER THE LAST 15 YEARS

- Structural reform (2007): Consolidation into five new regions responsible for hospital services and 98 municipalities in charge of long-term care, public health, rehabilitation and dental care for specific groups.
- Centralization of hospital infrastructure (2007–ongoing): Centralization into 21 hospitals with acute functions and establishing joint acute wards staffed by acute care specialists or specialists from relevant departments. Around DKK 53 billion has been invested in building new hospitals in all five regions while closing or converting smaller hospitals.
- Adjustment of the municipal co-funding of hospital admissions (2016): The municipal co-funding of hospital admissions is differentiated by age to strengthen incentives for investment in municipal health services.
- Danish Medicines Council for evaluation of pharmaceuticals (2017): The Danish Regions established the Danish Medicines Council to support prioritization decisions particularly regarding expensive hospital drugs. This was supplemented by the Danish Health Technology Council in 2021.
- Funding for local community health centres (2018): DKK 200 million was allocated to establish local community health centres with co-location of general practice, municipal health staff, etc.
- Adjustment of the funding scheme for the regions (2019): Activity-based funding of the regions was
  replaced by proximity financing (a pay-for-performance scheme) that promotes the transition from
  hospital to primary, local and digital health care.
- Health clusters (2021): Agreement between the government, the regions, and the municipalities to
  establish health clusters around the 21 acute hospitals. The clusters are designed to facilitate collaboration across hospitals and primary and local care. New collaborative governance forums are
  established in the five regions.
- Health reform package (2022): Four billion DKK allocated for establishing local hospitals. Further
  investment in municipal health care will occur over the coming years, combined with an agreement
  to develop quality targets and indicators at the municipal level. The number of training positions
  for new GPs will be increased and a Resilience Commission was established to address other
  staffing shortages.

Source: Authors.

# How is the health system performing?

# HEALTH SYSTEM PERFORMANCE MONITORING AND INFORMATION SYSTEMS

The Danish health care system is, to a very high degree, based on digital solutions used by health care providers, citizens, and institutions. Since 2004, primary care doctors have been mandated to use computers and a system for electronic medical records and communication. Virtually all clinical communication between primary and secondary care, pharmacies and laboratories is exchanged electronically through this messaging system.

The Danish health system is characterized by the extensive collection of administrative and clinical data.

This data is utilized to inform policymaking and enhance capacity in all stages of the policy process, including problem assessment, deliberation of solutions, implementation and evaluation. There is ongoing monitoring of several performance indicators, from national goals to specific local targets. Collaborative forums between regions and municipalities use data to follow up on implementation and performance, and all GPs participate in mandatory quality clusters.

## ACCESSIBILITY AND FINANCIAL PROTECTION

All registered residents, regardless of nationality and country of birth, are entitled to a wide range of health care services free of charge. Thus, the level of financial protection in Denmark appears high. Gaps in coverage are concentrated among asylum seekers and undocumented migrants and in specific areas requiring co-financing (dental care and outpatient prescription medicines). Ensuring the availability of health care in all parts of Denmark is increasingly seen as an issue in terms of distance and waiting times. A shortage of nurses constitutes a major problem, resulting in cancelled surgeries and prolonged waiting times. A total of 1.8 million Danes live in areas with a GP shortage, mostly in rural and disadvantaged urban areas, which has been the subject of concerted policy efforts. Fewer than 2% of the population reported unmet needs for medical care due to cost, distance or waiting times in 2022. However, as with other European countries, the share of the population experiencing unmet needs for medical care is higher in the lowest income group compared to the highest income group (Fig. 7).

## HEALTH CARE QUALITY

Hospital admission rates remain high for some chronic conditions, particularly asthma and COPD (Fig. 8). This indicates possible inefficiencies and weaknesses in primary care. Conversely, hospitalization rates for diabetes and congestive heart failure are lower than in most other EU countries. Avoidable admissions and readmissions attracted a significant political focus since the early 2010s. They have resulted in policy plans to strengthen municipal health services, such as home nursing, municipal acute care and GPs being assigned to a specific nursing home and all its residents (as opposed to each resident registering individually).

Although mortality from preventable causes has decreased over the last decade, there is room for further improvement in reducing preventable deaths through effective public health measures

#### FIG . 7. UNMET NEEDS FOR A MEDICAL EXAMINATION (DUE TO COST, WAITING TIME, OR TRAVEL DISTANCE), BY INCOME QUINTILE, EU/EEA COUNTRIES, 2022 OR LATEST AVAILABLE YEAR



Notes: EEA: European Economic Area; EU: European Union; UK: United Kingdom. Data are for 2022 except for Iceland (2018), United Kingdom (2018), Norway (2020) and Switzerland (2021). The EU/EEA/UK average is unweighted. Source: Eurostat, 2023e.

#### FIG. 8. AVOIDABLE HOSPITAL ADMISSION RATES FOR ASTHMA, COPD, CONGESTIVE HEART FAILURE, HYPERTENSION AND DIABETES-RELATED COMPLICATIONS, DENMARK AND SELECTED COUNTRIES, 2019



Source: OECD Health Statistics, 2023b.

The effectiveness of specialist care in Denmark is high regarding indicators assessing in-hospital mortality rates. Denmark has among the best outcomes in terms of mortality from acute myocardial infarction (AMI) within 30 days of hospitalization in Europe in 2019 (Fig. 9). The marked improvement in this indicator over the decade is the result of investments in acute care in general and direct policy efforts to reduce mortality rates from heart disease.

National Survey instruments reveal that there is a high level of patient satisfaction with hospital services (Box 6).

#### FIG. 9. IN-HOSPITAL MORTALITY RATES (DEATHS WITHIN 30 DAYS OF ADMISSION) FOR ADMISSIONS FOLLOWING ACUTE MYOCARDIAL INFARCTION, DENMARK AND SELECTED COUNTRIES, 2009 AND 2019



Notes: EEA: European Economic Area; EU: European Union. 1. Three-year average for all years except 2020. 2. 2020 data is provisional and includes England only. Source: OECD, 2021a.

#### Box 6 | WHAT DO PATIENTS THINK OF THE CARE THEY RECEIVE?

Since 2000, the National Danish Survey of Patient Experiences (*Landsdækkende Undersøgelser af Patientoplevelser* (LUP)) has surveyed patients and their relatives' experiences with Danish health care. The LUP is measured and reported at the national level for each region, hospital and department and across four care areas: somatic care, acute care, maternity care and psychiatry. For the first three care areas, more than 120 000 patients participated in 2021, and the survey found that 86% of patients were very satisfied with their hospital stay overall, with minor regional differences. Patients were most satisfied with health professionals (friendly and accommodating), while patients were least satisfied with their involvement in treatment decisions (Center for Patientinddragelse, 2022a). For acute inpatients, satisfaction was lower (67% were very satisfied), and they were least satisfied with the length of waiting time from arrival to the investigation (Center for Patientinddragelse, 2022b). For psychiatry, the LUP results for 2021 based on the response from 8329 patients showed that 81% of the patients are "highly or very highly" satisfied with their visit or admission to the regional psychiatry (DEFACTUM, 2022).

# HEALTH SYSTEM OUTCOMES

In Denmark, the mortality rate from treatable causes decreased from 91.2 deaths per 100 000 population in 2011 to 63.5 deaths per 100 000 population in 2020, well below the EU average of 99.9 deaths per 100 000 population (Fig. 10). The low mortality from treatable causes generally indicates a health system that provides effective and timely treatment. In terms of mortality from treatable causes, in 2020, the health care system in Denmark could have prevented 145.9 deaths per 100 000 population through effective public health interventions, compared to 183.4 in 2011. This rate is better than the EU average for preventable mortality (188.9 deaths per 100 000 population in 2020) but far behind that of Norway (114.9 deaths per 100 000 population) and Sweden (123.3 deaths per 100 000 population). Although the rate of preventable mortality in Denmark fell by 20% between 2011 and 2020, further prioritization of public health and prevention policies, particularly tobacco and alcohol control, would help Denmark reduce preventable deaths even further (Box 7). The focus on treatment rather than prevention reduces the overall allocative efficiency of the system because it is more efficient to prevent disease through public health interventions than to treat diseases once they have developed.

# FIG. 10. PREVENTABLE AND TREATABLE MORTALITY IN DENMARK AND SELECTED COUNTRIES, 2011 AND 2020



Notes: EEA: European Economic Area; EU: European Union. Data refer to 2020 except for the United Kingdom (2018).

Source: Eurostat, 2023f.

#### Box 7 | ARE PUBLIC HEALTH INTERVENTIONS MAKING A DIFFERENCE?

The relative effectiveness of public health interventions differs significantly. In 2004, the age limit for selling alcohol in the retail trade was raised from 15 to 16 years. Since 2002, a steep decline in the proportion of 13- and 15-year-olds who drink alcohol at least weekly has been observed, although there has been a rising trend among 15-year-olds since 2014 (Rasmussen et al., 2019a). In tackling obesity, the Danish Health Authority has focused exclusively on behavioural interventions aimed at obese people concerning nutrition and physical activity rather than preventing people from becoming obese, which is in line with the focus on individual behaviours and disease prevention dominating Danish public health policies (Vallgårda, 2021). The interventions are supposed to rely on evidence-based activities, even though evidence of their effectiveness is lacking or is of poor quality (Sundhedsstyrelsen, 2018), which could be seen as a way to legitimize ideas already held by the policy-makers rather than informing them (Vallgårda, 2021). In 2020, a new National Centre for Obesity was established, with a broader approach to tackling obesity, and in 2023, a Centre for Healthy Life and Wellbeing was set up (through a public-private partnership), focusing on prevention of child overweight.

### HEALTH SYSTEM EFFICIENCY

It is often difficult to assess how a health system is performing regarding inputs, costs and outcomes. One attempt to provide a very cursory illustration is to plot current expenditure on health against the treatable mortality rate. While it provides an entry point for discussion, it is not possible to fully disentangle the role of health behaviours and the health care system in influencing the level of treatable mortality.

The treatable mortality rate in Denmark continuously decreased between 2011 and 2020 as health spending

increased (Fig. 11). Treatable mortality in Denmark remains below that of Germany and Finland but is relatively high compared with Norway and Sweden. The relatively steep drop in treatable mortality between 2011 and 2014 in Denmark was achieved at a lower cost compared to Germany and Norway, but lower levels of treatable mortality were achieved in Finland and Sweden with approximately the same or lower health expenditure per capita.



# FIG. 11. TREATABLE MORTALITY PER 100 000 POPULATION VERSUS HEALTH EXPENDITURE PER CAPITA, DENMARK AND SELECTED COUNTRIES, 2011-2020

Notes: PPP: purchasing power parity. Data for the United Kingdom are until 2018. Source: Eurostat, 2023f; OECD, 2023a.



The Danish health system has achieved effective provision of quality care and high patient satisfaction, but faces coordination and fragmentation challenges due to its decentralized structure and three sectors providing care (regions, municipalities, and the private sector). Ensuring coordination and continuity of care has been an ongoing focus area for policy discussions and reforms; however, it remains an issue of concern.

Waves of reforms have consolidated the number of municipalities and regions and sought to optimize hospital services. However, a key lesson from the ongoing trend of reorganizing hospital care is that there is no perfect solution for centralization or decentralization, as all policies involve trade-offs. A new structural commission has been set up to deal with the underlying challenges in the health system.

Digitization has advanced in the past decade. Recruiting and retaining GPs in remote areas have proved difficult. Digital tools, therefore, are seen as an important means of maintaining access to services in these areas. The COVID-19 pandemic accelerated the uptake of digital tools. The pandemic also underscored the importance of mental health, particularly for young people. Generally, treatment services are afforded a much higher priority in the health system than prevention ser-

Integration of care and the recruitment and retainment of health workers are the main challenges going forward

vices. Public health policy discussions have been ongoing since 2020, addressing the commercial determinants of health.

The main challenge to the sustainability of the health system is ensuring a sufficient number of health workers, particularly nurses. A comprehensive package of policies has been put in place to try to increase the number of nurses being trained and retain nurses already working in the system, but such measures take time. There is no quick fix to staffing shortages, and profound changes in working practices and working environments will be required to ensure the sustainability of the health workforce and, by extension, the health system into the future.

# POPULATION HEALTH CONTEXT **KEY MORTALITY AND HEALTH INDICATORS**

#### LIFE EXPECTANCY (years)

Life expectancy at birth, total	81.3
Life expectancy at birth, male	79.5
Life expectancy at birth, female	83.2

#### MORTALITY, SDR (per 100 000)

All causes	512
Circulatory diseases	102
Malignant neoplasms	156
Communicable diseases	12.1
External causes of death	27

SDR: standardized death rate.

Notes: Life expectancy data are for 2022. Mortality data are for 2020.

Sources: Eurostat, 2023g (life expectancy); WHO

Regional Office for Europe, 2023 (mortality).

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