

Norway

Health system review

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Health Systems in Transition

Norway

Health System Review 2020

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PREFACE

The Health Systems in Transition (HiT) series consists of country-based reviews that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the reviews poses a number of methodological problems. In many countries there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including the World Health Organization (WHO) Regional Office

for Europe Health for All database, national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, the International Monetary Fund (IMF), the World Bank, and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. The HiTs can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to contact@obs.who.int.

HiTs and HiT summaries are available on the Observatory's website: www.healthobservatory.eu.

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The Observatory team working on HiTs is led by Josep Figueras (Director), Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors), Ewout van Ginneken and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Anna Maresso. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White and Sarah Cook (copyediting) and Tetragon (typesetting).

LIST OF ABBREVIATIONS

AED	accident and emergency department
AIDS	acquired immune deficiency syndrome
ALOS	average length of stay
AMK	Emergency Medical Communication Centre
Anti-TNF	Anti-Tumour Necrosis Factor
CCC	Complex Chronic Care
CEO	chief executive officer
CMHC	community mental health centres
CPP-P	Cancer Patient Pathways programme
CT	computed tomography
DALE	disability measured by disability-adjusted life expectancy
DALY	disability-adjusted life year
DDD	defined daily dose
DMFT	decayed, missing or filled teeth
DSB	Norwegian Directorate for Civil Protection
ECB	emergency care bed
ECTS	European Credit Transfer and Accumulation System
EEA	European Economic Area
EMA	European Medicines Agency
EMS	emergency medical services
EU/EU28	28 Member States of the European Union
FFS	fee for service
GATS	General Agreement on Trade in Services
GDI	Gender-related Development Index
GDP	gross domestic product
Helfo	Norwegian Health Economics Administration
HINAS	Health Agency Procurement Service
HIV	human immunodeficiency virus

HLC	Healthy Life Centres
HPV	human papilloma virus
HT	health trust
HTA	health technology assessment
ICSR	individual case safety reports
ICT	information and communication technology
IPLOS	Norwegian Information System for the Nursing and Care Sector
KOSTRA	Municipality-State-Reporting
KPR	Municipal Patient and User Registry
KS	Norwegian Association of Local and Regional Authorities
LIS	‘Physicians in specialization’ system of specialization
LMI	Association of the Pharmaceutical Industry in Norway
LPN	licensed practical nurse
LTC	long-term care
MAH	marketing authorization holder
MMR	measles, mumps, rubella
MOHCS	Ministry of Health and Care Services
MSIS	Norwegian Surveillance System for Communicable Diseases
NATO	North Atlantic Treaty Organization
NAV	Labour and Welfare Administration
NDE	Norwegian Directorate of e-Health
NHN	Norwegian Health Network
NHP	National Health Plan
NHS	national health service
NIPH	Norwegian Institute of Public Health
NIS	National Insurance Scheme
NKr	Norwegian krone
NOCK	Norwegian Knowledge Centre for the Health Services
NoMA	Norwegian Medicines Agency
NOU	Norwegian Official Report
NPE	Norwegian System for Patient Injury Compensation
NQIS	National Quality Indicator System
NRLS	National Reporting and Learning System
OECD	Organisation for Economic Co-operation and Development
OOP	out-of-pocket

OST	opioid substitution treatment
OTC	over the counter
PET	positron emission tomography
PKO	Practice Consultant Scheme
PLIs	price level indices
POBO	Health and Social Services Ombudsman
PPP	purchasing power parity
PRAC	European Medicines Agency's Pharmacovigilance Risk Assessment Committee
PREM	patient-reported experience measure
PROM	patient-reported outcome measure
PRT	palliative radiotherapy
PSUR	periodic safety update report
QUALY	quality-adjusted life year
RGP	regular GP
RHA	regional health authority
RN	registered nurse
SAK	Registration Authority for Health Personnel
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UKOM	The Norwegian Health care Investigation Board
UN	United Nations
USD	United States dollar
VAT	value added tax
WDI	World Development Indicators
WTO	World Trade Organization
YLL	year of life lost

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ABSTRACT

This analysis of the Norwegian health system reviews recent developments in organization and governance, health financing, health care provision, health reforms and health system performance. Norway is among the wealthiest nations in the world, with low levels of income inequality. Norwegians enjoy long and healthy lives, with substantial improvement made due to effective and high-quality medical care and the impact of broader public health policies. However, this comes at a high cost, as the Norwegian health system is among the most expensive in Europe, with most financing coming from public funds. Yet there are several areas requiring substantial co-payments, such as adult dental care, outpatient pharmaceuticals, and institutional care for older or disabled people.

Recent and ongoing reforms have focused on aligning provision of care to changing population health needs, including adapting medical education, strengthening primary care and improving coordination between primary and specialist care sectors. There has been an increasing use of e-health solutions, and information and communication technologies. Improvements in measuring performance and a more effective use of indicators is expected to play a larger role in informing policy and planning of health services.

EXECUTIVE SUMMARY

■ Norwegians enjoy high levels of wealth and long and healthy lives

Norway is a member of the European Economic Area (EEA) with a population of 5.3 million. The country is sparsely populated, with the majority of the population living along the coast, mainly in the south-eastern and the south-western parts of Norway.

Norway is a parliamentary democracy with three different administrative levels: state, counties and municipalities. An administrative reform is currently under way. The goal is to improve administrative efficiency by reducing the number of municipalities and replacing counties with (fewer) regions. This administrative reorganization impacts on health care organization and governance.

Per capita gross domestic product (GDP) in Norway is one of the highest in the world, with oil trade fuelling economic growth since 1960s. Income inequality is one of the lowest among the EEA countries, although rising; Norway is also highly rated with respect to gender equality and female participation rates are high in education, the labour market and political life.

Life expectancy has continued to increase and reached 82.7 years in 2017 – among the highest in Europe. Like in other high-income countries, cardiovascular diseases and cancers are the main causes of death. However, self-harm and substance use disorders are the key causes of death among younger adults. Cancers, circulatory diseases and musculoskeletal disorders had the largest contribution to the burden of disease in Norway as measured by disability-adjusted life years (DALYs).

Norway is no exception to the impact of major risk factors, such as increasing rates of overweight and obesity, as well as unbalanced diet. There

are also persistent socioeconomic inequalities in health, driven by a higher prevalence of risk factors, smoking in particular, among people with lower income and education. Nevertheless, there are also positive trends such as a decreasing share of smokers. Norway is also among the countries with the highest share of adult population who exercise regularly.

■ **Norway's health system is relatively decentralized, and there are ongoing efforts to improve coordination between primary and specialist care**

Norway has a semi-decentralized health system, with four Regional Health Authorities (RHAs) being responsible for specialist care and municipalities responsible for primary care and social services. The 2012 Coordination Reform established a mandatory network of governance structures, encompassing health trusts and the municipalities to improve the coordination of specialist and primary care. In addition, counties play a role, including in provision of dental care (until 2023), safeguarding access to services and serving as an appeal body to municipal decisions, and, increasingly, in coordination of care and provision of public health services.

The Ministry of Health and Care Services, with the help from its subordinate agencies, is responsible for the regulation and supervision of the system and ensures that health and social services are provided in accordance with national legislation and regulations. In 2016 central health governance structures were reorganised, resulting in the merging of agencies, and the establishment of new ones, including the Directorate for e-Health and the Norwegian Healthcare Investigation Board to investigate adverse medical events.

Historically, there were no direct mechanisms to ensure that health is taken into account by ministries other than the Ministry of Health and Care Services, but this changed with the introduction of the Public Health Act in 2011, in which the 'Health in All Policies' approach featured centrally.

In 2013 the National System for Managed Introduction of New Health Technologies within the Specialist Health Service in Norway was introduced to facilitate evidence-based decision-making within specialist health services. The system of health technology assessment has been in place since 1998

and over the years its application has expanded from clinicians to national policy-making.

Empowering of patients and next of kin continues to be a policy priority through comprehensive patients' rights legislation that regulates issues such as patient choice and complaint procedures. Most recently, children and young people have gained a legal right to be heard as a patient, as well as the right to confidentiality.

■ **Norway spends more on health than other countries and most of it comes from public funds, yet there are several areas requiring substantial co-payments**

Health care expenditure accounted for 10.4% of GDP in 2017 – the fifth highest in the WHO European Region. With Norway's per capita GDP being one of the highest in the world, the country's per capita health expenditure is also much higher than in most countries – over US\$6500 PPP, second only to Switzerland. Public sources account for 85.5% of current health expenditure, which is the highest share in Europe, and comprise financing from central and local governments and the National Insurance Scheme.

All residents of Norway are entitled to essential medical care. Most private health financing comes from households' out-of-pocket payments, of which most is spent on pharmaceuticals, dental care and long-term care. There are annual cost-sharing ceilings to protect the population from excessive health care spending. Municipal services, such as home care for the elderly and disabled people (except for nursing, which is fully covered), and inpatient care for the elderly in nursing homes are among the services that are not included in the cost-sharing ceiling.

Norway has well-established formal arrangements in place for its older and disabled populations and has traditionally spent more on long-term care (LTC) as a share of current spending on health compared to any other OECD country. The share of current expenditure spent on LTC is equal to the share spent on inpatient care and amounts to over a quarter of total spending on health.

Integrated purchaser–provider relations had been the dominant feature of the Norwegian health care system. However, in the last two decades

attempts have been made to introduce a more clear-cut purchaser–provider split. Hospital care, as well as outpatient psychiatry and treatment of drug and alcohol abuse, is financed, in equal parts, through block grants and case-based financing from the central government to the RHAs. Other types of specialist care are mainly financed through global budgets, with elements of case-based funding. Quality-based funding is being rolled out at the national level.

Primary care is financed from municipal taxes, block grants from the central government and earmarked grants for specific purposes; a major funding source for primary care is also the National Insurance Scheme, as well as patient co-payments. The financing structure is aimed at both containing costs and giving providers sufficient flexibility to ensure the best mix of services for patients.

■ **There is limited spare capacity in the hospital sector and, despite a relatively high number of nurses, shortages are predicted in the years to come**

There are twenty hospital trusts in Norway. The number of hospital beds has been declining over the years and reflects the government's efforts to improve resource allocation by shifting inpatients to outpatient settings in the community and to day surgery. In 2017 there were 3.2 acute beds per 1000 inhabitants in Norway, which is higher than in the other Scandinavian countries. However, the average bed occupancy rate is over 80%, above the OECD-average of 75.7%, suggesting that spare capacity in the inpatient sector is fairly limited.

Public beds account for 96% of all hospital beds. There are regional variations in the age and condition of hospitals across the country. In general, a greater need for upgrading is observed in the Northern and Western RHAs. In 2015 the RHAs established the Agency for Hospital Construction to provide expertise on hospital planning and construction to all hospital trusts.

The use of e-tools has increased in recent years. In 2017, 96% of municipalities sent electronic referrals to hospitals and nearly all patient information sent from hospitals to municipalities was sent electronically. By the end of 2018 more than 92% of all prescriptions were e-prescriptions. Telemedicine

is used to improve access to care and to provide continuous education to health personnel in remote areas.

The number of doctors (4.7 per 1000 inhabitants) and nurses (17.7 per 1000) in Norway is among the highest in Europe, and so is the ratio of nurses to doctors. Yet shortages of nurses are predicted in the next decades and there are already shortages of nurses in the LTC sector. Nearly 40% of physicians in 2015 were foreign-trained; half of them were Norwegian-born but educated outside Norway. A new system of competency training was introduced in March 2017 to align education with changing population needs.

■ The provision of services is changing following efforts to strengthen primary care and shift more care to the community

While counties increasingly play an important coordinating role, the municipalities are responsible for implementing cross-sectoral public health interventions locally. Various governmental and non-governmental actors are involved in public health activities. The 2012 Public Health Act improved horizontal and vertical coordination of public health work. In 2015 the government presented a white paper with a comprehensive overview of public health initiatives, including incorporation of mental health as an integral part of public health.

Primary care is provided at the municipal level, mostly by self-employed physicians and as part of municipal services (in nursing homes and as part of home-based services). Team-based delivery of primary care is currently being piloted alongside new primary care financing models. General Practitioners (GPs) act as gatekeepers, referring patients to more complex care. Inpatient care is mainly provided by hospital trusts owned by the RHAs. Hospitals also provide outpatient specialist care in their outpatient departments. Policy efforts since the 1980s have sought to replace relatively expensive inpatient care with less costly outpatient and day surgery and to bring care closer to patients' homes. A range of treatments are now provided as day care, including somatic and psychiatric care and treatment of drug and alcohol addiction.

A number of clinical pathways exist within specialist care for certain conditions, for example cancer, and describe anticipated care/treatment needs.

The care coordination reform of 2012 put more emphasis on municipalities' responsibility for 24-hour care and services after hospital discharge, including obligating the municipalities to establish individual treatment plans for patients with chronic diseases. In 2017 the Directorate of Health published national guidelines to support municipalities in developing comprehensive patient pathways for patients with multi-morbidities with a high level of care needs.

Access to pharmaceuticals, including innovative therapies, is comparatively good in Norway. Patient co-payments for outpatient pharmaceuticals are capped and certain population groups are exempt from cost-sharing. Prescription pharmaceuticals account for over 90% of pharmaceutical consumption and generics make up over 50% of total pharmaceutical sales. Norwegian doctors are among those prescribing the fewest broad spectrum antibiotics, in an attempt to reduce the emergence of antibiotic-resistant bacteria.

At the primary care level, emergency or acute primary care services are in most municipalities provided by GPs (within office hours) and emergency medical centres (after hours) supported by telephone services. Hospitals receive emergency cases in Accident and Emergency (A&E) departments. A special feature of the Norwegian system is that patients are not allowed to seek treatment at an A&E directly, but have to be either referred by a physician or brought in by ambulance.

Rehabilitation is provided at both primary (physiotherapy, occupational therapy, etc.) and secondary (specialized rehabilitation) levels. Municipalities as well as the RHAs are responsible for the coordination of rehabilitation services and all RHAs and most municipalities have established designated coordination units. Nevertheless, ensuring sufficient cross-sectoral cooperation and coordination across administrative levels and professional groups is seen as an ongoing challenge.

Long-term care is provided in three types of setting: patients' homes, nursing homes or sheltered homes run by municipalities. In nursing homes, there has been a deliberate shift towards increasing the number of single-occupancy rooms to make it more home-like. Palliative care services are provided at all levels of care, but the availability of palliative care does not always meet the demand. In the area of mental health care there has been a long-term shift towards de-institutionalization, and, more recently, an increase in financing for such services.

The Coordination Reform of 2012 paved the way for multi-disciplinary primary care teams

Key policy initiatives in recent years have included improving the coordination of care between municipalities and hospitals (the ‘Coordination Reform’); strengthening primary care and public health; extending patient choice; reorganizing hospital care; and adapting education and training of health professionals to future health needs.

Evaluation of the Coordination Reform has shown mixed results so far. However, overall, it was found to have supported delivery of care at the lowest, effective level of care and it paved the foundation for the primary care and public health reforms of 2015. Primary care teams are currently (2018–2021) being piloted with the goal of instituting multidisciplinary environments. Related to this and in line with the Health and Hospital Plan 2020–2023, a new action plan sets out plans for adapting competencies of health professionals to future health needs. Ongoing reform efforts focus on the following areas: public health (focus on children and youth and prevention of loneliness); primary care (evaluation of the regular GP scheme); substance abuse (more emphasis on prevention and harm reduction); and long-term care (creating an age-friendly society).

■ Quality and effectiveness of health care services are among the best in Europe, but this comes at high cost

Transparency in the health care system has been a political priority over the past few decades. Public monitoring of performance indicators in policy processes has both improved and been used more widely over the past three decades. It is used to systematically measure performance at the national as well as the international level and it has a clear influence on national health policy goals. The country scores well on health indicators, such as amenable and preventable mortality, which can be attributed to high effectiveness of health care and broader public health policies.

The distribution of hospitals in Norway reflects the distribution of the population, with the majority of hospitals located in the South-Eastern Region and the longest distances to the nearest hospital being in the Northern region. Despite the high density of health care personnel, Norway

still struggles to ensure equal access to health care across its entire territory, particularly in rural and sparsely populated areas.

The Norwegian health system offers a high level of social and financial protection. Population coverage is universal and public financing accounts for the vast majority (85%) of health expenditure. Various mechanisms, such as exemptions and ceilings on OOP payments, limit the financial burden of care on individuals. However, the level of protection is poor for certain types of care, such as home-based services and institutional care for older or disabled people and adult dental care. Nevertheless, unmet need for medical examination is relatively small in Norway (1.1% of the population, with 0.4% reporting unmet need due to cost).

Comparative price levels in the health and hospital sectors are higher in Norway than in most other countries. When adjusting for countries' economic development, Norway's health spending is in line with other high-income countries, although the debates persist on whether the cost of health care justifies the level of outcomes. Much attention has been paid to improving care quality and patient safety and Norway scores well on most indicators. A shift to care outside the hospital setting, coordination reform and expansion of generic medicines and biosimilars contributed to improved efficiency over the years, but there is further potential for improvement in these areas.

Introduction

■ Chapter summary

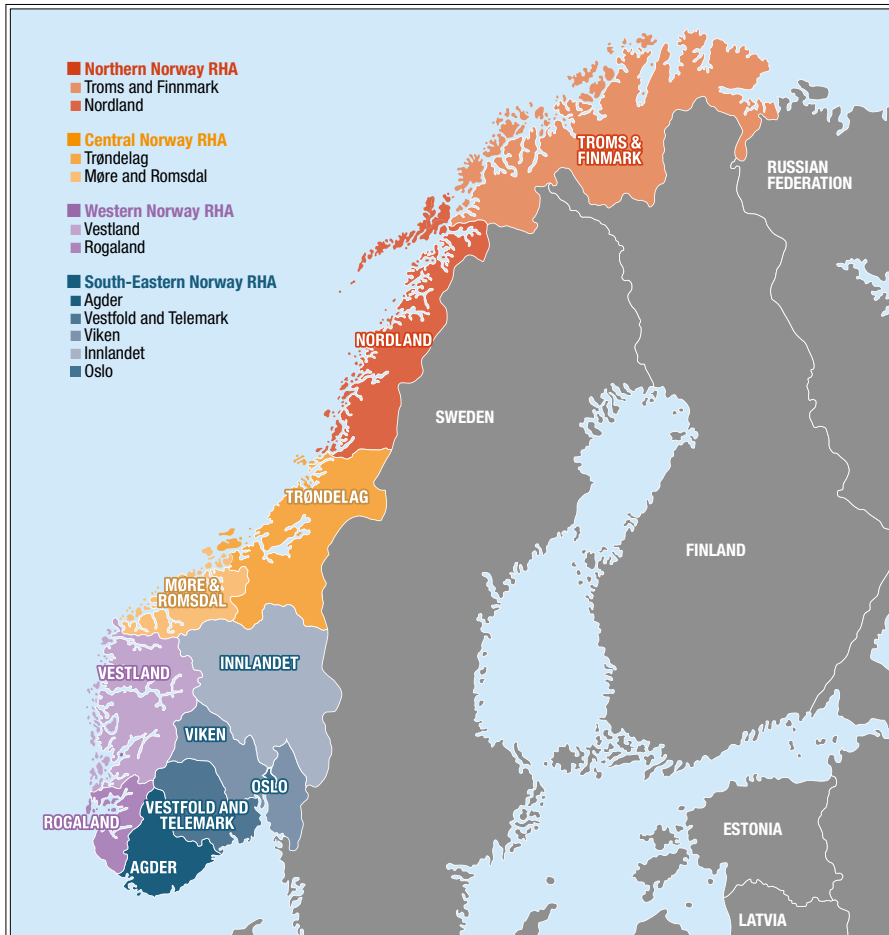
- Norway is the northernmost European country located in the Scandinavian Peninsula, with a population of 5.3 million, largely concentrated in the southern part of Norway.
- Macroeconomic management of Norway's oil-generated wealth, via the sovereign wealth fund and the associated fiscal rule, has helped achieve very high standards of living across society over the past several decades. However, substantial falls in the oil price in recent years have resulted in lower economic growth (1.4% in 2018). Nevertheless, in 2018 the GDP per capita (adjusted for purchasing power parity) in Norway was \$65 600 – among the highest in the world.
- Norway is a parliamentary democracy with three different administrative levels: state, counties and municipalities. An ongoing administrative reform aims to improve administrative efficiency by replacing counties with (fewer) regions and reducing the number of municipalities.
- The health of Norwegians is generally good and life expectancy continues to rise. In 2017 the average life expectancy was 82.7 years, and the gender gap is slowly closing. As in other European countries, cardiovascular diseases and cancers are the main causes of death, although external causes are the second-largest cause of

deaths in people aged under 65, with suicide accounting for almost half of these.

- Norway faces a number of health challenges, such as increasing rates of overweight and obesity, low intake of fruit and vegetables, as well as inequalities in health and prevalence of risk factors, with vulnerable groups being affected the most.

1.1 Geography and sociodemography

FIG. 1.1 Map of Mainland Norway



Source: Norwegian Institute of Public Health, Norway

Norway is located in the northwestern part of the Scandinavian Peninsula and has land borders with Sweden, Finland and Russia and coastal borders with the North Sea and the North Atlantic Ocean (Fig. 1.1). It consists of the mainland, the archipelago of Svalbard and the island of Jan Mayen. Table 1 shows the main demographic indicators. Norway's 5.3 million inhabitants (2018) live in a total land area of 324 000 km² (mainland), which averages at 15 people per km² and places Norway amongst the most sparsely populated countries in Europe. The majority of the population lives along the coast, mainly in the south and south-west.

More than 80% of the population lives in urban areas; more than 40% lives around the Oslofjord in the south-eastern part where the capital, Oslo, is located and less than 10% of the population lives in the northern part of Norway.

In 2018 the population grew by 0.7%, down from the peak of over 1.3% per year in 2009–2012. Oslo and surrounding areas continue to experience the fastest population growth. Compared to two decades ago, when natural change (births minus deaths) accounted for 60% of population growth and net migration for 40%, this proportion more than reversed in 2007–2014, when about 70% of the population growth was explained by net migration. Net migration has since fallen from the peak levels and in 2018 births accounted for 46% of population growth. Between 2004 and 2015 migration was predominantly economic. In 2016 political refugees accounted for the highest share of immigrants (30%; with more than 60% of them coming from Syria) but in the following year the number of refugees decreased by more than half. In 2017 the main reasons for immigrating to Norway included to be reunited with a family member (38% of immigrants), work (33%) and political refuge (19%). At the beginning of 2019 the immigrant population accounted for 14.4% of the total population and Norwegian-born children of immigrants accounted for 3.4%. The majority of immigrants (48%) originate from countries in the European Economic Area (EEA), followed by Asian (34%) and African countries (14%) (Statistics Norway, 2019a).

Apart from the decrease in net migration, the decline in natural population change is another factor explaining lower population growth in recent years. In 2018, at 1.6, the fertility rate was the lowest ever and well below the replacement level (2.1). The mean age at which women give birth to their first child increased to 29.5 years old in 2018, compared to 25.2 years old in 1988 (Statistics Norway, 2019a).

In 2017 the median age in Norway was 39.3 years old, which is relatively

young compared to 42.8 in the European Union (EU28) (European Commission, 2019). However, the share of people aged 65 and older has been increasing (Table 1.1). Conversely, the proportion of 0–14-year-olds has fallen in the past decade. As a result of these trends, the old-age dependency ratio (the proportion of people aged 65+ to those aged 15–64) rose from 22% in 2008 to 26% in 2018 and is expected to reach 40% by 2050. In the EU this ratio stood at 31% in 2018 and is forecast to increase to 50% by 2050.

The average household size has decreased slightly, from an average of 2.3 members in 2006 to 2.2 in 2018 (which has been unchanged at this level since 2010). Over a third of the population (38%) lives in a household with children. Approximately one in five people (22%) lives in a two-person household and 17% of the population (38% of households) live alone. One-person households are more frequent in the larger urban centres compared to more sparsely populated areas. While among younger people, more men live alone compared to women, this is reversed among older people due to higher average life expectancy among women (Statistics Norway, 2019a).

In 2000 the proportions of females and males with tertiary education (graduate and postgraduate university degrees) were equal and stood at 22%. Since then, this proportion has increased more among women than among men and in 2016 reached, respectively, 38.3% and 30.8%. Overall, 35% of the population had tertiary education in 2017 (Statistics Norway, 2019a).

The vast majority of the population (over 90%) speaks Norwegian. Just over 70% of the population had a declared membership in the Church of Norway in 2016 and 12% belonged to other religious organizations (Statistics Norway, 2019a).

TABLE 1.1 Trends in demographic indicators, 1995–2018, selected years

	1995	2000	2005	2010	2015	2018
Total population (millions)	4.4	4.5	4.6	4.9	5.2	5.3
Population aged 0–14 (% of total)	19.5	20.0	19.6	18.8	18.0	17.5
Population aged 65 and above (% of total)	16.0	15.3	14.8	14.9	16.3	17.0
Population growth (% annual growth rate)	0.5	0.6	0.7	1.2	1.0	0.7
Fertility rate, total (births per woman)	1.9	1.9	1.8	2.0	1.7	1.6
Population density (people per sq. km)	11.9	12.3	12.7	13.4	14.2	14.6
Distribution of population (% rural)	26.2	24.0	22.3	20.9	18.9	17.8

Source: World Bank (2019)

■ 1.2 Economic context

The Norwegian economy is generally characterized as a mixed economy – a capitalist market economy with a large component of state influence. The discovery of offshore oil and gas fields in the late 1960s gave rise to the considerable increase in GDP per capita over the following decades (Table 1.2). Oil exports allowed Norway to build up an export surplus, amounting to Nkr288 billion or €31.5 billion in 2018. Good macroeconomic management of the oil-generated wealth, via a sovereign wealth fund and an associated fiscal rule, has helped achieve very high standards of living across society. Inflows of labour from other countries have also supported the economic activity. However, substantial falls in the oil price in recent years have resulted in lower economic growth (1.4% in 2018). In 2018 GDP per capita (adjusted for differences in purchasing power) in Norway was \$65 600, which is notably higher than the EU average, as well as higher than other Scandinavian countries.

Despite some fluctuations in recent years, unemployment remains relatively low – at 3.8% of the labour force in 2018 (Table 1.2). The majority of the labour force (78%) is employed in the services sector. This figure includes public sector employees, who represent 30% of the labour force. In 2018 the health and social work sector accounted for 20.7% of the total share of employment in Norway, making the health and social care sector one of the largest employers. Overall, the services sector accounts for 27% of export revenues in Norway. About 20% of the labour force works in secondary industries, including the petroleum industry, which accounts for 2% of the total labour force and 39% of export revenues (Statistics Norway, 2019a).

Norway is highly rated with respect to gender equality. Female participation rates are high in education, the labour market and political life. In 2017 the United Nations (UN) ranked Norway as the most gender-equal nation based on the Gender-related Development Index (GDI) (UNDP, 2018). Income inequality in Norway is one of the lowest in Europe, albeit it is growing. In 2018 Norway had a Gini coefficient of equalized disposable income of 25%, compared to 31% in the EU (European Commission, 2019). Norway also had one of the lowest at-risk-of-poverty rates among the EU/EEA countries – 13% in 2018, which is similar to Denmark, but higher than in Finland (12%). There are, however, reasons for concern as the unemployment rate among young adults is particularly high among those with the lowest level of education (OECD, 2018b).

TABLE 1.2 Macroeconomic indicators, 1995–2018, selected years

	1995	2000	2005	2010	2015	2018
GDP per capita (current Nkr)	220 941	335 759	430 200	530 498	600 954	665 297
GDP per capita, PPP (current international \$)	24 322	36 956	47 772	57 965	60 519	65 598
GDP growth (annual %)	4.2	3.2	2.6	0.7	2.0	1.4
Total government spending (% of GDP)¹	50.3	42.0	42.1	44.9	48.8	48.7
Net lending/borrowing (% of GDP)¹	3.2	15.4	14.8	11.9	6.4	5.5
Public debt (% of GDP)²	37.3	32.3	46.9	48.4	38.6	45.6
Unemployment, total (% of labour force)	6.3	3.5	4.4	3.5	4.3	3.8
At-risk-of-poverty rate (60% of median equivalised income), EU-SILC¹		11.0	11.4	11.2	11.9	12.9
Income inequality (Gini coefficient), EU-SILC¹			28.2	23.6	23.9	24.8

Sources: World Bank (2019) unless stated otherwise; ¹ European Commission (2019); ² OECD (2019)

1.3 Political context

Norway is a constitutional monarchy with a parliamentary system. The Constitution is founded on the pillars of the sovereignty of the people, separation of powers and human rights. The head of state is a hereditary monarch, while the head of the government is the prime minister. The country is governed by a three-tier parliamentary system, with each tier governed by a popularly elected body: the national parliament (*Stortinget*), the county councils (*fylke*) and the municipal councils (*kommuner*). Municipalities and counties govern local politics and are responsible for primary education and primary health care. The 169 members of the Stortinget are elected every four years with proportional representation from the 19 counties. In 2020 the 19 counties will be replaced by 11 regions (*region*) and the number of municipalities will be reduced from 429 to 354.

Politically, for the past 50 years a Labour (or Labour-led) government alternated with various non-socialist coalition governments. Since the last parliamentary election in September 2017 the two-party coalition between the Conservative Party (*Høyre*) and the Progress party (*Framskrittspartiet*) was re-elected (it was first elected in 2013). It was joined by the Liberal

Party (*Venstre*) in 2018 and then by the Christian Democratic Party (*Kristelig Folkeparti*) in January 2019, which ensured it a majority in parliament.

Norway has ratified several bilateral social security agreements with other Nordic countries, as well as the EEA Agreement, which came into force in 1994. There is a long tradition of close cooperation with the other Nordic countries (Denmark, Sweden, Finland and Iceland). In 1982 an agreement on a common labour market was signed between the five countries and since 1992 there has been a social security convention among them (extended to social assistance and social services in 1994).

Norway is a member of the UN, the World Trade Organization (WTO), the North Atlantic Treaty Organization (NATO), the Council of Europe, the European Economic Area (EEA) and the Nordic Council. Norway has, among others, signed the following international treaties and documents: the General Agreement on Trade in Services (GATS), the Convention on the Rights of the Child, the European Convention on Human Rights, the International Bill of Rights, the Barents Health Programme (with Sweden, Finland and Russia) and the WHO Framework Convention on Tobacco Control.

■ 1.4 Health status

The health of Norwegians has improved considerably over the last few decades and life expectancy continues to rise. In 2017 the average life expectancy was 82.7 years, 81.0 years for men and 84.3 years for women, with the gender gap slowly closing (Table 1.3).

Non-communicable diseases are the key cause of deaths in Norway. Circulatory diseases, followed by cancers, are the most common causes of mortality, accounting for, respectively, 28% and 27% of deaths (Table 1.3). Deaths from external causes are the second-largest cause of deaths in people aged under 65, with suicide accounting for almost half of deaths from external causes in this age group.

According to the Global Burden of Disease study (Institute for Health Metrics and Evaluation, 2019), malignant neoplasms, circulatory diseases and musculoskeletal diseases made the largest contribution to the burden of disease in Norway (measured by disability-adjusted life years, DALYs). In 2017 they accounted for, respectively, 17%, 13% and 12% of the total number

of DALYs. In terms of years lived with disability (YLDs), musculoskeletal disorders accounted for 21% of the total, followed by mental disorders (15%) (Table 1.4).

Musculoskeletal disorders continue to account for the highest share of work absences: 46% in 2017 (Norwegian Directorate of Health, 2017a). Around 18% of work absences were attributed to mental health problems, with this share remaining stable over recent years. Since 2011 mental health problems have replaced musculoskeletal disorders as the main reason for claiming disability pension in Norway (more than 30% of claimants in 2017) (NAV, 2019). Whereas musculoskeletal disorders are more frequent reasons for claiming disability pensions among older people and women, mental health problems are the main reason among younger people and men.

In 2018, 5.8% of full-time employees, on average, were on sick leave at any given time in Norway (Statistics Norway, 2019a). This figure has been stable over the past six years and international comparisons show that it is almost twice as high as in other countries in Northern Europe (Denmark, Finland, Iceland, Sweden, Netherlands and Great Britain). Regulations on sick leave, sick leave benefits and dismissal contribute to this comparatively high rate of work absence – Norwegian employees with long-term sickness absence continue to be formally employed, whereas long-term sickness absence may lead to unemployment in other countries (Lien, 2019; PROBA Samfunnsanalyse, 2014).

Prevalence of diabetes types 1 and 2, at 5.4% in 2017, is similar to other Nordic countries and the OECD average (OECD, 2018a). However, prevalence of type 1 diabetes in Norwegian children (<14yrs), at 2.6 cases per 1000, is among the highest in the world (according to the latest data from OECD, 2017). According to a long-term study, between 2004 and 2012 the incidence of new diabetes type 1 cases in children has been stable at around 300 new cases per year (Norwegian Institute of Public Health, 2017a; Skrivarhaug et al., 2014).

As in many other European countries, dietary risk factors are responsible for a substantial share of deaths (15%, compared to 18% in the EU on average) (Fig. 1.2). Low intake of vegetables, fruit, fish and wholegrain foods and high intake of saturated fat, sugar and salt are risk factors for developing many chronic conditions, including type 2 diabetes, CVDs and different types of cancer.

TABLE 1.3 Mortality and health indicators, 1995–2017, selected years

	1995	2000	2005	2010	2015	2017*	EU28
Life expectancy at birth, total	77.9	78.8	80.3	81.2	82.4	82.7	80.9
Life expectancy at birth, male	74.8	76.0	77.8	79.0	80.5	81.0	78.3
Life expectancy at birth, female	80.9	81.5	82.7	83.3	84.2	84.3	83.5
Mortality, SDR per 100 000							
All causes	1 303	1 198	1 058	992	907	899	1 002
Circulatory diseases	580	500	374	313	265	247	358
Malignant neoplasms	295	287	278	270	246	243	259
Communicable diseases	13	15	20	22	22	19	16
External causes	60	59	57	56	52	55	46
Infant mortality rate (per 1 000 live births)	4.0	3.8	3.1	2.8	2.3	2.3	3.6
Maternal mortality rate per 100 000 live births (modelled estimate)	-	6	5	4	3	2	6

Note: EU data for 2017 or latest available; *Latest mortality by cause data for Norway and EU is for 2016.

Source: European Commission (2019); World Bank (2019) for maternal mortality

TABLE 1.4 Disability-adjusted life years (DALYs) and years lived with disability (YLDs), 2017

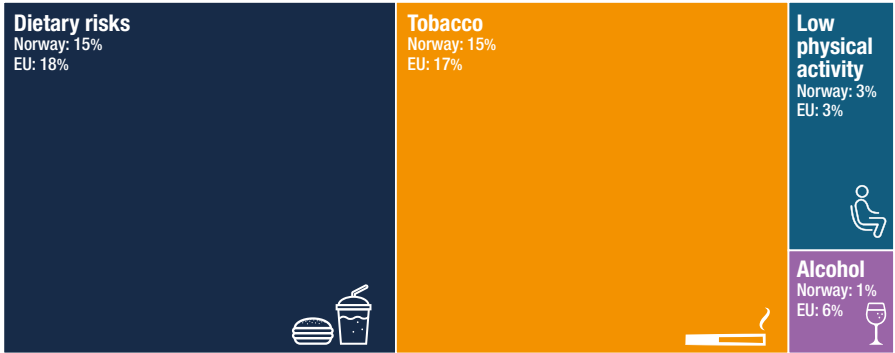
	DALYS (% OF TOTAL)	YLDs (% OF TOTAL)
Communicable, maternal, neonatal and nutritional diseases	4.8	4.8
Noncommunicable diseases	85.7	85.7
Cardiovascular diseases	13.4	4.5
Neoplasms	17.1	2.4
Mental disorders	8.2	15.1
Substance use disorders	2.7	2.2
Diabetes and kidney diseases	4.2	5.5
Chronic respiratory diseases	5.2	4.7
Musculoskeletal disorders	11.8	21.2
Neurological disorders	9.4	9.9
Digestive diseases	2.8	2.3
Cirrhosis and other chronic liver diseases	0.7	0.2
Other noncommunicable diseases	4.7	6.8
Injuries	9.5	9.5
Self-harm	1.8	0.1

Source: Institute for Health Metrics and Evaluation (2019)

Lack of physical activity is an important risk factor for both type 2 diabetes and other chronic diseases. According to OECD data, Norway is among the countries with the largest share of the adult population participating in moderate weekly physical activity. The proportion of 15-year-olds participating in moderate to vigorous daily physical activity in Norway is similar to the OECD average. The obesity rate in the population has increased from about 5% in 1996 to 12% in 2015 (OECD, 2018a). Still, the prevalence of overweight and obesity in Norway remains slightly lower than in the EU on average (Table 1.5).

The percentage of daily smokers in Norway has decreased considerably from over 40% in the 1970s to 12% in 2016, which is lower than the EU average (Skretting, Vedøy & Lund, 2017). An additional 9% of the population smoke occasionally. In addition to smoking, about 16% use snus (tobacco snuff) on a regular or occasional basis. The number of people engaging in harmful alcohol consumption is high, with 42% of survey respondents admitting to binge drinking at least once a month – more than double the EU average (Table 1.5). An estimated 10–20% of the population experience health problems caused by harmful consumption of alcohol and/or other substances in their lifetime (Amundsen, 2017). Nevertheless, the total alcohol consumption per adult in Norway is among the lowest in Europe.

FIG. 1.2 Major risk factors influencing health status, latest available year



Note: The overall number of deaths related to these risk factors (13 500) is lower than the sum of each one taken individually (14 200), because the same death can be attributed to more than one risk factor. Dietary risks include 14 components such as low fruit and vegetable consumption, and high sugar-sweetened beverages and salt consumption.

Sources: Institute for Health Metrics and Evaluation (2019), Global Health Data Exchange (estimates refer to 2017), in OECD/European Observatory on Health Systems and Policies (2019)

TABLE 1.5 Morbidity and factors affecting health status (percentage respondents), 2014

		2014	EU AVERAGE 2014
Morbidity past 12 months	Diabetes	4.2	6.9
	Asthma	6.7	5.9
	Chronic depression	6.9	7.1
BMI	Overweight and obesity	47.8	50.2
	Obesity	12.6	15.4
Smoking	Daily smokers	12.5	18.4
Alcohol	Binge drinking at least once a month	41.7	14.4
Nutrition	Consumption of fruit and vegetables at least once a day	69.1	65.7
	Consumption of fruit and vegetables at least five portions a day	6.5	14.3
Physical activity	Walking for transport	66.0	78.4
	Cycling for transport	26.6	19.7
	Aerobic sport	70.0	44.4

Notes: Self-reported data.

Source: European Commission (2019)

In 2007 Norway developed the national strategy to reduce social inequalities in health. The strategy targeted social determinants of health, such as income structure, employment opportunities and affordable child-care, and was directed at the entire social gradient rather than just towards the socially disadvantaged (Norwegian Ministry of Health and Care Services, 2007).

There are also major geographical differences in life expectancy and health outcomes between Norwegian municipalities and counties, with some of the largest differences (up to nine years) observed among the districts within Oslo (Norwegian Institute of Public Health, 2018). These differences in life expectancy can be linked to socioeconomic differences (income and educational levels) and they appear to persist in spite of the overall rise in life expectancy in Norway.

Differences in life expectancy at age 30 by education level are smaller than in many high-income countries and have been stable between 2007 and 2017, and amounted to about 4 years. However, in neighbouring Sweden,

which has very similar life expectancy, the educational gap over the same period is smaller – about 3.5 years. In 2017 men aged 30 with the highest level of education can expect to live 4.7 years longer than men with the lowest level of education; the difference for women was 3.2 years (European Commission, 2019). Smoking prevalence is believed to be the major reason behind differences in life expectancy across education levels, since people with higher education were the first to quit smoking (Vedøy, 2018). As the share of daily smokers has been declining across all levels of education, it is expected that the gap in life expectancy will eventually decrease. However, the considerable lag between smoking and development of smoking-related diseases may contribute to the persistence of this gap for decades.

Lower educational attainment is also associated with higher infant mortality, lower birth weight and a higher risk of premature birth. Children and adolescents from lower socioeconomic backgrounds also report poorer health, both somatic and mental (Dahl, Bergsli & van der Wel, 2014).

Although communicable diseases are not a major cause of concern in Norway, the Norwegian Institute of Public Health has warned about increases in some infectious diseases, including sexually transmitted infections and those due to international travel and imported food, as well as of growth in anti-microbial resistance.

Dental health of young Norwegians has improved significantly over the past 25 years. In 2017, 81% of 5-year-olds had no decayed, missing or filled teeth (DMFT), while the corresponding figures for 12 and 18-year-olds were 60% and 26.6%. There are significant differences in the proportions of children with no DMFT between the counties: for 5-year-olds it is lowest in Oslo (73%) and highest in Aust-Agder (85%), whereas for 18-year-olds it is lowest in Finnmark and highest in Hedmark (Statistics Norway, 2019a).

Organization and governance

■ Chapter summary

- Norway has a universal, nationalized health care system. The system is semi-decentralized: the central government is responsible for specialist care, which is delivered through four regional health authorities (RHAs), which own 20 hospital trusts; municipalities are responsible for primary care and, increasingly, for other types of care.
- The Ministry of Health and Care Services is responsible for the regulation and supervision of the system and ensures that health and social services are provided in accordance with national legislation and regulations. The Ministry controls the activities of its subordinate agencies through direct steering (in the case of national agencies), ownership arrangements, such as budgets and letters of instructions (RHAs), and legislation and financial instruments (counties and municipalities). The 2012 Coordination Reform established mandatory network governance structures encompassing hospitals and the municipalities to improve coordination of specialist and primary care.
- Intersectoral cooperation has been high on the agenda for more than a decade as a means of addressing social inequalities in health and to ensure a more patient-centred health service. Furthermore, impact on health must be considered when developing policies and implementing action plans in all sectors. Counties are responsible for intersectoral planning, and many have developed health promotion plans to support their municipalities in improving public health.

- Public monitoring of health system performance has become more readily available over the past three decades. It is used to systematically measure performance at the national as well as the international level and it has a clear influence on the national health policy goals.
- Empowering patients and carers continues to be a policy priority through comprehensive patients' rights legislation and regulation of issues such as patient choice and complaint procedures. Most recently, children's right to be heard as a patient, the right to confidentiality and shared decision-making have been strengthened.

■ 2.1 Historical background

The present structure of the Norwegian health system was established largely in the second half of the twentieth century, seeing emergence of the key actors: MOHCS, the National Insurance Scheme (NIS), the Directorate of Health and the Board of Health Supervision. The health sector saw rapid expansion between 1950 and 1970, followed by large investments alongside the country's economic growth after the discovery of petroleum resources in the North Sea in the 1970s. Around that time, the role of hospitals increased, with growing provision of specialist services. Between 1969 and 2002 counties were responsible for planning, building and managing hospitals, and from 2002 this responsibility was transferred to the five (at the time) RHAs. Municipalities became responsible for primary care in 1982, and their role gradually expanded to include environmental health services and providing services for older people and people with disabilities. In 2001 the regular GP scheme was introduced. By the late 2000s reform efforts were focused on coordination between the municipalities and the RHA, and increased attention was given to the aspects of quality of care and patient safety (Ringard et al, 2013).

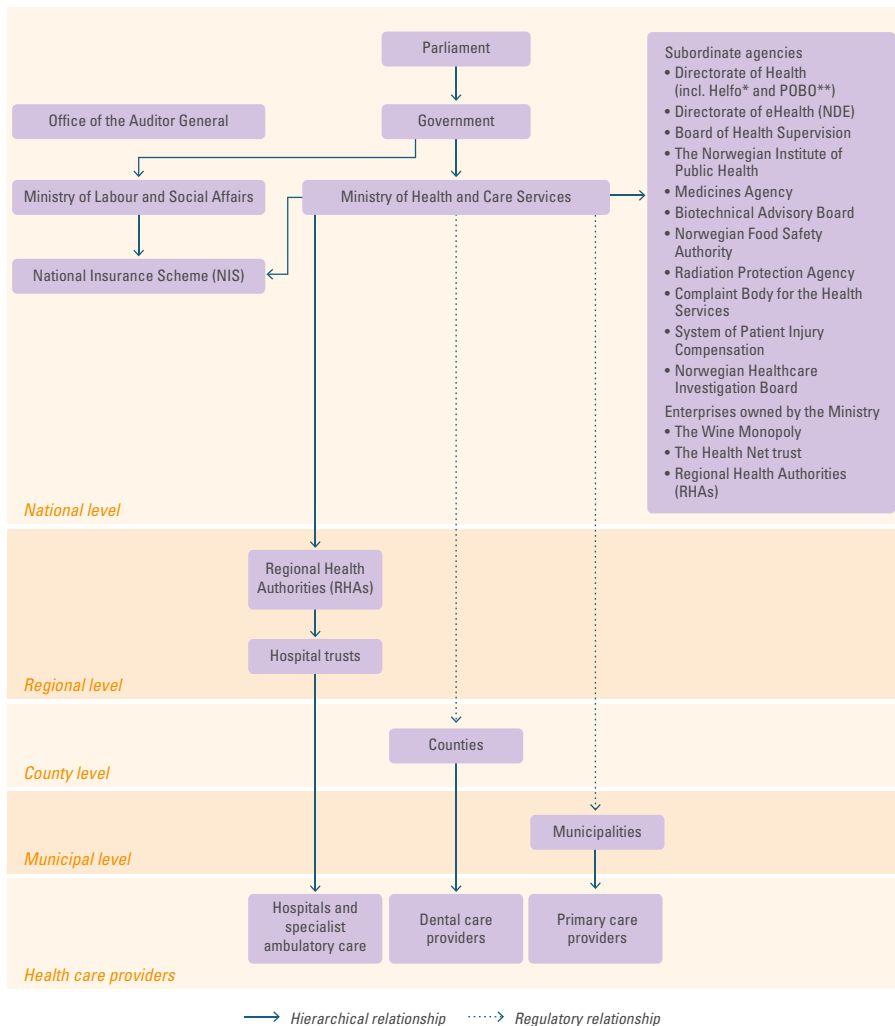
■ 2.2 Organization

The organizational structure of the Norwegian health care system is built on the principle of equal access to services for all inhabitants, regardless of their social or economic status and geographical location. This overarching goal has been a long-standing feature of the Norwegian welfare system and

is embedded in national health care legislation and strategic documents (Norwegian Ministry of Health and Care Services, 2019).

At the national level, the parliament serves as the political decision-making body. The Office of the Auditor General is an independent agency that acts as the supreme audit institution and the supervisory body of the parliament. Its main tasks are to monitor public assets and ensure that these are used and administered according to sound financial principles and according to the decisions and intentions of the parliament. Fig. 2.1 presents an overview of the health system.

FIG. 2.1 Overview of the health system



Notes: * Helfo = Health Economics Administration; ** POBO = Health and Social Services Ombudsmen.

Source: Authors

Health care is organized at three main levels: national, Regional Health Authorities (RHAs), and municipalities. The system is regulated through a large number of Acts and secondary legislation, broadly reflecting the decentralized nature of the health care system (see also Table 2.1 and Section 2.3).

At the national level, the **government** decides on general national priorities and proposes legislation and the national budget, which is subsequently discussed by the parliament. The **parliament** adopts the annual national budget, proposed by the Ministry of Finance. The Standing Committee on Health and Care Services within the parliament is responsible for matters relating to health care and social care services, public health, drug and alcohol policy, and pharmaceuticals.

The **Ministry of Health and Care Services** (MOHCS) determines the national health policy, prepares and oversees legislation and implements national health policy with the help of the **Directorate of Health** and other subordinate institutions (see Table 2.1). The **Board of Health Supervision** (Board of Health hereafter) is responsible for the supervision of health and social services at national and local levels; it receives instructions from the MOHCS and is assisted in its supervisory role by County Medical Officers (*fylkeslegen*) stationed in the counties. The MOHCS also has administrative responsibility for a number of other subordinate agencies (see Fig. 2.1 and Table 2.1). The MOHCS is the owner of the RHAs, which in turn own the hospital trusts; the MOHCS has direct responsibility for the provision of specialist care. It is also responsible for overseeing the provision of all other types of care and their coordination. Further, the MOHCS owns the Norwegian Health Net trust which is responsible for provision of secure electronic exchange of patient information via a health communication network between all relevant parties within the health and social services sectors (see Section 4.1). The Directorate of e-Health within the ministry has the overall responsibility for digitalization of the health care sector. The MOHCS is also the owner of the Wine Monopoly, which is the only company in Norway allowed to sell alcoholic beverages with alcohol content of more than 4.75%.

The **RHAs** are owned by the MOHCS and are responsible for the provision of specialized care, including both somatic and mental health care, special care for persons with drug and alcohol addictions, as well as other specialized medical services, such as laboratory, radiology and

TABLE 2.1 Agencies subordinate to the Ministry of Health and Care Services

NAME OF AGENCY	KEY RESPONSIBILITIES
Directorate of Health	<ul style="list-style-type: none"> Implements national health policy through integrated and targeted activities across services, sectors and administrative levels, including preparing ordinances, national guidelines and campaigns. Advises central authorities, municipalities, RHAs and the voluntary sector. Grants authorizations and licences for all categories of health personnel (since 2016 the Norwegian Regulatory Authority for Health personnel (SAK) has been integrated into the Directorate). The Health Economics Administration (Helfo) (subordinate agency) is responsible for administering the health part of the National Health Insurance (NIS) scheme and direct payments to various health service providers, individual reimbursement for certain medicines, dental services and health services abroad. Helfo is also in charge of the regular GP scheme (<i>fastlege</i>) and issuing the European Health Insurance Card (EHIC). The Health and Social Services Ombudsmen (POBO) (affiliated agency) are located in all counties to assist patients and clients who do not get the help or treatment they need. POBO is legally and administratively connected to the Directorate of Health but acts independently.
Directorate of e-Health	<ul style="list-style-type: none"> Since its establishment in 2016 it implements the national policy on e-Health, establishes the requisite standards, and administers the use of e-Health methodology nationwide.
Board of Health Supervision	<ul style="list-style-type: none"> Provides general supervision of health and social services at national and local levels (through Offices of the County Governors). Monitors the population's health and social services needs.
Norwegian Institute of Public Health (NIPH)	<ul style="list-style-type: none"> Provides monitoring, expertise and research in the areas of epidemiology, infectious disease control, environment (e.g. air quality) and health services. The Norwegian Knowledge Centre for Health Services has been part of the NIPH since 2016.
The Complaint Body for Health Services	<ul style="list-style-type: none"> This body, established in 2016, acts as secretariat for the NPE (see next item), as well as for other complaints related to health services. Provides an independent assessment of complaints for health care users whose claim has been rejected by the NPE.
Norwegian System for Patient Injury Compensation (NPE)	<ul style="list-style-type: none"> Handles compensation claims for health care users who have sustained an injury while receiving health care services. Collects and collates data on such injuries to support quality improvement and injury prevention. Works to inform the public, patients and health care workers about the patient injury compensation scheme.
The Norwegian Healthcare Investigation Board (UKOM)	<ul style="list-style-type: none"> Since its establishment in 2019 it investigates adverse events and other cases of serious concern with the intent to reveal events leading to the incident (i.e. root-cause analysis)
Norwegian Medicines Agency (NoMA)	<ul style="list-style-type: none"> In charge of granting marketing authorizations, classification, vigilance, pricing, reimbursement and providing information on medicines to prescribers and the public. Since 2018 it has also been the competent body for medical devices, having taken over this role from the Directorate of Health.
Norwegian Food Safety Authority	<ul style="list-style-type: none"> Monitors food safety as well as plant, fish and animal health; advises government ministries in these areas; and prepares plans for emergencies.
Norwegian Biotechnical Advisory Board	<ul style="list-style-type: none"> Evaluates the social and ethical consequences of modern biotechnology and supports usage that promotes sustainable development.
Norwegian Radiation Protection Authority	<ul style="list-style-type: none"> Monitors the use of radioactive substances and fissile material. Coordinates contingency plans against nuclear accidents and radioactive fallout. Monitors natural and artificial radiation in the environment and workplace. Assists all ministries on matters related to radiation protection and nuclear safety.

Source: Authors

ambulatory services. The RHAs also participate in research and medical education. There are four RHAs in Norway: Northern Norway (Helse Nord), Central Norway (Helse Midt Norge), Western Norway (Helse Vest) and South-Eastern Norway (Helse Sør-Øst). The latter is the largest RHA and covers approximately 56% of the population and consumes 54% of the total RHAs budget (Statistics Norway, 2019). The RHAs are owners of the health trusts (see Section 4.1); there are currently 28 health trusts, of which 20 are hospital trusts. In addition, the RHAs have joint ownership of the following health trusts: Procurement Services Health Trust, National Air Ambulance Services Health Trust, Patient Travel Health Trust, EmergencyNet Health Trust, and the National IT Health Trust, as well as an Agency for Hospital Construction. The RHAs are also responsible for the 'New Methods' system for introducing health technologies (see Box 2.1 and Section 2.4). The RHAs and the health trusts are independent legal entities with governing bodies at regional and local levels.

In the **counties**, the county municipality (*fylkeskommune*) with an elected county council (*fylkesting*) is responsible mainly for secondary education, public transport, regional road planning, culture, etc. The county governor (*fylkesmannen*) is an authority acting on behalf of the Norwegian government and is responsible for monitoring the decisions, objectives and guidelines set out by the parliament and government and their implementation by the municipalities. They also serve as an administrative appeal body for the municipal decisions, including those concerning health services. In the area of health care, the responsibilities of counties have increasingly included coordination of care and provision of public health services (see Sections 5.2 and 5.1). In addition, counties are also responsible for safeguarding patients' access to health and care services through the Ombudsman service (POBO). The counties' role in the provision of curative health care services is limited to dental care.

Municipalities are responsible for the provision and financing of primary care, including rehabilitation, physiotherapy and nursing, and after-hours emergency services (see Chapter 5). They are also responsible for a wide range of public health and preventive measures, as well as the provision of local emergency care beds for patients with a need for pre- or post-hospital services. Some responsibilities over these services have been retained at the central level, mainly to maintain equal access. For

example, all decisions regarding GP funding continue to be determined by the central government (see Section 3.7.2). The government in power since 2017 has a stated objective for the municipalities to deliver a larger proportion of health care services, with the goal of bringing care closer to the patient, and to strengthen public health efforts and preventive services (Political platform for the Norwegian Government, formed by the Conservative Party, the Progress Party and the Liberal Party (The Jeløya-platform), 2018).

Health care **providers** are associated in three organizations: *Spekter*, *Virke* and the Norwegian Association of Local and Regional Authorities. Within health care, *Spekter* represents both public and private hospitals. Together with the trade unions, it plays an important role in the national salary negotiations for employees (see Section 3.7.2). *Spekter* also participates in the development of the legal framework regulating general employment conditions. *Virke* (Enterprise Federation of Norway) represents not-for-profit organizations within health care, as well as pharmacies and several of the private rehabilitation centres. The Norwegian Association of Local and Regional Authorities is the only employers' association for the municipalities and counties. Its main tasks are to advocate the interests of its members to the central government (including collective bargaining), parliament, labour and other organizations; to advise and inform its members about all matters and developments of importance to local government; and to facilitate the exchange of experience between its members. Since 2006 all municipalities and counties, as well as approximately 500 public enterprises, have been members.

The **private health care sector** is relatively small but well regulated. At the level of primary care the majority of GPs are self-employed, even though they are fully embedded in the public system through contracts with the municipalities (see Section 5.3). Private for-profit providers play a smaller role in the provision of specialist care, accounting for about 10% of the total operating cost for somatic services and 13% of mental health care, plus nearly 37% for substance abuse services and about 11% of nursing beds (Statistics Norway, 2019a). Not-for-profit provision also includes private for-profit hospitals and hospitals set up as foundations that are financed from and seen as an integral part of public health services, e.g. the Diaconal hospital foundation in Oslo, which is owned by the Norwegian Church. Private for-profit hospitals receive most of their funding from the state (on average 76%

of their total budgets), whereas this share is 96% for private not-for-profit hospitals (Statistics Norway, 2019a).

Among other state actors, **the Ministry of Labour** is involved in the health care system, mainly through the Labour and Welfare Administration (NAV), which administers different benefit schemes within the National Insurance Scheme (NIS), such as sick leave and disability benefits. It is also responsible for implementation of the Working Environment Act (2008), which ensures safe working conditions and equal treatment among workers, and creates a health-promoting environment at workplaces. A number of other ministries are also involved in issues of relevance to the health care system. For example, the **Ministry of Education** is involved through planning of the health workforce and provision of health education (see Section 2.5); the **Ministry of Finance** is involved through taxation and budgeting. The overall responsibility for the information and communication technology (ICT) strategy for the public sector lies with the **Ministry of Local Government and Modernization**.

■ 2.3 Decentralization and centralization

Scandinavian health care systems are often characterized as being run according to a decentralized national health service (NHS) model; funding is predominantly raised by taxation and the main actors are public (Magnussen, Vrangbaek & Saltman, 2009). In Norway municipal governments play an important role in the allocation of resources and the provision of primary and ambulatory care. While in the second part of the twentieth century much power was devolved from the central to the municipal level, both decentralization and centralization tendencies could be observed in the 2000s (Magnussen & Martinussen, 2013; Ringard et al., 2013).

In recent years increasing responsibility for health care and social care has been shifted from the state and counties to the municipalities (see Section 6.1). At the same time the 2012 coordination reform established mandatory network governance structures encompassing hospitals and the municipalities, in order to better coordinate specialist and primary care (Torjesen & Vabo, 2014). Centralization tendencies are also visible in the areas of quality monitoring and setting performance standards.

■ 2.4 Planning

The MOHCS has the main responsibility for health policy and for some aspects of social security policy. It fulfils this responsibility by means of legislation, annual budgetary allocations to the RHAs, a yearly letter of instruction to the RHAs, and through various governmental institutions. Whenever relevant, EU regulations are taken into account. Efforts to develop a systematic approach to setting policy priorities in health care have been longstanding and can be linked to the fundamental goals of ensuring equal access to health care services to the entire population, irrespective of their socioeconomic and other characteristics (Box 2.1). The Public Health Act (2011) requires local authorities to have an overview of health conditions and influencing factors. The NIPH has developed ‘public health profiles’ in order to help them identify and monitor areas for improvement in each region/municipality (see Section 7.1).

The National Health Plans are the key strategic planning tools in the health care sector. Their planning horizon is normally four years, which is longer than the planning horizon of the annual health care budget. The latest plan was published in 2016 (see Section 7.1). They are developed by the MOHCS and present the current status of the health care system, including the key challenges, and suggest policy goals and measures aimed at meeting them (Ringard et al., 2013). As broad policy statements, these Plans are not formally evaluated.

The MOHCS is responsible for the planning of human resources for health (see Section 4.2). In addition, hospital trusts and municipalities have a responsibility to plan, recruit and retain human resources. The MOHCS provides input regarding personnel and skill needs to the Ministry of Education, which is responsible for determining the educational capacity for different health personnel groups.

The overall responsibility for the planning of infrastructure and capital investment in public health care providers lies with the RHAs for specialist care and with the municipalities for primary care. Both the RHAs and the municipalities have a wide authority to plan their own infrastructure. RHAs have to consult the MOHCS for major investments in infrastructure (e.g. the building of new hospitals) (see Section 4.1). In 2015 the RHAs established the Agency for Hospital Construction (*Sykehusbygg HF*) providing expertise for planning of hospital infrastructure to all hospital trusts.

BOX 2.1 Evaluating priority setting and planning

Five government commissions have evaluated the principles for priority setting in the health care sector over the last 30 years, most recently in 2018 with the first evaluation report targeting prioritization principles for municipal health and care services and publicly funded dental health services (Norwegian Ministry of Health and Care Services, 2018). The report concluded that the existing principles for priority setting in specialist care (presented below) were suited for municipal services, but should incorporate assessment of individual patients' physical, psychological and social functioning.

The following three principles are set as the foundation of priority-setting in the health and care sector (Norwegian Ministry of Health and Care Services, 2016b):

1. The health-benefit criterion: the priority of an intervention increases with the expected health benefit (and other relevant welfare benefits) from the intervention. The expected benefit of an intervention is assessed through knowledge-based practice that indicates that the medical intervention will extend the patient's life and/or enhance the patient's quality of life by increasing the likelihood of: survival or reduced loss of function; improvement of physical or mental function; reduction of pain, physical or mental distress.
2. The resource criterion: the fewer resources an intervention requires, the greater the priority of this intervention.
3. The severity criterion: the priority of an intervention increases in keeping with the severity of the condition. The severity of the condition is to be assessed on the basis of: risk of death or loss of function; the degree of loss of physical and/or mental function; pain, physical or mental distress.

Between 2002 and 2017 the National Council for Priority Setting in Health Care advised the government on public health issues and on issues of relevance to the health system as a whole. The objective of the Council was to contribute to a more comprehensive approach to priority setting in health and care services. The Council contributed to a shared understanding of the current situation and problems among key actors within the health and care services. The Council recommended establishing a National System for the Managed Introduction of New Health Technologies ('New Methods') within the Specialist Health Service in Norway (see Section 2.7.3). The 'New Methods' system was established in 2013 with a public mandate to recommend and decide on the introduction of new health technologies in Norway.

STATED OBJECTIVES OF THE HEALTH SYSTEM

The objectives of the Norwegian health care system are embedded in the national legislation and in various strategy documents. Health care coverage is universal, and health care services are expected to be of high quality and the same for all. The goal of ensuring “equal access to health care of good quality” is explicitly stated in the 1999 Patients’ Rights Act. Access to service should be according to health needs, with equal access for equal needs, regardless of gender, social and economic background, and geographical location. The principle of equality of access is supplemented by three other principles, giving priority to: (1) those in greater health need (i.e. according to the severity of medical condition); (2) interventions that are likely to lead to health improvement; and (3) interventions where the ratio between the expected benefit and cost is reasonable (i.e. the intervention is considered to be cost-effective) (Bringedal, 2005; Patients’ Rights Act 1999; Ringard et al., 2013).

The key policy documents for the period 2013–2018 are the National Health Plan for the period 2011–2015 and the current National Health and Hospital Plan for the period 2016–2019. The key goals of the National Health Plan 2011–2015 were to increase QALYs and reduce social inequalities in health. The National Health and Hospital Plan 2016–2019 has seven main goals, including strengthening mental health care, improving the skill-mix of health professionals and coordination of services (see Table 6.1).

■ 2.5 Intersectorality

Historically, there have been no direct mechanisms to ensure that health is taken into account by ministries other than the MOHCS. This changed with the introduction of the Public Health Act in 2011, in which the ‘Health in All Policies’ approach featured prominently. In line with this approach, impact on health must now be considered when developing policies and implementing action plans in all sectors, and counties have a special responsibility for intersectoral planning. Even though the counties are not mandated to develop health promotion plans, many counties have done so and the role of supporting the municipalities in their planning process is regarded as an important priority for the counties (Fosse & Helgesen, 2017). The role of

the counties is also to act as public health coordinators and advocates for the municipalities (see Section 6.1.5).

Over the years national strategies and national action plans encompassing more than one policy area have become increasingly important. These are developed through cooperation and coordination between the ministries, with each involved ministry subsequently given the responsibility for implementing and monitoring a specific part of the plan. A recent example of this is the National Action Plan on Better Nutrition 2017–2021, which is the result of cooperation among seven ministries (Norwegian Ministries, 2017).

The mandate of the Norwegian Directorate for Civil Protection is to maintain a complete overview of various risks and vulnerabilities to the country's population in general and report to the Ministry of Justice and Public Security. This includes local, regional and national preparedness and emergency planning, fire safety, electrical safety, handling and transport of hazardous substances, as well as product and consumer safety. Generic guidelines for emergency preparedness for all sectors, as well as sector-specific risk assessment, including on access to pharmaceuticals in Norway, have been published (Norwegian Directorate for Civil Protection (DSB), 2018). Other ministries that play a role in population health are: the Ministry of Agriculture and Food (through policies and measures related to food and water safety); the Ministry of Climate and Environment; and the Ministry of Transport and Communication, which has overall responsibility for transport policies, which also includes road safety.

■ 2.6 Health information systems

Norwegian health registries contain various types of health data for various purposes. The increasing amount of data availability has led to a reform of the legal framework and organization of health registries. The 2014 Act on the Personal Health Data Registries distinguishes between consent-based registries, mandatory registries where patients can opt out, and statutory registries which do not require consent. The purpose of these registries is to provide current, reliable and secure information about the population's health and the quality of health care. Information from these registers is analysed

TABLE 2.2 Overview of the statutory and mandatory health registries, December 2019

HEALTH REGISTRY	YEAR ESTABLISHED	BODIES RESPONSIBLE FOR COLLECTION AND ANALYSIS	TYPES OF DATA
Statutory (containing identifiable data)			
Cause of Death Registry	1925/1951	NIPH (collection); Statistics Norway (analysis)	All deaths as reported in death certificates
Medical Birth Registry	1967	NIPH	All births
Surveillance System for Communicable Diseases (MSIS)	1977	NIPH	Monitoring about 60 different communicable diseases, including tuberculosis
Immunization Registry (SYSVAK)	1995	NIPH	Vaccinations in the childhood immunization programme
Registry of the Armed Forces Medical Services	2005	Ministry of Defence (collection); Armed Forces Medical Services (analysis)	Health information on personnel serving in the armed forces
Cardiovascular Disease Registry	2010	NIPH	Inpatient and outpatient visits for patients with cardiovascular diseases
Cancer Registry	1952	South-Eastern RHA (collection); Cancer Registry of Norway (analysis)	Information on all patients with cancer diagnoses
Patient Registry (NPR)	1997/2007	Directorate of Health	Information on all inpatient and outpatient care, and substance abuse treatment
Municipal Patient and User Registry (KPR)	2017	Directorate of Health	Information on patient contacts with primary care and costs
System for adverse event reporting for pharmacology		Norwegian Medicines Agency	Awaiting enactment (2019)
Mandatory registries (containing anonymized data)			
Surveillance System for Antimicrobial Drug Resistance (NORM)	2003	NIPH (collection); University Hospital North Norway (analysis)	Data about antibiotic resistance of microbe isolates
Surveillance System for Infections in Hospitals (NOIS)	2005	NIPH	Site infections after selected surgical procedures
Prescription Database (NorPD)	2004	NIPH	Data on prescribed drug use in humans and animals
Information System for the Nursing and Care Sector (IPLOS)	2006	Directorate of Health (collection); Statistics Norway (analysis)	Patient information (about received care) from local nursing and care services
e-Prescription	2008	Directorate of Health (collection); Ergo Group (analysis)	Electronic prescriptions from doctors to pharmacies
Registry of Pregnancy Termination	1979/2007	NIPH	All hospital-induced abortions
Genetic screening of newborns	2012	Oslo University Hospital	All samples collected for newborn screening are stored
Surveillance System for Virus Resistance (RAVN)	2014	NIPH	Monitoring viral resistance for influenza, HIV, CMV, HSV and Hepatitis B

Sources: Norwegian Institute of Public Health website (www.fhi.no) and the websites of individual registries.

and published as part of public statistics. Table 2.2 provides an overview of the registries and bodies responsible for data collection and analysis. In general, data in these registers are considered to be of high quality (Norwegian Institute of Public Health, 2016; Office of the Auditor General of Norway, 2018). In 2019 there were ten statutory registries and eight mandatory registries with anonymized patient data.

In addition to the above-mentioned health registries, there are 54 national medical quality registries. The Centre for Clinical Documentation and Evaluation in Tromsø has been a national support centre for the medical quality registries since 2009. These registries can be initiated by individuals, hospitals or educational institutions, and contain comprehensive information for assessing the effects of different treatments and for benchmarking efficiency at the level of hospital wards. They may also be used for quality assurance, research and service improvement. With support from the RHAs, a medical quality registry may be turned into a national quality registry. The RHAs are responsible for funding and managing national quality registries, and the four RHAs have the final say on which registries may be implemented at the national level.

In 2014 the infrastructure project “Health registries for research” (2014–2019) was implemented to support health care research. The project is funded by the Research Council of Norway and includes the establishment of a research documentation service that provides methodology and metadata from the health registries, as well as a statistical support service. The project enhances data security by facilitating the use of secure servers for storage and analysis of research data (HRR metadatabase for Nasjonale Helseregistre, 2019). In 2017 the Directorate for e-Health established the National Health Data Programme, which aims to improve availability of health data for quality improvement, health monitoring, management and research. Users include government agencies, researchers, and health care professionals, as well as residents. The Health Registries for Research project and the National Health Data Programme may be seen as national initiatives aimed at facilitating the use of existing data for health care improvement, monitoring, management and research purposes.

An audit of the existing health and quality registries, undertaken by the Office of the Auditor General in 2017, revealed severe shortcomings in how some of the quality registries are managed, including incompleteness of data, and lacking and/or unpublished information. Of the 54 national

medical quality registries, fewer than a third had country-wide coverage. Fifteen years after the initial mapping of medical quality registries there are still medical areas that are not covered, such as epilepsy, mental health and substance abuse (Office of the Auditor General of Norway, 2018; Saunes & Danielsen, 2005). The recommendations from the audit called for the establishment of performance management and monitoring mechanisms and for strengthening of the registers' frameworks to promote their effective functioning. In addition, the RHAs need to ensure cross-regional cooperation in the area of medical quality registries.

Another challenge is posed by the lack of linkages between Statistics Norway and the health registries for purposes such as quality improvement, management or planning. According to the legislation in place (Statistics Act, 1989), it is only possible to link data for research purposes. So, for example, information about social inequalities can be linked with health data from the registries for research purposes but not for planning purposes. However, the Statistics Act has been under public consultation in 2019 and its amended version may address data linkage problems.

MONITORING HEALTH SYSTEM PERFORMANCE

Statistics Norway has been monitoring the provision of hospital care and health status in the population since 1856 with indicators including number of patients treated, length of stay, bed occupancy rate and cause of death (Bore, 2007). A century later, the Cancer Registry of Norway was the first of the disease-based registries to monitor health outcomes and quality of care in detail for cancer patients. Public reporting on hospital resources started in 1989 and became systematic a decade later, while reporting on patient experiences and mortality after hospitalization started in 1997 (Guldvog & Kopjar, 1999). A new database with comparative data on health and social care services at the municipality level (KOSTRA) was established in 2018. Municipalities, health trusts and state agencies all provide data to Statistics Norway.

The Directorate of Health (see Table 2.1) is responsible for the development, maintenance and dissemination of the results from the National Quality Indicator System (NQIS), which was introduced in 2014. The system serves several purposes: to support health care users and their next

of kin in making informed choices about health care providers; to inform the public about the quality of health care services; and to generate data to support management and quality improvement in health care. The Directorate of Health also publishes annual SAMDATA reports – a collection of comparative statistics and performance indicators for hospital trusts containing information on specialist care, including mental health care (since 2017 also at municipality level). The MOHCS can also instruct the RHAs to provide indicators in order to monitor new policy initiatives. All indicators are published as part of the NQIS. In addition, the NIPH governs ten statutory central health registries (see Table 2.2) and collects quality indicators for the Directorate of Health. It also produces annual national overviews of population health and county- as well as municipal-level health profiles.

The Research Council of Norway (under the Ministry of Education) administers research-based evaluations of political initiatives and reforms. The evaluations are not mandatory but are designed to create a knowledge base derived from the experience gained from politically initiated reforms and schemes. Ongoing evaluations include the free choice of provider treatment reform (2017–2020) and cancer patient pathways (2017–2020).

■ 2.7 Regulation

■ 2.7.1 *Regulation and governance of third-party payers*

The key third-party payer in the Norwegian health care system is the National Insurance Scheme (NIS). The NIS is financed by contributions from employees, self-employed persons and other members, employers' contributions and contributions from the state. As a general rule, all residents of Norway are members of the NIS. NIS covers a wide range of social benefits and pensions, as well as health services (see Section 3.2). Since 2009 the health care part of the NIS budget has been under the responsibility of the MOHCS. The NIS is regulated by the National Insurance Act (1997), and reimbursements for health services are managed by the Helfo in the Directorate of Health (see Table 2.1).

Other third-party payers are the providers of voluntary health insurance (VHI). The activity of private for-profit VHI providers is regulated in the

general insurance legislation, with the current law dating from 2005. For more information on VHI, see Section 3.5.

■ 2.7.2 *Regulation and governance of provision*

REGULATION

The Board of Health together with the County Governors are supervision authorities. They conduct surveillance, which provides a general picture of the quality of services, as well as system audits, and also react on information on possible deficiencies in services. The Board of Health can give warnings or withdrawal of authorization (if relevant) against health care personnel. All statutory services are subject to supervision (municipalities, private providers, publicly owned hospitals or health care personnel with private practice). In 2017 the parliament adopted a Supervision of Health Services Act, thus collecting all regulations on health supervision (at all levels, including municipal care) into one legislative act. The Act has partly been enacted as of July 2019.

The municipalities have a great deal of freedom in organising health services without a direct command and control line from the central authorities (Norwegian Ministry of Health and Care Services, 2015b). However, this freedom has been challenged by an increasing amount of regulations on how these services should be delivered (see Section 6.1). The main task of the central government is to ensure the high quality of services across the municipalities through funding arrangements and legislation, such as through the Municipal Health and Care Act (2011). Each municipality must ensure that services are provided in a coordinated manner and that health care personnel have the necessary competences.

Hospitals and specialist care, organized at the level of the RHAs, are regulated mainly by the Specialist Care Act (1999) and the Health Authorities and Health Trusts Act (2001). The MOHCS annually provides instructions to the four RHAs, containing RHA-specific tasks and requirements. For example, the 2018 annual letter of instruction to the South-Eastern RHA contains information on the total budget placed at its disposal and some notes on specific uses of this allocation, including comments on the areas of services the MOHCS would like the RHA to focus more on in the coming

year (e.g. waiting times, mental health, substance abuse and quality and patient safety).

Certain areas of care that span across organizational levels are regulated by separate legislation, for example, the Mental Care Act (1999) and the Public Health Act (2011). Other key pieces of legislation are the Patients' Rights Act (1999) and the National Insurance Act (1997). The latter regulates financing and entitlement to certain non-medical benefits, such as rehabilitation, and benefits received in case of sickness, maternity, disability or occupational injury.

RHAs, hospitals, municipal providers and private practitioners are themselves responsible for ensuring the quality of their services. There is no requirement for provider accreditation or reaccreditation, although some hospitals or hospital departments are accredited (see below).

The Specialist Care Act (1999) states that every hospital must have a quality assurance commission as part of its mandated system of internal control. The Municipal Health and Care Act (2011) includes a similar requirement for primary health care providers. Systematic quality assurance is a legal requirement for all institutions providing health and care services in Norway (Norwegian Ministry of Health and Care Services, 2016a) and supervision of providers is increasingly targeted at establishing whether systems of internal control have been implemented and are functional. The Board of Health is responsible for the Reporting System for Serious Adverse Events, which previously applied only to the specialized health services, but since the enactment of the Supervision of Health Services Act in 2019 it also applies to municipal health care services, as well as to dental care and all privately provided health care services.

From 2012 to mid-2019 the Directorate of Health operated the National Reporting and Learning System (NRLS), which collected reports from hospitals and other providers of specialized care (private and public) on serious medical events (e.g. unexpected deaths), as well as events that could have resulted in patient harm (i.e. near misses) caused by the delivery of health care or where injury was inflicted on one patient by another. The NRLS was discontinued in May 2019 (see Section 7.6). Since then, the Norwegian Health Care Investigation Board has been established to investigate adverse events (see Table 2.1).

The Municipal Health and Care Act (2011) gave the Directorate of Health sole responsibility to develop, disseminate and maintain national

clinical guidelines. These guidelines provide normative guidance but are not legally binding. There are currently 400 guidelines for GPs, local health centres, nursing homes, hospitals, etc. (for very specific interventions). These are distributed to health care personnel in print and are also available online via the Electronic Health Library. The RHAs, municipalities and managers of health care institutions are responsible for facilitating the implementation of national guidelines.

QUALITY

In 2017 the Regulation on internal control in health services was replaced with the Regulation on leadership and quality improvement in the health services and obligated the Directorate of Health to “work systematically with quality-improvement and patient- and clients safety in all services”, and to ensure documentation of planning, implementation, evaluation and corrective measures taken to improve quality and patient safety. These changes are also reflected in the new Action Plan for Patient Safety and Quality Improvement 2019–2023 (Norwegian Directorate of Health, 2019a).

■ 2.7.3 *Regulation of services and goods*

BASIC BENEFIT PACKAGE

The scope of the statutory coverage is determined by parliament as part of the public budget approval process (see Section 3.3). Municipal authorities are responsible for providing health care and social care services at the municipal level. They assess needs and determine access to services. All residents are entitled to essential medical and care services. This entitlement is included in the legislation of the Patients’ Rights Act of 1999, the Municipal Health and Care Act of 2011, and the Specialist Care Act of 1999, as well as the National Insurance Act of 1997. There is no positive list of services covered by the statutory system; access is based on need, according to the principles of prioritizing (see Box 2.1). Decisions on public coverage of specialist services are informed by health technology assessment (see below).

TABLE 2.3 Overview of the regulation of providers

LEGISLATION	PLANNING	LICENSING/ ACCREDITATION	PRICING/ TARIFF SETTING	QUALITY ASSURANCE	PURCHASING/ FINANCING
Public health services					
Supervision of Health Services Act, 2019 Public Health Act, 2012 Health Personnel Act, 1999	MOHCS, municipalities	Directorate of Health	NIS (by Helfo)	Municipalities, counties, Board of Health	Helfo
Ambulatory care (primary and secondary care)					
Municipal Health and Care Act, 2011 Health and Social Emergency Preparedness Act, 2000 Health Personnel Act, 1999	MOHCS, municipalities	Directorate of Health	NIS (by Helfo)	Municipalities, counties Board of Health	Patients, Helfo
Inpatient care					
Health Authorities and Health Trusts Act, 2001 Health Personnel Act, 1999	MOHCS, RHAs	Directorate of Health	Helfo Procurement Services HT	RHAs, Board of Health	Helfo
Dental care					
Dental Health Care Act, 1984 (gradually replaced by the Patients' Rights Act, 1999, and its later amendments)	MOHCS, municipalities	Directorate of Health	NIS (by Helfo)	Municipalities, counties	Patients (the state for children under 18)
Pharmaceuticals (ambulatory)					
Medicinal Products Act, 1992	NoMA, Directorate of Health	Directorate of Health	NoMA	NoMA	RHAs, Helfo
Long-term care					
Municipal Health and Care Act, 2011 Health Personnel Act, 1999	MOHCS, municipalities	Directorate of Health	State, NIS (by Helfo), municipalities	Municipalities, counties Board of Health	Municipalities, patients
University education of personnel					
Universities and University Colleges Act, 2005	Ministry of Education and Research	Norwegian Agency for Quality Assurance in Education		Norwegian Agency for Quality Assurance in Education	Ministry of Education and Research

Source: Authors

HEALTH TECHNOLOGY ASSESSMENT

A system for health technology assessment (HTA) was originally established in 1998 and NIPH has been responsible for it since 2016. Initially, the goal of HTA was to assess the clinical effectiveness of new medical technologies for clinicians. With rising health expenditure, the importance of cost-effectiveness analysis increased and the user base of HTAs has expanded from clinicians to managers. Evidence-based policy-making has also been embraced at national level and in 2013 the National System for the Managed Introduction of New Health Technologies, the so-called 'New Methods' system*, was established within the specialist health service. It is based on a broad cooperation between multiple agencies: the four RHAs, the Procurement Services for the RHAs, the Directorate of Health, NIPH, NoMA and the Norwegian Radiation and Nuclear Safety Authority. A broader stakeholder group was established to support further development of the system. The secretariat was initially based at the Directorate of Health to coordinate the cooperation internally and externally, to build a website with information on all commissions and deliveries from the system, to monitor the introduction of new technologies and to promote the development and consolidation of the system. In 2018 the ownership of the system was transferred from the MOHCS to the RHAs.

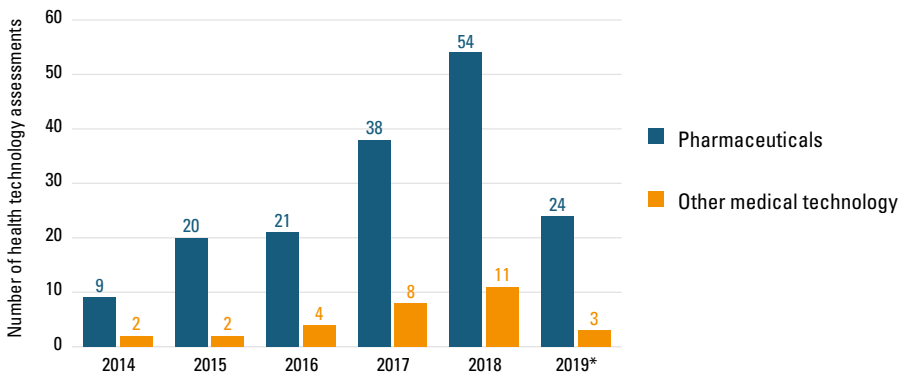
The 'New Methods' system has two levels: a national level where decisions are made jointly by the RHAs based on single or full HTAs prepared by the NoMA and the NIPH, and a local (i.e. hospital) level, where decisions are made based on rapid/mini HTAs performed in a single hospital. The level of assessment depends on the type of technology and its intended authorized area of use. For example, certain technologies, such as medicines, are always assessed at the national level. Single HTAs focus on one health technology whereas full HTAs may be used to compare various technologies that have been used in clinical practice for some time. The aim of rapid/mini HTA reports is to ensure that patients have fast access to new and effective hospital treatments and that treatments that are ineffective or dangerous can be quickly discontinued. Since late 2015, in order to optimize the introduction of new technologies, single HTAs have been conducted for all new drugs and indications and HTA reports are thus available soon after a marketing authorization has been granted.

* Information on the 'New methods' is based on <https://nyemetoder.no/english>.

Proposals for assessments can be submitted by specialist health care providers, patients and patient organizations, industry, authorities and the general public. In addition, horizon scanning reports can identify new technologies for assessment. Submitted national-level HTA proposals are discussed and prioritised by a Commissioning Forum (*Bestillerforum*) consisting of the four medical directors (one from each RHA) and two delegates from the Directorate of Health, based on submitted proposals and horizon scanning reports. Further, each hospital has procedures for selecting technologies for rapid/mini HTAs; the HTA results are public and the RHAs jointly decide which technologies to introduce. After a single HTA has been completed, the Procurement Services health trust (Sykehusinnkjøp HF) conducts negotiations. Subsequently, a Decision Forum comprised of the four CEOs (one from each RHA) makes decisions in consensus whether to introduce the technology or not. If the technology is of relevance for the national clinical guidelines developed by the Directorate of Health, the guidelines will have to be updated.

From the system’s introduction in 2014 to May 2019, 166 decisions on pharmaceutical and 30 decisions on other medical technologies have been made (Fig. 2.2). Even though there is no formal cost/effectiveness threshold, there is a de facto upper limit* of cost/quality assessment that is used.

FIG. 2.2 Number of health technology assessments, including rapid/mini HTAs, 2014–2019



Note: *From January until May 2019.

Source: Personal communication with the secretariat for the National System for the Managed Introduction of New Health Technologies

* A review of decisions estimated a limit of Nkr6–700 000 Nkr (€60–70 000) per year of good health (Meld. St. 34 (2015–2016) ([https://tidsskriftet.no/2017/10/aktuelt-i-foreningen/onsker-
apenhet-om-helsekostnader](https://tidsskriftet.no/2017/10/aktuelt-i-foreningen/onsker-apenhet-om-helsekostnader)). An overview of all methods and status for decision is available at <https://nyemetoder.no/metoder>.

■ 2.7.4 *Regulation and governance of pharmaceuticals*

REGULATION OF PHARMACEUTICALS

The MOHCS is responsible for the management and supervision of the production, import and distribution of medicines, with a particular emphasis on legislative and financial measures, including the reimbursement scheme for patients with medical expenses above a certain limit (see Section 3.4).

NoMA is in charge of marketing authorization, classification, pharmacovigilance, pricing, reimbursement and providing information on medicines to prescribers and the public (see Section 5.6). Since Norway is a member of the EEA, the regulation of pharmaceuticals is harmonized with the relevant EU regulations.

Pharmaceutical companies must apply for a marketing authorization in order to sell their products on the Norwegian market, and the system is aligned with the European Medicines Agency's process. There are four procedures that may be used when applying for a marketing authorization: the national procedure; mutual recognition procedure; decentralized procedure; or centralized procedure. Within the national procedure, the application is filed with the NoMA and must contain information on the quality, safety and (medical) efficacy of the product. A marketing authorization will not be issued if the potential risks associated with using a product outweigh its potential benefits. Since 2012 the total time schedule for the national procedure has been harmonized with the decentralized procedure and is set at 210 calendar days (excluding 'clock stops'). Authorization is valid for five years.

After market access has been granted within the national procedure, the applicant may apply, through the mutual recognition procedure, for the national authorization to be recognized in other EEA member states. The applicant may choose to seek authorization separately from all member states (decentralized procedure) or apply directly to the European Medicines Agency (centralized procedure).

The NoMA is responsible for the monitoring of adverse reactions of all medicinal products used in Norway. It also contributes to the European Medicines Agency's Pharmacovigilance Risk Assessment Committee (PRAC). A pharmaceutical company that markets medicines in Norway (i.e. the marketing authorization holder, MAH) has the primary responsibility

over the efficacy and safety of their medicinal products, and must ensure that it has an appropriate system of pharmacovigilance and risk management in place for those products. In order to fulfil these requirements, the MAH must ensure that all information relevant to assessing the potential risks and benefits of their products is periodically reported to the authorities through periodic safety update reports (PSURs) and continuously through expedited reporting of individual case safety reports (ICSRs). According to the 1992 Medicinal Products Act, physicians and dentists must also report adverse drug reactions to the NoMA. In 2017 the NoMA established a new national pharmacovigilance database, VigiNor. This database is compatible with the EudraVigilance system of the European Medicines Agency.

Norway is a signatory of the 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which regulates pharmaceutical patent protection between signatory countries. Patent protection is normally granted for 20 years in Norway, which is the same as in the EU. Patents can cover: the active substance; how the active substance is produced; medical preparation (when the active substance is not new but the application is); and new medical uses (i.e. new indications) for existing drugs and formulations (e.g. tablets). A generic product cannot be put on the market if the patent has not expired (even if the market authorization period has expired).

The advertising of pharmaceuticals is regulated by the Medicinal Products Act (1992) and is monitored by the NoMA. Direct advertising to patients, including advertising on the Internet, is only allowed for over-the-counter (OTC) pharmaceuticals. Promotion of OTC drugs within and outside pharmacies is restricted and staff handling these medicines are prohibited from marketing the products and giving any recommendations (except for generic substitutes). Advertising to health care professionals is allowed, but cannot be combined with handing out objects, gifts, services, awards or other items of economic value. Any supply of free medicine samples to doctors is strictly regulated.

REGULATION OF PHARMACIES AND WHOLESALERS

The activities of pharmacies are regulated by the Pharmacy Act and related regulations. The Act liberalized the pharmaceutical market in 2001 by

removing some of the limitations on the ownership of pharmacies, but the requirement that pharmacies must be run by a pharmacist was retained. Manufacturers of medicinal products and persons with the right to prescribe medicinal products cannot be granted a pharmacy licence. In addition, the limitations on establishing new pharmacies were removed. Since then pharmaceutical wholesalers have taken over the majority of private pharmacies – 84% in 2017 (Norwegian Pharmacy Association, 2018). Pharmacy chains are allowed.

Each pharmacy must have two separate licences: one licence to own the pharmacy (the proprietor's licence) and the other to run the pharmacy (the operating licence). Only pharmacies or medicinal outlets (controlled by pharmacies) may carry out the retail sale of pharmaceutical products requiring prescription. The first online pharmacies selling prescription drugs were established in 2016, after a change in regulation, and the NoMA publishes a list of approved online pharmacies on its website. Online pharmacies must offer all medicines approved in Norway, with the exemption of pharmaceutical products with specific requirements for storage and delivery (such as temperature). Online pharmacies must meet the same safety regulations as traditional pharmacies, and must be registered with the NoMA.

Generic substitution has been allowed in Norway since 2001. Pharmacies are not allowed to substitute therapeutically (i.e. to dispense a medicine with equal therapeutic benefits, but with a different active ingredient) nor to substitute biological medicinal products with biosimilar products. The NoMA evaluates new medicines on the Norwegian market in terms of their interchangeability and publishes a 'substitution list', which is updated monthly. In recent years there has been an increase in the use of biosimilar medicinal products in Norway. For example, biosimilars such as Epoetin and Anti-Tumour Necrosis Factor (Anti-TNF) had more than 80% of the market share (in terms of volume) in 2015 (OECD, 2017).

The EU Falsified Pharmaceuticals Directive 2011/62/EU was adopted into Norwegian legislation and became effective in October 2015. While importing pharmaceutical products from the European Union or the EEA for private use was previously permitted, all personal imports of prescription pharmaceuticals are now prohibited, except for special cases where an import permit has been granted (e.g. for people who come to Norway for a temporary stay). The purpose of the strict regulation is to prevent incorrect use and to protect consumers from illegal products. Private import of OTC products

authorized in Norway is still permitted, subject to certain rules (for example, the imported quantity must not exceed three months' personal use). Private import of homoeopathic medicines from the EU is permitted. Counterfeit pharmaceuticals rarely appear on the Norwegian market (Weltzien, Kjendlie & Gaarder-Olsen, 2017).

PRICING OF PRESCRIPTION PHARMACEUTICALS

Manufacturers' prices are not regulated and wholesalers are free to negotiate mark-ups with the manufacturers. The NoMA is responsible for setting maximum pharmacy purchase prices. Suppliers of prescription medicines must apply for a maximum retail price, whether or not they are seeking reimbursement for the product. Medicines can only be sold at or below the maximum retail price level. An international price referencing system has been used since July 2002 to set maximum prices for both new and existing medicines. Prices are based on the average of the three lowest pharmacy purchase prices in Austria, Belgium, Denmark, Finland, Germany, Ireland, the Netherlands, Sweden and the UK. If a medicine is marketed in fewer than three of the reference countries, the mean price is taken of the countries where a market price exists.

Pharmacy mark-ups for prescription products (both reimbursed and non-reimbursed) are fixed at 2.0% for all medicines. There is also a flat rate add-on of Nkr29 (€3) per pack, plus value added tax (VAT) of 25%. An additional add-on of 0.5% is applied to products which require refrigeration.

Generic prices cannot exceed the maximum market price of the original branded product. In 2005 a stepped price model was implemented in order to reduce public expenditure on generic drugs covered by Helfo. Under this scheme, a maximum reimbursement price is set for both branded and generic pharmaceuticals included in the scheme. The maximum reimbursement price level is automatically reduced (in steps) following patent expiry. The size of these reductions depends on annual sales prior to the establishment of generic competition and time since competition was established. There is no regulation of pharmacy mark-ups within this step-wise price system. Pharmacies therefore have a financial incentive to carry out generic substitution and to dispense the cheaper product. Since 1995 prices of over-the-counter (OTC) medicines have not been regulated.

PUBLIC REIMBURSEMENT OF PHARMACEUTICALS

Reimbursement decisions for medicines used outside hospitals are made by the NoMA. When applying for reimbursement, pharmaceutical companies need to follow the guidelines for the submission of documentation for single technology assessment of pharmaceuticals. Cost-effectiveness analysis is well established in Norway and the use of quality-adjusted life years (QALYs) as a parameter has been increasing. No maximum payment threshold per QALY has been defined. For products associated with a substantial cost to the public budget, decisions on reimbursement are taken by the MOHCS. Helfo decides on reimbursement for individual patients for pharmaceuticals without general reimbursement or indications not covered by general reimbursement (Schedule 3 in Table 2.4).

There are three reimbursement categories for pharmaceuticals (see Table 2.4). Schedule 2 (the so-called “blue list”) is de facto a “positive list” which lists medicines that may be publicly reimbursed for specified diagnoses (see also Section 3.3.1).

TABLE 2.4 Reimbursement categories for pharmaceuticals

CATEGORY	REIMBURSEMENT RATE (%)	DESCRIPTION
Schedule 2	61	For medicines on the reimbursement list, which are reimbursed in case of specified diagnoses in the list and only for long-term (>3 months) treatment.
Schedule 3	61	For medicines other than those under Schedules 2 and 4. In this case, reimbursement can be granted upon submission of an individual application and only for long-term (>3 months) treatment.
Schedule 4	100	For medicines used to treat serious contagious diseases such as tuberculosis, meningococcal disease or chlamydia.

Source: PHIS (2018)

In 2006 the H-prescription scheme was established for medicinal products that can be administered by the patients themselves (medicines prescribed in the hospital but for outpatient use), but where the expenses are covered by the RHAs. The scheme builds on a solution involving direct payment between a pharmacy and a health trust (hospital). The patient receives the H-prescription and can pick up the medicinal product from the pharmacy of his/her choice. From 2014 cancer medicines have been

included in the H-prescription scheme. Effective from 2018, medicines for treatment of HIV and Hepatitis B and C have also been transferred from the blue list to the H-prescription scheme. In 2019 a number of orphan drugs were included.

■ 2.7.5 Regulation of medical devices and aids

Between 2003 and 2016 the Health Agency Procurement Service (*Helseforetakenes Innkjøpsservice*, HINAS) established by the RHAs coordinated procurement of medical equipment among public hospital trusts. In 2016 HINAS became part of the Agency for Hospital Procurement Services, which took over this coordinating function. The rationale behind having a single agency in charge of all procurement agreements was that, through concentrated purchasing power, it would be able to achieve savings through better contractual terms. The common procurement policy is not applied to all purchases, but only to those that are large enough, in both monetary value and volume, to represent a possible gain if conducted on a national scale. The common procurement policy has since expanded beyond Norway, as part of cooperation with other Nordic countries.

The introduction of new medical technologies, including medical devices and aids, is evidence-based. This is ensured by the ‘New Methods’ system (see Section 2.7.3). Since 2018 the manufacturing and distribution of medical devices and aids has been supervised by NoMA (previously, the Directorate of Health had legislative responsibility in this area).

■ 2.8 Person-centred care

There are a number of patient organizations, ranging in size and set-up. Some are mostly related to particular diseases or disease groups while others have a broader scope, for example, the Norwegian Patient Association, founded in 1983. Patient organizations are often closely linked to user committees, which are a legal entity of all RHAs and local trusts. According to Statistics Norway, almost one in ten adults were members of an organization for patients or patients’ relatives or other health organizations in 2017 (Statistics Norway, 2019a).

■ 2.8.1 Patient information

The availability of patient information in Norway is good and substantial improvements have been made in this area in recent years. HelseNorge (www.helsenorge.no), launched in 2011, is the main entry portal providing patient information, whether it is general advice or individual patient information (Table 2.5). In addition, one of the health trusts in the Western RHA has launched a website* with information about patient pathways for young people, focusing on issues such as eating disorders, anxiety problems, traumatic experiences, autism, etc. There is also free public access to guidelines, systematic reviews, and a wide range of scientific journals, as well as other full-text resources, through the Norwegian Electronic Health Library (www.helsebiblioteket.no). The library also provides health care professionals and students free access to bibliographic databases with over 3000 full text journals.

The HelseNorge portal contains information on statutory benefits and serves as a guide to health care services. Information is currently available in Norwegian and selected information is also available in English. Age-specific information is available for children and young adults. The portal provides users with access to several self-service options, for example, they can access information on their user fees, electronic prescriptions and vaccinations, out-of-hours services and hospitals, including information to assist patients with their choice of hospitals. Over 200 quality indicators to support patients in choosing hospitals are available, covering areas such as cancer treatment, childbirth and psychiatric care. This information can also be obtained via a dedicated telephone helpline (800HELSE). Patients can also access their Summary Care Record (*Kjernejournal*) which contains selected key information about their health that can be accessed by all health care providers (this is in addition to the medical records kept by GPs). It contains information from the national registries, information on serious medical conditions or allergies registered by the physician, and any information entered by the patients themselves and the patients' physicians in consultation with the patients.

According to the Patients' Rights Act (1999), patients are entitled to access their medical records and, upon request, they are also entitled to a

* <https://helse-fonna.no/barn-og-unges-helseteneste>.

free copy of these records plus a brief explanation of the medical terms used. This may be ordered through the HelseNorge portal. The portal has been increasingly used by patients to view their logged hospital appointments and obtain information about their personal point of contact at the hospital. The portal also contains information on prevention, health, wellness, illness, treatment and patients’ rights, with the aims of helping people take better care of their own health and encouraging more active involvement in the health system. According to a survey conducted in 2018, 76% of the respondents were aware of this portal (Norwegian Directorate of eHealth, 2019).

TABLE 2.5 Patient information

TYPE OF INFORMATION	IS IT EASILY AVAILABLE? (Y/N)	COMMENTS
Information about statutory benefits	Y	HelseNorge
Information on hospital clinical outcomes	Y	HelseNorge
Information on hospital waiting times	Y	HelseNorge
Comparative information about the quality of other providers (e.g. GPs)	Y/N	Information only on hospitals
Patient access to own medical record	Y	Summary Care Record (<i>Kjernejournal</i>) available for all (HelseNorge); patient journal (under implementation by HelseNorge); information on own user-fees, electronic prescriptions and vaccinations (HelseNorge)
Interactive web or 24/7 telephone information	Y	Dedicated telephone lines providing out-of-hours medical advice; mental health helplines, including helplines for children and youths living in families with mental health problems or with substance abuse. In addition, there is a public portal with chat-line for young people (www.ung.no) providing information about prevention, lifestyle, etc.*
Information on patient satisfaction collected (systematically or occasionally)	Y	Annual survey by the NIPH
Information on medical errors	Y	Annual report to the parliament (with indicators) by the Directorate of Health

Notes: * This portal also covers topics other than health.
Source: Authors

■ 2.8.2 Patient choice

Statutory coverage in Norway is obligatory and opting out is not permitted. There is no choice of the statutory benefits package. Patients can choose their provider (GP, specialist and hospital for elective care) and participate in treatment decisions (see Table 2.6).

TABLE 2.6 Patient choice

TYPE OF CHOICE	IS IT AVAILABLE? (Y/N)	COMMENTS
Choices around coverage		
Choice of being covered or not	N	
Choice of public or private coverage	N	
Choice of purchasing organization	N	
Choice of care provider		
Choice of primary care practitioner	Y	Higher fees apply when patients choose to see a GP other than the one they are registered with
Direct access to specialists	N	
Choice of hospital	Y	Country-wide choice and includes private hospitals that entered into agreements with the RHAs (choice applies to somatic and psychiatric services, and treatment for alcohol and substance abuse); level of hospital treatment (secondary or tertiary) cannot be chosen
Choice to have treatment abroad	Y	Choice of treatment in any EU/EEA country since 2015
Choice of treatment		
Participation in treatment decisions	Y	
Right to informed consent	Y	
Right to request a second opinion	Y	
Right to information about alternative treatment options	Y	

Source: Authors

CHOICE OF PROVIDER

Patients are in general free to choose their GP. All citizens who are registered in the National Population Register are entitled to a regular GP. Switching a regular GP is possible up to twice a year, provided that the new GP has space on his or her list. Patients may choose to stay on a waiting list if no space is available. Although registration with a GP is voluntary, it covers virtually the entire population and it is strongly encouraged – patients who do not have a regular GP will be responsible for finding a GP who can give them an appointment and will also have to pay a higher fee for the service.

In order to access specialist care (i.e. privately practising specialists or hospitals), patients need a referral from their GP or from another specialist. According to the Patients' Rights Act (1999), patients have the right to choose any hospital. Patients cannot choose the level of hospital treatment (secondary or tertiary). In November 2015 amendments to the Patients' Rights Act came into force, changing access to elective specialist care. According to these changes, all patients in need of specialist care, regardless of the degree of need, have the right to receive such care. Access to treatment is determined according to two criteria: (1) clinical effectiveness of treatment; and (2) cost-effectiveness of treatment. The severity of the condition is only used to determine the maximum waiting time. The new legislation also required a revision of 33 discipline-specific clinical priority guidelines, which set condition-specific thresholds for obtaining access to specialist care.

USER INVOLVEMENT IN TREATMENT DECISIONS

According to the Patients' Rights Act (1999), patients are entitled to participate in the decisions around their health care. This includes the right to participate in choosing between available and medically sound methods of examination and treatment. The form of participation needs to be adapted to the individual patient's ability to give and receive information. If a patient is not competent to give consent, their next of kin is entitled to participate in decisions, together with the patient. Patients are entitled to information that is necessary to obtain an insight into their

condition and treatment options, and have to be informed of possible risks and side-effects.

In 2014 important amendments to the Public Administration Act and the Electronic Public Administration Regulations were made in order to implement ICT solutions. The requirement to obtain consent from recipients before corresponding online with individuals, enterprises and others was abolished. For individuals, the requirement for consent was replaced by an option to opt out from receiving correspondence from public administration digitally.

In addition to receiving information, there is an increased focus on shared decision-making. It was included as a specific measure in the annual letter of instruction from the government to the RHAs in 2015/16. In 2017/18 the government requested that access to high quality decision-making aids (such as leaflets) should be made available on the HelseNorge portal (Kasper et al., 2017).

■ 2.8.3 *Patients' rights*

The key legal act governing patients' rights in Norway is the Patients' Rights Act (1999). The Act has been amended several times, further strengthening patients' rights (Winblad & Ringard, 2009). Patients' rights guaranteed in the Act can be divided into three main groups: rights to become a patient, rights as a patient, and procedural rights such as the right to have decisions reviewed and reversed (Table 2.7).

In June 2017 the parliament sanctioned amendments to the Patients' Rights Act, the Health Personnel Act and the Personal Health Data Filing System Act in order to strengthen the rights of children and adolescents as patients. Important changes concern the right to be heard as a patient, as well as the right to confidentiality and shared decision-making. Children from 7 years of age are entitled to have a say in consenting to treatment and to receive information about planned treatment; children and adolescents from 12 years of age have increasing influence on decisions regarding their treatment (Saunes & Lindahl, 2017).

TABLE 2.7 Patients’ rights

	Y/N	COMMENTS
Protection of patients’ rights		
Does a formal definition of patients’ rights exist at national level?	Y	Patients’ Rights Act 1999
Are patients’ rights included in specific legislation or in more than one law?	Y	Patients’ Rights Act 1999 Health Personnel Act 2011
Does the legislation conform with WHO’s patients’ rights framework?	Y	
Patient complaints avenues		
Are hospitals required to have a designated desk responsible for collecting and resolving patient complaints?	N	
Is a health-specific Ombudsman responsible for investigating and resolving patient complaints about health services?	Y	Each county has a patients ombudsman
Other complaint avenues?	Y	Norwegian Board of Health Supervision
Liability/compensation		
Is liability insurance required for physicians and/or other medical professionals?	N/Y	Only mandatory for physicians/medical professionals with no public funding
Can legal redress be sought through the courts in the case of medical error?	Y	Yes, but rarely used
Is there a basis for no-fault compensation?	Y	In exceptional cases; through the Norwegian System of Patient Injury Compensation
If a tort system exists, can patients obtain damage awards for economic and non-economic losses?	Y	
Can class action suits be taken against health care providers, pharmaceutical companies, etc.?	Y	

Source: Authors

COMPLAINT PROCEDURES (MEDIATION, CLAIMS)

Patients’ rights in Norway are well-defined legal rights and can be actionable against specific parties. There are several mechanisms in place for patient complaints.

According to the Patients’ Rights Act, every county must have a Health and Social Services Ombudsman (POBO), whose purpose is to safeguard

patients' rights, interests and legal rights in relation to primary and specialist health care, and to improve the quality of the health service. The ombudsman can provide information, advice and guidance to anyone who requests it on matters within their remit of work. The ombudsman determines whether the request provides adequate grounds for investigation. If the ombudsman decides not to handle the case, the person who made the request must be notified and be given a brief explanation for this decision.

Patients can make a complaint if they think that they have not received health services to which they are entitled, or if they disagree with the assessment of their treatment needs. Complaints should be addressed to the person or body who took the disputed decision. If the complaint is not upheld, it will be referred to the county office of the Board of Health. Decisions made at county level can be appealed to the central office of the Board at the national level. The Board has the power to issue warnings to health personnel and to revoke licences/authorizations. The assessment by the county office does not give any automatic right to compensation or to a new course of treatment. The vast majority of complaints are brought to the county office of the Board of Health, and only a few cases are brought to the courts (Norwegian Board of Health Supervision, 2017).

The Norwegian Complaint Body for the Health Services was established in 2016. It is an independent agency and secretariat for the Norwegian System for Patient Injury Compensation (NPE) as well as other complaints within the health services. It ensures an independent assessment when patients disagree with the decisions of complaint bodies.

COMPENSATION

The Patient Injury Act (2001) was expanded in 2009 to handle compensation claims free of charge for patients who have sustained an injury while accessing statutory health services. Since then it has also encompassed harm caused by private for-profit providers (e.g. dental care services for adults). In order to be eligible for compensation, four conditions must be fulfilled: the injury must have been caused by the treatment and, specifically, by failings in the treatment provided; it must have caused financial loss; and it must have occurred no more than three years before the claim is made. The NPE plays an active part in the handling of such cases and in establishing possible

grounds for liability (they do not apportion blame but find out whether or not the patient is entitled to compensation). Decisions made by the NPE are binding for the hospital authorities and municipalities, but can be appealed by a complainant to the Norwegian Complaint Body for the Health Services or before the civil courts.

The compensation process, including the assessed compensations (by the NPE, the Board or court), is financed by contributions from both hospital owners and municipal authorities.

■ 2.8.4 *Patients and cross-border health care*

Cross-border health care has not been an important issue on the policy agenda in Norway (Ringard et al., 2013). The number of hospital contacts made by foreigners is reported on an annual basis by the Norwegian Patient Register and it is very small compared to the total number of patients treated within the system (NOMESKO, 2017). Foreign patients seeking medical care in Norway must cover all treatment costs, except citizens from Nordic countries and European Health Insurance Card holders.

Since March 2015 Norwegian patients referred for specialist treatment can choose to receive it in any EU/EEA country. Treatment expenses are covered up to the cost of the equivalent treatment in Norway, while any additional treatment and travel expenses are usually not covered. The Helfo decides on the reimbursement on a case-by-case basis. Only treatments equivalent to those that the patients are entitled to at home may be covered. Patients who have had their waiting-time guarantee breached have the right to receive assistance in selecting a foreign provider and to extended cost coverage.

Norwegian citizens who are in another EU/EEA country when the need for health care arises must obtain a referral from a health care professional who is authorised to make referrals in the country of treatment. In the case of emergency care, no referral is required.

Members of the NIS are entitled to travel to a country outside the EU/EEA to give birth, but only the costs of the actual childbirth will be covered. Neither mother nor child will be entitled to coverage of further expenses outside the EU/EEA.

Members of the NIS with the right to extended subsidization (i.e. students and persons stationed abroad by their Norwegian employer) are

eligible for reimbursement of a percentage of the expenses during their stay abroad. Only health care services covered by the NIS are subsidized. As a consequence, no subsidization is granted for vaccination, ordinary dentistry for children, home help service, nursing home residence, rehabilitation services, health checks and other services under the Norwegian Health and Care Services Act, Dental Health Services Act and Specialist Health Services Act.

In 2017 reimbursement for health services in another EEA country totalled NKR63 million (€6 million). The main types of care that were reimbursed were physiotherapy and dental care and most treatments took place in Spain (Norwegian Ministry of Finance, 2018). There are no official figures on the number of Norwegians travelling abroad to receive treatment and care at their own expense.

3

Financing

■ Chapter summary

- Health care expenditure accounted for 10.4% of Norway's GDP in 2017, ranking fifth in the WHO European Region in terms of the share of GDP spent on health. With Norway's per capita GDP being one of the highest in the world, the country's per capita health expenditure is also much higher than in most countries.
- Public sources account for over 85% of current health expenditure, which is the highest share in Europe, and comprise financing from central and local governments and the National Insurance Scheme.
- Private health financing comes from households' out-of-pocket payments, of which most is spent on pharmaceuticals, dental care and long-term care. The number of Norwegians holding private health insurance policies has increased over the past decade, but the role of such insurance in health financing remains negligible.
- Hospital care, as well as outpatient psychiatry and outpatient treatment of drug and alcohol abuse, is financed through block grants and DRG-based case payments from the central government to the Regional Health Authorities. Other types of specialist care are mainly financed through global budgets, with elements of case payments. Quality-based funding is being piloted at the national level.
- Primary care is financed from municipal taxes, block grants from the central government and earmarked grants for specific purposes;

other major sources of financing of primary care are the National Insurance Scheme and user fees. The financing structure is aimed at both containing costs and giving providers sufficient flexibility to ensure the best mix of services for patients.

■ 3.1 Health expenditure

In 2017 Norway was ranked fifth in the WHO European Region in terms of the share of GDP spent on health (Fig. 3.1). The share of GDP spent on health increased over the years, from 8.3% in 2005 to 10.4% in 2017 (Table 3.1). However, part of this increase may be explained by a decrease in GDP due to a reduction in oil prices affecting the budget from 2013, while health spending continued to grow. In purchasing power parity (PPP) per capita terms health spending increased by 60% between 2005 and 2017, albeit at slower pace from 2013 onwards. Compared to Sweden, Germany and France, Norway spends on average a smaller share of its GDP on health (Fig. 3.2). Given Norway's high GDP, total per capita spending on health in Norway continues to be amongst the highest in the WHO European Region – ranking second after Switzerland (Fig. 3.3).

In 2017 Norway had the highest share of public spending on health in the WHO European Region, with compulsory financing arrangements accounting for over 85% of the current health expenditure (Fig. 3.4). This share has increased slightly over the years (it was 82% in 2000). The share of total general government expenditure spent on health has also been increasing and was 17.9% in 2017, which was the fifth highest in the WHO European Region (Fig. 3.5).

The share of private spending in current health spending has decreased since 2000 in line with growth in public spending, but remained at around 15% in more recent years (Table 3.1). Private spending almost entirely consists of out-of-pocket (OOP) payments, which reduced from 17.9% to 14.2% of current expenditure on health between 2000 and 2017. Private health insurance plays a negligible role, accounting for less than 1% of current health expenditure (Tynkkynen et al., 2018).

Table 3.2 presents national data on health expenditure according to function and financing scheme. Norway has traditionally spent more on

TABLE 3.1 Trends in health expenditure in Norway, 2000–2017 (selected years)

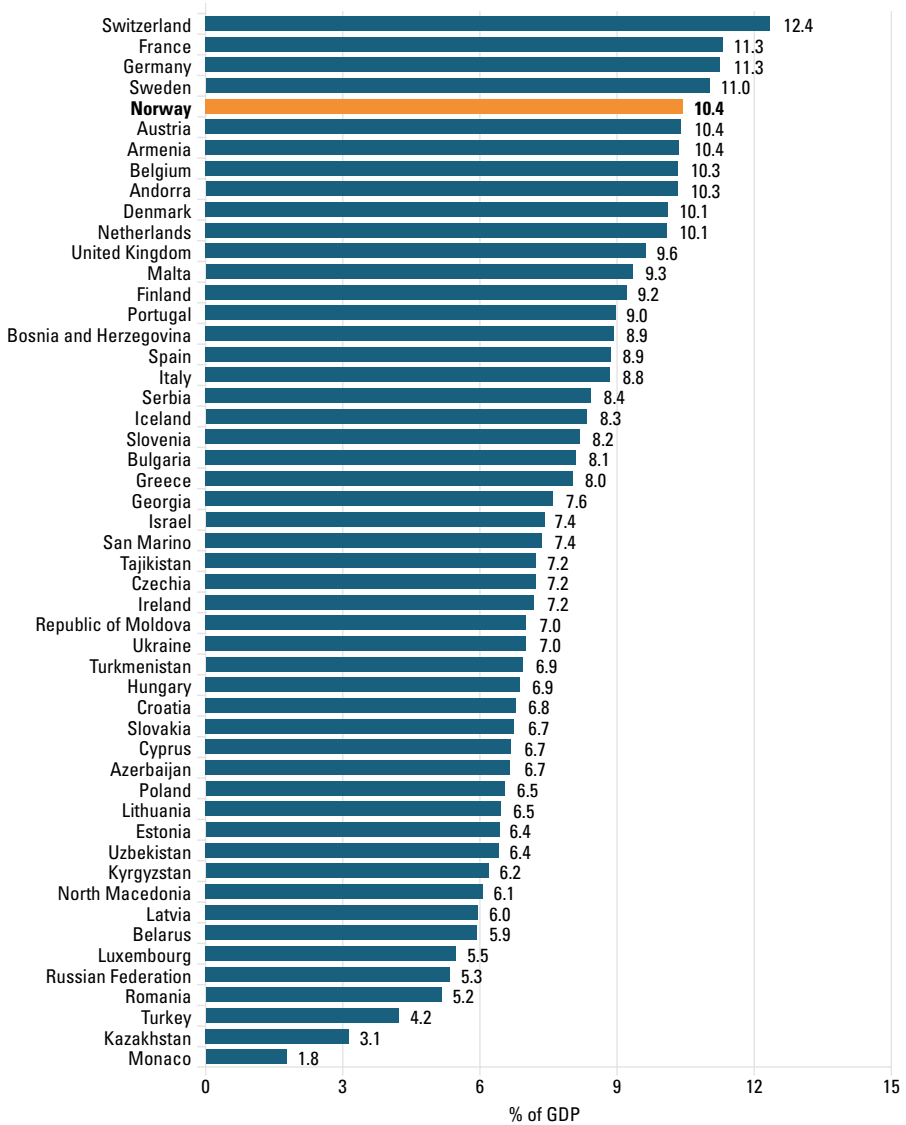
	2000	2005	2010	2015	2016	2017
Current Health Expenditure (CHE) per capita in PPP	2 856	3 995	5 190	6 144	6 143	6 518
Current Health Expenditure (CHE) as % of GDP	7.7	8.3	8.9	10.1	10.5	10.4
Public expenditure on health as % of CHE	81.7	83.1	84.7	85.5	85.4	85.5
Private expenditure on health as % of CHE	18.3	16.9	15.3	14.5	14.6	14.5
General government expenditure on health as % of general government expenditure	15.0	16.5	16.8	17.7	17.7	17.9
Public expenditure on health as % of GDP	6.3	6.9	7.5	8.6	9	8.9
Out-of-pocket payments as % of CHE	17.9	16.7	15.0	14.1	14.3	14.2
Out-of-pocket payments as % of private expenditure on health	97.9	98.6	98.5	97.6	97.6	97.6
Private insurance as % of private expenditure on health	2.1	1.4	1.5	2.4	2.4	2.4

Source: WHO (2019)

long-term care as a share of current spending on health compared to other European countries. In 2017 this share reached 28.2%, with Sweden and the Netherlands (26%) and Denmark (25%) following closely behind (OECD, 2018a). All these countries tend to have well-established formal arrangements in place for their older and disabled populations (see Section 5.8). The share of inpatient care also amounted to over 28% of current spending on health (2017) and is almost entirely financed from public sources. Budget proposals for 2019 foresee a small (2%) increase in hospital financing and similar increases have been implemented in previous years. This is linked to the expected increase in demand due to population ageing, as well as to shifting the costs of pharmaceuticals to hospitals (H-prescription; see Section 2.7.4) and investments in infrastructure (Ministry of Finance, 2018).

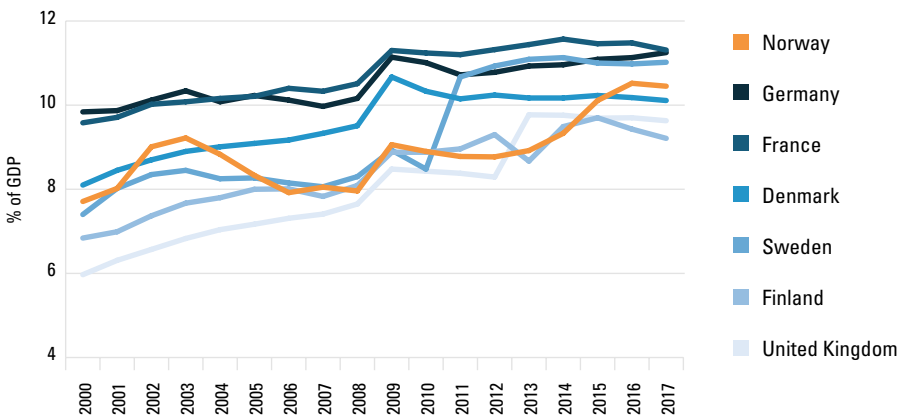
Private expenditure plays a larger role in financing outpatient care as nearly 30% of expenditure on outpatient care is paid by patients out of their pocket. However, the share of private financing is the highest for pharmaceuticals and medical goods, where it amounts to almost half of current spending.

FIG. 3.1 Current health expenditure as a share (%) of GDP in the WHO European Region, 2017



Source: WHO (2019)

FIG. 3.2 Trends in current health expenditure as a share (%) of GDP in Norway and selected countries, 2000–2017



Source: WHO (2019)

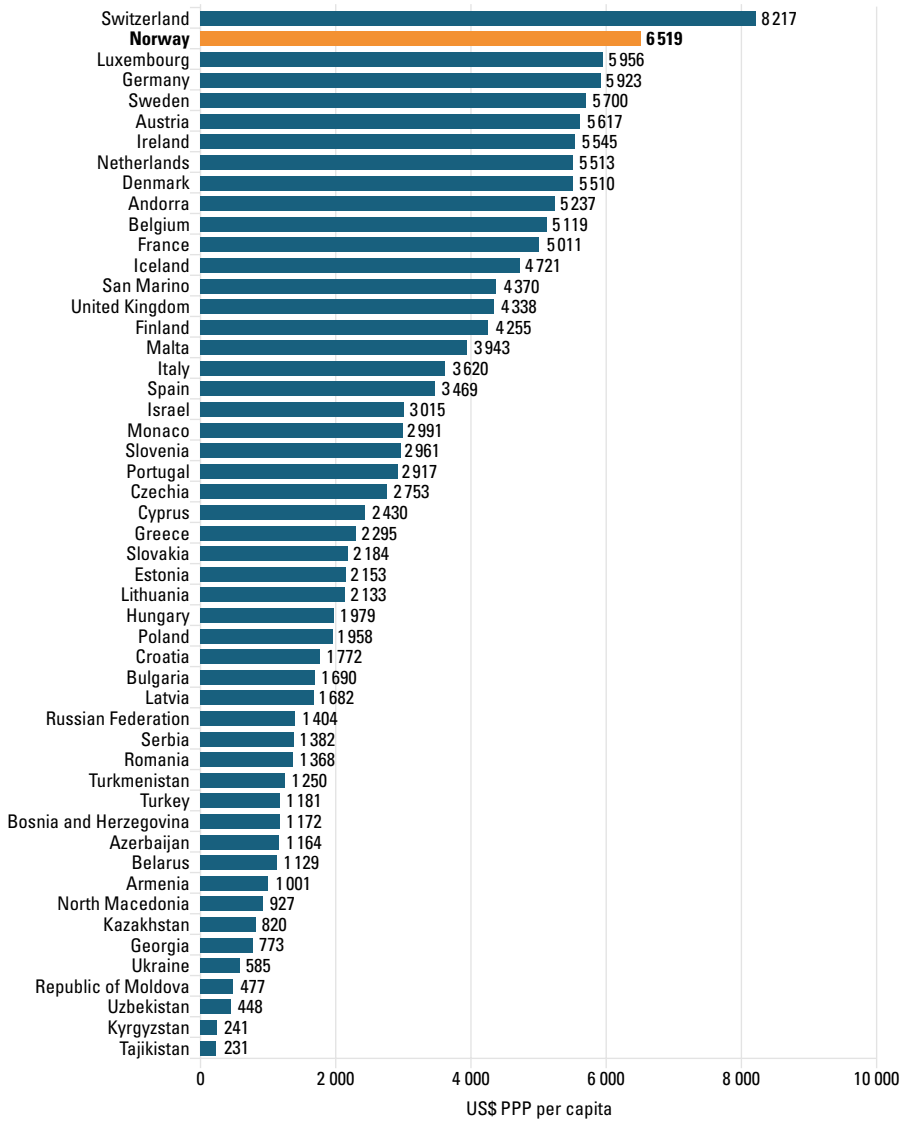
TABLE 3.2 Expenditure on health in Norway according to function and type of financing as a share of current spending on health, 2017

	Inpatient care (incl. day care)	Outpatient care	Long-term care	Pharmaceuticals and medical goods	Preventive care	Health system admin ^a	Other services	Current health care expenditure (CHE)
Public expenditure (including NIS)	28.3	15.3	25.9	5.6	2.5	0.7	7.2	85.5
Private expenditure	0.3	5.9	2.3	5.2	0.4	-	0.4	14.5
Private out-of-pocket	0.3	5.9	2.3	5.2	-	-	0.5	14.2
Private insurance	-	-	-	-	0.4	-	-	0.4
All financing schemes	28.6	21.2	28.2	10.8	2.9	0.7	7.6	100.0

Notes: ^a Excluding administrative cost at the municipal level. Public dental care is included in preventive care and private dental care is included in outpatient care. National health accounts data do not distinguish NIS as a separate financing scheme.

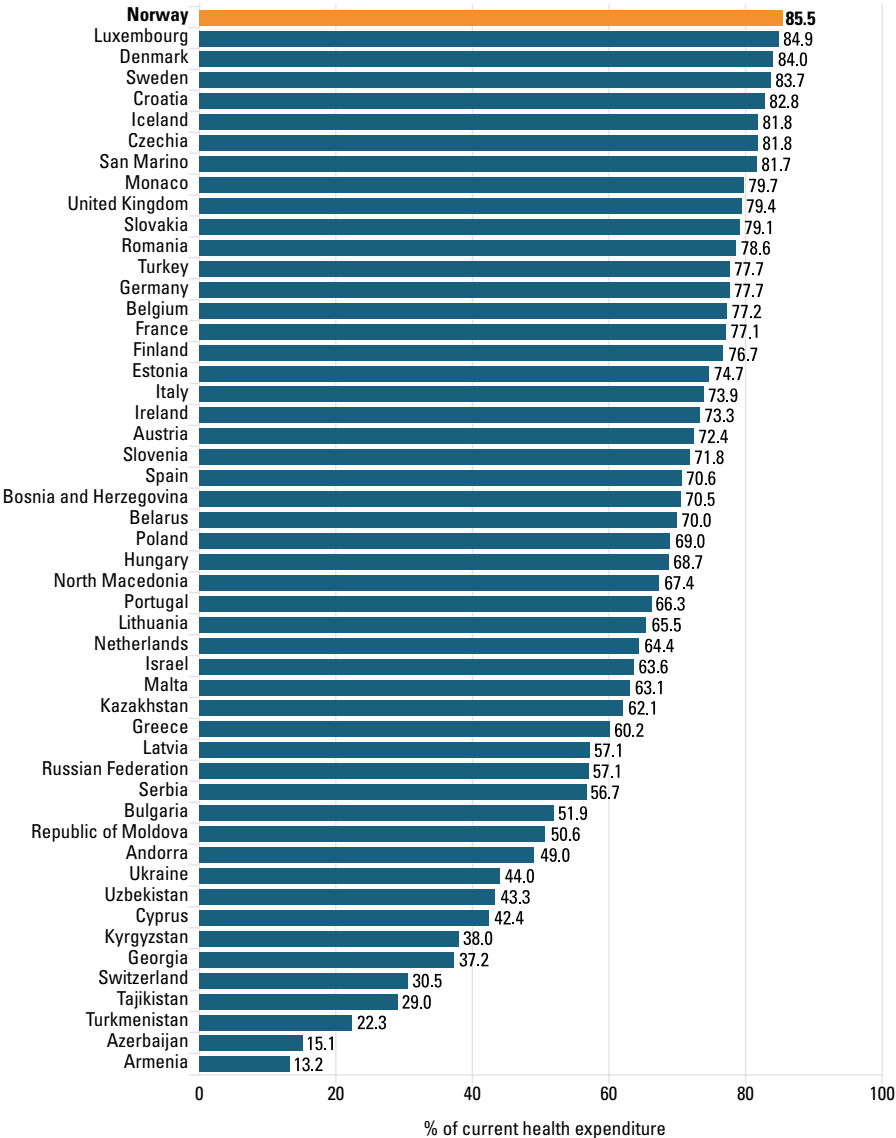
Source: OECD (2019)

FIG. 3.3 Current health expenditure in US\$PPP per capita in the WHO European Region, 2017



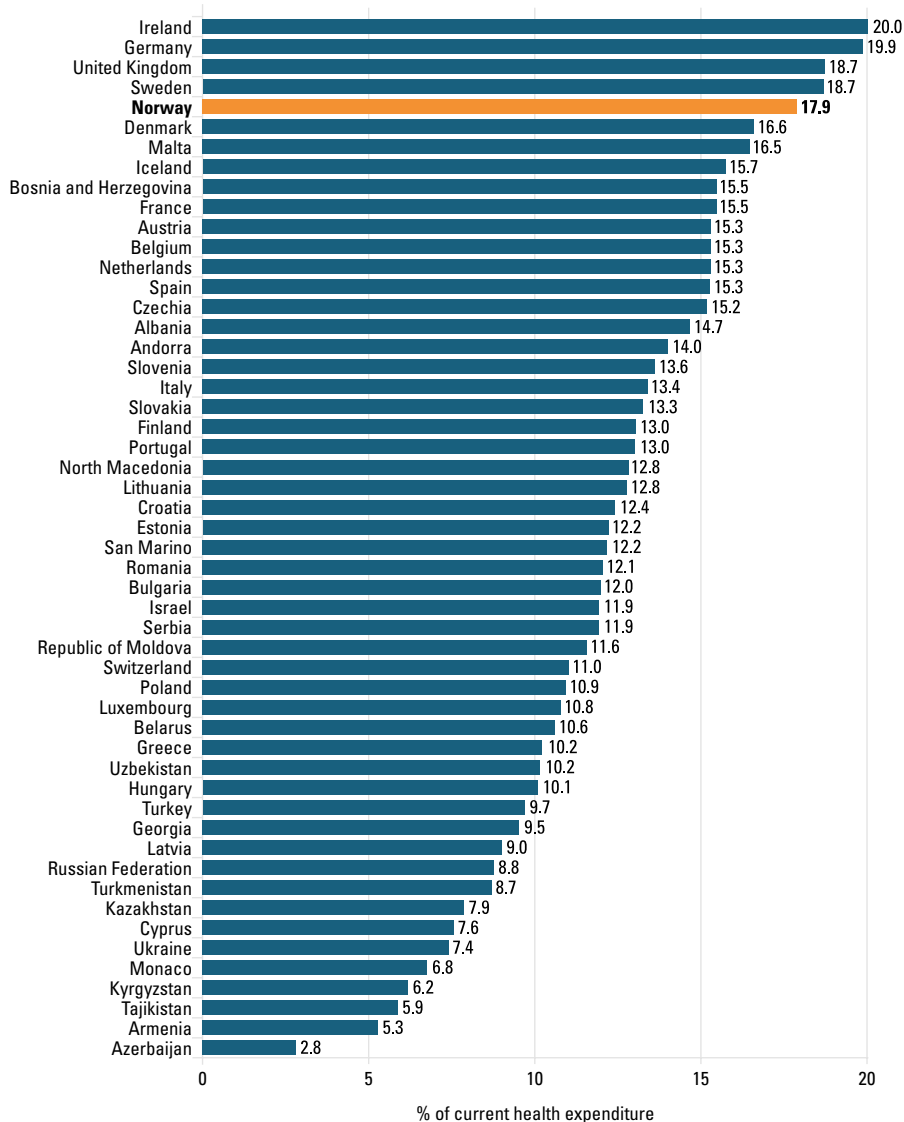
Source: WHO (2019)

FIG. 3.4 Public sector health expenditure as a share (%) of current health expenditure in the WHO European Region, 2017



Source: WHO (2019)

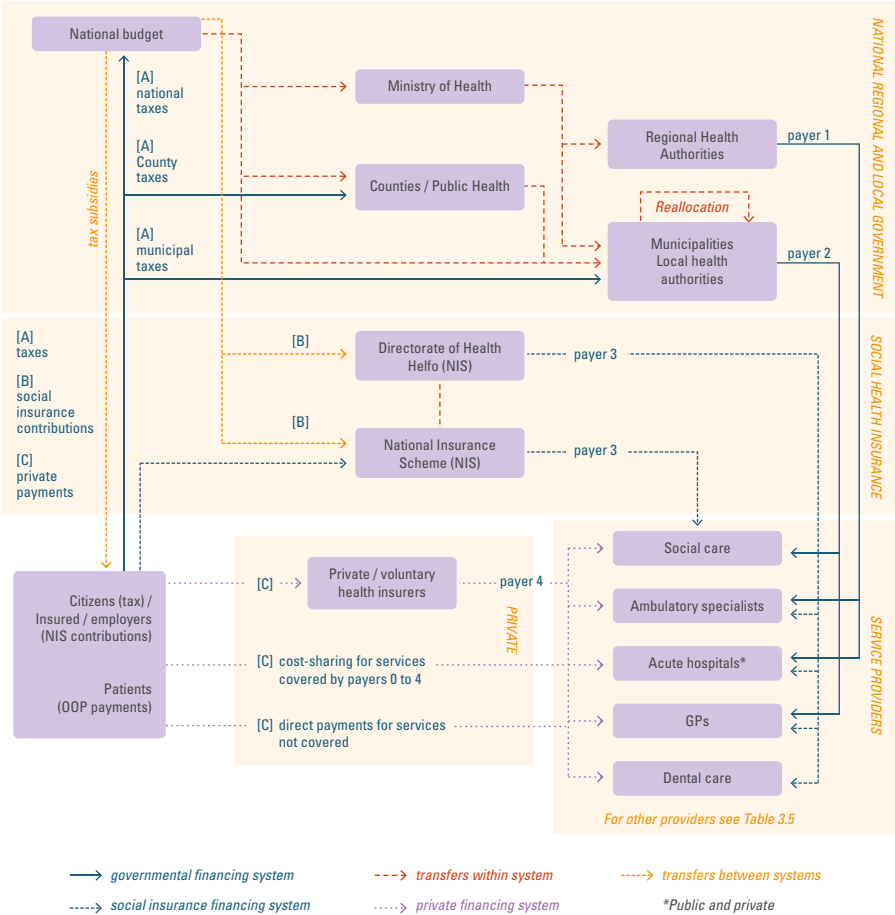
FIG. 3.5 General government health expenditure as a share (%) of general government expenditure in the WHO European Region, 2017



Source: WHO (2019)

■ 3.2 Sources of revenue and financial flows

FIG. 3.6 Financial flows



Source: Authors

General taxation is the main source of revenue for the Norwegian health care system, but some public funds also come from the National Insurance Scheme (NIS) managed by Helfo (see Section 2.7.1). Furthermore, OOP payments play a substantial role in financing some of the services (Table 3.2). The split between public and private sources of health revenues has been relatively stable since 2000. Public sources account for the vast majority of health expenditure, approximately 85%, and consist of transfers from the general government (national, county and municipal tax revenues) (74%)

and from the NIS (11%). National taxes are used to finance provision of secondary care and partly provision of primary care, while municipal taxes are the main source of funding for primary care. The national tax administration (*Skatteetaten*) ensures that taxes and other claims are correctly assessed, paid and redistributed. Revenues from the state are distributed among the RHAs, local authorities and Helfo (which is financed through the NIS; see Section 2.7). The NIS is financed from insurance contributions by its members (32%), payroll (40%) and national (28%) taxes. Patients pay out-of-pocket for most types of care (see Section 3.4). The financial flows are shown in Fig. 3.6.

■ 3.3 Overview of the statutory financing system

The scope of the statutory coverage, as well as the criteria for co-payments and the safety net, are determined by the parliament as part of the public budget approval process. After deliberations between the ministries and the government have been concluded, the Ministry of Finance sets up a complete fiscal budget proposal, which includes the NIS. The budget receives the official approval of the King in Council, whereupon it is submitted to the parliament for the final approval. Changes to the budget proposal are in general minor, amounting to less than 1% of the budget annually.

■ 3.3.1 Coverage

BREADTH: WHO IS COVERED?

All residents of Norway are entitled to essential medical and care services. This entitlement, as well as the scope of coverage, is included in legislation (the Municipal Health and Care Act of 2011, the Specialist Care Act of 1999 and the National Insurance Act of 1997). As a general rule, all residents in Norway are members of the NIS.

Everybody, regardless of citizenship or residency status, has access to acute emergency care. All pregnant women and children have access to

primary health care (including vaccination) regardless of citizenship or residency status. Residents from the EEA and EU have in principle the same entitlement to health services as Norwegians and are reimbursed according to EEA regulations and bilateral agreements. Foreigners from outside the EEA normally have to pay the full cost for services received (if there is no bilateral agreement) (see also Section 2.8.4). Undocumented migrants are expected to cover health care expenses, beyond their limited entitlement, out of pocket.

SCOPE: WHAT IS COVERED?

There is no positive list of services covered by the statutory system, but in practice public coverage includes:

- approved prescription drugs, i.e. drugs included on the ‘blue list’ approved by the NoMA (see Section 2.7.4);
- preventive services including check-ups, screening and the immunization of infants and school children; preventive mental health services (mostly for children and adolescents); public health initiatives or campaigns to promote a healthy lifestyle and reduce social health disparities (depending on the municipality);
- primary care, including services provided by GPs, physiotherapists and chiropractors;
- most specialist ambulatory and hospital care; however, certain treatments, such as plastic surgery, must be considered medically essential for the patient to qualify for public coverage;
- emergency care, including emergency after-hours specialist care;
- nursing care;
- dental care for children and a few selected groups;
- medical eye care (glasses are usually excluded).

Non-medical eye care, most adult dental care and complementary medicine are not covered from public sources.

In addition, the NIS covers many risks related to the loss of income through income benefits. Persons insured under the NIS are entitled to retirement, survivor and disability pensions, basic benefits and attendance

benefit in case of disability, rehabilitation or occupational injury. There are also some benefits for single parents, cash benefits in case of sickness, maternity, adoption and unemployment, as well as funeral benefits.

DEPTH: HOW MUCH OF BENEFIT COST IS COVERED?

All inpatient care in public hospitals or private hospitals contracted by the RHAs is free of charge. Certain preventive services, such as child immunizations, are also exempt from cost-sharing. Home-based services, including home nursing, are also mainly free of charge.

Cost-sharing is applied to most other services and outpatient pharmaceuticals (see Table 3.3). However, due to cost-sharing limits, the extent of OOP spending is generally moderate, with the exception of dental care and institutional care (Box 3.1). For certain types of services, such as dental care, the extent of cost-sharing is substantial and is not covered or counted towards the cost-sharing ceiling. Institutional care for older or disabled people also requires a high degree of cost-sharing, with co-payment levels depending on income.

Cost-sharing limits are set by the parliament (for more information see Sections 2.7.3 and 3.4). There are exemptions from cost-sharing provisions for certain diseases and groups of people and other protection mechanisms, including tax deductions (see Section 3.4 for more information). For example, patients who incur health care costs due to long-term illness are entitled to deduct them from their pre-tax incomes.

BOX 3.1 Assessing coverage

Health coverage in Norway is fairly comprehensive and includes a broad range of services for residents. Cost-sharing requirements are moderate on the whole, and the share of OOP spending is among the lowest in the EU/EEA – at 15% in 2017. Cost-sharing ceilings apply to most services and prescribed medications to limit OOP costs and other protection mechanisms are also in place. However, increasing costs of innovative medicines have been raising concerns about equal access to medicines in the context of debates on priority-setting. Dental care is another area where access may be obstructed by the limited public financing, which may lead to unmet need (see Section 7.2).

■ 3.3.2 *Collection*

GENERAL TAXATION

The Ministry of Finance is Norway's highest taxation authority. Taxes are collected by central and local governments (see Fig. 3.6). The main sources of tax revenues are individual income tax and value added tax (VAT). The share of direct taxes is relatively high – about 70% of the total tax revenue.

Income from labour and pensions is taxed at progressive rates, with marginal tax rates reaching 47%. The remaining forms of income are usually taxed at a flat rate (e.g. capital income from individuals is taxed at a uniform rate of 25%). The tax system for individual taxpayers is on the whole progressive (i.e. the average tax rate increases in line with income) (Norwegian Ministry of Finance, 2017).

SOCIAL SECURITY CONTRIBUTIONS

All persons who are either residents, or are working as employees in Norway or on permanent or movable installations on the Norwegian Continental Shelf, must be insured in the NIS and pay social insurance contributions. The same applies to persons living in Svalbard (Spitsbergen), Jan Mayen and the Antarctic and Sub-Antarctic dependencies provided that they are employed by a Norwegian employer or insured under the National Insurance Act prior to their stay in these areas. Insurance is also compulsory for certain categories of Norwegian citizens working abroad. National insurance contribution rates are set by the parliament. They are payable by employees and levied on personal and pension incomes. In 2019 the contribution rates were: 8.2% for employees, 11.45% for self-employed and 5.1% for pensioners. Contributions payable by individuals are deducted from their pay or pension. NIS rates paid by employers vary regionally and range from 0.0% to 14.1% (2019). Social security contributions to the National Insurance Scheme (made by employers and employees, and self-employed, as well as by the state on behalf of the non-employed) accounted for 26% of total tax revenue of mainland Norway (Norwegian Ministry of Finance, 2018). No NIS contributions are levied on incomes below NKr54 650 (€5246) per year (2019)*.

* Conversion rate at 1Nkr=€0.096, average for 2018 according to Norges Bank.

According to the EEA agreement (1994), Norway follows EU regulations with regard to social security. Employees, self-employed and freelancers are all members of the social security system. Those who do not fulfil these requirements can apply for voluntary membership in the NIS if their stay in Norway exceeds three months. From January 2016 collection of taxes (including the NIS contributions) has been the responsibility of the Tax Administration (*Skatteetaten*). Before that, it was split between the Tax Administration and the Norwegian Customs.

BOX 3.2 Assessing progressivity and equity of health financing

The three main sources of revenue for the Norwegian health care system are the general tax system, NIS contributions and households' OOP payments. The Norwegian tax system is largely progressive, with most of the tax revenue coming from direct taxes and with the average tax burden increasing with higher income. However, the NIS contributions are largely proportional, while the OOP payments are regressive. But given the dominance of public over private spending, health financing on the whole is largely progressive.

■ **3.3.3** *Pooling and allocation of funds*

ALLOCATION FROM COLLECTION AGENCIES TO POOLING AGENCIES

The Ministry of Finance annually allocates resources for different functions (e.g. social protection, education, health) following a parliamentary budget process. Each October the government presents its budget bill for the upcoming year to the parliament for approval. Revenues from taxes and NIS contribution revenues are not specifically earmarked for health care; however, the share of tax revenue allocated to health has been stable since 2011. In 2017, 17.9% of the total general government expenditure was allocated to health (Table 3.1). This allocation forms the budget of the Ministry of Health and Care Services. According to the law, all public services must be carried out within the approved annual budget.

ALLOCATING RESOURCES TO PURCHASERS

The Ministry of Health and Care Services distributes its budget among the municipalities and counties, the RHAs and the Helfo.

The state has a distribution formula called the General Purpose Grant Scheme, which determines the amounts that are distributed to the municipalities and counties. The Scheme takes account of both structural cost differences (expenditure equalization) and differences in tax revenues (income equalization). Special grants are also available, such as rural grants, grants for small municipalities, urban grants, a VAT compensation fund, and discretionary grants which are granted in specific circumstances (UCLG & OECD, 2016).

Funds for public hospitals are allocated to the four RHAs, which are free to decide how the hospitals are paid (see Section 3.7.1). For somatic care, outpatient psychiatry and treatment of drug and alcohol abuse, funding comprises block grants and activity-based funding (in roughly equal shares) and, since 2014, quality-based financing (0.5%). The block grant for each RHA is based on the number and age of inhabitants in the region, several health indicators (such as mortality and the share of disabled people in the region), socioeconomic indicators (e.g. the share of inhabitants with only primary education) and the cost level. The activity-based funding is based on the Nordic diagnosis-related groups (DRG) system to classify patients and, since 2017, covers outpatient psychiatry and treatment of drug and alcohol abuse (Norwegian Directorate of Health, 2017b). Inpatient psychiatry and inpatient treatment of drug and alcohol abuse are mainly financed by block grants. Activity-based funding for somatic and mental health care is currently administered separately. In December 2019 a Royal Commission appointed by the government issued advice on changes to distribution of the block grant between the RHAs for specialist care to better fit the delivery model and regional costs.

The share of national insurance contributions allocated to Helfo is also decided through the annual budget process in the parliament, as part of discussions over the NIS expenses. The allocation is made on the basis of estimates rather than in the form of hard budgets and may be adjusted at the end of the year depending on the actual amount spent (Norwegian Directorate of Health, 2017b).

BOX 3.3 Assessing allocative efficiency

According to a recent analysis, regional effects account for about half of the variation in health care utilization (with patient characteristics accounting for the other half) (Godøy & Huitfeldt, 2018), and thus there may be room for improvement in the use of resources.

On the whole, allocation of resources reflects current health needs (block grants and activity-based funding), demographic forecasts and priorities. For example, in the 2016 letter of instruction to the RHAs, the government has given priority to mental health and substance abuse treatment, meaning that growth in expenditure for these services should be larger than for somatic health care. Efforts are also made to improve coordination between the various types of care and they are reflected in the payment methods and funding decisions.

In terms of dividing resources among various types of care, Norway allocates similar shares of the budget to inpatient and long-term care (LTC) – just under 30% of current spending on each. The share allocated to LTC is higher than in any other OECD country and the share allocated to hospitals has increased slightly over the past years – both in anticipation of increasing population ageing. Higher spending on hospital care is also related to the shift in financing of outpatient medicines prescribed at hospitals (H-prescription), meant to increase shared financial responsibility and coordination between inpatient and outpatient care. The obligation for municipalities to provide emergency care beds since late 2015 serves the same goals.

The National System for the Managed Introduction of New Health Technologies ('New methods') has been implemented in the specialist service since 2013, with one of the aims being improved allocation of resources (see also Sections 2.7.3 and 7.6.1).

■ 3.3.4 *Purchasing and purchaser–provider relations*

Integrated purchaser–provider relations had been the dominant feature of the Norwegian health care system. However, in the last two decades attempts have been made to introduce a more clear-cut purchaser–provider split. Purchaser–provider separation was first introduced for nursing and care services in the early 1990s, using models initially tried out in Sweden (Martinussen & Magnussen, 2009). More recently, contracts between municipalities and private providers are considered an important tool for guaranteeing good quality of services and also for securing good cooperation

with other parts of the health system. Municipalities also have contractual relationships with GPs, as part of the regular GP scheme (see Section 5.3).

Within specialist care, the health trust model is at least in theory based on a purchaser–provider division, with RHAs acting as purchasers and health trusts acting as providers (Magnussen & Martinussen, 2013). However, the RHAs own health trusts and are therefore responsible for the public provider function. The regions can purchase health services from a variety of providers, including private ones. Even though a purchaser–provider split is possible, an integrated organization of health care has traditionally been favoured – due to dispersion of the population and concerns about costs and lack of expertise in commissioning (OECD, 2014).

■ 3.4 Out-of-pocket payments

■ 3.4.1 *Cost sharing (user charges)*

Cost-sharing has been a long-standing feature of the Norwegian health care system and has been in place since the early 1980s. The main aim has been to reduce the growth in public spending and to free up resources for high-priority areas. Another aim has been to curb the demand from people with minor health issues.

Most publicly funded health services, including primary care, require cost-sharing (Table 3.3). The exemptions are for inpatient care and long-term home-based nursing care, where no cost-sharing is required (see Section 3.3). Cost-sharing usually takes the form of co-payments and their level is set nationally. Exceptions are applied for certain diseases and groups of people and Helfo provides subsidies for prioritized patients (see Table 3.3). General dental care for adults is one area where the share of out-of-pocket payments is very high (approximately 70% of total spending on dental care) (Statistics Norway, 2016). Most adult patients bear the full cost of dental care. In 2016, 12.1% of the adult population received reimbursements for dental treatment/care. Between 2014 and 2016 this proportion increased, but the average amount of reimbursement decreased (Ekorud, Skjøstad & Texmon, 2017). However, children under 18 years old are entitled to free publicly provided dental care. Long-term care in institutional dwellings is another type of care that is subject to high co-payments.

TABLE 3.3 User charges for health services in Norway, 2019

	TYPE OF USER CHARGE IN PLACE	EXEMPTIONS AND/OR REDUCED RATES	ANNUAL CAP ON OOP SPENDING	OTHER PROTECTION MECHANISMS
GP visit	Co-payment of Nkr155 (€15) per visit	Exemptions for children under 16 and pensioners	Nkr2369 (€227) (Ceiling 1)	Expenses related to long-term illness may be deducted from before-tax income
Outpatient specialist visit	Co-payment Nkr351 (€34) per visit			
Radiology and laboratory tests	Nkr250 (€24) and Nkr55 (€5) respectively			
Outpatient prescription drugs	For drugs on the 'blue list': 39% of the price up to Nkr520 (€50) for three months' supply; full fee for all other drugs			
Dental care	Full user fee for adults; Co-payment for children under 18 for complex care	Free for children under 18 for standard dental care; reduced rates for young adults (19–22 years old); exemptions for older people in LTC and nursing institutions, disabled persons, and patients with certain diseases ¹	Nkr2085 (€200) (Ceiling 2)	
Physiotherapy	Co-payment of Nkr123–300 (€12–30) depending on treatment	Children under 16, and patients in categories with occupational injury	Nkr2085 (€200) (Ceiling 2)	
Rehabilitation	Co-payment		Nkr2085 (€200) (Ceiling 2)	
Inpatient stay	None			
Long-term care:				
Home-based nursing care	None			
Other home-based care	Full user fee		Ceiling for people on minimum income	
Nursing home	Co-payment level related to income		Patients are entitled to keep 25% of minimum income (i.e. Nkr25 000 or €2400) and 15% of income above the minimum income	

Note: * Blue list (or Schedule 2) – see Table 2.4 for details.

¹ Fifteen diseases are listed, among them cancer in the mouth, lip palate, periodontitis and bite anomalies.

Source: Based on Helsenorge.no

Two annual cost-sharing ceilings are set by the parliament each year. Ceiling 1, amounting to NKr2369 (€227) in 2019, applies to treatment by physicians and psychologists, medicines on the ‘blue list’, diagnostic tests and transportation expenses related to examination and treatment. Once the ceiling is reached, an exemption card for health care services is issued, which entitles the holder to free treatment and benefits for the remainder of the calendar year. Ceiling 2, amounting to NKr2085 (€200) in 2019, applies to physiotherapy, several forms of dental treatment subject to reimbursement, accommodation at rehabilitation centres and treatment abroad. Ceiling 1 and ceiling 2 are not related to individual income – everybody pays the same amount before an exemption card is granted. Municipal services, such as home care (except for nursing home care) for the elderly and disabled, and institutional nursing care for the elderly, are among the services that are not included in the ceiling for cost-sharing. These services are usually subject to considerable OOP expenses. Residents in nursing homes typically pay between 75% and 85% of their income to the municipalities.

Taxpayers who incur extra expenses due to long-term illness, which amount to at least NKr9180 per year (€881), were until 2013 entitled to deduct the amount of these expenses from their before-tax income (there is no maximum limit for the deduction). Due to concerns about its redistributive effects and high administrative costs, the tax deduction scheme was meant to be discontinued from the 2015 tax year. However, the scheme is still in place in 2019.

■ 3.4.2 *Direct payments*

Full fees have to be paid for health care services provided by non-contracted private providers and for goods and services excluded from the statutory coverage. No information on the extent of these payments is available.

■ 3.4.3 *Informal payments*

There is no evidence of the existence of informal payments in the health sector in Norway.

■ 3.5 Voluntary health insurance

As all residents of Norway are covered by the public system, VHI plays only a minor role. The most common VHI schemes provide supplementary cover, offering shorter waiting times for publicly covered non-emergency services and ambulatory care in semi-private or private facilities. Jumping waiting lists seems to be the major reason for purchasing VHI policies in Norway and in 2016 about 10% (500 000) of Norwegians had such policies. This represents a substantial growth in the VHI market in terms of the number of customers compared to around 30 000 people in the early 2000s and 225 000 people in 2012 (Finans Norge, 2017; Johnsen, 2006b). Nevertheless, VHI accounted for less than 1% of the total spending on health in 2017 (Table 3.1).

Companies are the main buyers of VHI. Almost 90% of VHI enrollees receive coverage through their employer. As a result, group contracts clearly dominate – they are ten times more common than individual contracts (around 45 000 individual VHI contracts were purchased in 2016 compared to 459 000 group contracts) (Finans Norge, 2017). The following population groups seem to be more likely to purchase VHI coverage: those with higher incomes; blue-collar workers compared to white-collar workers (as they are more likely to work for smaller employers or be self-employed); the less-well educated (more likely to be a blue-collar worker) (Sagan & Thomson, 2016). All sellers of VHI in Norway are profit-making private enterprises, with the four largest companies holding 70% of the total VHI market in 2016.

■ 3.6 Other financing

There are no other major sources of financing beyond those discussed above.

■ 3.7 Payment mechanisms

■ 3.7.1 *Paying for health services*

Table 3.4 presents the payment methods for publicly financed health care services.

TABLE 3.4 Provider payment mechanisms

PAYERS/PROVIDERS	CENTRAL GOVERNMENT	RHAS	COUNTIES	MUNICIPALITIES	NIS (HELFO)	OOPS
Public health services				BG		
Primary general practice				Cap (30%);	FFS; transfers to GPs	Flat co-payment
Primary dental care			BG (for C&YP)		FFS (for certain conditions)	Full fee for adults
Other primary care (e.g. physio)				BG	FFS	Flat co-payment
Public specialist care (OP)		CP-DGR; BG-DRG; P4Q (0.5%)			Transfers to RHAs	Flat co-payment
Public specialist care (IP)		CP-DGR; BG-DRG; P4Q (0.5%)			Transfers to RHAs	
Private specialist care		Operating grants			FFS	Flat co-payment
Mental health care		OP: CP-DGR; BG-DRG; P4Q		IP: BG		
Nursing home and long-term care	State funding			BG		Share of income
Laboratory and diagnostic services		OP: FFS; IP: CP-DRG			Transfers to RHA; FFS (for private contracted providers)	Flat co-payment
Pharmaceuticals		IP and H-prescriptions: RP		Nursing homes: RP	OP: RP	OP: co-insurance ('blue list') or full cost

Notes: OP – outpatient; IP – inpatient; Cap – capitation; FFS – fee for service; CP-DRG – case payment (based on DGRs); BG-DRG – block grants (based on DRGs); BG – block grants; P4Q – payments for quality; RP – reimbursement price; C&YP – children and young people.

Source: Authors

PUBLIC HEALTH

The majority of public health services are provided at the municipal level (see Section 5.1). Public health services for pre-school and school children are provided in special settings (municipal health centres, health centres in

schools), mainly by specially trained salaried nurses. In addition, contracted GPs are obliged to provide up to 7.5 hours a week of municipal health services (see “Primary care” below for more information on how GPs are remunerated).

PRIMARY CARE

Primary care services (including primary emergency care) provided by general practices are financed from three sources: the municipalities (capitation, approximately Nkr450 (€43) per patient); out-of-pocket payments (co-payments); and the Helfo (fee-for-service, FFS). Capitation payments amount to about 30% of GPs’ incomes, while the other two sources provide the remaining 70%. GPs may also be salaried and employed by the municipality, in which case the municipality receives a subsidy (FFS) from the Helfo.

Dental care for children and young adults is financed from block grants from the counties. Adult dental care is mainly financed from OOP payments and, for certain conditions, FFS from the Helfo are also available.

Other primary care services, for example services provided by contracted primary care psychologists and physiotherapists, are funded by the Helfo (FFS) and patient co-payments. These health professionals are usually self-employed practitioners contracted by municipalities, and receive FFS directly from the Helfo. Privately practising midwives contracted by the municipalities also receive FFS directly from the Helfo. Midwives working in municipal health centres are salaried employees.

NURSING AND LONG-TERM CARE

Nursing homes and LTC providers are funded from local and national taxes and user charges. User charges for institutional care amount to approximately 80% of the residents’ income, accounting for about 15% of the total expenses on such care. After user charges and state transfers, the municipalities have full responsibility over the funding of nursing and long-term care.

SPECIALIST HEALTH CARE

Somatic care

Hospital financing evolved from per diem reimbursement (1970–1980), through block grant financing (1980–1997), to a mixed financing system consisting of block grants and case-based payment (since 1997), complemented by quality-based financing (piloted since 2014 and accounting for about 0.5% of the block grant budget; Olsen & Brandborg, 2016). All financing for public and private hospitals comes from the RHAs (some of it is transfers by the Helfo on behalf of the NIS) and from OOP payments for outpatient care. Block grants are allocated from the national level to the RHAs based on a number of social, health and demographic indicators (see Section 3.3). Case-based payment is based on DRGs and the reimbursement rate amounts to approximately 50% of the national average cost. It covers somatic care for both inpatients and outpatients, and outpatient psychiatry and outpatient treatment of drug and alcohol abuse. A small share of funding (about 0.5%) is quality-based funding. The RHAs are entitled to allocate funding according to their own priorities – this is mainly done by shifting money within the grant funding. Case-based payment based on DRGs is usually passed on unmodified down to the hospital level.

Quality-based financing of specialist care was introduced in 2014. It is based on a set of 33 indicators of clinical outcomes, processes and patient satisfaction. Patients' experiences with specialist care have been measured for over 15 years (see Box 5.6). A national quality indicator system has been piloted since 2014 and consists of over 150 indicators, mainly focusing on specialist care. An early evaluation of the system in 2015 was inconclusive, failing to demonstrate any negative or positive effects on the quality of care (Sirona Health Solution, 2015). Quality-based financing was made permanent as of 2016.

Mental health care

Specialized mental health services, including treatment of alcohol and drug addiction, are financed by block transfers from the state to the RHAs and by earmarked funding. Case-based funding was introduced for some outpatient

mental health care services from 2017. According to the white paper on the local government reform (Norwegian Ministry of Local Government and Modernisation, 2017), the municipalities are expected to increase their responsibility over and funding for, among others, mental health services. However, so far this has only occurred through pilots.

Other specialized care

Privately practising specialists under contract with the RHAs are funded from three different sources: operating grants from the RHAs; FFS from the Helfo; and co-payments from patients. Services provided by laboratory and radiology units owned by the health trusts are financed on a FFS basis (paid by the Helfo to the RHAs) for outpatients and case-based payment (DRGs) for inpatients. Private laboratories are subject to a different set of tariffs and are paid for directly by the Helfo, according to their agreements with the RHAs.

PHARMACEUTICAL CARE

The government sets maximum prices for prescription drugs by setting the pharmacy purchase price, the maximum pharmacy mark-up and the VAT. Outpatient prescription drugs included in the ‘blue list’ are financed in part from patient co-payments and in part by the Helfo. Prescription drugs not included in this list and non-prescription drugs are paid for in full by the patients. Pharmaceuticals in hospitals, H-prescriptions (see Section 2.7.4) and nursing homes are free of charge to the patients and are paid for by, respectively, the RHAs and the municipalities.

■ **3.7.2** *Paying health workers*

Tripartite national collective agreements between the confederations of employees’ trade unions, employers’ associations and the state play an important role in determining sector/industry-specific pay and working conditions. More than half of Norway’s employees are members of trade unions, over 1.8 million in 2018 according to Statistics Norway (Statistics Norway, 2019a).

The majority of unions are grouped in four confederations: LO, UNIO, YS and Akademikerne. Associations for health care workers can be found within all four confederations. The main associations are the Nurses Union (*c.* 115 600 members), the Norwegian Union of Municipal and General Employees (*c.* 366 000 members), the Norwegian Medical Association (*c.* 35 200 members), the Dental Association (*c.* 6600 members) and the Psychological Association (*c.* 9500 members). All these organizations function both as trade unions and as professional associations. As trade unions, they aim to safeguard the financial, political and professional interests of their members. As professional associations, they are involved in matters concerning a wide range of professional issues, such as national health policy, education and ethics.

Norwegian health care personnel are mainly salaried employees. However, there are important exceptions, such as GPs who are typically contracted (see Section 3.7.1). Salaries of health professionals employed in public facilities are usually set through negotiations between the state, the municipalities (represented by the Norwegian Association of Local and Regional Authorities (KS)), health enterprises (represented by an organization called Spekter; see Section 2.2) and their counterpart member organizations for employees, such as the Medical Association of Norway, the Nurses Association of Norway and the Dentist Association.

The capitation rate for GPs is negotiated centrally between the Norwegian Medical Association and the KS and is the same throughout the country. GP unions and the state negotiate the FFS rates and the level of patient co-payments. FFS and co-payments to privately practising specialists contracted by the RHAs are also negotiated centrally and are uniform throughout the country.

In 2017 physicians employed by the RHAs earned Nkr85 000 (€8160) per month on average (including compensation for working overtime and non-regular hours, etc.). The average for nurses was Nkr43 400 (€4166) per month. In comparison, the average monthly salary in 2017 for all employees in Norway was Nkr44 310 (€4254) (Statistics Norway, 2019a).

Physical and human resources

■ Chapter summary

- Responsibility for the planning of infrastructure in public facilities lies with their respective owners: municipalities (for primary care and other care provided at the municipal level), RHAs (for hospitals) and the MOHCS for large capital investment projects.
- Currently four RHAs oversee twenty hospital trusts, which account for 96% of all hospital beds. The number of acute hospital beds in Norway has fallen in line with other European countries. The distribution of hospitals in Norway reflects geographical differences in population density.
- Norway has a comprehensive eHealth policy, and IT infrastructure is well-developed. The Norwegian Directorate for eHealth is responsible for governance of the eHealth system, while the Norwegian Health Network, covering the vast majority of providers, has recently taken over implementation of major eHealth developments.
- The numbers of doctors and nurses in Norway are among the highest in Europe, and so is the ratio of nurses to doctors, but the distribution of health personnel, particularly doctors, is uneven across municipalities. Shortages of nurses have been forecast and in response the government has developed a plan to increase recruitment and to improve the competencies and professional development of the health workforce in the municipalities.

4.1 Physical resources

4.1.1 Infrastructure, capital stock and investments

INFRASTRUCTURE

In 2017 there were 3.2 acute hospital beds per 1000 inhabitants in Norway, more than other Scandinavian countries but much less than in Germany, for example (Fig. 4.1). In total, there were around 17 000 beds in the hospital sector in 2018 (Table 4.1). The number of hospital beds has been declining over the years and reflects the government’s efforts to improve resource allocation by shifting inpatients into outpatient settings in the community and into day surgery.

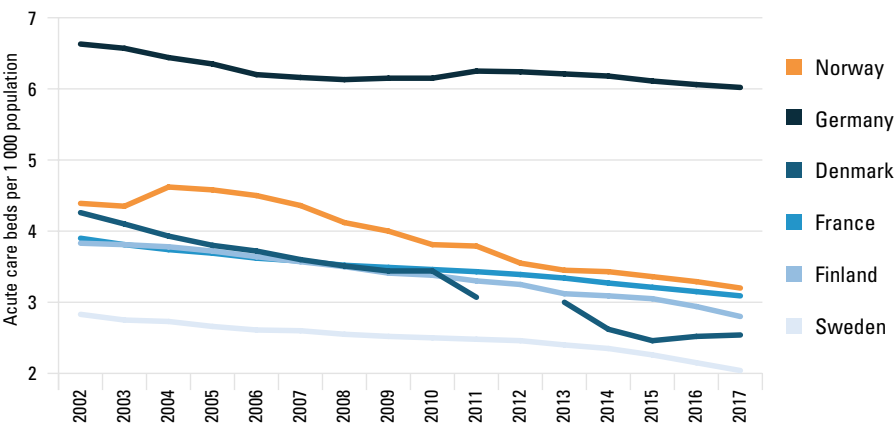
The geographic distribution of hospital beds is uneven (see Box 4.1).

TABLE 4.1 Total number of hospital beds, 2005–2018 (selected years)

HOSPITAL BEDS	2005	2010	2015	2018*
Beds in acute and general hospitals	16 693	14 516	13 621	13 141
Beds in psychiatric hospitals	5370	4658	3971	3700

Note: *The way private hospital beds with public contracts are counted has changed after 2015.
Source: Statistics Norway (2019a)

FIG. 4.1 Beds in acute hospitals per 1000 population in Norway and selected countries, 2002–2017



Source: OECD (2019)

CURRENT CAPITAL STOCK

In 2019 the four RHAs oversaw a total of 20 hospital trusts. The number of hospital trusts reflects population size, with the greatest number of trusts located in the South-Eastern RHA (see Table 4.2). The size of hospital trusts varies, from about 160 beds in the smallest (Sunnaas) trust to more than 1600 beds in the largest (Oslo University Hospital) trust (both in the South-Eastern RHA). Four trusts have more than 1000 beds, eight have between 500 and 1000 beds, and eight have fewer than 500 beds. The hospital trusts, in turn, comprise smaller hospitals and other institutional entities at different locations. A single trust can cover vast geographical areas. For example, in the county of Nordland, the distance between hospitals within a trust can exceed 500 kilometres.

Each region has one regional hospital, which is a university hospital offering the largest range of services in the region. The regional hospital may have interregional responsibilities in some areas, i.e. provide certain services to patients from all regions, or head networks within specialties at regional and/or national level. A new national hospital plan, released in November 2019, organizes hospitals into a three-tier network (see Section 5.4.2).

In 2017 beds in publicly financed providers accounted for 96% of the total number of hospital beds (Statistics Norway, 2019a).

TABLE 4.2 Hospital trusts and beds by RHA, 2017

RHA	SOUTH-EASTERN	WEST	CENTRAL	NORTH	TOTAL
Total number of beds (range)	6 008 (159–1 640)	2 367 (169–1 028)	1 532 (277–734)	1 222 (147–595)	11 129 (159–1 640)
Number of hospital trusts	9	4	3	4	20

Source: Statistics Norway (2018)

The age and condition of hospitals vary across the country (RIF, 2015). According to the survey conducted by the Auditor General in 2011 (latest information available) (Auditor General, 2011), the average age of hospital buildings was approximately 45 years in that year but there were large variations in the condition of the facilities, with half of them being in good or acceptable condition, 40% in unsatisfactory condition in need of corrective

measures and 10% in poor condition and in need of major technical upgrading. In general, the condition of hospital facilities was poorer in the Northern and Western RHAs.

BOX 4.1 Assessing the geographic distribution of health resources

The distribution of hospitals in Norway reflects geographical differences in population density and thus the South-Eastern Region has the largest hospital network (highly specialized hospitals serving the whole country are also in this region) and the largest distances are between hospitals in the Northern region. Given the long travel distances in the more sparsely populated areas, the average length of hospital stay (ALOS) tends to be longer for patients living in these areas and the average number of hospital beds per 1000 inhabitants also tends to be somewhat higher than in more densely populated areas. This may lead to inequalities in access to care (see Section 7.2).

REGULATION OF CAPITAL INVESTMENT

Overall responsibility for the planning of infrastructure and capital investments in public facilities lies with their respective owners. The municipalities decide on investments in primary care and other care provided at the municipal level, with investment decisions in each municipality taken by the local municipal council (see Sections 5.1–3 and 5.6–11). Decisions on investments in hospitals are taken by the RHAs, which represent directors of the local hospital trusts. Investment proposals are made by the boards of local hospital trusts, which later also approve the investment decisions of the RHAs. The exception is the South-Eastern region, where the RHA is responsible for all larger investments. While the RHAs have a wide authority to plan and manage their hospital infrastructure, the MOHCS is responsible for monitoring investments in specialist care. In addition, the MOHCS has the authority to approve larger capital investment projects for which 30% or more of funding comes from the RHAs.

In 2015 the RHAs established the Agency for Hospital Construction (Sykehusbygg HF). The Agency is funded by the RHAs with additional funding allocated by the government (Norwegian Ministry of Finance, 2017). It provides expertise on hospital planning and construction to all hospital trusts and can assist them in the acquisition and sale of real estate.

INVESTMENT FUNDING

Hospital trusts finance capital investments and annual depreciation costs from their general incomes, i.e. from allocations from the RHAs. In case of large capital investments, they may apply (via their RHA and with the support of the Agency for Hospital Construction) for a special investment loan from MOHCS for 70% of the funding. If hospital trusts enter into contracts with private service providers, the contracts must take into account the capital investment needs of these providers.

The RHAs may finance investments in the health trusts by borrowing (debt financing). RHAs are not allowed to borrow money in the private market, but can borrow from the Norwegian Central Bank. Private financing occurs occasionally in the form of donations, e.g. equipment donations.

Investment decisions at the municipal level are taken by the municipalities according to local needs and means. There are also earmarked central grants for certain investment, e.g. for providing local emergency care beds to support early hospital discharge (see Box 5.3).

■ 4.1.2 Medical equipment

Medical equipment is financed in the same way as capital investments (see Section 4.1.1). The availability of medical equipment varies and its utilization rates are mixed compared to other countries in the EU (see Table 4.3).

Almost all imaging diagnostic equipment is in specialist care. There are documented differences both between and within regions in accessibility of medical equipment such as positron emission tomography (PET) or computed tomography (PET-CT) scanners, as well as palliative radiotherapy (PRT) (Asli et al., 2018; Office of the Auditor General of Norway, 2017).

TABLE 4.3 MRI and CT exams per 1000 population, yearly average 2012–2015

ITEM	NORWAY	EU AVERAGE
MRI exams	120	64
CT exams	74	143

Sources: Auditor General (Report 1 2017) and Eurostat/OECD Health Data (HAG 2017)

■ 4.1.3 *Information technology and eHealth*

IT USE IN THE HEALTH SYSTEM

The Norwegian Health Network (NHN) was established in 2004. The NHN is responsible for provision of efficient and secure electronic exchange of patient information via a health communication network between all relevant parties within the health and social services sectors, including across the regions and different administrative levels. Since 2016 the NHN has been responsible for delivering ICT-services to the central health administration and its subordinate agencies. Currently, all public hospitals and pharmacies and 365 municipalities, together covering over 90% of the population, are covered by this network (www.nhn.no). From January 2020 their responsibility will be extended to include Summary Care Records (see below), as well as e-prescriptions.

The Norwegian Directorate of eHealth was established in 2016 with the mandate to implement the national policy on eHealth, establish the requisite standards, and administer the use of eHealth methodology nationwide (see also Section 2.2). It has been responsible for the development of the above-mentioned Summary Care Records and e-prescriptions, which will be transferred to the NHN from 2020. While the NHN takes on more responsibility for implementation, it is envisaged that the Directorate of eHealth will strengthen its governance role.

The National ICT Health Trust, established in 2014 by the RHAs, currently implements a system of electronic medical records, known as Summary Care Records. By December 2018 the system was accessible to all citizens; however, only 35% had accessed their record and 6% entered or corrected their information (Norwegian Directorate of eHealth, 2019). At the same time it was used by 71% of GP practices and 86% of pre-hospital emergency medical services (see Section 5.5).

Almost all (98%) GP practices have computers. According to the Directorate of eHealth's monitor (Norwegian Directorate of eHealth, 2019), in early 2019 more than 400 municipalities (out of a total of 429) had an electronic system for exchanging patient information with hospital trusts, as well as a system for exchanging patient information among GP practices. Most GP practices (93%) use computers and decision-support systems during consultations. The use of electronic exchange of patient data is also high. The use of e-referrals to specialist and hospital care has increased dramatically

since 2013. In 2017, 96% of the municipalities sent electronic referrals to hospitals. In 2017 nearly all patient information sent from hospitals to municipalities was sent electronically.

E-prescriptions were implemented nationally for GPs in 2011, and for hospitals in 2016. By the end of 2018 more than 92% of all human prescriptions were e-prescriptions and about 12% of these prescriptions were issued by hospitals (Norwegian Directorate of eHealth, 2019). With e-prescriptions, patients can collect their prescription medicines from any pharmacy in Norway and may also authorize others to collect their medicines for them. In addition, since 2013 a service within helsenorge.no has given patients access to information about their active prescriptions and medicines collected during the past month, as well as about all prescriptions in the previous three years. The next step is a roll-out of e-prescriptions for unit dose dispensing.*

Telemedicine is routinely used to improve access to care and to provide continuous education to health personnel in remote areas. In recent years the use of telemedicine has been piloted for monitoring people with chronic diseases and a national scale up of the pilots has been recommended.

According to Statistics Norway, use of the internet as a source for health-related information increased from 39% in 2009 to 65% of the population in 2018 (Statistics Norway, 2019a). The Directorate of Health promotes the use of mobile applications for those who seek a healthier lifestyle and to improve their mental wellbeing. Via the website “*Bare du*”, people can download relevant applications, e.g. to help them quit smoking and reduce alcohol intake.

■ 4.2 Human resources

■ 4.2.1 *Planning and registration of human resources*

The Norwegian Authority for Health Personnel, which is part of the Directorate of Health, is responsible for the licensing and authorization of health care personnel in Norway. Currently, 29 categories of health personnel are licensed. The Directorate of Health and Statistics Norway share the responsibility for monitoring and evaluating health workforce trends.

* The unit dose dispensing system of medications is a pharmacy-coordinated method of dispensing and controlling medications.

Since the mid-1990s Statistics Norway has been modelling long-term supply and demand trends in health personnel. Its model (HELSEMOD) contains predictions for more than 20 different categories of health personnel groups (Statistics Norway, 2019b) and has informed human resources policies in the health sector.

The Directorate of Health issues certificates of specialization to medical doctors, in accordance with specific and transparent requirements. Except for GPs, there is no system for re-evaluation or re-authorization for medical doctors.

■ 4.2.2 *Trends in the health workforce*

The number of physicians per 1000 inhabitants has been increasing over the last few decades. At 4.8 per 1000 in 2018, the ratio in Norway was higher than in all the comparator countries featured in Fig. 4.2.

In 2016, 17 606 physicians worked in Norway. Out of these, 4606 (26%) worked in the municipalities (as GPs or other), 12 000 (68%) worked as specialists in hospitals and 1000 (6%) worked as specialists outside hospitals. The proportion of physicians working for the municipalities increased by 13% between 2013 and 2016 (Norwegian Directorate of Health, 2016). Yet the distribution is uneven and some municipalities experience shortage of GPs (see Box 4.2).

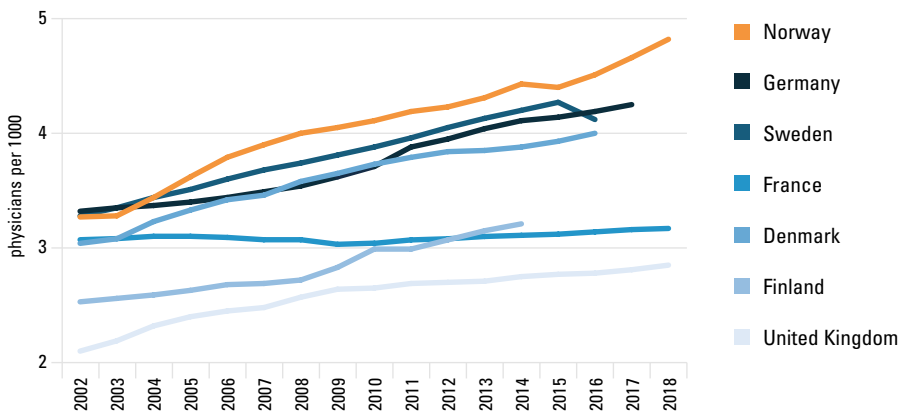
BOX 4.2 Evaluating the geographic distribution of GPs

There are regional variations in access to GPs, with patients living in rural and smaller municipalities having poorer access. In nine municipalities, six of them in Northern Norway, there were no GPs at the end of 2018 (Norwegian Directorate of Health, 2018c). In three counties, Finnmark, Nordland and Møre & Romsdal, vacant GP positions have left 2–4% of their populations without a GP, and the vacancies have been not filled for a long time (Norwegian Directorate of Health, 2017c).

A Commonwealth Fund population survey of persons aged 65+, conducted in 2017 in Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the UK and the USA found that the proportion of respondents reporting that they waited two or more days to access a GP was larger in Norway than in other countries (53% vs 38% on average) (Skudal et al., 2016).

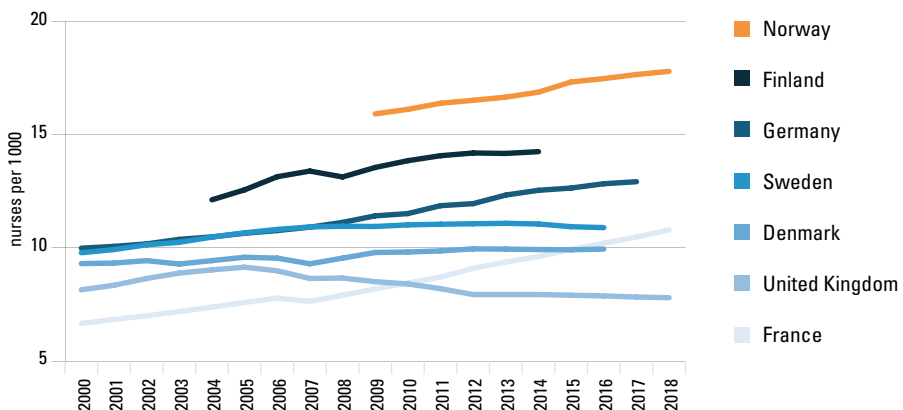
The ratio of nurses to inhabitants has also increased over recent years and at 17.8 nurses per 1000 inhabitants remains among the highest in the EU/EEA (Fig. 4.3). However, despite these high numbers, nurse shortages are predicted in the years to come (see Section 7.2). Given these forecasts, since 2015 municipalities have had the opportunity to apply for state subsidies to employ more nurses and municipal health care workers. These subsidies are available until 2020.

FIG. 4.2 Number of physicians per 1000 inhabitants, in Norway and comparator countries, 2002–2018



Source: OECD (2019)

FIG. 4.3 Number of registered nurses per 1000 inhabitants, in Norway and comparator countries, 2000–2018



Note: Professionally active nurses for France

Source: OECD (2019)

The number of dentists in Norway has been stable over the past decade, and remains fairly high – at 0.9 per 1000 inhabitants in 2018. Although Statistics Norway projected a shortage of dentists by 2020, these projections have been met with scepticism from universities offering education in dentistry and there are currently no plans to increase the educational capacity at these universities. The number of pharmacists in Norway increased substantially between 2009 and 2018 to 0.8 per 1000 inhabitants, which is similar to the OECD average (OECD, 2019).

■ 4.2.3 *Professional mobility of health workers*

Norway employs a large number of health workers trained abroad – a total of 18% of its health workforce in 2015. Out of 37 700 foreign workers within the health care sector there were about 11 000 nurses (29%), 10 300 health care workers (27%) and 5200 doctors (14%) (Statistics Norway, 2019a).

The share of foreign-trained physicians was slightly above 40% of the total in 2018 and the respective figure for nurses was 9% (OECD, 2019). Among OECD countries, only Israel, New Zealand and Ireland have a higher share of foreign-trained doctors. Nearly half of foreign-trained doctors were Norwegian-born, but completed their medical studies abroad (Norwegian Medical Association, 2016). A majority of the foreign-trained nurses were trained in the other Nordic countries or in other EU/EEA countries.

Health personnel trained abroad whose native language is not Norwegian must pass a language proficiency test and prove that they have knowledge of Norwegian health and care services, health, social security and social rights, Norwegian culture, and key national issues. In addition, they must pass courses in the safe handling of medicines and a medical proficiency test, which is adapted to different professions.

■ 4.2.4 *Training of health personnel*

An authorization from the Directorate of Health is required for all categories of regulated health professions in order to practise in Norway.

PHYSICIANS

Medical study programmes are offered at four public universities in Norway (Oslo, Bergen, Trondheim and Tromsø), with a total educational capacity of 600 students in 2016. The curricula of the medical faculties have so far not been subject to detailed regulation and may differ, especially as regards teaching methods and the organization of the study programmes. Between 2005 and 2015 the government signalled several new requirements regarding medical competencies for basic medical education. The suggestions covered a wide variety of areas from patient safety, innovation, teamwork, patient pathways, patient involvement and public health to disease prevention, and the universities have responded by implementing changes in the medical curricula (Frich, 2016).

Basic medical education lasts six years, after which all medical school graduates may obtain an authorization to practise. Since 2013 medical students applied for available residency positions and hospitals selected the candidates they wanted to employ. A new system of competency training was introduced in 2017. The previous system with internships has been replaced by a system of specialization called 'LIS' (*Leger i spesialisering* – Physicians in specialization). LIS1 (Part 1) consists of one year of hospital training and six months of training in primary care (in the municipalities). LIS2 (Part 2) introduces shared competency platforms for groups of specialties (such as internal medicine and surgery) (36 months), while LIS3 (Part 3) covers training unique to each specialty (24 months). LIS2 only applies to 17 specialties, which means that medical students pursuing these specialties must complete all three parts of the training. Students enrolled in the remaining 25 specialties must complete only part 1 and 3 of the training. The LIS education programme takes 6.5 years in total. The new competency training system is coordinated nationally, with a regional coordinating centre in each RHA. All GPs working in primary care are required to become specialists in general medicine by 2022.

A degree in dentistry (Masters in Dentistry) is awarded after five years of study. The first two years of this programme are integrated with the medical study programme. Dental specialization programmes are offered by the University of Oslo and last three or five years (longer for oral surgery and oral medicine).

Studies in pharmacology are divided into a three-year Bachelor's and a two-year Master's degree. The Master's programme usually includes six months' practical training in a hospital or community pharmacy.

NURSES

There are two types of nursing practitioner in Norway: registered nurses (RNs) and licensed practical nurses (LPNs). The latter are not included in the figures shown in Fig. 4.3.

There are 10 educational institutions in Norway offering basic RN education at more than 35 locations, mainly in universities. An increasing number of colleges offer decentralized (e.g. web-based training or training in local educational institutions) or part-time study programmes. The minimum requirement for entering the RN programme is a general study competence, which usually means that the applicant has completed three years of upper secondary education. The basic RN degree takes three years or 180 ECTS points and nurses who have completed it are awarded a Bachelor's degree and are authorized to practise. Half of the study time is devoted to clinical training, organized by the RHAs and the municipalities. After completing the Bachelor's degree, RNs can subsequently pursue a Master's degree or enter a specialization programme in nursing (60–90 ECTS points), for example in intensive care or operating theatre nursing. Specialization programmes are not part of the Bologna system; however, these programmes are now being included in Master's degree programmes at university colleges (Råholm et al., 2013). Nurses undergoing full-time specialist education are usually paid an allowance by their employer for the duration of their studies and, in exchange, commit to work for the same employer for a certain number of years after finishing the specialization. Master's degree curricula can differ as there is no single national standard in this area. However, streamlining the Master's degree is part of the planned educational reforms for the welfare sector.

LPNs are classified as health care workers and obtain a certificate upon completion of vocational training in upper secondary school. This system was introduced in 2008, replacing the former auxiliary nurse and care worker education. In order to receive a certificate and to be able to apply for a licence to practise, the nurse must complete two years of secondary vocational education

and two years of training. LPNs may undertake further specialization, e.g. in mental health nursing or music-based therapy, and might qualify for an intake to nursing schools to become RNs.

Given the predicted shortages of nurses (see Section 6.1), in 2016 the government set out an action plan, the Competence Lift 2020 (*Kompetanseløft 2020*), to increase recruitment and improve the competencies and professional development of the health workforce in the municipalities (Norwegian Directorate of Health, 2017c).

OTHER HEALTH CARE PROFESSIONALS

Besides physicians, dentists, psychologists and nurses, several other professional work titles within the health sector are protected by law. These include midwife, medical secretary (providing administrative support), ambulance worker and physiotherapist. All these professions need an issued authorization in order to practise.

■ 4.2.5 *Physicians' and nurses' career paths*

Physicians and nurses can pursue a clinical career (with or without managerial responsibility), an academic career or a combination of both (in which case they usually base their research on clinical practice). Most physicians and a large number of nurses choose to continue their studies in order to qualify as specialists after receiving their authorization to practise. For nurses, an academic career is more difficult to combine with clinical practice.

Graduate medical education requires a minimum of four to five years of residency (see Section 4.2.4). Upon completing the residency training, residents are usually employed as specialists at the hospital where they completed their residency training.

■ 4.2.6 *Other health workers' career paths*

Strengthening education in general management has been a national policy priority since the 1990s. An analysis of managers in the municipal care

sector, based on data from the Norwegian Association of Local and Regional Authorities (KS), reveals a shift in management from 2007 to 2015, with an increase of managers for home services and a decrease in managers for institution-based services. The majority, nearly 70% of all managers, have a background in nursing. Since 2015 the Norwegian Business School has been contracted by the Directorate of Health and KS to offer management education for health leaders in the primary care sector. The capacity in 2018 was 216 places.

Provision of services

■ Chapter summary

- The overall responsibility for public health rests with the Ministry of Health and Care Services, while the municipalities are responsible for implementing cross-sectoral public health interventions locally. Various governmental and non-governmental actors are involved in public health activities. The Public Health Act (2012) improved horizontal and vertical coordination of public health work. In 2015 the government presented a white paper with a comprehensive overview of public health initiatives, including incorporation of mental health as an integral part of public health.
- Primary care is provided at the municipal level, mostly by self-employed physicians and as part of municipal services (in nursing homes and as part of home-based services). GPs act as gatekeepers, referring patients to more complex care. Inpatient specialized care is mainly provided by hospital trusts owned by the RHAs. Hospitals also provide outpatient specialist care in their outpatient departments. As in many other countries, there has been a marked shift from inpatient hospital care into outpatient and day surgery and care settings, as well as an expansion of home care. Delivery of primary care through multidisciplinary teams is currently being tested alongside new primary care financing models. Policy efforts

have also aimed at improving coordination between municipal and specialist care.

- Emergency care services are largely the responsibility of municipalities at the primary care level, and are provided by GPs or local emergency centres, which are a first point of contact in case of medical emergency. Referral from a physician or the ambulance service is needed to attend hospital A&E departments.
- Access to pharmaceuticals, including innovative therapies, is generally good in Norway. Generic substitution, introduced in 2001, has led to substantial reductions in the cost of pharmaceuticals financed through the NIS. The share of generics in 2018 accounted for 52% of total sales volume – more than double what it was in 2001.
- More than a quarter of spending on health in Norway is devoted to long-term care. It is provided in three types of setting: patients' homes, nursing homes or sheltered homes run by the municipalities. With the exception of home care, long-term care in municipal settings requires substantial co-payments by users.
- Specialized mental health services are the responsibility of the RHAs and are provided in highly specialized mental health hospitals/departments, community mental health centres and in outpatient settings. Mental health centres play an increasing role in the decentralization of mental health services, as they provide acute mental health treatment and rehabilitation, and offer supervision and support for other providers in primary care.

■ 5.1 Public health

The overall responsibility for public health rests with the Ministry of Health and Care Services, while the municipalities are responsible for implementing cross-sectoral public health interventions locally and ensure that they are knowledge-based, systematic and long-term orientated. Various governmental and non-governmental actors are involved in public health activities. The Directorate of Health, the NIPH and the Board of Health (see Section 2.1) all play important roles in supporting the implementation and monitoring of public health policies at the national level.

The Public Health Act introduced on 1 January 2012 aimed to improve coordination of public health work horizontally, across various sectors and actors, and vertically, between authorities at the local, regional and national levels. The Public Health Act is based on five guiding principles for public health work: equity, health in all policies, sustainable development, precaution and participation, which were further elaborated in the White Paper “Public Health Report: Good health – a common responsibility” (Norwegian Ministry of Health and Care Services, 2013). The strategic goals included in the White Paper are to increase life expectancy, ensure more years of good health and well-being for the entire population, reduce social inequalities in health, and create a society that promotes good health throughout the entire population. These goals were also embraced by the next government in their White Paper entitled “Public Health Report – Accomplishments and possibilities” (Norwegian Ministry of Health and Care Services, 2015c). This updated public health strategy emphasizes promotion of mental health measures, especially targeted at young people, reducing work absenteeism, promoting healthy lifestyles, active ageing, and empowering children and young people, as well as improving cross-sectoral cooperation in public health. These goals are detailed and operationalized in a number of strategies and national action plans, including:

- #Youth Health – the Norwegian government’s strategy for youth health 2016–2021, which is the first national youth health strategy in Norway and emphasizes the impact social media has on body image;
- the National Action Plan for a Healthier Diet (2017–2021);
- the National Action Plan for Diabetes (2017–2021);
- the National Brain Health Strategy (2018–2024);
- Dementia Plan (2020);
- “A tobacco-free future” – the National Strategy for Tobacco Control (2013–2016);
- Action Plan for Prevention of Suicide and Self-harm (2014–2017);
- More Years – More Opportunities (2016), which is a national strategy to make society more age-friendly, and to better harness the resources offered by older people in terms of participation and contribution to society.

Public health is an integrated part of the Strategy for Good Mental Health (2017–2022) and the Action Plan for Mental Health in Children and Adolescents (2019–2024). In addition, the Action Plan for Prevention of Suicide and Self-Harm (2014–2017) is envisaged to be followed by a new action plan for prevention of suicide in the general population as well as in the health services in 2020.

An assessment of the effectiveness of public health interventions is provided in Box 5.1.

While counties play an important coordinating role (see Section 2.3), public health activities are mainly carried out at the municipal level. Counties are expected to have an overview of the health status in their territory, including risk factors as well as factors that influence health positively. Municipalities are expected to monitor the health status of their population and factors that may influence this; such information provides the basis for planning their local public health strategies. Municipal public health activities include promotion of the population's health and well-being; prevention of mental and somatic illnesses, disorders and injuries; and ensuring good social and environmental conditions. The actual provision of services is carried out by GPs, the Municipal Medical Officers (one in each municipality), at municipal health care centres/clinics, in school health services and nursing homes, etc. The municipalities are also responsible for facilitating cooperation with the voluntary sector (Public Health Care Act 2012 4).

IMMUNIZATIONS AND OTHER PREVENTIVE SERVICES

Municipalities are responsible for delivering vaccines included in the Norwegian Childhood Immunization Programme. The Programme began in 1952 and currently offers free childhood vaccinations against 13 different diseases: measles, mumps and rubella (MMR), diphtheria, tetanus, whooping cough, *Haemophilus influenzae* type B (Hib), pneumococcal disease, poliomyelitis, rotavirus, Hepatitis B, and human papilloma virus (HPV). Some children are also offered vaccination against tuberculosis. Children usually receive their first vaccinations at 3 months and follow the programme until they are 15 or 16 years old. Booster doses of vaccines are administered once school age is reached. Vaccination is not compulsory,

but coverage is well above 90% for most of the vaccines included in the programme (Norwegian Institute of Public Health, 2017b). The rubella vaccine for adults is offered free of charge to women of childbearing age who do not have immunity against rubella. Influenza and pneumococcal vaccines are recommended to risk groups, including pregnant women and people over 65 years old. Vaccines are mainly provided by GPs and are subject to co-payment.

Municipalities are also responsible for providing family planning and antenatal services. The services are provided either by a midwife at the local Maternity and Child Health Care Centre (*helsestasjon*) or by the regular GP. This normally includes eight antenatal appointments, including one ultrasound screening during pregnancy. The consultations are free of charge, and working women who are pregnant have the right to paid time off work for attending antenatal appointments.

Since 1996 Healthy Life Centres (HLC) have been established in the municipalities offering interdisciplinary primary care services such as exercise groups and counselling for people who need support in changing their health behaviour or coping with health problems and chronic disease. While there is no statutory obligation for a municipality to establish HLCs, the Directorate of Health recommends that all municipalities create one in order to manage the preventive health services they provide (Saunes, 2016a). In 2018, 64% of the municipalities had an HLC (Statistics Norway, 2019a).

SCREENING PROGRAMMES

Norway has three national cancer screening programmes. Two of them, for breast cancer for women aged 50–59 and for cervical cancer for women aged 25–69, have been in place since 1995, while the third one, for colorectal cancer, is currently being piloted for men and women aged 50–74. From the autumn of 2019 men and women turning 55 years of age will be invited to participate in the screening programme and national coverage is expected to be reached in 2024. The screening programmes are all administered by the Cancer Registry of Norway.

SURVEILLANCE OF COMMUNICABLE DISEASES

The NIPH runs the Norwegian Surveillance System for Communicable Diseases (*Meldingssystem for smittsomme sykdommer*, MSIS) and contributes to international surveillance in collaboration with the European Centre for Disease Prevention and Control and the World Health Organization. The MSIS distinguishes between three groups of diseases. Reports on group A diseases (e.g. cholera, hepatitis) from medical microbiological laboratories and doctors are sent to the NIPH immediately after detection with full patient identity. Copies of the notifications are also sent to the Municipality Medical Officer in the patient's municipality of residence. For group B diseases (gonorrhea, HIV and syphilis), reports are also sent immediately to the NIPH by doctors and medical microbiological laboratories, but the patient's identity is not disclosed. Copies of the notifications are also sent to the Municipality Medical Officer in the patient's municipality of residence. For group C diseases (genital chlamydia and clostridium difficile), reports also do not disclose the patient's identity but they are not sent immediately. Early warning notification (i.e. immediate notification outside the regular written notification system) is required in isolated cases of selected group A diseases, such as rabies and rubella. The warning must be delivered to the local Municipality Medical Officer, who will then immediately notify the NIPH and the County Physician. This applies both within and outside the hospital setting. If there is a suspicion or confirmation of an infectious disease that can be transmitted in food or water, the Municipality Medical Officer must also notify the local Food Safety Agency.

OCCUPATIONAL HEALTH SERVICES

According to the Working Environment Act 2005, which regulates occupational health, employers are responsible for ensuring that health and safety standards are met in workplaces and must have written objectives for health, environment and safety activities. Implementation of this Act is monitored by the Norwegian Labour Inspection Authority under the Ministry of Labour and Social Affairs. The Labour Authority has seven regional offices and 16 local offices around the country. The latter guide and supervise individual

employers in local communities and oversee that they comply with the legal requirements (Norwegian Labour Inspection Authority, 2018).

Norway has the highest rate of work absences of full-time employees among OECD countries (see Section 1.4). A series of inclusive workplace agreements between employers, employees and the NAV have been in place since the early 2000s in order to reduce work absenteeism due to sickness; to increase the employment rate among employees with functional impairment; and to increase the actual retirement age. The current agreement covers the period from 1 January 2019 to 31 December 2022. Employees of companies that have signed the agreement have the right to take sick leave without a physician's certificate for up to eight calendar days per single absence, up to a total of 24 days per calendar year. Occupational health services provided by the workplace to help bring employees on prolonged sick leave back to work and get them off disability benefits may be refunded at a special rate under the NIS. The employment rate among employees with a functional impairment was 44% in 2018 compared to 70.4% for the population between 15 and 66 years of age (Statistics Norway, 2019a). A report documenting goal attainment for the inclusive workplace agreement from 2012 to 2018 documented rather stable levels of sickness absenteeism and employment rate of people with functional impairment, while there has been an increase in the actual retirement age (Telle et al., 2018).

BOX 5.1 Assessing the effectiveness of public health interventions

For more than 50 years Norway has implemented targeted anti-tobacco interventions. They include high taxes on tobacco, warnings on all tobacco packaging and restriction on smoking in public, with smoking restricted in public areas since 1988 and prohibited in all indoor public areas since 2004. These interventions have led to decreasing rates of tobacco smoking (see Section 1.4). About 25% of former smokers have substituted cigarettes with a moist powder tobacco (snus), which is becoming increasingly popular also amongst non-smokers. The most recent regulations on tobacco products, which came into effect on 1 July 2017, require standardized packaging of cigarettes, roll-your-own tobacco, and snus. They also extended the existing smoking restrictions to the use of e-cigarettes. New legislation on electronic cigarettes, herbal products for smoking and novel tobacco and nicotine products, largely based on the EU Tobacco Products Directive

2014/40/EU, is expected to enter into force in 2020. The government launched a new national tobacco control strategy in 2019, where the focus continues on making tobacco products less attractive to young people, increasing smoking cessation among heavy smokers and reducing the tobacco industry's influence and marketing possibilities.

In the area of nutrition, a collaboration between MOHCS and the private sector was established in 2014, and resulted in a memorandum of understanding on healthy diets (2016–2021), which involved about 100 enterprises in addition to the MOHCS. Norway's major food providers are involved as participants, whereas non-profit organizations take part as observers. The aim of this collaboration is to reduce the intake of salt, sugar and saturated fat, and increase the consumption of fruit, vegetables, wholegrain foods and fish. Evidence on the effectiveness of this initiative is not yet available.

In 2015 the government launched the National Strategy against Antibiotic Resistance for 2015–2020. The goal was to reduce the use of antibiotics in humans by 30% by 2020. In the period 2012–2015 the use of antibiotics in inpatient care decreased by 13% (Norwegian Ministries, 2015). There has also been a substantial decline in the use of second line antibiotics within primary care. In the period 2012–2018 the prescription of antibiotics decreased by 27% (Norwegian Directorate of Health, 2018e). Use of antibiotics in animals in Norway is among the lowest in Europe and is partly explained by the use of vaccines in aquaculture – since 1987 antibiotic use in aquaculture, measured as total weight, has decreased by 99%.

Participation rates in screening for breast cancer reveal variation. According to a study in 2016 on average 84% of invited women aged 50–69 attended screening at least once in their life. Participation rate among immigrant women was 67% (Bhargava et al., 2018). The five-year survival rate for breast cancer in Norway is amongst the highest in the world (OECD, 2017), reflecting both earlier diagnosis in some cases and effective treatment once diagnosed.

Immunization rates in children have been increasing and the vast majority of children and young people are vaccinated against the diseases recommended in the Norwegian Childhood Immunization Programme. The current coverage rate of immunizations for diphtheria, tetanus, pertussis (DTP) and measles is 96%, which is higher than the WHO recommended rate of 95% (Norwegian Institute of Public Health, 2017b). The vaccination rate for influenza is 14% in the total population and 56% in older patients with a chronic disease. The total vaccination rate for influenza for people aged 65+ is 38% in Norway, compared to 43% in the EU (OECD Health Statistics, 2018). Measures are being implemented to increase vaccination rates for influenza, such as reducing the vaccine price for the target population and easier access, e.g. by organizing so-called vaccination days.

■ 5.2 Patient pathways

The patient's first contact with the health care system is usually through the regular GP or the on-call physician at one of the emergency centres that are located in all municipalities (see Section 5.3). Physicians in the municipalities have a gatekeeping role to specialist care. However, in case of medical emergencies, patients may attend the emergency department at the nearest hospital. For elective specialist care, the GP can either make an appropriate appointment on behalf of the patient or provide a referral so that the patient can arrange the appointment. A typical patient pathway is described in Box 5.2. A number of clinical pathways exist within specialized care for certain conditions (see examples in Box 5.3).

BOX 5.2 Example of a patient pathway

A 75-year-old woman with a slight limp and pain in the hip would typically take the following steps:

- She visits her regular GP, who examines her, makes a tentative diagnosis of arthritis and refers her for a radiology examination. Co-payments are due for most outpatient consultations.
- After receiving the radiology examination results, the GP refers her to an orthopaedic department, usually at a public hospital in the region, for examination and, subsequently, an operation or conservative treatment. The patient may choose the hospital where the procedure will be performed (see Section 2.5.2). Information on hospital waiting times and volumes are available online and patients may also seek advice from the national helpline. Waiting time for orthopaedic evaluation varies from 2 to 20 weeks. The GP prescribes any necessary medication before, but not during, hospitalization.
- For conservative treatment, she will be referred to a physiotherapist, receive adequate pain management and be scheduled for a follow-up appointment for re-evaluation of the condition.
- For an operation, the patient has to wait up to seven months for elective surgery. She has free access to any public hospital in Norway, and her GP might advise her to seek treatment in a hospital with a shorter waiting list. Change of hospital after the initial evaluation may, however, result in prolonged waiting time, as some hospitals request in-house orthopaedic

evaluation. If she cannot get treatment within the individual waiting time set by the first hospital, Helfo will contact the patient to offer assistance with finding timely care at another hospital. A private hospital may also be chosen if it is pre-approved by the Directorate of Health.

- Following surgery and rehabilitation at the hospital the patient is released home, where she might need home care (home nursing and/or home assistance). If this is prescribed by the hospital or her GP, it will be provided by the municipality free of charge.
- The GP is responsible for any further follow-up, such as providing a referral to a physiotherapist (a small co-payment would then have to be paid for physiotherapy).
- A follow-up hospital visit is likely to take place in order to check the result of the treatment.
- The Helfo covers part of the costs incurred at the GPs and for surgery, part of the travel costs, part of the cost of specialist examinations, all inpatient and rehabilitation costs at the hospital and part of the cost of physiotherapy (see Section 3.4 – cost sharing).

BOX 5.3 Integration of care

The Practice Consultant Scheme (Praksiskonsulent, PKO) has been in place since 1995 to help plan patient pathways and improve cooperation between primary care and specialized services. Within this scheme, GPs work part time (10–20%) in hospitals. However, the scheme faces challenges, given the limited time GPs can spend in hospitals due to increasing care responsibilities within municipalities. In some areas, especially for geriatric care and cancer treatment, specialist multi-disciplinary mobile teams have been established by the hospitals. They provide guidance and care to patients at home or in other settings within the community.

Standardized patient pathways are implemented in municipalities and hospitals in Norway to ensure good coordination of evidence-based care. The RHAs distinguish between three categories of patient pathways comprising hospital-based services, municipal health care services, and specialized health care services provided outside hospitals: (1) internal hospital pathways where patients stay and receive treatment and follow-up within the same hospital; (2) pathways involving several hospitals within the same hospital trust; (3) pathways involving different trusts in the RHAs. Separate pathways exist for adults with psychiatric and/or substance abuse problems, requiring somatic care. In 2018 pathways were developed for children and youngsters with mental health and substance abuse problems.

National, standardized cancer patient pathways, known as Cancer Patient Pathways Programmes (CPP-P), have existed since 2015. The goals of CPP-Ps are to prevent unnecessary waiting time for examination and treatment, and to improve cooperation with GPs to ensure adequate information and involvement of patients in relation to their cancer diagnosis and treatment. Indicators showing the proportion of patients receiving care within the specified timeframe are published for 26 CPP-Ps. Surveys among the general population, cancer patients and GPs following the introduction of CPP-Ps have shown small but positive changes in the evaluation of cancer care (Iversen, Bjertnæs & Holmboe, 2015). According to the MOHCS, by 2017, 78% of the patients diagnosed with cancer were enrolled in CPP-Ps, and 70% of all cases followed the recommended pathway (Norwegian Ministry of Health and Care Services, 2017a). A recent study of waiting times shows a significant decrease in waiting times between 2007 and 2016, although little impact from the CPP-P introduced in 2015 (Nilssen et al., 2019). Authors find the reduction in median waiting time for radiotherapy among colorectal, lung and prostate cancer patients was reduced by two to seven weeks. For surgery, median waiting time remained about 21 days for colorectal and breast cancers, and decreased by 7 days for lung and by 36 days for prostate cancers. The regional differences were also significantly reduced, and the reductions occurred gradually over a decade.

Studies of development and implementation of other clinical pathways, which include follow-up in primary care, reveal that serious shortcomings in collaboration between hospitals and the municipalities remain, especially for patients with multimorbidities (Grimsmo et al., 2018). This has led some municipalities to develop generic care pathways, which appear to be a more sustainable model of care for patients with multiple chronic conditions. In 2017 the Directorate of Health published national guidelines to support municipalities in developing comprehensive patient pathways for patients with multi-morbidities with a high level of care needs (see Section 6.1 – primary care reform).

INTEGRATION BETWEEN MUNICIPAL AND SPECIALIST CARE

The care coordination reform of 2012 put more emphasis on municipalities' responsibility for 24-hour care and care after hospital discharge, including obligating the municipalities to establish individual treatment plans for patients with chronic diseases. These plans are created in cooperation with other service providers to ensure comprehensive care for the individual. Initially, municipalities became responsible for co-financing of somatic non-surgical specialist health care services provided in hospitals and for

patients ready for discharge. However, this scheme was abandoned in 2014 after a change of government (Saunes & Ringard, 2014). Since late 2015 municipalities have been responsible for providing emergency care beds on a 24/7 basis for patients in need of pre- or post-hospital services. From 2016 length of stay there has been limited to 72 hours for a single episode of care to ensure that municipal emergency beds are not used for patients with long-term care needs (Saunes, 2016b).

In addition, in response to patient surveys that showed that hospital discharge was the least satisfying aspect of a hospital stay, Norway began reorganizing the discharge process, including starting the discharge planning process at admission, communicating important information to municipalities during the admission, facilitating a discharge discussion with patients and families, and creating a discharge checklist. Hospitals are now required to contact municipalities within 24 hours of an admission if they believe the patient will require follow-up from health or social care services once discharged (OECD, 2018a).

As part of the coordination reform, hospitals and municipalities must establish formal contracts on the provision of care for patients with complex needs to improve integration of care. However, these contracts do not seem to reduce tensions between hospitals and municipalities over organizing and financing of care and regular day-to-day dialogue continues to be of importance (Gautun, Martens & Veenstra, 2016). When serious conflicts arise between hospitals, trusts and municipalities, the National Committee for Dispute Resolution established by the Directorate of Health is in place to help resolve them by providing legal assessment and guidance to the parties involved. Between 2013 and 2019 the Committee settled or advised in 18 cases.

■ 5.3 Primary care

Municipalities are responsible for providing primary care, including rehabilitation, physiotherapy and nursing, and after-hours emergency services, as well as non-hospital emergency care beds for patients needing pre- or post-hospital services. They are also responsible for a wide range of public health and preventive measures (see Section 5.1). Municipalities are free to decide how to organize the provision of care, including deciding on whether

to hire GPs as public employees or signing contracts with private physicians (see also Section 6.1).

Most GPs are self-employed and work under contract with municipalities. A typical practice usually consists of two to six physicians and auxiliary personnel. From 2017 new GPs have been required to either have a specialization in general medicine, or be enrolled in the specialization programme. Most GPs (97% in 2016) participate in the regular GP scheme (Statistics Norway, 2019a), which obligates them to give priority to patients on their lists (see Section 2.5.2). Virtually the entire population (>99%) are registered with their regular GP, while only about 20 000 people (0.4% of the population) do not see their regular GP. The average number of patients on a GP's list was 1157 at the national level in 2017, but with large geographical variation. For example, in Finnmark (the northernmost county) the average was 800 patients, while in Oslo it was 1400 patients. The upper limit for patients on a GP list is 2500, while lists with a lower number than 500 require special contracts with the municipalities (Norwegian Directorate of Health, 2017c).

GPs have a key role in the health system as gatekeepers for patients with regard to accessing specialist care (see Section 5.2) and care for patients with chronic diseases. Their responsibilities include: making primary diagnoses; treating simple everyday health problems; issuing sickness certificates; prescribing drugs; and referring patients to specialist care when necessary. Only physicians or ambulance services can refer patients to an emergency hospital consultation or to a hospital (for admission). GPs are also obliged, through their contracts with municipalities, to serve as on-call physicians in the local emergency centres (see Section 5.5). Moreover, they play an important role in health promotion and public health (see Section 5.1).

In 2015 a comprehensive overview of primary health care was presented in a White Paper (Norwegian Ministry of Health and Care Services, 2015b). The White Paper proposed reorganizing primary care by instituting interdisciplinary primary care teams as the basic unit of care provision. Two types of interdisciplinary teams were distinguished: (1) teams providing general primary health care to the local populations; and (2) Complex Chronic Care Teams looking after patients with complex care needs. The teams were piloted between 2018 and 2019 and consist of GPs, nurses and medical secretaries, led by a GP

(see Section 6.1). This is a narrower service than envisaged originally in the 2015 White Paper, as it does not include other health or social care personnel. A separate action plan on recruitment, competencies and professional development in primary health care has since been developed (also described in Section 6.1), and a system for educating managers at the municipal level to support the reforms has been established (see Section 4.2).

BOX 5.4 Assessing the strength of primary care

Primary health care has long been, and continues to be, high on the policy agenda, with the coordination reform of 2012 setting a strategic vision for the health care system as a whole (OECD, 2014). In terms of access, 33% of patients see their GP on the same day (40% of patients within the next four days, and waiting times for non-emergency care appearing to be rather stable), and with more than 50% reporting a rather easy access to out-of-hours care (Skudal et al., 2016). Nevertheless, there may be some gaps in access due to lack of GPs in some areas (see Box 4.2), as well as the existence of user fees (see Section 3.4). A comparative study of primary care published in 2015 ranked the overall level of comprehensiveness of primary care in Norway as high, the level of accessibility and continuity as medium, and the level of coordination as low compared to other countries in Europe (Kringos, 2015). The overall strength of primary care, which also takes into account structural and organizational factors, was assessed as medium in the same study. The ongoing primary care reform (see Section 6.1) is aimed, among others, at improving the accessibility of primary care. The responsibilities of the municipalities will be extended to include more preventive health services, and primary health professionals other than medical doctors will be given the right to oversee follow-up care for chronic patients.

To date, quality of municipal health services has not been measured regularly. But the creation of a new national registry, the Municipal Patient and User Registry (*kommunalt pasient- og brukerregister*, KPR) in 2017 is expected to improve the evaluation as well as planning and management of these services. KPR uses information from pre-existing registries and contains information such as medical diagnoses and health care provided by the municipalities. From 2019, after merging with the Norwegian Information System for the Nursing and Care Sector (IPLOS), KPR will also include information about social care services. Given that a registry covering specialist health care already exists (the Norwegian Patient Registry), the addition of KPR will make it possible to analyse complete care pathways of Norwegian patients.

■ 5.4 Specialized care

■ 5.4.1 *Specialized ambulatory care*

Specialized outpatient care is usually provided in hospital outpatient departments called polyclinics. There are outpatient departments for somatic care, mental health care, and alcohol and substance abuse treatment. These departments also provide laboratory and radiology services.

Outpatient specialist care is also provided by self-employed privately practising specialists (e.g. obstetricians, specialists in internal medicine, etc.), mostly working in their own practices under a contractual agreement with the RHAs (Gurmu, 2017). They account for about 25% of all specialist outpatient consultations, both somatic and mental health care. For somatic care, nearly 70% of services provided by self-employed specialists are provided by ophthalmologists, ENT specialists and dermatologists. For mental health care, one third of the specialists are psychiatrists and two thirds are psychologists (Norwegian Directorate of Health, 2019b). There is also substantial regional variation in the use of privately practising specialists. People in the South-Eastern RHA are the most frequent users, whereas people in the Northern RHA are the least frequent users of somatic services and people in the Central Norway RHA are the least frequent users of privately practising specialists in mental health.

In the rural and more remote parts of the country, care is provided within community hospitals (traditionally named *sykestue*). They provide care that cannot be received at the patient's home but does not require a hospital admission, as well as post-hospital care, and decide whether hospitalization to an acute hospital is necessary. These institutions are often co-located with other municipal health services. Their organizational set-up varies greatly; for example, they may be set up as a local department of the nearest hospital with a limited range of inpatient care, or care may be provided by contracted self-employed specialists who only provide outpatient care and work in cooperation with primary care services.

■ 5.4.2 *Day care*

An explicit policy goal to replace relatively expensive inpatient care with less costly outpatient and day surgery and care and bring care closer to patients'

homes has been present in Norway since the 1980s. A range of treatments are now provided as day care, including somatic care (e.g. surgery), psychiatric care (e.g. treatment of eating disorders) and treatment of drug and alcohol addiction. This shift towards day care is reflected in the decline of average length of hospital stays, and the decline in the number of acute hospital beds (see Section 4.1.2).

A recent example of the substitution policy can be found in the area of dialysis treatment. In some municipalities dialysis is now provided on an outpatient basis (e.g. in nursing homes), although this is done in close cooperation with the local hospital. In 2018, 22% of Norwegian patients with chronic renal failure received dialysis at home (Norwegian Directorate of Health, 2018a).

■ 5.4.3 *Inpatient care*

Inpatient specialized care is mainly provided by hospital trusts owned by the RHAs. It is also provided by seven privately owned for-profit and not-for-profit hospitals under contracts with the RHAs. Patients must get a referral to access inpatient care but they are free to choose among public and private hospitals that are approved by the Directorate of Health (see Sections 2.5.2 and 3.7.1). In 2015 freedom of choice of hospital was extended to any hospital in the EU/EEC, although transportation costs are not covered.

The new Health and Hospital Plan for 2016–2019 emphasizes decentralization of hospital care with the exception of acute care services, where centralization is set to increase. According to this Plan, which at the time of writing in December 2019 has not yet been fully implemented, all hospitals are envisaged to be organized in networks, with regional hospitals, larger acute care hospitals (providing specialized emergency care for 60 000–80 000 or more inhabitants) and acute care hospitals with elective surgery and some acute care functions (specified and planned according to local needs). Within this network there are about 50 highly specialized competence centres providing services on a national scale. They are mostly located within the university hospitals, and mainly conduct activities related to professional development, competence evaluation and counselling, but sometimes also manage the process of patient treatment in the area of their competence.

Specialist care is concentrated in urban areas, and people living in rural areas have to travel longer distances to access specialist services. The relatively low number of acute hospital beds per 100 000 inhabitants, combined with high occupancy rates and relative long waiting times, indicates potential problems with accessibility of elective hospital care in Norway (see Box 5.5).

BOX 5.5 Assessing the appropriateness of care

Appropriateness of health services provision features on the policy agenda in Norway, with the key concerns being overuse of diagnostics and inappropriateness of treatment. For example, Norway is reported to use CT scans twice as often as Sweden (although comparable data are not readily available). There is also regional variation in the use of diagnostic CT scans for cancer (Office of the Auditor General of Norway, 2017). A national health atlas (<https://helseatlas.no/en>) documents variation in the use of a range of health services. For example, there are large differences in the use of outpatient services and hospital admission rates for children, which do not appear to be explained by geographical differences in overall morbidity.

Both the number of hospital beds and the average length of stay have been declining over the past few decades and are lower than the respective EU averages (see Section 4.1.2). Long waiting lists have been a focus of policy debates and, although the average waiting times have decreased slightly over the past few years, those for specific elective surgeries, such as cataract surgery and hip replacement, remain much higher than in Denmark, the Netherlands, Italy and Sweden (see Section 7.3). These long waiting times may be related to capacity problems as well as to free hospital choice – patients may wish to wait longer for an elective surgery at a large hospital rather than have it done earlier at a smaller hospital.

■ 5.5 Urgent and emergency care

PRE-HOSPITAL EMERGENCY CARE

Provision of pre-hospital emergency medical services in Norway is shared between municipalities and hospital trusts. At the primary care level emergency primary care services in most municipalities are provided by

BOX 5.6 Patient evaluations of the care they receive

Since 2003/4 the NIPH has run a national programme for the measurement of patient experiences (patient-reported experience measures, PREMs) in secondary health care. It has conducted over 30 national surveys to date, including surveys of patients with cancer, mental health conditions, diabetes and substance dependence. Although the main focus of the programme is secondary health care, several surveys are devoted to municipal health and care services, including an ongoing national evaluation of patient experiences with their GPs.

Patient experiences with hospital care have improved over time. In 2016 patients gave the highest scores to their experiences with physicians and nurses, and these scores varied the least among the hospitals. The lowest scores were given to patient discharge. However, over time several aspects of hospital discharge, such as information on prescription drugs and written information on discharge from hospitals, have improved (Skudal et al., 2016). The greatest variation in scores was reported with regards to how patients evaluated the standard of hospitals (e.g. cleanliness).

Municipalities have a system for measuring patient experiences with municipality services, including health care services, provided by KS (bedrekommune.no). These surveys are voluntary for municipalities and are not published, but their results may be used for internal quality improvement. See Section 7.6 for a more detailed assessment of quality of care.

Patient-reported outcome measures (PROMs) have not been measured widely at the national level, but the national quality registries have started to prioritize this. NIPH has given the registries free access to the EQ-5D instrument measuring health-related quality of life developed by EuroQol (euroqol.org) to use it for quality improvement and research. NIPH cooperates with the Centre for Clinical Documentation and Evaluation on including PROMs and PREMs in the registries (see Section 7.1). An e-PROMs solution was first presented in 2016 for use in the national quality registries and it is hoped to increase the use of PROMs.

Norway participates in international initiatives, including the OECD's PaRIS Survey of Patients with Chronic Conditions, and the Commonwealth Fund international health policy surveys, which include the perspectives of the general public, selected population groups and GPs on health care services and the health system. Norwegian respondents generally report poorer experiences with their regular GP than respondents from other countries in areas such as communication, user participation and consultation time.

regular GPs (within office hours) and by on-call GPs (outside office hours) supported by telephone services. Since 2015 GPs providing emergency primary care services must have a specialization in general practice or fulfil other qualifications (see Section 4.2), or have access to an on-call specialist.

On-call services in smaller municipalities are often organized in an emergency ward at one of the community hospitals and cover the combined area of all the participating municipalities. In very sparsely populated areas, pre-hospital emergency services may be provided within municipal home nursing facilities or (e.g. in Northern Norway) with the support of telemedicine. In the case of emergencies requiring the involvement of specialist health services, emergency centres collaborate with Emergency Medical Communication Centres (Akuttmedisinsk kommunikasjonsentral, AMKs; see below). In urban areas there are designated emergency care wards operating on a 24/7 basis by the municipalities and from January 2016 all municipalities have to provide emergency care beds (also operating on a 24/7 basis) for patients who can be treated safely at the local level. These are usually staffed with full-time physicians and nurses who provide advice, assess the situation and direct the patient to other types of care when needed.

HOSPITAL EMERGENCY CARE

Accident and emergency departments (A&E) exist in all hospitals that provide emergency care. They are staffed by physicians, registered nurses and other health-care personnel. They usually have observational beds, where patients may be observed for several hours before being admitted to hospital or discharged, depending on their condition. A special feature of the Norwegian system is that patients are not allowed to seek treatment at an A&E department directly but have to be either referred by a physician or brought in by ambulance (see Section 5.3). The A&E departments communicate with ambulance services and other health resources involved in pre-hospital emergency care in order to provide advice and to ensure that necessary preparations are made to receive patients at the hospital.

COMMUNICATION CENTRES SUPPORTING EMERGENCY CARE

There are two kinds of communication centres supporting the provision of emergency care services in Norway. At the level of primary emergency care patients can call the six-digit number 116117 and the call will be directed to the nearest local on-call emergency ward. The centres are usually staffed with nurses. While larger centres operate on a 24/7 basis, smaller centres can only be accessed within set times (e.g. from 4pm until 8am). The centres are connected to a digital radio system that is used to mobilize GPs or ambulances. The total number of such centres reduced from 146 in 2009 to 104 in 2016 (Norwegian Ministry of Health and Care Services, 2016b).

At the level of specialized care there are 16 Emergency Medical Communication Centres (AMKs), covering one or more hospital catchment areas (Norwegian Ministry of Health and Care Services, 2016b). AMKs receive calls to the toll-free emergency number (113) and may provide advice on emergency medical procedures to callers and mobilize other resources (such as ambulances). These are staffed with nurses and ambulance coordinators.

AMBULANCE SERVICES

The ultimate responsibility for ambulance services rests with the RHAs. These services are provided by hospital trusts or by private sub-contractors. In order to reduce response times, ambulances may be located in decentralized ambulance units in the hospitals or in the community. Highly specialized ambulances, including air ambulances, are staffed with physicians (e.g. anaesthesiologists) in addition to emergency medical technicians. Two companies provide air transport. Norsk Luftambulanse AS runs helicopters from twelve locations, while Babcock Scandinavian AirAmbulance operates nine ambulance airplanes from seven locations. Around 20 000 patients are transported each year.

Box 5.7 describes a typical patient pathway in an emergency care episode.

BOX 5.7 Patient pathway in an emergency care episode

In Norway a person with acute appendicitis on a Sunday morning would take the following steps:

- The person (or someone else) calls the on-call GP service (ward or centre). The call will be answered by a nurse who decides, possibly after consulting a GP, that the patient needs to be further examined (note that the diagnosis is not yet made).
- The patient arrives at the emergency ward/centre. The GP on duty diagnoses acute appendicitis and refers the patient to an A&E department.
- If needed, the patient is transported to the A&E department by an ambulance.
- At A&E a specialized nurse does the triage and estimates the urgency of the case. The patient will also be seen by a physician from the hospital department where he or she will be treated. The waiting time depends on the level of urgency.
- A surgeon performs surgery on the patient.

Another possibility is that the GP on duty travels to the patient's home, makes a diagnosis and calls an ambulance, which will take the patient to the hospital.

The Manchester triage scale is a common tool for triage at emergency wards/centres and A&E departments in Norway. The National competency centre for pre-hospital emergency care established the Norwegian Manchester Triage Group in 2010, and it is now represented at A&E departments and emergency wards/centres throughout the country.

Several trends have been observed in the area of emergency care in recent years. The focus has been on improving efficiency through greater centralization, for example through increased collaboration between the municipalities with the aim of reducing the number of emergency centres in favour of fewer but larger centres serving more than one municipality. However, the vast majority of emergency centres have only one physician on duty outside office hours, which, combined with longer travel distances to the nearest centre, results in poorer access to emergency care. The majority (73%) of cases seen at the emergency centres are characterized by a low level of emergency, while 2.5% are categorized as very high (Norwegian Ministry of Health and Care Services, 2015b).

Other trends include growing specialization of ambulance staff as they provide increasingly complex treatment, placing greater demands on their medical skills as well as on communication and data transmission systems; better use of existing emergency care resources (for example, there has been a trend towards establishing observational beds within A&E departments); and improved communication between various public safety services.

■ 5.6 Pharmaceutical care

THE PHARMACEUTICAL SECTOR IN NORWAY

Norway is a net importer of pharmaceuticals. In 2017 imports of medicinal products amounted to Nkr19.7 billion (€2.11 billion) and exports to Nkr7.8 billion (€0.8 billion) (LMI, 2019). All major pharmaceutical companies are represented in Norway, but only a few have established their own manufacturing units in the country. The five largest (in terms of market share) in 2018 were: Pfizer AS (6.2%), MSD (Norway) (6%), Novartis (5.9%), Gilead Sciences (4.7%) and Biogen Norway (3.6%). In the same year there were 11 domestic pharmaceutical manufacturers in Norway, the largest of them (in terms of revenues) being Pfizer AS, MSD (Norway) and Novartis Norge AS (LMI, 2019).

There are three wholesalers in the market, all three belonging to leading European pharmaceutical distribution companies: Alliance Healthcare AS (with a market share of 46%), Apokjeden AS (31%) and Norsk Medisinaldepot (23%). Each of the wholesalers is vertically integrated with their own pharmacy chain (LMI, 2019).

In general, only community and hospital pharmacies are allowed to dispense prescription medicines. Of the total number of 934 pharmacies in 2018, 32 were public hospital pharmacies (Norwegian Pharmacy Association, 2019). There are approximately 5670 inhabitants per pharmacy. In addition, prescription medicines are dispensed by small outlets belonging to the pharmacies (841 in 2018). Grocery stores, petrol stations, etc., are allowed to distribute a restricted list of OTC medicines (Norwegian Pharmacy Association, 2019). OTC pharmaceuticals can also be bought from online pharmacies.

CONSUMPTION OF PHARMACEUTICALS

After a decade with relatively stable consumption of pharmaceuticals, total consumption measured in the number of defined daily doses (DDD) increased by 2.2% between 2016 and 2017. In 2017 total pharmaceutical consumption amounted to 3020 million DDDs (Sakshaug et al., 2018). The per capita consumption of pharmaceuticals in Norway was €450 in 2018, which is higher than in Sweden (€409) but lower than in Denmark (€486) and Finland (€462). Prescription medicines account for the bulk of pharmaceutical consumption as measured in total sales (OTC medicines accounted for only 8% of sales) and DDDs (OTC accounted for 11%).

The largest group of prescription medicines in terms of sales is ATC group L (Antineoplastic and immunomodulating agents), accounting for 27% of the total in 2018. This group includes cancer medicines and biological medicines (used, for example, in the treatment of rheumatoid arthritis and multiple sclerosis). The largest group of prescription medicines in terms of sales in DDDs is ATC group C, i.e. medicines for diseases of the cardiovascular system. The cost of many medicines in this group has fallen over time due to the introduction of pricing/reimbursement regulations.

Norwegian, Swedish and Danish doctors are among those prescribing the fewest broad spectrum antibiotics, helping to reduce the emergence of antibiotic-resistant bacteria (OECD, 2017). Sales of antibiotics have decreased gradually since 2012 in line with the national action plan against antibiotic resistance in health care, which is intended to reduce the use of antibiotics by 30% from 2012 to the end of 2020 (Sakshaug et al., 2019).

COST-EFFECTIVE USE OF PHARMACEUTICALS

The Norwegian Medicines Agency (NoMA) assesses whether approved generic medicinal products should be placed on the substitution list. Pharmacists are obliged to inform patients if there is a cheaper generic alternative available. Physicians may decline the substitution for medical reasons, whereas patients may decline without reason. Patients must, however, cover the price difference between the two alternatives if they refuse the generic substitute. A step pricing system is in place to reduce prices wherever there is generic competition. This system has resulted in lower prices for medicinal

products that have generic competition and in a decline of generic substitution (White Paper no. 28 (2014–2015) Legemiddelmeldingen (Report on Pharmaceuticals)). Information about generic substitution is available through the NoMA website, as well as via leaflets for patients, brochures to pharmacies, and presentations for the general media and at conferences and seminars.

BOX 5.8 Evaluating efficiency in pharmaceutical care

Generic substitution was introduced to pharmacies in 2001 and has led to a reduction in the cost of pharmaceuticals financed through the NIS. The generics share of the pharmaceutical market rose steeply until 2008 and then stabilized between 2009 and 2014. Since then it has been rising again and in 2018 sales of generic medicinal products accounted for 52.2% of total sales, measured in terms of volume, compared to 23.6% in 2001 and 41.5% in 2011 (Norwegian Pharmacy Association, 2019). Nevertheless, this share remains about 10 percentage points below Denmark (OECD, 2017).

Uptake of low-cost statins has been increasing in Norway. Atorvastatin is the top-selling statin and its sales increased nearly threefold from 2009 to 2018. Norway has also been at the forefront of increasing biosimilars uptake, via for instance the NOR-SWITCH trial which aimed to test the safety of switching patients from the originator biological product with its biosimilars. The rationale behind the use of biosimilars is to increase price competition, thereby reducing pharmaceutical prices. Looking at the uptake of biosimilars – a biological medicine highly similar to another already approved biological medicine ('reference medicine') – OECD data reveal that Denmark and Norway have the highest uptake of anti-TNF biosimilars (developed for treating rheumatism) among OECD countries with respectively 90% and 82% of the market share (OECD, 2017). However, lower shares are observed for some other categories of pharmaceuticals. For example, the biosimilar market share for medicines used in the treatment of renal failure was close to the EU average of 45% (OECD, 2018a).

ACCESS

Access to innovative pharmaceuticals is generally good compared to other European countries. A study assessing the economic impact of supplementary protection certificates and pharmaceutical incentives and rewards in the EU concluded that the average time from the first international

launch until 25% of molecules (so-called ‘defining new molecules’) are available in Norway is 1 year compared to 1.6 years in the EU on average (Copenhagen Economics, 2018). The benefit of rapid access to new and/or innovative pharmaceuticals is up for debate. A recent study has revealed that there is little or no evidence of added benefit for most of the new drugs introduced into the German market between 2011 and 2017. Evaluations of the effect upon regulatory approval are often rather limited for innovative pharmaceuticals, and post-marketing studies are less common (Wieseler, McGauran & Kaiser, 2019).

■ 5.7 Rehabilitation/intermediate care

Provision of rehabilitation care has a long tradition in Norway. The approach to rehabilitation has evolved from a narrow (medical) focus on restoring lost functions to a more comprehensive approach incorporating non-medical (e.g. social, economic) factors and involving comprehensive cooperation between several sectors and areas of care. In May 2018 the amendment of the “Regulation for habilitation/rehabilitation, individual plan and co-ordinator” changed the definition of habilitation and rehabilitation and centred it more on the patient. According to this regulation, rehabilitation (and habilitation) should be based on the life situation and goals of the individual patient who has or is at risk of impaired physical, mental, cognitive or social ability and give them the opportunity to achieve optimal functional ability, sense of life achievement, independence and participation in education and work, on a personal and societal level. It should comprise targeted processes in a range of settings, with cooperation between patients, next-of-kin and service providers. Processes should be coordinated, continuous and knowledge-based.

Rehabilitation is provided at both primary (physiotherapy, occupational therapy, etc.) and secondary (specialized rehabilitation) levels. As in other countries, Norway has in the last two decades also developed some intermediate rehabilitation services based on shared care between specialized and primary health care.

Primary care rehabilitation is provided in the community – in patients’ homes, schools and institutions run by the municipalities (e.g. nursing homes). Services are provided by medical doctors, physiotherapists, nurses and midwives. Primary care rehabilitation is available for somatic as well as

psychiatric patients and can be accessed through a referral from a primary care physician.

Secondary rehabilitation services are provided in hospitals in dedicated rehabilitation departments or other units, such as rheumatology or neurology departments. Rehabilitation, especially postoperative rehabilitation, may also be provided in private rehabilitation institutions contracted by the RHAs; this is free of charge if the patient is referred by a GP or a hospital. Rehabilitation services for patients with specific conditions are also available in specialist hospitals (e.g. children's hospitals treating pulmonary conditions, asthma and allergy) and competence centres (e.g. competence centres for rare diseases). Since 2017 patients have been able to choose to receive rehabilitation services outside their RHA, but most patients (97%) receive rehabilitation within their own RHA. The exception is the Northern Norway RHA, where the respective share is 92%.

Municipalities as well as RHAs are jointly responsible for coordinating rehabilitation services. This is done through designated 'coordination units'. The units facilitate cooperation between health care providers and the Labour and Welfare Administration (NAV) and its local offices and user organizations. Coordination activities include registration of rehabilitation needs; designing and following individual holistic (ensuring interdisciplinary approaches) rehabilitation plans; and initiating, administering and monitoring multidisciplinary rehabilitation teams, which constitute the core of cooperation between different service providers.

In 2017, 54 000 patients received rehabilitation services from the specialist health service and 14 000 patients received rehabilitation in the municipalities (Norwegian Directorate of Health, 2018d). Institutional rehabilitation within the municipalities is usually provided to older patients (85% of patients in 2017 were aged 70+) (Mørk et al., 2018). In 2017 over 27 870 patients received rehabilitation care in hospitals, nearly 50% of them as outpatients or day-care patients (Norwegian Directorate of Health, 2018d). Almost as many patients (27 393) received treatment in private institutions (mainly in an inpatient setting). The average length of stay was about three weeks.

According to the Action plan for habilitation and rehabilitation for 2017–2019 there are several challenges within the rehabilitation sector (Norwegian Ministry of Health and Care Services, 2017b). The key challenges are: ensuring sufficient resources to allow the maintenance of an adequate capacity of rehabilitation care; development of individual rehabilitation

programmes in a way that provides equitable access to services; ensuring sufficient cross-sectoral cooperation and coordination across administrative levels and professional groups; and eliciting the active participation of users.

■ 5.8 Long-term care

The Patients' Rights Act of 1999 was amended in 2016 to include a paragraph entitling patient access to care in long-term care facilities if it is deemed the only option to ensure necessary and justifiable care. The amendments also enforced municipalities to enact local criteria and waiting lists to safeguard the rights of patients.

In 2017 Norway spent over a quarter of current health spending on long-term care, a proportion that is higher than in any EU country (Table 3.2; OECD, 2019). This reflects the government's commitment to enabling family carers to stay in the labour market (Morgan, Gmeinder & Wilkens, 2017), as well as the possible overlaps between long-term care and social services. The organization and provision of long-term care is the sole responsibility of the municipalities and is often administratively integrated with other health and social services at the local level. In smaller municipalities these services are often organized within the same unit. Overall, municipalities have had a high degree of freedom in deciding how LTC services should be organized. The basic guiding principle for the provision of LTC is that services and individualized support should be arranged in a way that enables people to stay in their own homes for as long as possible.

LTC is provided in three types of settings: patients' homes, nursing homes and sheltered housing run by the municipalities. Nursing homes are designed for residents who require a high degree of medical care (e.g. patients suffering from dementia or heart and lung diseases) and help with daily activities. There are also short-term rehabilitation departments within some nursing homes, where patients can stay, for instance, after a hospital discharge. Sheltered houses offer residents the same services as home care and are often located close to the municipalities' long-term nursing homes. The distinction between nursing homes and sheltered houses is not always clear-cut. Some sheltered homes provide services resembling those provided in nursing homes; others are more like private homes. In addition, there are day-care centres for older people within nursing homes. The average resident

of a sheltered house will normally have fewer care needs than the average resident of a nursing home, as well as more private rooms/areas. The majority of nursing and sheltered homes are owned by the municipalities. About 5% of nursing homes are owned and managed by voluntary organizations, but may be staffed by health-care professionals and care is financed by the municipalities. There is also a small number of commercial nursing homes where patients pay full fee; these account for about 5% of all nursing homes beds (Statistics Norway, 2019a).

None of the LTC settings is specifically reserved for older people. Eligibility criteria are set by the municipalities. Decisions on eligibility are taken by the provider or by an independent unit within the municipality's health care system and are based on an assessment of needs, irrespective of any potential help that may be forthcoming from the patient's relatives. The assessment includes recommendations from the patient's GP with regard to the appropriate level of care. Processing of applications and planning of LTC services is supported by two central information systems: IPLOS (providing a standardized set of information about any seeker or recipient of health or social help in the nursing and social care sector) and KOSTRA (Municipality-State-Reporting, a reporting system containing information on resources used in various areas of care, including LTC).

There has been an increase in the number of users of nursing and care services provided by the municipalities, especially of home care. The number of people receiving care at home grew from 162 000 in 2002 to nearly 190 000 in 2017 (Statistics Norway, 2019a). The development of sheltered housing and nursing homes is encouraged by the state through the provision of earmarked funding. The number of places in nursing homes decreased slightly in the past two decades: in 2017 there were about 40 000 people living in nursing homes compared to almost 46 000 in 1992. This is partly the result of a deliberate process of increasing the number of single-occupancy accommodation to make nursing homes more home-like; in 2017 almost 87% of rooms in nursing homes were for single occupancy with en-suite bathroom (Statistics Norway, 2019a).

In 2017 there were about 45 000 residents living in sheltered housing, of whom 20 000 were under 67 years of age (Statistics Norway, 2019a). The share of older people receiving care and practical support at home has declined in the last decade. It is not clear whether this decline is due to population ageing (see Section 1.4) and an inability on the part of the municipalities to

increase the volume of services or whether it is due to older people having better health and less need for support and services at home. In August 2019 about 1300 people (3%) with a registered need for care were on a waiting list for nursing home/sheltered housing.

Quality regulations exist in the area of LTC, but there are no legal requirements for staff-to-patient ratios; the required qualifications of care workers are also not specified. The government has been exploring whether norms or guidelines for staffing and quality in the care services sector should be introduced (Norwegian Ministry of Health and Care Services, 2015a). A study of LTC provision in 150 municipalities revealed variations in staff planning and differing viewpoints on the optimal staffing levels. The study did not recommend an optimal staff-to-patients ratio; however, it suggested that planning of replacement staffing to cover for sickness-absence should be improved (Bratt & Gautun, 2015). The new Municipal Patient and User Registry (KPR) collects data on some quality aspects in nursing homes, which are included in the National Quality Indicator System (see Section 7.1).

■ 5.9 Services for informal carers

The responsibility for supporting people with particularly comprehensive care needs lies with the municipalities. Municipalities also have a duty to offer guidance and measures, including financial support, to reduce the burden of care for next of kin with a particularly heavy care burden (Health and Care Services Act, 24 June 2011).

Informal carers are an important resource of LTC, with an estimated number of person-years equalling that provided by the municipal services. Informal carers looking after a close relative may be eligible for financial support from the municipality. The family caregiver scheme was introduced in 1988, initially as salary for care provided with an additional right to pension credits. In 2017 the terminology changed from salary/paid work to financial support for care provided, but caregivers continue to earn a right to pension credits.

Decisions to grant financial support are taken by the municipalities. In order to receive such support, the carer must commit to carry out care services at the patient's home, and both the user and the municipality must agree

that this is the best solution for the person in need. Another precondition is that the person in need would otherwise be eligible for care provided by the municipality if informal care were not available. Decisions are taken on a case-by-case basis by the municipality.

The number of persons receiving monetary compensation for informal care work has been stable over the past decade, together with the number of people receiving care from paid informal carers (about 11 500 in 2017) (Statistics Norway, 2019a). On average, informal caregivers were compensated for 11 hours of work per week. The likelihood of being granted economic compensation for informal care varies according to the age of the user and is usually granted to persons caring for children and youngsters (Mørk et al., 2018).

As demographic and migration patterns change, this level of informal care might be difficult to uphold. The government's ambition is to maintain the current level of involvement by developing a policy on informal care. This will include reforming payment in the family caregiver scheme and exploring the idea of establishing platforms where patients, users and family members can raise issues of common interests.

■ 5.10 Palliative care

Since the early 1980s a number of official reports and national plans, closely linked to cancer care and the national cancer strategy, have promoted the gradual development of palliative care in Norway. Given the historical predominance of cancer patients among palliative care patients, oncology has been the most relevant postgraduate training in the area of palliative care. The Nordic Specialist Course in Palliative Medicine has been running since 2003 and palliative medicine was approved as a formal competence for physicians in 2011. Physicians specializing in oncology have a mandatory rotation in palliative care units in hospitals. Child palliative care has been offered as a nursing specialty since 2017.

The latest strategic policy documents in this area are an update of the National Action Programme for Cancer Palliative Care published in 2015 and the child/youth-specific guidelines for palliative care from 2017. General guidelines for providers of palliative care were updated in 2018. An official report on palliation "On life and death; palliation for the ill and dying"

(Official Norwegian Report, 2017:16) is currently being processed by the MOHCS and the government has signalled stronger support for LTC and palliative care.

Palliative care services are provided at all levels of care. Palliative care for patients staying at home is provided by GPs and within municipal home care services. A comprehensive overview of how palliative care is organized across all the municipalities is lacking. The GPs and municipal home care services may be supported by hospital-based specialist palliative care teams who provide palliative care in hospital outpatient care departments and in the municipalities. Each team must have at least one consultant and one full-time nurse, and include a social worker, a physiotherapist and a pastoral worker. In order to be reimbursed, services provided by these teams must include a systematic symptoms assessment; follow-up of family members; and cooperation with primary care services. All main hospitals have multi-disciplinary palliative care teams – in 2016 there were 40 teams or palliative wards across Norway. Specialist palliative care is also provided in inpatient settings such as designated inpatient units in municipal nursing homes (48 units across Norway, of which 32 are located within the South-Eastern RHA), and specialist palliative care inpatient units in larger hospitals providing care to patients with the most complex needs (17 palliative hospital units across Norway).

Tertiary palliative care is provided in university hospitals. Each of the four university hospitals has a comprehensive palliative care programme comprising an ambulatory team, outpatient clinic and inpatient unit (only the university hospital in Tromsø does not have an inpatient unit). These are part of the regional competency centres for palliative care which are in charge of research and development activities. They are also responsible for establishing and developing local networks of cancer care and palliative care nurses who are mostly specially trained (i.e. resource nurses). In 2017 there were about 2000 nurses participating in these networks. Resource nurses based in the communities work in cooperation with GPs and nursing home physicians and are the local link to the hospital-based specialist palliative care teams. In many municipalities nurses working in home care who are specialized in cancer care often also serve as resource nurses for palliative care.

According to a ranking (Quality of Death Index) published by *The Economist* magazine that assessed end-of-life care services across 80 countries (including 37 European countries), Norway was ranked in 12th place overall,

in 6th place in terms of capacity to deliver palliative care services, and in 7th place regarding human resources for palliative care. In terms of affordability and quality of care Norway achieved, respectively, 22nd and 16th places in the ranking (Economist Intelligence Unit, 2015).

■ 5.11 Mental health care

As in most other countries in Europe, provision of mental health services in Norway has traditionally been linked to large inpatient institutions for long-term treatment. Over the last four decades there has been an increased emphasis on shifting provision to the municipalities, which has also been in line with developments observed in other countries in Western Europe. The goals of the current national strategy “Coping with life, 2017–2022” (Mestre hele livet, 2017–2022)* are to ensure that mental health is incorporated as an integral part of public health; ensure equity with regards to inclusion, belonging and societal participation; provide patient-centred services; strengthen the knowledge base, quality and innovation; and promote mental health in children and youngsters. The strategy incorporates measures of improvement of housing for persons with mental health problems, inclusion in work life and prevention of discrimination, as well as improvement of mental health in children and teenagers, and prevention of bullying.

SUBSTANCE ABUSE PROBLEMS

Since 2004 the RHAs have had the overall responsibility for substance abuse treatment and rehabilitation services and they are part of specialized mental care services. These services are provided in close cooperation with the municipalities, which bear the overall responsibility for providing general and mental health care services. This includes outpatient services, services provided by community teams, low-threshold (i.e. before substance abuse becomes a serious problem) services, assessment and referral to treatment,

* Inspired by the WHO Mental Health Action Plan 2013–2020, the European Mental Health Action Plan 2013–2020, as well as the European Action Plan for Strengthening Public Health Capacities and Services, Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all ages, and the Norwegian Framework for Health 2020.

and follow-up during and after treatment in a specialist health care setting or in prisons.

Opioid substitution treatment (OST) using methadone has been available through a nationwide programme since 1998. In 2010 new national guidelines for OST came into force. These guidelines aim to increase nationwide access to OST as part of a comprehensive treatment and rehabilitation process, reorienting OST services from being a limited high-threshold system to a widely available low-threshold system. At the end of 2016 a total of 7554 clients were on OST, 38% on methadone and 60% on buprenorphine. New OST admissions have declined since 2011, and it is assumed the system is approaching saturation in terms of the number of current opioid users seeking treatment (EMCDDA, 2016).

OTHER MENTAL HEALTH PROBLEMS

Specialized mental health services are the responsibility of the RHAs. They are provided in the following settings: highly specialized mental hospitals (including high-security departments); community mental health centres; and in outpatient settings (treatment by privately practising psychiatrists and psychologists under contracts with the RHAs). Specialized services for children and adolescents (0–17 years old) have traditionally been provided in designated outpatient units. Mental health centres are vital for the decentralization of mental care services. They provide acute treatment (on an inpatient, outpatient and day-care basis) and rehabilitation services, and also supervision and support for other providers in primary care. According to annual national surveys of GPs, about 55% of GPs assess the overall professional competency at the community mental health centres as high or very high (Sjetne & Holmboe, 2014).

De-institutionalization of mental health care is reflected in the declining trend in the number of beds in mental health care institutions (see Section 4.1). Fewer patients receive inpatient treatment and the average length of stay in inpatient mental health care institutions fell from 66 days in 1998 to 20 days in 2017. At the same time the number of consultations at the community mental health centres has almost tripled. The number of consultations with privately practising specialists contracted by the RHAs decreased slightly between 2011 and 2017, but access to psychologists has improved in the

municipalities, from 130 contracted psychologists covering 95 municipalities in 2013 to 377 contracted psychologists covering 265 municipalities in 2017. From 2020 it has become mandatory for all municipalities to provide access to a contracted psychologist. At the same time emergency admissions remained fairly stable, suggesting the reduction in beds has not worsened access overall. However, emergency admissions were lowest in the two regions with the highest number of beds (Northern and Western RHAs), suggesting that there may be a link between the number of mental health care beds and access to care (Norwegian Directorate of Health, 2018b).

■ 5.12 Dental care

Dental care for the adult population (20 years and older) is the area of care with the highest private participation, both in terms of provision and financing. Most dentists work in private practices (around 70% of all dentists) (Statistics Norway, 2019a) and most treatments are usually paid in full out-of-pocket by the patient. Fees charged in the private sector are not regulated.

Provision of statutory dental care has traditionally been the responsibility of the counties, as regulated in the Dental Health Services Act (1983). However, by 2022 this responsibility may be transferred to the municipalities and dental care may then be regulated by the Municipal Health and Care Act (2011) (see Section 2.1). This, however, depends on a future parliamentary decision.

Public dental care is carried out by salaried dentists in dental care clinics operated by the counties in cooperation with the municipalities. Except for orthodontic treatment, public dental care is free of charge for children and young people aged 0–18 years. Young people aged 19–20 years must pay 25% of the costs up to the cost-sharing ceiling (see Section 2.3).

Mentally disabled adults, older people and people with a long-term illness, who are either living in an institution or receiving home nursing care, pay reduced fees or may be eligible to receive public dental care free of charge. People outside these groups may also be able to access public dental care provided by the counties, but only after the needs of people in the prioritized groups have been met.

Standards in dental practice are monitored by the County Medical Officers, usually through designated dentists who supervise and assess

the observance of dental medical standards and quality assurance programmes. Six regional centres of competence for dental health care have been established during the last decade, in order to facilitate decentralized specialist education for dentists and educating more dental auxiliaries. A national action plan for research in oral health is in place for 2017–2027 with goals including strengthening research in oral health, in the competence centres and via a dedicated national network for research and innovation.

Principal health reforms

■ Chapter summary

- The key policy changes implemented in recent years have included the Coordination Reform (focusing on improving coordination of care between municipalities and hospitals); extending patient choice; reorganizing hospital care; strengthening primary care through the introduction of primary care teams (still in the piloting phase); and adapting the education and training of health professionals to meet future health needs.
- Although the evaluation of the Coordination Reform has so far shown mixed results, it has contributed to the decentralization of services and paved the way for subsequent primary care and public health reforms.
- Primary care teams are being piloted (2018–2021) with the goal of instituting multidisciplinary primary care teams. Related to this, and in line with the Health and Hospital Plan 2016–2019, there have been changes to the skill-mix and the competencies of health professionals to meet future health needs.
- Many proposals included in the political platform presented after the last parliamentary elections are a continuation of policies implemented under the previous government. Ongoing reforms focus on the following areas: public health (focus on children and youth and prevention of loneliness); primary care (evaluation

of the regular GP scheme); substance abuse (more emphasis on prevention and harm reduction); and long-term care (creating an age-friendly society).

■ 6.1 Analysis of recent reforms

This section takes a closer look at reforms and policy initiatives introduced since 2012.* Table 6.1 provides an overview of recent health care reforms and policy initiatives and their implementation status.

LOCAL GOVERNMENT REFORM

A reform of local government has been under way since 2014. By 2020 the number of counties is to be reduced from 19 to 11 and the number of municipalities from 429 to 356. The purpose of the reform is to achieve, via larger administrative entities, a more efficient planning and governance structure (Norwegian Ministry of Local Government and Modernisation, 2017). In the area of health care, the intention is to transfer responsibility for dental care to the (larger) municipalities from 2023. The municipalities will also become more involved in the financing of all non-hospital health care services and social services. These changes are linked to the ongoing reform of primary care (see Box 6.1) and their exact scope and implementation dates were unknown at the time of writing.

CHANGES TO HEALTH CARE GOVERNANCE

In 2016 central health care governance was reorganized (Saunes & Lindahl, 2015). Several agencies were merged with either the NIPH or the Directorate of Health, according to their functions. Smaller organizations dealing with complaints/grievances were merged into a new organization, the Norwegian Complaint Body for the Health Services. The Registration Authority for

* Reforms implemented between 2000 and 2012 are described in the earlier editions of Health System in Transition reports for Norway (Johnsen, 2006; Ringard et al., 2013).

TABLE 6.1 Major reforms and policy initiatives between 2012 and 2019

YEAR	REFORM/INITIATIVE	IMPLEMENTATION STATUS (AS OF DECEMBER 2019)
2012	Coordination Reform <ul style="list-style-type: none"> • Goals: to improve coordination of care between municipalities and hospitals, and to strengthen public health • Key legislation: Municipal Health and Care Act (2011); Public Health Act (2011) 	Implemented
2013	Strategy on Quality and Patient Safety <ul style="list-style-type: none"> • Goals: to provide a comprehensive approach to quality and patient safety <i>Implemented measures include:</i> <ul style="list-style-type: none"> • Quality improvement initiatives within the National Patient Safety Programme 2014–2018; • Introduction of quality-based funding of hospitals (so far on a small scale); • Increasing the number of collected quality and patient safety indicators; • Establishment of the national registry for municipal health and care services (KOSTRA) in 2018 (see Box 5.4 and Table 7.1). • Establishment of the National Commission for Health and Care Services in 2019 (see Section 2.1); • Integration of patient safety initiatives in the Directorate of Health work on quality improvement from 2019; • Strengthening patients' rights to obtain information (for both adults and adolescents; see Section 2.5). 	Under implementation
2014	Choice Reform <ul style="list-style-type: none"> • Goals: to extend patient choice of treatments and providers <i>Implemented measures include:</i> <ul style="list-style-type: none"> • Since 2015 private providers without a tender agreement with the RHAs can apply to be included in the choice scheme; • Since 2017 extending choice to cover rehabilitation treatment. 	Implemented
2015	National Health and Hospital Plan 2016–2019 <ul style="list-style-type: none"> • Goals: empowerment of patients; prioritizing mental health services and treatment of substance abuse; improving provision of health care; ensuring the right volume and skill-mix of human resources; improving quality and patient safety; improving coordination between hospitals and strengthening outpatient care. <i>Implemented and ongoing measures include:</i> <ul style="list-style-type: none"> • Decentralization of non-acute hospital care and introduction of hospital networks (ongoing) (see Section 4.1); • Introduction of national quality requirements and standardization of treatments for stroke and cancer patients as well as for mental health services and substance abuse treatment (implemented); • Implementation of a new model of specialist education of physicians (implemented) (see Section 4.2); • Raising the age limit for withdrawal of authorizations for all health care personnel to 80 years old (implemented); • Task-shifting from physicians to nurses (ongoing) (see Box 6.1). 	Under implementation
2015	Primary Care and Public Health Reform <ul style="list-style-type: none"> • Goals: Introduction of team-based intermediate care <i>Implemented measures include:</i> <ul style="list-style-type: none"> • Pilots of primary care teams (2018–2021) 	Under implementation
2015	Competence Shift 2020 <ul style="list-style-type: none"> • Goals: to adapt education and training in primary care to future health needs 	Under implementation
2017	'Live your whole life' reform <ul style="list-style-type: none"> • Goal: to improve quality of care for older people 	Under implementation
2018	Drug Reform <ul style="list-style-type: none"> • Goal: to transfer responsibility over minor drug offences from the Ministry of Justice to the Ministry of Health and Care Services (i.e. shifting focus from punishment to treatment) 	Under implementation

Health Personnel was integrated in the Directorate of Health, and a new Directorate for e-Health was established. In January 2019 the Norwegian Health Care Investigation Board was established under the MOHCS to investigate adverse medical events.

IMPROVING COORDINATION OF CARE

Improving coordination of health care services was put on the political agenda in the early 2000s. A White Paper published in 2005 identified patient groups deemed particularly vulnerable to coordination problems and proposed a countrywide system of agreements between hospitals and their nearby municipalities to coordinate provision of care. In 2008 a proposal for “The Coordination Reform” was presented to the parliament (Norwegian Ministry of Health and Care Services, 2009). The proposed measures underwent extensive rounds of consultations with stakeholders and in parliament, before the final legislation was passed with broad parliamentary support in 2011.

The reform comprised two key pieces of legislation, the Municipal Health and Care Act (2011) and the Public Health Act (2011), and was further detailed in the National Health and Care Plan (White Paper no. 16, 2010–2011). The Municipal Health and Care Act introduced two key changes. Firstly, the municipalities were given full responsibility for patients ready to be discharged from hospital treatment by providing local emergency care beds for patients with a need for pre- or post-hospital services. Secondly, municipalities were made responsible for co-financing of hospital care. The latter was abandoned one year later (effective from 2015) by the new government to reduce the municipalities’ financial risk. The Public Health Act established a new foundation for strengthening systematic public health work in the development of health and other policies and provided a broad basis for coordinating public health work across various sectors and actors, and between authorities at the local, regional and national levels.

In 2016 the Research Council of Norway published an evaluation of the Coordination Reform over the period 2012–2015 (Research Council of Norway, 2016). On the whole, municipal co-financing did not lead to a lower use of specialist health care and the number of hospital admissions has increased (although the number of readmissions did not). Units containing emergency care beds with easy access to specialist services due to

their co-location with A&E services were the only ones that were associated with lower hospital admissions (by approximately 2.5%). At the time of the report it was not possible to assess the long-term effects as the evaluation was published shortly after the introduction of the emergency care beds. Yet the overall conclusion from the evaluation was that the Coordination Reform did contribute to decentralizing care according to the principle of delivering care at the lowest, effective level of care, and thus paved the foundation for the primary care and public health reforms of 2015 (see Box 6.1).

CHOICE REFORM

Free choice of hospitals was piloted in Norway in the 1990s and enacted in the Patients' Rights Act (1999). Patients were then given the right to choose any hospital across the whole country. In 2014 amendments to the Patients' Rights Act and the Specialist Health Services Act extended the choice of hospital from being limited to public hospitals, or hospitals with a tender agreement, to all public and private hospitals. The Directorate of Health became responsible for approving new institutions/hospitals eligible for choice. The amendments came into force in 2015, and have been extended to two vulnerable patients' groups: mental health patients and patients with substance abuse problems. Private provision was well established in these two areas which has facilitated the establishment and inclusion of new providers in the scheme. The government-pronounced expectation was for the RHAs to buy more services from private contracted providers.

By including private non-contracted providers into the choice scheme and giving private providers under contract with the RHAs a more enhanced role, the reform has been an important driver of change for the supply side of the system. The 2015 reform adjusted existing demand-side policy with new supply-side policies, by enhancing patient choice and increasing the supply of both public and private hospital services. About 8500 patients used their right to choose in 2018 (92% of these patients were for somatic care, either for diagnostic purposes or day surgery), and 8% of the patients received treatment for substance abuse and received 82% of the funding connected with hospital choice (Norwegian Directorate of Health, 2019c).

BOX 6.1 Piloting of primary care teams, 2018–2021

When the government presented the 2015 White Paper on primary health care, “Future primary care – localized and integrated”, it was the first comprehensive overview of primary health care services since 1973 (Norwegian Ministry of Health and Care Services, 2015c). The White Paper proposed a series of measures aimed at preparing primary health care for future population needs. These measures included the establishment of multidisciplinary primary care teams at the centre of primary care, development of new and tailored competencies and emphasis on management and leadership, strengthening of public health services, and organizational changes such as increasing the size of primary health care entities. The primary care reform coincides with the reform of local government currently being implemented.

The policy was not very detailed when it was presented in parliament (Helse- og omsorgs komiteen, 2015) and pilots with primary care teams are being tested in 2018–2021. Currently, multidisciplinary teams are GP-led and also include nurses and health secretaries. There are two types of team: teams that provide general primary care to the local populations and Complex Chronic Care Teams (CCC-teams) that support patients with comprehensive complex care needs. The teams will be responsible for working in a proactive manner to meet the needs of their patients. The goals are to achieve a more structured approach to various user groups based on their respective need for services, not necessarily based solely on the diagnosis, and to increase accessibility of primary care and achieve a more cost-efficient use of resources. The former will imply the use of coordinators, knowledge-based procedures and checklists, personalized plans formulated in consultation with the user, and systematic follow-up and evaluation of progress in achieving the objectives defined in the plan.

In addition, two new models for remuneration are planned to be tested out. The first model is essentially the same funding model as the one used currently for GPs and health secretaries, but it gives scope for introducing additional funding for nurses in the team. The second model envisages direct public funding of the team, with additional funding coming from OOP payments.

All municipalities were invited to participate in the pilot project. A total of 87 GPs from 13 GP practices, located in eight municipalities, have been included. While the GPs are administratively responsible for the teams, the pilots are led by the municipalities. The evaluation of the pilot project is led by the Research Council of Norway and three different research groups follow the project closely, presenting evaluations along the way and at the end of the testing period (Norwegian Directorate of Health, 2018c). So far the evaluation results are mixed: physicians and nurses report positive experiences from having complementary roles, but the extent of cost-effectiveness is yet unclear, with some reports indicating that establishing team management at a GP practice is more time-consuming than anticipated. In the summer of 2019 it was decided to prolong the pilot to 2023 and include 3–5 more GP practices (Abelsen et al., 2019).

CHANGES TO SKILL-MIX

In 2006 a long-term action plan in the area of health care human resources, “Competence Plan 2015” (K2015), was launched to ensure sufficient capacity and competencies in primary health care with the following five goals: (1) to increase the health labour workforce by an additional 12 000 person-years by 2015; (2) to raise the formal level of education; (3) to secure access to skilled health care workers; (4) to establish a broader competency basis and wider professional scope; and (5) to strengthen internal counselling and training, as well as furthering education. The evaluation of K2015 concluded that most of the targets have been met (Helgesen et al., 2016).

In 2015 a new, more comprehensive action plan was approved by the parliament, setting goals for primary care services beyond 2020, with a complementary action plan for competence building, “Competence Plan 2020” (K2020). The new Plan contains six goals: (1) to ensure recruitment and staffing for health and social care workers; (2) to ensure the quality of basic and further education programmes and their alignment with requirements regarding competencies; (3) to raise the level of professional expertise in care services; (4) to facilitate development of services, teamwork and innovation; (5) to support best practices, professional development, a broader professional base and sharing of knowledge; and (6) to strengthen managerial competencies in the health and care services sectors through provision of leadership training. Goals 4–6 aim to create a broader professional base with more professional groups and increased focus on interdisciplinary activity, thereby supporting the ongoing reform of primary care (see Box 6.1). K2020 is also closely aligned with health workforce planning strategy included in the Health and Hospital Plan 2020–2023, which aims to ensure adequate supply of health personnel in all health sectors.

The Health and Hospital Plan seeks closer cooperation between the health care and education sectors through, among others, the introduction of a new model for specialist education of physicians, task-shifting from physicians to nurses, more efficient use of modern technologies, and a more efficient management of health personnel. Continuing education and extending the working age limit for health personnel are thought to encourage labour-force participation among senior workers. The new model for specialist education of physicians has been implemented (see Section 4.2), the age limit for withdrawal of authorizations for all health care personnel has

been raised from 75 to 80 years of age, while task-shifting from physicians to nurses is being piloted (see Box 6.1).

■ 6.2 Future developments

Much of the policy effort in the years to come is likely to be consumed by the continued implementation of ongoing reforms, such as the primary care reform which is currently in the piloting phase (see Table 6.1 and Box 6.1). Indeed, many proposals included in the political platform presented after the last parliamentary elections (in 2017) are a continuation of policies implemented under the previous government. The slogan of the existing health policy is ‘The patient’s health service’. This motto reflects the government’s goal of providing high quality services that are characterized by shorter waiting times, patient engagement and patient choice. Below are the areas that are likely to see further changes in the near future.

- **Public health:** The latest Public Health Report, “Good lives in a safe society”, was published in April 2019 and signals a stronger emphasis on early interventions aimed at children and youths, and prevention of loneliness in society, as well as continued efforts to reduce social inequalities in health. These aims are aligned with goal 3 of the Sustainable Development Goals of ensuring good health and well-being at all ages. The Report mentions the following strategies to meet these goals: the 2019–2023 Strategy to Prevent Loneliness, the new tobacco strategy for 2019–2021 and the ‘Zero-vision’ strategy for 2019–2027 to reduce serious fall accidents at home.
- **Primary care:** In addition to the ongoing pilots of interdisciplinary primary care teams (Box 6.1) and the public health strategy above, planned efforts to strengthen primary care include an evaluation of the regular GP scheme, followed by an action plan on its future (planned for early 2020). This plan is being developed by a tripartite collaboration between the state, the municipalities and the medical association, and appears to favour larger GP clinics and local community clinics providing GP services. However, this model may be challenging to implement in rural areas.

- **Substance abuse treatment:** The government's policy on substance abuse emphasizes prevention and harm reduction. The use and possession of minor quantities of illicit drugs will not be decriminalized, but instead of punishment the focus shifts to treatment. Proposals include improving access to treatment by increasing the number of treatment places and integrating addiction and mental health services. Pathways for substance abuse treatment are envisaged to be developed, with treatment initiated immediately after detoxication. New pharmaceuticals are planned to be included in the treatment, including pilots of heroin-assisted treatment in opioid substitution treatment.
- **Long-term care:** The Strategy to ensure an age-friendly society, where people in need of help can live meaningful and dignified lives, was presented in 2018 (Norwegian Ministry of Health and Care Services, 2018b). The implementation starts from 2019, as municipalities need to decide how to align their activities with the best practices presented in the Strategy. The government encourages the municipalities to offer choice of long-term care providers for the elderly, improve access to information on quality of care services, establish quality of care indicators and measure user experiences. By increased use of technology and by introducing Complex Chronic Care teams (see Box 6.1) to support patients with comprehensive complex care needs, the ambition is to enable older patients to live longer in their own homes. The government also envisages provision of financial support to increase the number of available places in nursing- and care homes, as well as supporting investment in private and public housing with special security features for older people, nursing homes, hospices, dementia-villages and private community-houses.
- **Specialist care:** The Health and Hospital Plan 2020–2023 was launched in October 2019. The plan presented the newly established 19 “health communities” (Helsefelleskap), one for each hospital trust. Health communities are a formalized cooperation between hospital trust and municipalities, where representatives from the hospitals, municipalities, GPs and patients/users work on the strategic development of services for four vulnerable patient groups: children and youngsters, persons with severe mental health and substance abuse problems, fragile elderly and patients with multiple chronic diseases.

The plan also emphasizes digitalization, competency building, recruitment of health personnel and mental health. Activity-based funding will be further developed to include patient pathways. The Plan envisages the increased use of private specialists and the decentralization of specialist care with the goal of increasing access to care. It foresees an increased delegation and responsibility to hospitals.

Assessment of the health system

■ Chapter summary

- Transparency of the health care system has been a political priority over the past few decades. Public monitoring of performance indicators and transparency in the policy process have both improved.
- The country scores well on health indicators and this can be in part attributed to prevention services and treatment offered in the health sector: the rates of both amenable and preventable mortality in Norway are among the lowest in Europe.
- The distribution of hospitals in Norway reflects the distribution of the population. Although Norway has one of the highest densities of health care personnel in Europe, the country struggles to ensure equal access to health care across its entire territory, particularly in rural and remote areas with scattered populations.
- The Norwegian health system offers a high level of social and financial protection, and the level of unmet medical need is low. Coverage is universal and public sources account for the majority (85%) of health expenditure. Various mechanisms, such as exemptions and ceilings on OOP payments, limit the financial burden of care on individuals. However, the level of protection is poor for certain types of care such as home-based care and institutional care for older or disabled people and adult dental care.

- Comparative price levels in the health and hospital sectors are higher in Norway than in most other countries. However, these high price levels appear to be in line with the country's wealth and demographic structure. A shift to care outside the hospital setting, coordination reform and expansion of generic medicines and bio-similars contributed to improved efficiency over the years, but there is further potential for improvement in these areas.

■ 7.1 Health system governance

Transparency of the health care system has been a political priority over the past few decades and public monitoring of performance indicators has improved (see Section 2.6). Transparency in the policy processes has also improved.

The involvement of user representatives has a long tradition, not only in the development of policies, but also as board members in health trusts and institutions. Before any major political decision is taken within the area of health care, relevant knowledge base is often presented by a dedicated Royal Commission. Members of such commissions are usually experts from the relevant fields (from various research institutions or universities), user representatives and other stakeholders. The commissions' work is then subject to a formal hearing process with all relevant stakeholders. This process is open to the public via the MOHCS website. Based on the Norwegian Official Report, the government then prepares a white paper for the parliament.

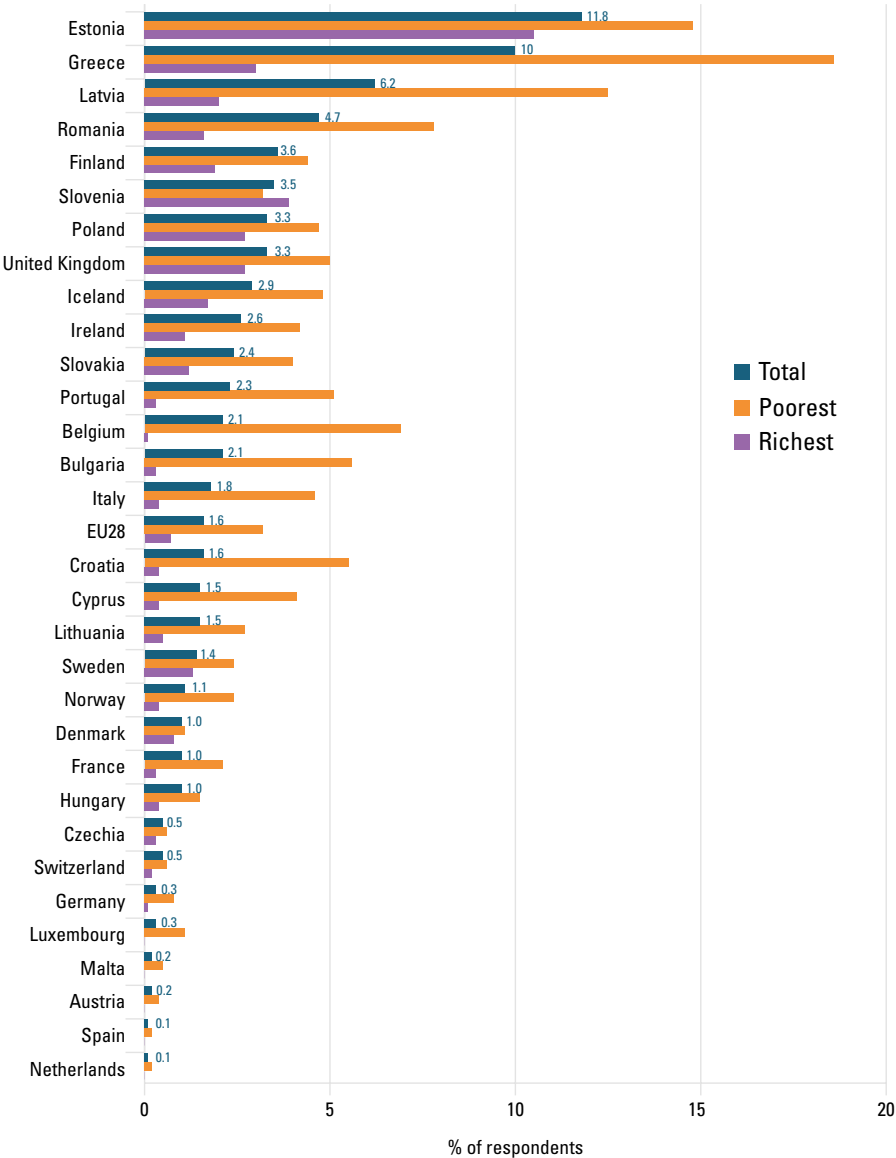
■ 7.2 Accessibility

Access to health care for all who need it is considered to be a basic social right in Norway, and ensuring universal and equitable access to health care is an important health policy aim embedded in the Patients' Rights Act of 1999 and its later amendments (see Chapter 2).

The EU-SILC survey shows that unmet need for medical examination in Norway is relatively small: 1.1% of population (Fig. 7.1), of which 0.7% report having unmet need due to waiting time and 0.4% due to

cost. There is a gap between the poorest and the richest households, with 2.4% of the poorest people being unable to access health services when they need them, mainly due to waiting time (1.3%) followed by cost (1%).

FIG. 7.1 Unmet need for a medical examination due to cost, waiting time or travel distance, by income quintile, EU/EEA countries, 2017



Source: European Commission (2019)

Although Norway has one of the highest densities of health care personnel in Europe, geographical equity in access to health care may be an issue in rural and remote areas with scattered populations (see Box 4.2).

Ensuring access to health personnel with the right level of competence is the goal of the Action plan for Patient Safety and Quality Improvement. Norway is among the OECD countries with the highest number of doctors and nurses relative to the number of inhabitants. A recent analysis on the future demand for labour in the health and long-term care sector was published at the beginning of 2019 (Statistics Norway, 2019b). The estimated demand was based upon assumptions on the following variables: the health status of older people; quality of services; productivity and unpaid care supplied by family members and friends. An increase in demand has been forecast and it is predicted that this may pose serious challenges for the health system: an increased need for educated health personnel and increased costs, which will have political implications for the financing of the health system.

Earlier analysis on the recruitment of health and care personnel projected an under-coverage of nurses and physicians by 2035 (Statistics Norway, 2012). While the educational capacity for nurses seems to be reasonable, the key challenge is the relatively high drop-out rate. Fewer than 60% complete their education on time, and fewer than 80% of students complete it within five years. A longitudinal study of nurses who graduated in 2004 revealed that 20% of them left the health care sector within a decade of graduating. They either pursued a career in another sector or were out of work.

In spite of the high number of nurses, a shortage of nurses is a challenge within the care sector. Only a minority of newly educated nurses choose to work in nursing homes and home care, and about 50% of the nurses working within LTC consider a change of workplace. The reported reason is high time-pressure at work (Gautun, Martens & Veenstra, 2016).

The municipalities are responsible for regulating access to nursing homes or equivalent institutions. The local organization of waiting lists varies and so does the system for prioritizing patients. According to recent regulatory changes the municipalities were required, by July 2017, to develop regulations on access to care, and maintain waiting lists (Saunes & Lindahl, 2017).

Overall, there is an increasing amount of information on the accessibility of various types of care. There are geographical differences in access, with people living in rural and more remote areas having to travel longer distances to access care. Despite the high ratios of health care professionals to the size

of the population, waiting times for elective care are long and constitute a barrier to accessing care.

■ 7.3 Financial protection

Public sources account for the vast majority (85%) of health expenditure, which is the highest among the European countries (see Section 3.1). Correspondingly, the share of out-of-pocket payments is relatively low. However, there are some exceptions: home-based care and institutional care for older or disabled people are based on needs assessment and imply a high degree of cost-sharing of up to 85 per cent of personal income. Although the cost covers housing, financial protection can be a challenge for households where one person is institutionalized and is not contributing to household expenses. Adult dental care is another area where private financing predominates.

A safety net mechanism is set up for most types of OOP expenditures (excluding dental care, long-term care and some prescription medicines), with annual caps above which fees are waived (see Table 3.3). There are also exemptions from user charges for certain population groups (e.g. children) and diseases (e.g. tuberculosis). In addition, certain basic services may be provided, upon application, to patients who regularly incur additional expenses because of chronic illness, injury or disability.

Only 2% of Norwegians above 65 years of age reported having problems paying for health care in an international survey among older adults (Commonwealth Fund, 2017). The share is well below the average of 6% for the other countries covered in the survey, but higher than in both Sweden and the United Kingdom. Another survey by the Commonwealth Fund conducted in 2016 showed that among the general population in Norway, 8% reported problems paying for health care, just below the average of 9% among countries included in the study (Norwegian Institute of Public Health, 2016).

A recent study covering Nordic countries by the Centre of Health Economics Research in Denmark concluded that in general the Nordic countries have accomplished good health for their populations and reached a high degree of socioeconomic equality in health (Christiansen et al., 2017). However, as explained above, the level of protection may differ for various types of care and various population groups.

BOX 7.1 Universal health coverage

Norway has universal health coverage and residents are entitled to essential medical and care services. Publicly funded health care covers planned and acute primary, hospital and ambulatory care, rehabilitation and outpatient prescription drugs, although cost-sharing exists for most services. Financial protection mechanisms are in place for most services. Key among them are annual caps on out-of-pocket expenditures (see Section 3.4).

Coverage for non-residents depends on their citizenship: in principle, EEA and EU residents are entitled to the same health services as Norwegians, while citizens of other countries normally must pay the full cost of services received (unless there is a bilateral agreement). Children of undocumented migrants have the right to receive certain basic services (such as vaccinations and examinations).

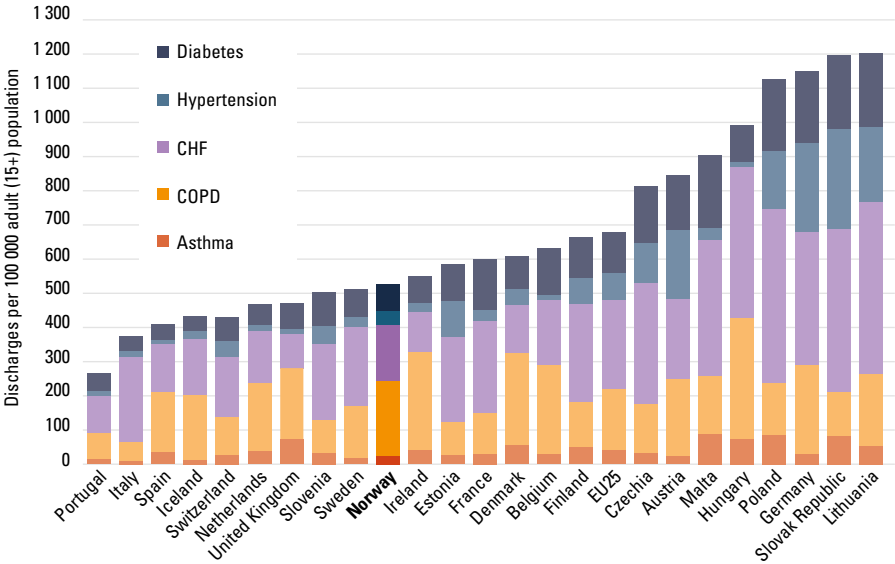
■ 7.4 Health care quality

QUALITY OF PRIMARY AND HOSPITAL CARE

High levels of hospital admissions for certain conditions, such as asthma, COPD, congestive heart failure (CHF), hypertension and diabetes, may indicate inefficiencies and/or weaknesses in primary care. In 2017 in Norway the rate of avoidable hospital admissions from those diseases combined was higher than in the Netherlands, the UK or Sweden, but lower than in France, Denmark, Finland or Germany (Fig. 7.2).

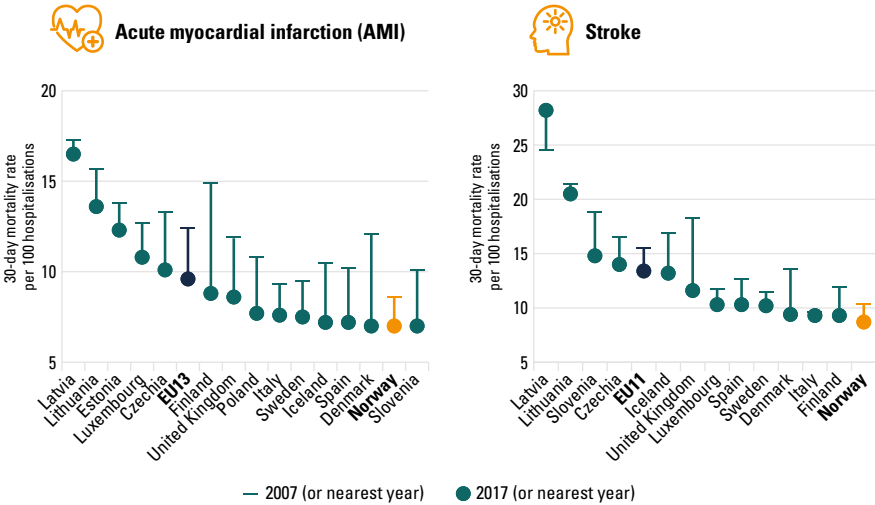
In terms of effectiveness of specialist care, Norway has among the best outcomes in terms of mortality from acute myocardial infarction (AMI) and stroke within 30 days of hospitalization in Europe (Fig. 7.3). Despite already low mortality rates, further improvements were achieved over the past decade. During this time a patient care pathway for stroke has been developed, alongside initiatives to raise awareness around early symptoms and signs of stroke among the population. The survival gains seen for stroke are mainly attributable to more rapid and timely access to care (OECD/European Observatory on Health Systems and Policies, 2019). The National Strategy on Brain Health (2018–2024) aims to further improve stroke care and reduce geographical variations in access to post-stroke rehabilitation services.

FIG. 7.2 Avoidable admission rates for asthma, COPD, CHF, hypertension and diabetes, 2017



Source: OECD (2019)

FIG. 7.3 In-hospital mortality rates for admissions following acute myocardial infarction and stroke

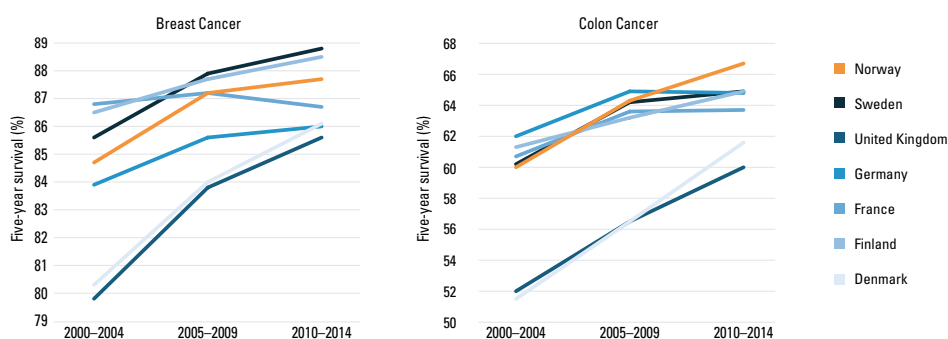


Notes: Figures are based on patient data and have been age-sex standardized to the 2010 OECD population aged 45+ admitted to hospital for AMI and stroke.

Source: OECD Statistics (2019) in OECD/European Observatory on Health Systems and Policies (2019)

Norway's five-year survival rates for treatable cancers are higher than the EU average and many comparable countries (Fig. 7.4). This is due to effective screening programmes, timely diagnosis and access to quality treatment. The Norwegian Breast Cancer Screening Programme started as a pilot in 1995 and became nationwide in 2005. It targets all women aged 50 to 69 for mammographic screening every other year (Cancer Registry of Norway, 2017). According to an independent evaluation, the Programme contributed to reducing breast cancer mortality by 20–30% among invited women (Research Council of Norway, 2015). A recent study of physicians' recommendations of cancer screening according to national guidelines revealed that close to or over 90% of doctors recommended breast and cervical cancer screening to their patients, while only 42% of doctors recommended colorectal cancer screening (Bringedal et al., 2019). In addition, cancer patient pathways were introduced in 2015 for 28 different types of cancer to reduce unnecessary waiting times and improve coordination of care (OECD/European Observatory on Health Systems and Policies, 2019). Each cancer patient now has a dedicated pathway coordinator who is responsible for continuity of care during treatment and follow-up.

FIG. 7.4 Cancer survival rates for colon and breast cancer (among women), 2000–2014



Notes: Age-standardized five-year net survival (%): adults (15–99 years) diagnosed with breast and colon cancers and children (0–14) diagnosed with leukaemia

Sources: Allemani et al. (2018)

INITIATIVES TO IMPROVE QUALITY AND SAFETY

Regulation of health care quality and safety has changed markedly in recent years. In 2017 regulation of internal control for health services was replaced with “Regulation for leadership and quality improvement in the health services”. A distinct change between the previous regulations for internal control and the new regulations is the explicit duty to “work systematically with quality-improvement and patient- and clients- safety in all services”, and to ensure proper documentation of the planning, implementation, evaluation and corrections taken to improve quality and patient safety.

The new Action plan for Patient Safety and Quality Improvement 2019–2023 (Norwegian Directorate of Health, 2019a) was launched in April 2019. The overall goal of the plan is to improve quality and safety by supporting the new regulations from 2017. Four broad areas are identified: leadership and culture, competence, national initiatives for quality and safety, and system and structures. The plan builds on measures from the previous Patient Safety Programme (2014–2018) and the patient safety campaign “In Safe Hands” (2011–2013).

Since 2013 the government has presented a yearly white paper on “Quality and Patient Safety” to the parliament, highlighting status and efforts in quality improvement and patient safety. In 2017 the emphasis was on managing responsibility regarding internal control and development of ICT for the health care sector, alongside the new Health and Hospital Plan and the 2014–2018 Patient Safety programme. In 2018 leadership, a patient safety culture and systems approach were identified as the preconditions of patient safety. In the white paper on quality and patient safety the continuous work on quality improvement and patient safety were linked to leadership, measurement of patient safety culture and the work of the new Norwegian Health Care Investigation Board (UKOM). The white paper also presents an overview of Norway’s ranking on indicators reported in the OECD Health at a Glance database each year. The indicators are chosen to reflect the health system, primary care, emergency care, patient safety, treatment of cancer and handling of contagious diseases (see Table 7.1). Norway scores relatively well in most areas, although there are some challenges, such as patient experiences with physicians and excess mortality in patients with mental health problems.

TABLE 7.1 Selected quality indicators, 2018

QUALITY INDICATOR FROM HEALTH AT A GLANCE	BOTTOM THIRD	MIDDLE	TOP THIRD	TREND
Health system				
Life expectancy			X	New
Primary care				
Hospital admission asthma and COPD		X		
Hospital admissions Congestive heart failure			X	New
Hospital admission Diabetes			X	
Major lower extremity amputation		X		
Overall volume of antibiotics prescribed Primary care			X	Up
Volume of 2nd line antibiotics prescribed in Primary care			X	
Chronic Benzodiazepine Use: Long time > 1 year	X			
Patient experiences with physicians	X			Down
Emergency care				
Mortality following acute myocardial infarction (AMI)			X	
Mortality following ischaemic stroke			X	
Patient safety				
Postoperative pulmonary embolism (PE) or deep vein thrombosis (DVT)			X	Up
Postoperative sepsis in abdominal surgeries	X			Down
Foreign body left in during procedure		X		Down
Obstetric trauma, vaginal delivery with instrument			X	Up
Obstetric trauma, vaginal delivery without instrument		X		
Mental health: Excess mortality	X			New
Treatment of cancer				
Mammography screening in women aged 50–69			X	
Breast cancer five-year net survival			X	
Colon cancer five-year net survival			X	
Leukaemia mortality in children			X	New
Contagious disease				
Childhood vaccination measles		X		
Influenza vaccination 65 years +	X			New

Source: Selected OECD (2018a)

■ 7.5 Health system outcomes

The health status of the Norwegian population is very good by international standards and has improved considerably over the last decades (see Section 1.4).

Mortality amenable to medical intervention is used as an indication of the contribution that health care makes to improve population health. It is defined as “premature deaths from causes that should not occur in the presence of timely and effective health care” (Nolte & McKee, 2011). In addition, preventable mortality is deaths from causes that could be avoided through public health policies, such as chronic liver disease, road traffic injuries and lung cancer. Fig. 7.5 shows amenable and preventable deaths across the EU and EEA in 2000 and the latest year for which data is available.

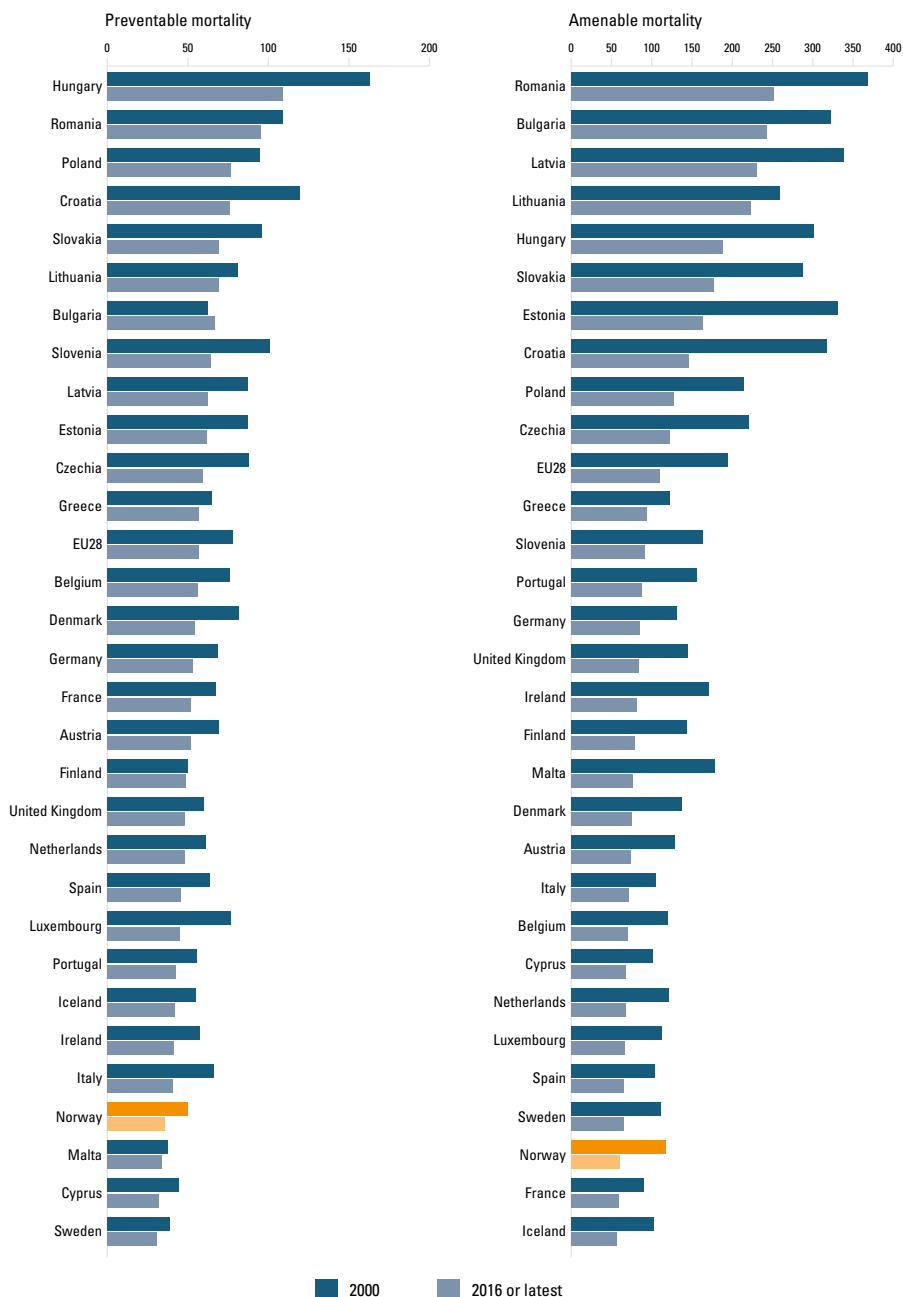
In terms of both amenable and preventable mortality Norway ranks among the countries with the lowest rates in Europe. Between 2000 and 2016 amenable mortality in Norway has almost halved, from 117 to 60 deaths per 100 000 inhabitants. Over the same period preventable mortality decreased from 50 to 35 deaths per 100 000. Part of Norway’s low levels of amenable mortality may be attributed to a large reduction in mortality from ischemic heart disease and increased rates of survival from some of the treatable cancers. The overall positive trend in survival of treatable cancers reflects both screening and improved diagnostics, as well as improved treatment (Cancer Registry of Norway, 2017).

Mortality from ischemic heart disease decreased by 73% between 1990 and 2015 (OECD, 2017). For many types of cancers, such as colorectal and breast cancer, Norway is among the countries with the highest percentage of patients surviving five years after diagnosis (see Section 7.4).

EQUITY OF OUTCOMES

Health outcomes differ across different population groups in Norway, pointing towards the existence of socioeconomic inequalities in health outcomes, and these inequalities seem to persist over time (see Section 1.4). As for health care-related outcomes, the data point towards comparatively high levels of equity (Box 7.2). For example, in 2014, 85% of women aged 50–69 reported having attended breast screening in the past three years, and this proportion is consistent across all educational levels (European Commission, 2019).

FIG. 7.5 Amenable and preventable mortality per 100 000 population in Norway and selected countries, 2000 and 2016 (or latest available)



Notes: 2000–2016 unless stated otherwise (2000–2015 for BE, DE, DK, EL, FI, FR, IE, IT, LU, LV, MT, PL, SI, EU28; 2000–2014 for BG, SK; 2001–2015 for the UK; 2004–2016 for CY). Age-standardized death rates for all persons calculated by European Observatory for Health Systems and Policies; contact: marina.karanikolos@lshtm.ac.uk.

Sources: Population data from WHO detailed mortality files (released December 2018). Amenable causes as per list by Nolte and McKee (2004)

The equity gap, however, is larger for cervical screening in women aged 20–69: 66% of women reported having had screening in the past three years, but among women with lower education this share is 61%, compared to 73% in women with higher education. Still, this gap is among the narrowest in the EU/EEA countries.

BOX 7.2 Assessing inequalities in health

In 2019 Norway ranks among the top countries in the world in terms of income equality (see Section 1.2). Nevertheless, there are some inequalities related to health. Income-related inequalities have been shown to be associated with inequalities in preventable and also amenable mortality in Norway and this income-related gap remained fairly constant throughout the late 1990s and 2000s (Kinge, Vallejo-Torres & Morris, 2015). A recent study indicates that income appears to be a stronger marker for inequalities in health service utilization than education (Lunde, Otnes, & Ramm, 2017).

■ 7.6 Health system efficiency

■ 7.6.1 *Allocative efficiency*

A number of different actors at both central and local levels influence allocative efficiency in the health sector in Norway. At the central level, the amounts allocated from the MOHCS to the lower levels takes into account population needs including the number of inhabitants living in the region, as well as their age and income, and the levels of service use (in the case of allocation to the RHAs).

Between 2002 and 2017 the National Council for Priority Setting in Health Care, which served as an advisory body for the government on health care-related issues, contributed to the establishment of a National System for the Managed Introduction of New Health Technologies ('New Methods') within the Specialist Health Service in Norway. This has led to a more systematic use of HTAs as a basis for prioritization in the health sector (see also Section 2.4 and Box 3.3).

Traditionally, Norway, together with Sweden and the Netherlands, are the countries with the highest share of health spending devoted to

long-term care (over 25%) (OECD, 2018a). More recently, there has been a focus on increasing the amount of resources allocated to psychiatric care for children and adolescents and to treatment of substance abuse, and it is a stated political goal to reallocate resources between different areas of specialist care. This still continues to be seen as a priority, with mental health and substance abuse budgets in 2018 seeing higher increases than somatic care (Høie, 2018).

■ 7.6.2 *Technical efficiency*

Norway is among the top spenders on health measured in terms of spending per capita, while the share of GDP spent on health is closer to the OECD-average. There has been a continuing debate whether this level of spending is not excessive. As a result, a special report from the OECD Health Division was commissioned in 2016 by the MOHCS to examine how health spending in Norway compares with other relevant high-income OECD countries. The report found that costs in the Norwegian health sector in general and in the hospital sector in particular are much higher than in other comparable countries, with the exception of Switzerland. A comparison of price level indices (PLIs) related to GDP revealed that for the same basket of goods the prices in Norway were 44% higher than the EU-average. At the same time PLIs for health goods were 88% higher, while PLIs for comparable hospital services were 131% higher for Norway compared to the EU average. This, however, is not surprising as higher income levels are associated with higher price levels. The report concludes that high spending in Norway is in line with the country's wealth and demographic structure. Further discussions on allocation of resources, new technology and human resources have been sought in the debate on priority setting in health care (Ottersen et al., 2016).

As in many European countries, inpatient care in Norway saw a shift towards outpatient settings, leading to a decreasing number of hospital beds, shorter length of stay and wider use of day surgery. Nevertheless, there are more curative hospital beds in Norway than in Sweden, Denmark or Finland (Fig. 4.1). A recent Health Profile for Norway 2019 (OECD/European Observatory on Health Systems and Policies, 2019) suggests that important steps towards further efficiency have been made in Norway in recent years,

and identifies potential for further gains from the strengthening of care coordination between hospitals and municipalities. Until 2016 there was an increasing number of readmissions to hospitals, due to lack of capacity in some municipalities to provide follow-up care after discharge. This trend has been reversed in more recent years, alongside the requirement for municipalities to provide emergency care beds for pre- and post-operative care (see Section 5.2).

Another area of concentrated effort to date, as well as further potential for improvement, is pharmaceuticals. In 2017 generics constituted just under 50% of the pharmaceutical market, which is similar to the EU average, and below the share in Denmark (60%). In late 2018 Norway and Denmark established a joint initiative to further promote the use of generics and increase the market share of biosimilars.

Conclusions

Norway has one of the highest per capita GDPs in the world, with a high share of spending on health, which provides for a broad scope of benefits and ensures a relatively low level of private financing. This, however, makes the system relatively expensive, as Norwegians spend two-thirds more on health than the EU average. When adjusting for the country's economic development, Norway's health spending is in line with other high-income countries; however, the debates persist on whether the cost of health care justifies the level of outcomes.

Overall, Norway has a well-performing health system, and the level of self-reported unmet medical need is very low. Norwegians live longer and healthier lives than most Europeans, with the gains over recent decades partly attributable to effective and high-quality prevention measures and treatment. There are visible efforts to make the health system (and society in general) age-friendly and address mental health problems.

Norway also has a well-developed system of long-term care compared to other countries in Europe. Long-term care receives about a quarter of the total public spending on health. Home-based nursing care is entirely publicly financed but other types of long-term care, including nursing homes, require substantial cost-sharing.

Population ageing may put further pressures on the health and social care systems and, although much of long-term care is provided outside hospitals, continued efforts are needed to further strengthen primary and community care. Norway is facing these challenges by reforming primary and hospital care, further strengthening coordination between various types of care, and adapting medical education to future health needs. If successful,

the multidisciplinary primary care teams that are currently being piloted are expected to be rolled out nationwide.

The relationship between the municipalities and specialist care is also changing, with more efforts being put into coordination between primary and specialist care services. Further efficiencies are being sought through the ongoing administrative reform, which is expected to reduce the number of municipalities and counties.

The accountability and broader governance relationships between the central government, the RHAs and the municipalities have become more transparent and formalized, with more monitoring and publication of performance measures. The use of e-health solutions has increased and is further strengthened alongside efforts to make better use of the various health registries to support health policy-making and planning.

Appendices

9.1 References

- Aaserud S, Cancer registry of Norway (2018). Personal communication, 06.12.2018.
- Abelsen B et al. (2019). Evaluering av pilotprosjekt med primærhelseteam og alternative finansieringsordninger. Statusrapport II [Evaluation of pilot project with primary health teams and alternative funding schemes. Status Report II]. Accessed 12.02.2020.
- Allemani C et al. (2018). Global surveillance of trends in cancer survival 2000–14 (CONCORD-3): analysis of individual records for 37 513 025 patients diagnosed with one of 18 cancers from 322 population-based registries in 71 countries. *Lancet*, 391(10125):1023–75. doi: 10.1016/S0140-6736(17)33326-3.
- Amundsen EJ (2017). Alkoholutløste dødsfall i Norge i 2015 [Alcohol induced deaths in Norway 2015]. Available at: <https://www.fhi.no/ml/alkohol/alkoholutloste-dodsfall-i-norge-i-2015/> (accessed 12.02.2020).
- Asli LM et al. (2018). Factors influencing access to palliative radiotherapy: a Norwegian population-based study. *Acta Oncol*, 57(9):1250–8. doi:10.1080/0284186x.2018.1468087.
- Bhargava S et al. (2018). Lower attendance rates in immigrant versus non-immigrant women in the Norwegian Breast Cancer Screening Programme. *J Med Screen*, 25(3):155–61. doi:10.1177/0969141317733771.
- Bore RR (2007). *På liv og død, Helsestatistikk i 150 år* [Life and death Health statistics for 150 years]. Oslo: Statistisk sentralbyrå.
- Bratt C, Gautun H (2015). Bemanningsnormer i sykehjem [National norms for staffing in nursing homes]. *Tidsskrift for omsorgsforskning*, 1(02):98–106.
- Bringedal B (2005). Egenandeler og prioriteringer i norsk helsetjeneste [Deductables and priority setting in Norwegian health care]. *Tidsskrift for Velferdsforskning*, 8(2):100–10.
- Bringedal B et al. (2019). ‘Do you recommend cancer screening to your patients? A cross-sectional study of Norwegian doctors’. *BMJ Open*, 9:e029739.
- Cancer Registry of Norway (2017). *Cancer in Norway 2016 – Cancer incidence, mortality, survival and prevalence in Norway*. Available at: <https://www.kreftregisteret.no/globalassets/cancer-in-norway/2016/cin-2106.pdf> (accessed 12.02.2020).
- Christiansen T et al. (2017). Health and inequality in health in the Nordic countries *COHERE discussion paper No. 6/2017*. COHERE (Centre of Health Economics Research), University of Southern Denmark.

- Commonwealth Fund (2017). 2017 Commonwealth Fund International Health Policy Survey of Older Adults.
- Copenhagen Economics (2018). Study on the economic impact of supplementary protection certificates, pharmaceutical incentives and rewards in Europe: EUROPEAN COMMISSION Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs.
- Dahl E, Bergsli H, van der Wel KA (2014). Sosial ulikhet i helse: En norsk kunnskapsoversikt Hovedrapport [Social inequality in health: a Norwegian knowledge review]. Oslo: Høgskolen i Oslo og Akershus.
- Economist Intelligence Unit (2015). The 2015 Quality of Death Index. Ranking palliative care across the world. *The Economist*.
- Ekmord T, Skjøstad O, Texmon I (2017). *Utgifter til behandling hos tannlege og tannpleier 2014–2016. En sosiøkonomisk analyse av voksne mottakere av folketrygde fusjoner* (Rapporter 2017/42) [Dental reimbursement from NIS 2014–2016]. Available at: https://www.ssb.no/helse/artikler-og-publikasjoner/_attachment/333645?_ts=1606dd9bf38 (accessed 12.02.2020).
- EMCDDA (2016). European Drug Report 2016: Trends and Developments. Available at: http://www.emcdda.europa.eu/publications/edr/trends-developments/2016_en.
- European Commission (2019). Eurostat database. European Health Interview Survey, 2014. Available at: <https://ec.europa.eu/eurostat/data/database> (accessed 09.11.2019).
- Finans Norge (2017). Markeds- og premiestatistikk [Premiums and market shares]. Available at: <https://www.finansnorge.no/statistikk/skadeforsikring/statistikk-og-nokkeltall-for-skadeforsikring-2017/markeds-og-premiestatistikk/#Markedsandeler> (accessed 12.02.2020).
- Fosse E, Helgesen M (2017). Advocating for Health Promotion Policy in Norway: The Role of the County Municipalities. *Societies*, 7(2):5.
- Frich JC (2016). Medisinsk grunnutdanning – hvordan har universitetene forholdt seg til signaler om nye kompetansekrav? [Medical education – universities' response to new policy ideas for competency criteria?] *Uniped*, 39(4):11. doi:10.18261.
- Gautun H, Martens CT, Veenstra M (2016). Samarbeidsavtaler og samarbeid om utskrivning av pasienter [Cooperative agreements and cooperation on hospital discharges]. *Tidsskrift for omsorgsforskning*, 2(2):88–93. doi:10.18261.
- Godøy A, Huitfeldt I (2018). Regional variation in healthcare utilization and mortality. *Discussion Papers No. 890, November 2018*. Oslo: Statistics Norway.
- Grimsmo A et al. (2018). Disease-specific clinical pathways – are they feasible in primary care? A mixed-methods study. *Scandinavian Journal of Primary Health Care*, 36(2):152–60. doi: 10.1080/02813432.2018.1459167.
- Guldvog B, Kopjar B (1999). *In-hospital mortality rates in Norway 1994–97*. Rapport nr. 2/1999. Oslo: HELTEF.
- Gurmu E (2017). Staten betaler 14 milliarder for private spesialisttjenester [14 billion in public funding for private specialist care]. *Samfunnsspeilet*. Available at: <https://www.ssb.no/helse/artikler-og-publikasjoner/staten-betaler-14-milliarder-for-private-spesialisttjenester> (accessed 12.02.2020).
- Helgesen M et al. (2016). *Rekruttering og kompetanseheving i kommunal pleie og omsorg: Sluttrapport for evaluering av Kompetanseløftet 2015*. [Recruiting and competence improvement in municipal health and care services. Evaluation of Competence shift 2015]. Available at: <http://www.hioa.no/Om-HioA/Senter-for-velferds-og-arbeidslivsforskning/NIBR/Publikasjoner/Rekruttering-og-kompetanseheving-i-kommunal-pleie-og-omsorg> (accessed 12.02.2020).
- Høie B (2018). The Hospital Speech: The Minister of Health's governing instructions for hospitals [Press release]. Available at: <https://www.regjeringen.no/no/aktuelt/sykehustalen-2018/id2585683/> (accessed 12.02.2020).
- Institute for Health Metrics and Evaluation (2019). GBD Compare Data Visualization. Available at: <https://vizhub.healthdata.org/gbd-compare/> (accessed 13.02.2018).

- Iversen HH, Bjertnæs ØA, Holmboe O (2015). Cancer patient pathways: Baseline measurement based on surveys among the population, patients and general practitioners Oslo: Norwegian Knowledge Centre for the Health Services (NOKC).
- Johnsen JR (2006). Health Systems in Transition: Norway. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies.
- Kasper J et al. (2017). Status report from Norway: Implementation of patient involvement in Norwegian health care. *Z Evid Fortbild Qual Gesundheits*, 123/124:75–80. doi:10.1016/j.zefq.2017.05.015.
- Kinge JM, Vallejo-Torres L, Morris S (2015). Income related inequalities in avoidable mortality in Norway: A population-based study using data from 1994–2011. *Health Policy*, 119(7):889–98. doi:10.1016/j.healthpol.2015.04.016.
- Kringos DS et al. (2015). *Building primary care in a changing Europe [Internet]*. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK458728/> (accessed 12.02.2020).
- Lien H (2019). Sykefravær i Norge og seks andre nordeuropeiske land 1983–2017. *SSB analyse, 08/2019* [Sickness absence in Norway and six other Northern European nations 1983–2017]. Available at: <https://www.ssb.no/arbeid-og-lonn/artikler-og-publikasjoner/norges-sykefravaer-passerte-sveriges-og-nederlands-etter-lovendringer> (accessed 12.02.2020).
- LMI (2019). Numbers and Facts 2019 (Tall og fakta 2019). 2019. Available at: <https://www.lmi.no/download.php?file=/wp-content/uploads/2019/04/Tall-og-fakta-2019.pdf>.
- Lunde ES, Otnes B, Ramm J (2017). Social inequalities in health service utilization (Sosial ulikhet i bruk av helsetjenester). *Rapporter 2017/16*. Oslo: Statistics Norway.
- Magnussen J, Martinussen PE (2013). From Centralization to Decentralization, and Back: Norwegian Health Care in a Nordic Perspective. In Costa-Font J, Greer S (Eds.). *Federalism and Decentralization in European Health and Social Care*. Palgrave Macmillan UK, pp. 101–20.
- Magnussen J, Vrangbaek K, Saltman RB (2009). *Nordic Health Care Systems: Recent Reforms and Current Policy Challenges*. Open University Press.
- Morgan D, Gmeinder M, Wilkens J (2017). *An OECD analysis of health spending in Norway*. Available at: https://www.oecd-ilibrary.org/social-issues-migration-health/an-oecd-analysis-of-health-spending-in-norway_63302bbf-en. doi.org/10.1787/63302bbf-en (accessed 12.02.2020).
- Mørk E et al. (2018). Kommunale helse -og omsorgstjenester 2017 [Municipal Health and Care Services 2017]. Oslo: Statistics Norway.
- NAV (2019). Diagnoser uføretrygd. Utviklingen i uførediagnoser per 30. juni 2015 [Disability benefit and disability diagnoses as of 30 June 2015]. Available at: <https://www.nav.no/no/NAV+og+samfunn/Statistikk/AAP+nedsatt+arbeidsevne+og+uføretrygd+--statistikk/Ufoetrygd/Diagnoser+uføretrygd> (accessed 06.04.2019).
- Nilssen Y et al. (2019). Decreasing waiting time for treatment before and during implementation of cancer patient pathways in Norway. *Cancer Epidemiology*, 61:59–69. doi:<https://doi.org/10.1016/j.canep.2019.05.004>.
- Nolte E, McKee M (2011). Variations in amenable mortality – trends in 16 high-income nations. *Health Policy*, 103:47–52.
- Nolte E, McKee M (2004). Does healthcare save lives? Avoidable mortality revisited. Research report. Nuffield Trust.
- NOMESKO (2017). Statistics on patient mobility in the Nordic countries – Pre-study. © Nordic Medico-Statistical Committee, Copenhagen.
- Norwegian Board of Health Supervision (2017). Unthinkable or predictable? Followup of reports of serious adverse events in hospitals. Status and experience 2016 from the Investigation Unit for Serious Adverse Events in the Norwegian Board of Health Supervision.
- Norwegian Directorate for Civil Protection (DSB) (2018). About us. Available at: <https://www.dsb.no/menyartikler/om-dsb/about-dsb/> (accessed 12.02.2020).
- Norwegian Directorate of eHealth (2019). Nasjonal e-helsemonitor [National eHealth Monitor]. Available at: <https://ehelse.no/e-helsekunnskap/statistikk/nasjonal-e-helsemonitor#e-resept> (accessed 21.05.2019).

- Norwegian Directorate of Health (2016). Leger i primær- og spesialisthelsetjenesten [Physicians in primary and secondary care]. Rapport 2016. Oslo: Helsedirektoratet.
- Norwegian Directorate of Health (2017a). Arbeid og psykisk helse [Work and mental health]. Oslo: Helsedirektoratet.
- Norwegian Directorate of Health (2017b). *Finansieringsordningene i spesialisthelsetjenesten – Langsiktige utviklingsbehov* [Financing systems for specialist care – Future development]. Available at: <https://helsedirektoratet.no/Documents/Finansieringsordninger/Innsatsstyrt%20finansiering%20%28ISF%29%20og%20DRG-systemet/17-4033-3%20Strategisk%20vurdering%20av%20finansieringsordningene%20i%20spesialisthelsetjenesten%20-%20Publisert%2020170403.pdf> (accessed 12.02.2020).
- Norwegian Directorate of Health (2017c). Leger i kommune - og spesialisthelsetjenesten [Physicians in primary and secondary care 2017]. Rapport 2017 (Vol. IS - 2679). Oslo: Helsedirektoratet.
- Norwegian Directorate of Health (2018a). Andel dialysepasienter som har hjemmedialyse [Share of dialysis patients with home dialysis]. Available at: https://helsenorge.no/kvalitetseksjon/Sider/Kvalitetsindikatorer-rapporter.aspx?kiid=KI_Nyre_hjemmedialyse (accessed 12.02.2020).
- Norwegian Directorate of Health (2018b). *Bruk av tjenester i det psykiske helsevernet for voksne 2013–2017* [Mental health services for adults 2013–2017]. SAMDATA. Available at: <https://helsedirektoratet.no/Documents/Statistikk%20og%20analyse/Samdata/2018-06%20Pasienter%20og%20behandlingsaktivitet%20VOP%202013-2017.pdf> (accessed 12.02.2020).
- Norwegian Directorate of Health (2018c). Primærhelseteam – pilotprosjekt [Primary care teams – pilot project]. Available at: <https://helsedirektoratet.no/primerhelseteam-pilotprosjekt> (accessed 19.01.2018).
- Norwegian Directorate of Health (2018d). Rehabilitering i spesialisthelsetjenesten [Rehabilitation in specialist care]. Analysenotat 8/2018 SAMDATA spesialisthelsetjenesten. Oslo: Helsedirektoratet.
- Norwegian Directorate of Health (2018e). Forekomst av antibiotikabehandling. Nasjonale kvalitetsindikatorer [Treatment with Antibiotics. National Quality Indicators]. Available at: <https://www.helsedirektoratet.no/statistikk/statistikk/kvalitetsindikatorer/legemidler/forekomst-av-antibiotikabehandling> (accessed 12.02.2020).
- Norwegian Directorate of Health (2019a). Action plan for Patient Safety and Quality Improvement 2019–2023. Oslo: Helsedirektoratet.
- Norwegian Directorate of Health (2019b). *Aktivitetsdata for avtalespesialister 2018* [Activity–data for specialists with private contract 2018]. Norsk Pasientregister. Available at: <https://www.helsedirektoratet.no/rapporter/aktivitetsdata-for-avtalespesialister> (accessed 12.02.2020).
- Norwegian Directorate of Health (2019c). Fritt behandlingsvalg Årsrapport 2018 [Free choice of treatment. Yearly report 2018]. Rapport IS-2782. Oslo: Helsedirektoratet.
- Norwegian Institute of Public Health (2016). Flere dårlige pasienterfaringer i Norge enn i andre land [Commonwealth Fund's population survey in 11 countries: Norwegian results in 2016 and changes over time]. Available at: <https://www.fhi.no/nyheter/2016/flere-darlige-pasienterfaringer-i-norge-enn-i-andre-land/> (accessed 12.02.2020).
- Norwegian Institute of Public Health (2017a). Updated 08.08.2017. Public Health Report. Diabetes in Norway. Available at: <https://www.fhi.no/en/op/hin/health-disease/diabetes-in-norway---public-health-/> (accessed 12.02.2020).
- Norwegian Institute of Public Health (2017b). Statistikk for barnevaksinasjon [Statistics for child vaccination programme]. Available at: <https://www.fhi.no/hn/helseregistre-og-registre/sysvak/barnevaksinasjon---statistikk/> (accessed 18.04.2018).
- Norwegian Institute of Public Health (2018). Folkehelse rapporten (nettutgaven) – Helsetilstanden i Norge [Public Health Report Norway 2018]. Available at: <https://www.fhi.no/nettpub/hin/> (accessed 12.02.2020).
- Norwegian Labour Inspection Authority (2018). About us. Available at: <https://www.arbeidstilsynet.no/en/about-us/> (accessed 12.02.2020).

- Norwegian Medical Association (2016). General statistics on doctors in Norway 2016. Available at: <http://legeforeningen.no/Emner/Andre-emner/Legestatistikk/English/General-statistics-on-doctors-in-Norway-2016/> (accessed 27.2.2018).
- Norwegian Ministries (2015). *National Strategy against Antibiotic Resistance 2015–2020*. Available at: <https://www.regjeringen.no/contentassets/5eaf66ac392143b3b2054aed90b85210/antibiotic-resistance-engelsk-lavopploslig-versjon-for-nett-10-09-15.pdf> (accessed 12.02.2020).
- Norwegian Ministries (2017). *Norwegian National Action Plan for a Healthier Diet – an outline*. Oslo: Norwegian Government. Available at: <https://www.regjeringen.no/contentassets/fab53cd681b247bfa8c03a3767c75e66/norwegian-national-action-plan-for-a-healthier-diet-an-outline.pdf> (accessed 12.02.2020).
- Norwegian Ministry of Finance (2017). *Prop. 1 S (2017–2018). Statsbudsjettet 2018 (kapitler fordelt til helse- og omsorgskomiteen)* [National budget 2018 (chapters for Health and Care Services)]. Oslo: Norwegian Ministry of Finance. Available at: https://www.statsbudsjettet.no/upload/Statsbudsjett_2019/dokumenter/pdf/gulbok.pdf (accessed 12.02.2020).
- Norwegian Ministry of Finance (2018). *Prop. 1 S (2018–2019). Statsbudsjettet 2019* [National budget 2019]. Oslo: Norwegian Ministry of Finance. Available at: https://www.statsbudsjettet.no/upload/Statsbudsjett_2019/dokumenter/pdf/gulbok.pdf (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2007). White paper no. 20 (2006–2007). Report to the Storting. *National strategy to reduce social inequalities in health*. Norwegian Ministry of Health and Care Services. Available at: <https://www.regjeringen.no/en/dokumenter/report-no.-20-to-the-storting-2006-2007/id449531/> (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2009). White paper no. 47 (2008–2009). Report to the Storting. *The Coordination Reform. Proper treatment – at the right place and right time*. Norwegian Ministry of Health and Care Services. Available at: <http://www.regjeringen.no/en/dep/hod/documents/regpubl/stmeld/2008-2009/stmeld-nr-47-2008-2009-.html?pid=567201> (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2013). White paper no. 34 (2012–2013). Report to the Storting. Summary: Public Health Report: Good health – a common responsibility. Norwegian Ministry of Health and Care Services.
- Norwegian Ministry of Health and Care Services (2015a). Care Plan 2020. The Norwegian Government's plan for the care services field for 2015–2020.
- Norwegian Ministry of Health and Care Services (2015b). White paper No. 26 (2014–2015). Report to the Storting. Summary: *The primary health and care services of tomorrow – localised and integrated*. Norwegian Ministry of Health and Care Services. Available at: <https://www.regjeringen.no/en/dokumenter/meld.-st.-26-20142015/id2409890/> (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2015c). White Paper No. 19 (2014–2015). Report to the Storting. Summary: *Public Health Report – Accomplishments and possibilities*. Norwegian Ministry of Health and Care Services. Available at: <https://www.regjeringen.no/no/dokumenter/meld.-st.-19-2014-2015/id2402807/> (accessed 15.02.2020).
- Norwegian Ministry of Health and Care Services (2016a). Forskrift om ledelse og kvalitetsforbedring i helse- og omsorgstjenesten [Regulation on management and quality improvement in Health and Care Services].
- Norwegian Ministry of Health and Care Services (2016b). *Sentrale elementer vedrørende organisering av AMK-sentralene. Utredning* [Key elements regarding the organization of the AMK centres]. Oslo. Available at: https://www.regjeringen.no/contentassets/b332572e94304549b8b6db04ad617f76/amk_utredning_150916.pdf (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2017a). Gode resultater med pakkeforløp for kreft [Progress on cancer – good results]. Available at: <https://www.regjeringen.no/no/aktuelt/gode-resultater-med-pakkeforlop-for-kreft/id2551904/> (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2017b). Opptreppingsplan for habilitering og rehabilitering 2017–2019 [Action plan for habilitation and rehabilitation for 2017–2019]. Særtrykk til Prop. 1 S (2016–2017). Oslo.

- Norwegian Ministry of Health and Care Services (2018). *First things first. Prioritisation principles for municipal health and care services and publicly funded dental health services*. Ministry of Health and Care Services. Available at: <https://www.regjeringen.no/contentassets/013aba8272d3412794ff7c78deb83e77/en-gb/pdfs/nou201820180016000engpdfs.pdf> (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2018b). White Paper no. 15 (2017–2018). Report to the Storting. *Summary: A full life – all your life. A Quality Reform for Older Persons*. Available at: <https://www.regjeringen.no/en/dokumenter/meld.-st.-15-20172018/id2599850/> (accessed 12.02.2020).
- Norwegian Ministry of Health and Care Services (2019). White paper no. 7 (2019–2020). Report to the Storting. *National Health and Hospital Plan 2020–2023*. Norwegian Ministry of Health and Care Services. Available at: <https://www.regjeringen.no/en/dokumenter/meld.-st.-7-20192020/id2678667/> (accessed 12.02.2020).
- Norwegian Ministry of Local Government and Modernisation (2017). Proposition to the Storting no. 96 S (2016–2017). *Changes in the local government structure*. Available at: https://www.regjeringen.no/contentassets/46a1576a806f4e1682f00b0d9a1f4456/proposition_to_the_storting_no_96_s.pdf (accessed 12.02.2020).
- Norwegian Pharmacy Association (2018). Pharmacy ownership. In 2001 Norway liberalized the pharmacy ownership system. Available at: <https://www.apotek.no/in-english/pharmacy-ownership> (accessed 12.02.2020).
- Norwegian Pharmacy Association (2019). Annual report 2018. Available at: <https://www.apotek.no/annual-report-2018> (accessed 03.06.2019).
- OECD (2014). *OECD Reviews of Health Care Quality: Norway 2014*. OECD Publishing.
- OECD (2017). *Health at a Glance 2017*. OECD Publishing.
- OECD (2018a). *Health at a Glance: Europe 2018. State of Health in the EU Cycle*. Paris: OECD/ EUROPEAN UNION.
- OECD (2018b). *Investing in Youth: Norway. Investing in Youth*. Paris: OECD Publishing. Available at: <https://doi.org/10.1787/9789264283671-en> (accessed 12.02.2020).
- OECD (2019). Statistics database. Available at: <https://stats.oecd.org/> (accessed 09.11.2019).
- OECD/European Observatory on Health Systems and Policies (2019). Norway: Country Health Profile 2019. State of Health in the EU. Paris/Brussels: OECD Publishing/European Observatory on Health Systems and Policies.
- Office of the Auditor General of Norway (2011). Riksrevisjonens undersøkelse av eiendomsforvaltningen i helseforetakene [The Office of the Auditor General's investigation into public governance of real estate within the health trusts]. Dokument 3:11 (2010–2011). Oslo: Office of the Auditor-General.
- Office of the Auditor General of Norway (2017). Riksrevisjonens undersøkelse av bruken av poliklinisk bildediagnostikk. Riksrevisjonens administrative rapport no. 1 2017 [The Office of the Auditor General's investigation into use of image diagnostic equipment, The Auditor General's administrative report Nr 1 2017]. Oslo: Office of the Auditor-General.
- Office of the Auditor General of Norway (2018). The Office of the Auditor General's investigation into health registers as instruments for achieving health policy objectives: Document 3:3 (2017–2018). Oslo: Office of the Auditor General. Available at: <https://www.riksrevisjonen.no/globalassets/rapporter/no-2016-2017/bildedagnostikk.pdf> (accessed 15.02.2020).
- Olsen CB, Brandborg G (2016). Country Background Note: Quality Based Financing in Norway. Submitted for the OECD Project on Payment Systems: Norwegian Directorate of Health.
- Ottersen T et al. (2016). A new proposal for priority setting in Norway: Open and fair. *Health Policy*, 120(3):246–51. doi:<https://doi.org/10.1016/j.healthpol.2016.01.012>.
- Patient Rights Act 1999. Act 1999-07-02-63 on patients' and users' rights.
- Political platform for a government formed by the Conservative Party and the Progress Party (The Sundvolden platform). 2013.
- Political platform for the Norwegian Government, formed by the Conservative Party, the Progress Party and the Liberal Party (The Jeløya-platform). 2018.

- PROBA Samfunnsanalyse (2014). Internasjonal sammenligning av sykefravær [International comparison of sick leave]. Hovedrapport. Oslo: PROBA.
- Råholm M-B et al. (2013). Nursing education in Denmark, Finland, Norway and Sweden – from Bachelor's Degree to PhD. *Journal of Advanced Nursing*, 66:2126–37.
- Research Council of Norway (2015). Research-based evaluation of the Norwegian Breast Cancer Screening Programme. Oslo: Research Council of Norway.
- Research Council of Norway (2016). Evaluation of the Coordination Reform; End report from the steering committee of research-based evaluation of the Coordination reform.
- Research Council of Norway et al. (2019). HRR metadatabase for Nasjonale Helseregistre. Available at: <http://hrr.uit.no/hrr/> (accessed 12.02.2020).
- RIF (2015). *Norges tilstand 2015. State of the Nation*. Available at: <https://www.rif.no/norges-tilstand-2600-milliarder-i-etterslep/> (accessed 15.02.2020).
- Ringard Å et al. (2013). Norway – Health System Review. *Health Systems in Transition*, 15(8):1–162.
- Sagan A, Thomson Se (2016). *Voluntary health insurance in Europe: Country experience [Internet]*. Vol. 42. Copenhagen (Denmark): European Observatory on Health Systems and Policies.
- Sakshaug S et al. (2018). Drug Consumption in Norway 2013–2017. Norwegian Institute of Public Health.
- Sakshaug S et al. (2019). Drug Consumption in Norway 2014–2018. Norwegian Institute of Public Health.
- Saunes IS (2016a). More municipalities establish Healthy Life Centres. Chapter 5, Section 5.1, in Online HiT. Available at: <https://www.hspm.org/countries/norway08012014/countrypage.aspx> (accessed 05.06.2019).
- Saunes IS (2016b). Municipalities to provide pre- or post- hospital bed services. Chapter 5, Section 5.4, in Online HiT. Available at: <https://www.hspm.org/countries/norway08012014/countrypage.aspx> (accessed 06.06.2019).
- Saunes IS, Danielsens K (2005). Medisinske kvalitetsregistre i Norge – identifisering og kartlegging av eksisterende registre [Medical quality registries – identification and mapping of existing registries], (p. 89). Oslo: Nasjonalt kunnskapssenter for helsetjenesten.
- Saunes IS, Lindahl AK (2015). The Ministry of Health announces plans to reorganise central health administration (Chapter 2, Section 2.1 in Online HiT). Available at: <https://www.hspm.org/countries/norway08012014/countrypage.aspx> (accessed 14.01.2020).
- Saunes IS, Lindahl AK (2017). Changing governance of access to institutionalised care. Chapter 5, Section 5.8, in Online HiT. Available at: <https://www.hspm.org/countries/norway08012014/countrypage.aspx> (accessed 14.01.2020).
- Saunes IS, Ringard Å (2014). End of municipal co-financing of hospital care. Chapter 6, Section 6.1, in Online HiT. Available at: <https://www.hspm.org/countries/norway08012014/countrypage.aspx> (accessed 06.06.2019).
- Sirona Health Solutions (2015). *Evaluering av Kvalitetsbasert finansiering KBF* [Evaluation of QBF (Quality Based Funding)]. Stockholm.
- Sjetne I, Holmboe O (2014). *General practitioners' assessment of community mental health centres. Results in 2014 and changes over time*. Available at: https://www.fhi.no/globalassets/dokumenterfiler/rapporter/pasopp/2014/fastlegers-vurdering-av-distriktpsykiatriske-sentre_2014.pdf (accessed 12.02.2020).
- Skretting ABE, Vedøy TF, Lund KE. (2017). *Rusmidler i Norge 2016* [Substance abuse in Norway 2016]. Available at: https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2016/rusmidler_i_norge_2016.pdf (accessed 12.02.2020).
- Skrivarhaug T et al. (2014). Incidence of type 1 diabetes in Norway among children aged 0–14 years between 1989 and 2012: has the incidence stopped rising? Results from the Norwegian Childhood Diabetes Registry. *Diabetologia*, 57(1):57–62.
- Skudal KE et al. (2016). Commonwealth Fund's population survey in 11 countries: Norwegian results in 2016 and changes over time. Oslo: Norwegian Institute of Public Health.

- Statistics Norway (2012). Arbeidsmarkedet for helse- og sosialpersonell fram mot år 2035. Dokumentasjon av beregninger med HELSEMOD 2012 [Forecasting of health care personnel towards 2035]. In Texmon, I & Roksvaag K (Eds.). *Rapporter*. Oslo.
- Statistics Norway (2016). *Tannhelse blant voksne i Sverige og Noreg. Ein sosioøkonomisk analyse* [Dental health amongst adults in Sweden and Norway. A socioeconomic analysis]. Oslo: Statistics Norway. Available at: https://www.ssb.no/helse/artikler-og-publikasjoner/attachment/279851?_ts=157c3198c70 (accessed 12.02.2020).
- Statistics Norway (2018). *This is Norway 2018*. Oslo: Statistics Norway. Available at: https://www.ssb.no/en/befolkning/artikler-og-publikasjoner/attachment/364602?_ts=1664418b978 (accessed 12.02.2020).
- Statistics Norway (2019a). Statistics Norway Database. Available at: <https://www.ssb.no/en> (accessed 21.10.2019).
- Statistics Norway (2019b). *The demand for labour in the Norwegian Health and Long-Term-Care sector towards 2060*. Available at: <https://www.ssb.no/en/arbeid-og-lonn/artikler-og-publikasjoner/the-demand-for-labour-in-the-norwegian-health-and-long-term-care-sector-towards-2060> (accessed 12.02.2020).
- Telle K et al. (2018). Målene om et mer inkluderende arbeidsliv – status og utviklingstrekk [Targeting a more inclusive labour market – status and trends]. Oslo: Arbeids- og sosialdepartementet.
- Torjesen DO, Vabø SI (2014). Samhandlingsreformen — virkemidler for koordinering [The coordination reform. Measures for coordination]. In Vabø M & Vabø SI (Eds.). *Velferdens organisering* [Organisation of Welfare]. Oslo: Universitetsforlaget.
- Tynkynen LK et al. (2018). Development of voluntary private health insurance in Nordic countries – An exploratory study on country-specific contextual factors. *Health Policy*, 122(5):485–92. doi:10.1016/j.healthpol.2018.03.008.
- UCLG, OECD (2016). Country profiles: regional facts and figures. Norway Subnational Government. Available at: <http://www.oecd.org/regional/regional-policy/profile-Norway.pdf> (accessed 12.02.2020).
- UNDP (2018). Human Development Indices and Indicators: 2018 Statistical update. Available at: <http://hdr.undp.org/en/2018-update> (accessed 12.02.2020).
- Vedøy TF (2018). Røyking og sosial ulikhet. *Tobakk i Norge* [Smoking and social inequality. Tobacco in Norway]. Available at: <https://www.fhi.no/nettpub/tobakkinorge/bruk-av-tobakk/royking-og-sosial-ulikhet/> (accessed 12.02.2020).
- Weltzien K, Kjendlie K, Gaarder-Olsen T (2017). Pharmaceutical Trademarks 2017/2018: A Global Guide: Procedures and strategies for pharmaceutical brands: Norway: World Trademark Review.
- White Paper no. 28 (2014–2015). Legemiddelmeldingen [Report on Pharmaceuticals].
- Wieseler B, McGauran N, Kaiser T (2019). New drugs: where did we go wrong and what can we do better? *BMJ*, 366:l4340. doi:10.1136/bmj.l4340.
- Winblad U, Ringård Å (2009). Meeting rising public expectations: the changing role of patients and citizens. In Magnussen J, Vrangbæk K, Saltman R (Eds.). *Nordic health care systems – recent reforms and current political challenges*. Maidenhead: Open University Press.
- WHO (2019). Global Health Expenditure Database. Updated December 2019. Available at: <https://apps.who.int/nha/database/Select/Indicators/en> (accessed 19.12.2019).
- World Bank (2018). General government final consumption expenditure (% of GDP). Available at: <https://data.worldbank.org/indicator/NE.CON.GOV.T.ZS> (accessed 12.02.2020).
- World Bank (2019). World development indicators database. Available at: <https://datacatalog.worldbank.org/dataset/world-development-indicators> (accessed 09.11.2019).

9.2 Useful websites

HelseNorge: <https://helsenorge.no/other-languages/english>
 Health and Services Ombudsman: <https://helsenorge.no/pasient-og-brukerombudet/health-and-services-ombudsman>
 Health Economics Administration: <https://helfo.no/english>
 Parliament: <https://www.stortinget.no/en/In-English>
 Office of the Auditor General: <https://www.riksrevisjonen.no/en/Pages/Homepage.aspx>
 Government: <https://www.regjeringen.no/en/dep/hod/id421/>
 Ministry of Education and Research: <https://www.regjeringen.no/en/dep/kd/id586/>
 Ministry of Finance: <https://www.regjeringen.no/en/dep/fin/id216/>
 Ministry of Labour and Social Affairs: <https://www.regjeringen.no/en/dep/asd/id165/>
 Ministry of Health and Care Services: <https://www.regjeringen.no/en/dep/hod/id421/>
 Norwegian Biotechnology Advisory Board: <http://www.bioteknologiradet.no/english/>
 Norwegian Board of Health Supervision: <https://www.helsetilsynet.no/en/>
 Norwegian Directorate of Health: <https://helsedirektoratet.no/English>
<https://helsedirektoratet.no/english/authorisation-and-license-for-health-personnel>
 Norwegian Institute of Public Health: <https://www.fhi.no/en/>
 Norwegian Labour and Welfare Administration (NAV): <https://www.nav.no/en/Home/Benefits+and+services/Information+about+NAV+s+services+and+benefits>
 Norwegian Medicines Agency: <https://legemiddelverket.no/English>
 Norwegian Radiation Protection Authority: <https://www.nrpa.no/en/about-nrpa>
 Norwegian System of Patient Injury Compensation: <https://www.npe.no/en/>
 Norwegian Association of Local and Regional Authorities: <http://www.ks.no/news-in-english/english-articles/>
 The Employers' Association Spekter: <http://www.spekter.no/Stottemeny/Om-Spekter/Om-Spekter/Information-in-English/>
 Norwegian Medical Association: <http://legeforeningen.no/english/>
 Norwegian Nurses Organization: <https://www.nsf.no/om-nsf/english>
 Norwegian Dental Association: <http://www.tannlegeforeningen.no/english/>
 Norwegian Psychological Association: <https://www.psykologforeningen.no/foreningen/english>
 Norwegian Patient Organization: <https://www.pasient.no/>
 Norwegian Cancer Society: <https://kreftforeningen.no/en/about-us/>
 Norwegian Health Network: <https://www.nhn.no/>
 Association of the Pharmaceutical Industry in Norway: <https://www.lmi.no/>
 The Norwegian Universities and Colleges Admission Service: <https://www.samordnaopptak.no/info/english/>
 Regional Health Authorities:
 Northern Norway RHA: <https://helse-nord.no/work-with-helse-nord>
 Central Norway RHA: <https://helse-midt.no/>
 South-Eastern Norway RHA: <https://www.helse-sorost.no/south-eastern-norway-regional-health-authority>
 Western Norway RHA: <https://helse-vest.no/seksjon-engelsk>
 Norwegian Electronic Health Library: <http://www.helsebiblioteket.no/om-oss/english>
 Statistics Norway: <https://www.ssb.no/en/>

■ 9.3 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory's research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: <http://www.euro.who.int/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010>.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in All Policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its summer 2007 edition, the Health for All database started to take account of the enlarged EU of 27 Member States. HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other OOP payments, VHI and how providers are paid.
4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which IT systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.
6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learnt from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following:

- A rigorous review process (see the following section).
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

■ 9.4 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

■ 9.5 About the authors

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- to learn in detail about different approaches to the financing, organization and delivery of health services;
- to describe accurately the process, content and implementation of health reform programmes;
- to highlight common challenges and areas that require more in-depth analysis; and
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United Kingdom (Wales)

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United States of America

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Uzbekistan

(2001^a, 2007^a, 2014^a)

Veneto Region, Italy

(2012)

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HiTs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.