



# State of Health in the EU

## Norway

Country Health Profile 2019

## The Country Health Profile series

The *State of Health in the EU's Country Health Profiles* provide a concise and policy-relevant overview of health and health systems in the EU/European Economic Area. They emphasise the particular characteristics and challenges in each country against a backdrop of cross-country comparisons. The aim is to support policymakers and influencers with a means for mutual learning and voluntary exchange.

The profiles are the joint work of the OECD and the European Observatory on Health Systems and Policies, in cooperation with the European Commission. The team is grateful for the valuable comments and suggestions provided by the Health Systems and Policy Monitor network, the OECD Health Committee and the EU Expert Group on Health Information.

## Contents

1. HIGHLIGHTS	3
2. HEALTH IN NORWAY	4
3. RISK FACTORS	7
4. THE HEALTH SYSTEM	9
5. PERFORMANCE OF THE HEALTH SYSTEM	13
5.1. Effectiveness	13
5.2. Accessibility	17
5.3. Resilience	19
6. KEY FINDINGS	22

## Data and information sources

The data and information in the Country Health Profiles are based mainly on national official statistics provided to Eurostat and the OECD, which were validated to ensure the highest standards of data comparability. The sources and methods underlying these data are available in the Eurostat Database and the OECD health database. Some additional data also come from the Institute for Health Metrics and Evaluation (IHME), the European Centre for Disease Prevention and Control (ECDC), the Health Behaviour in School-Aged Children (HBSC) surveys and the World Health Organization (WHO), as well as other national sources.

The calculated EU averages are weighted averages of the 28 Member States unless otherwise noted. These EU averages do not include Iceland and Norway.

This profile was completed in August 2019, based on data available in July 2019.

To download the Excel spreadsheet matching all the tables and graphs in this profile, just type the following URL into your Internet browser: <http://www.oecd.org/health/Country-Health-Profiles-2019-Norway.xls>

## Demographic and socioeconomic context in Norway, 2017

Demographic factors	Norway	EU
Population size (mid-year estimates)	5 277 000	511 876 000
Share of population over age 65 (%)	16.6	19.4
Fertility rate <sup>1</sup>	1.6	1.6
Socioeconomic factors		
GDP per capita (EUR PPP <sup>2</sup> )	43 900	30 000
Relative poverty rate <sup>3</sup> (%)	12.3	16.9
Unemployment rate (%)	4.2	7.6

1. Number of children born per woman aged 15-49. 2. Purchasing power parity (PPP) is defined as the rate of currency conversion that equalises the purchasing power of different currencies by eliminating the differences in price levels between countries. 3. Percentage of persons living with less than 60 % of median equivalised disposable income.  
Source: Eurostat Database.

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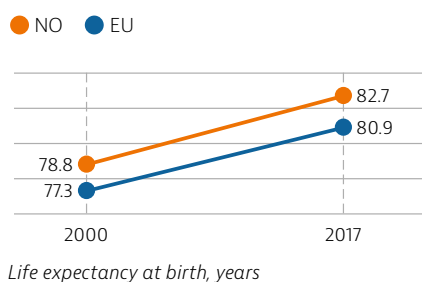
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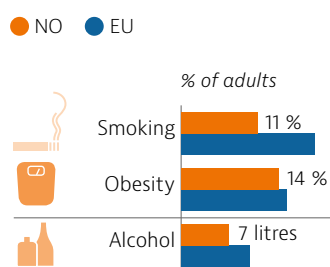
# 1 Highlights

Norwegians lead longer and healthier lives than most other Europeans. Since 2000, life expectancy has increased steadily, as a result of both effective public health policies that have reduced the prevalence of risk factors and the health care system's capacity to deliver high-quality care to the population. However, these positive results have come at a price. Norway spends more on health per capita than any EU country, with a considerable share dedicated to long-term care. Population ageing is expected to put additional pressure on Norwegian health budgets, requiring strategies to improve efficiency and strengthen community care for people with chronic conditions.



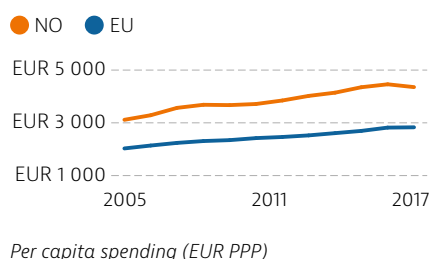
## Health status

Life expectancy at birth in Norway increased by nearly four years from 2000, reaching 82.7 years in 2017, nearly two years above the EU average. These gains in life expectancy were driven by reductions in deaths from cardiovascular diseases, which are partly attributable to reductions in the prevalence of risk factors (e.g. smoking), but also to quality improvements in acute care for heart attack and stroke.



## Risk factors

The prevalence of risk factors is low in Norway compared to the EU average. In 2017, 11 % of Norwegian adults reported smoking on a daily basis, a decline from 32 % in 2000 and among the lowest in the EU. Registered sales of alcohol amount to the equivalent of almost seven litres per year, compared to the ten litres consumed in the EU on average. The obesity rate for adults also remains below the EU average, although it increased from 9 % in 2005 to 14 % in 2017.

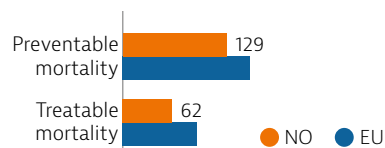


## Health system

Health spending per capita in Norway has grown steadily over the past decade. At EUR 4 459 in 2017, it is about two-thirds higher than the EU average. Health spending accounted for 10.4 % of Norway's GDP, also above the EU average of 9.8 %. Public funding accounts for 85 % of total health spending, which is also higher than the EU average (79 %). Most of the remaining expenditure is paid directly by households out of pocket.

## Effectiveness

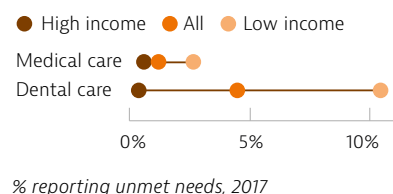
Mortality from treatable causes in Norway is very low compared to EU countries, signalling that the health care system performs well in saving the lives of people with potentially fatal conditions. Mortality from preventable causes is also relatively low.



Age-standardised mortality rate per 100 000 population, 2016

## Accessibility

Norwegians report very low unmet needs for medical care, but unmet needs for dental care are higher, particularly for people on low incomes.



## Resilience

Health expenditure is expected to grow rapidly in the coming years, mainly driven by growing demands for long-term care. Norway has already achieved substantial progress in shifting non-acute care away from hospitals to outpatient and community-based settings. With the growing need for care in an ageing population, continuing to strengthen primary and community care services remains one of the key challenges to ensure long-term sustainability of the health system.



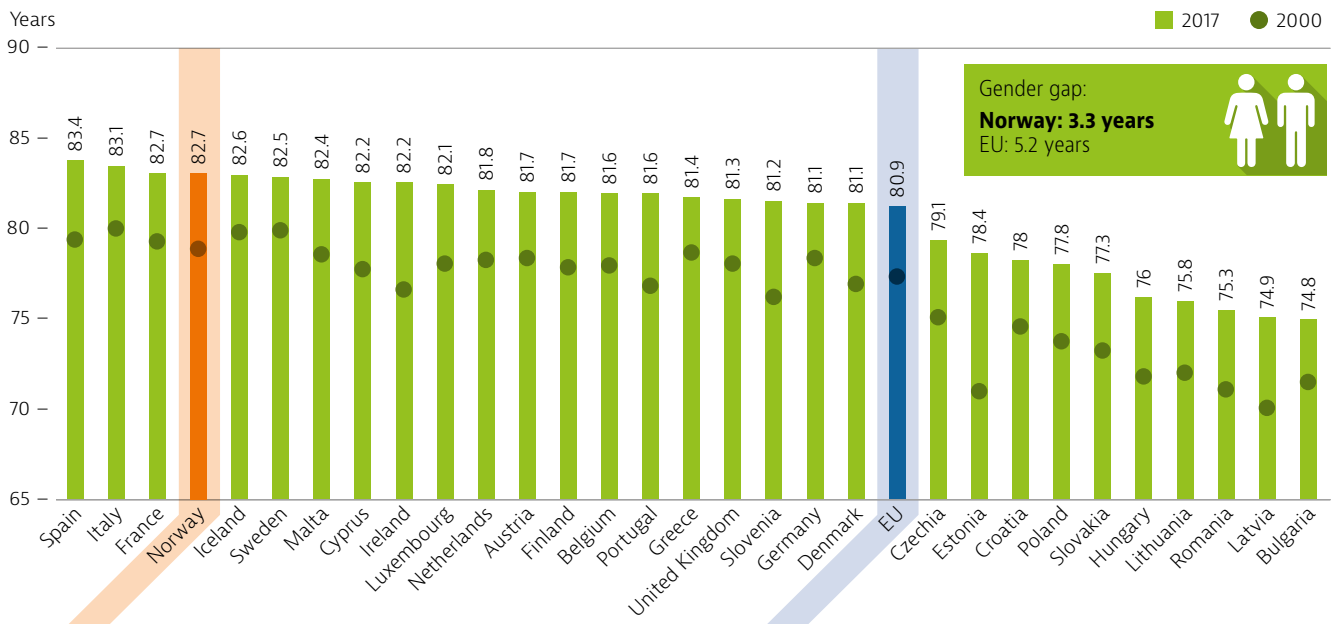
# 2 Health in Norway

## Norway has one of the highest life expectancies at birth in Europe

Life expectancy at birth of the Norwegian population has grown steadily since 2000, reaching 82.7 years in 2017, almost two years above the EU average

(Figure 1). Only Spain and Italy have higher life expectancy among EU countries. On average, Norwegian women live 3.3 years longer than men, but this gender gap has narrowed by two years since 2000 and is much smaller than the EU average (5.2 years).

Figure 1. Norway has the highest life expectancy among northern European countries



Source: Eurostat Database.

## Social inequalities in life expectancy are more pronounced among men than women

Inequalities in life expectancy among Norwegians follow a socioeconomic gradient, although it is more moderate than in most other European countries. At the age of 30, Norwegian men with the lowest level of education are expected to live, on average, 5.0 years less than those with the highest level of education, compared to 7.6 years in the EU. This education gap in life expectancy is slightly smaller among women, at 3.4 years, which is also less than the EU average of 4.1 years (Figure 2). Differences in life expectancy by education can be explained in part by differing levels of exposure to various risk factors and unhealthy lifestyles, including higher smoking rates and less physical activity among the least educated population.

Figure 2. The education gap in life expectancy is 5 years for men and 3.4 years for women



Education gap in life expectancy at age 30:  
 Norway: 3.4 years  
 EU21: 4.1 years  
 Norway: 5 years  
 EU21: 7.6 years

Note: Data refer to life expectancy at age 30. High education is defined as people who have completed a tertiary education (ISCED 5-8) whereas low education is defined as people who have not completed their secondary education (ISCED 0-2).

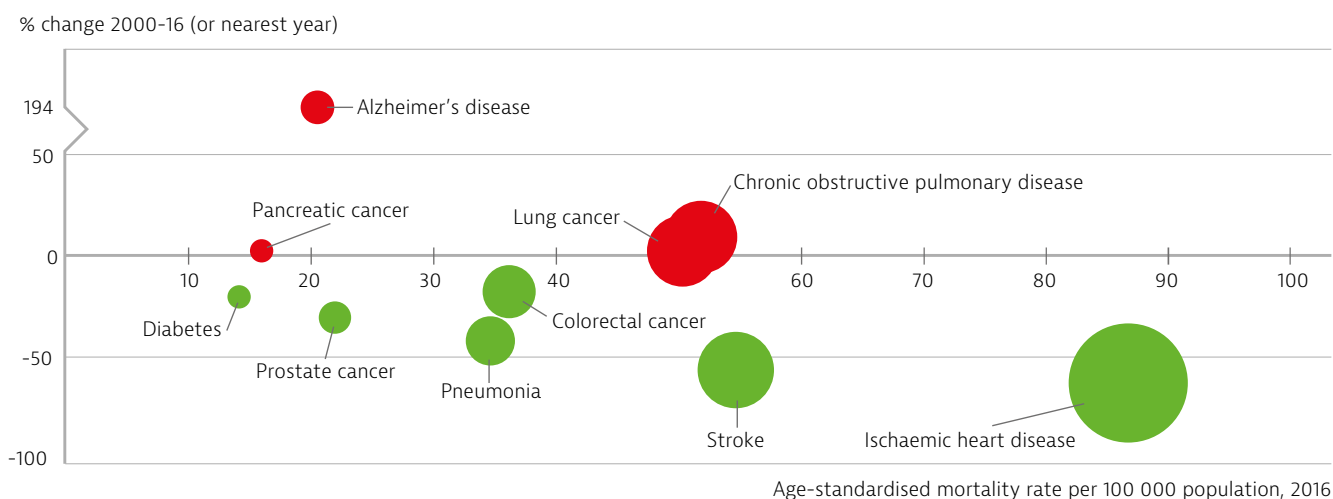
Source: Eurostat Database (data refer to 2016).

## Ischaemic heart disease remains the main cause of death in Norway

Norway's growth in life expectancy has mainly been driven by reductions in mortality rates from cardiovascular diseases – notably ischaemic heart disease and stroke (Figure 3). Nevertheless, ischaemic heart disease still represented one-tenth of all deaths in Norway in 2016, slightly lower than in the EU as a whole (12 %). Tobacco-related deaths also remain

important. Mortality rates from chronic obstructive pulmonary disease (COPD) increased slightly between 2000 and 2016, amounting to 51.7 per 100 000 population compared to the EU average of 34.4 per 100 000. Lung cancer is still the most frequent cause of death by cancer. Mortality rates from Alzheimer's disease have increased greatly since 2000, but this steep increase is partly explained by improvements in diagnostic procedures and changes to death registration practices.

**Figure 3. Despite reductions, ischaemic heart disease and stroke remain the leading causes of death**



Note: The size of the bubbles is proportional to the mortality rates in 2016. The increase in mortality rates from Alzheimer's disease is largely due to changes in diagnostic and death registration practices.  
Source: Eurostat Database.

## Most Norwegians report being in good health, but with some disparities by income group

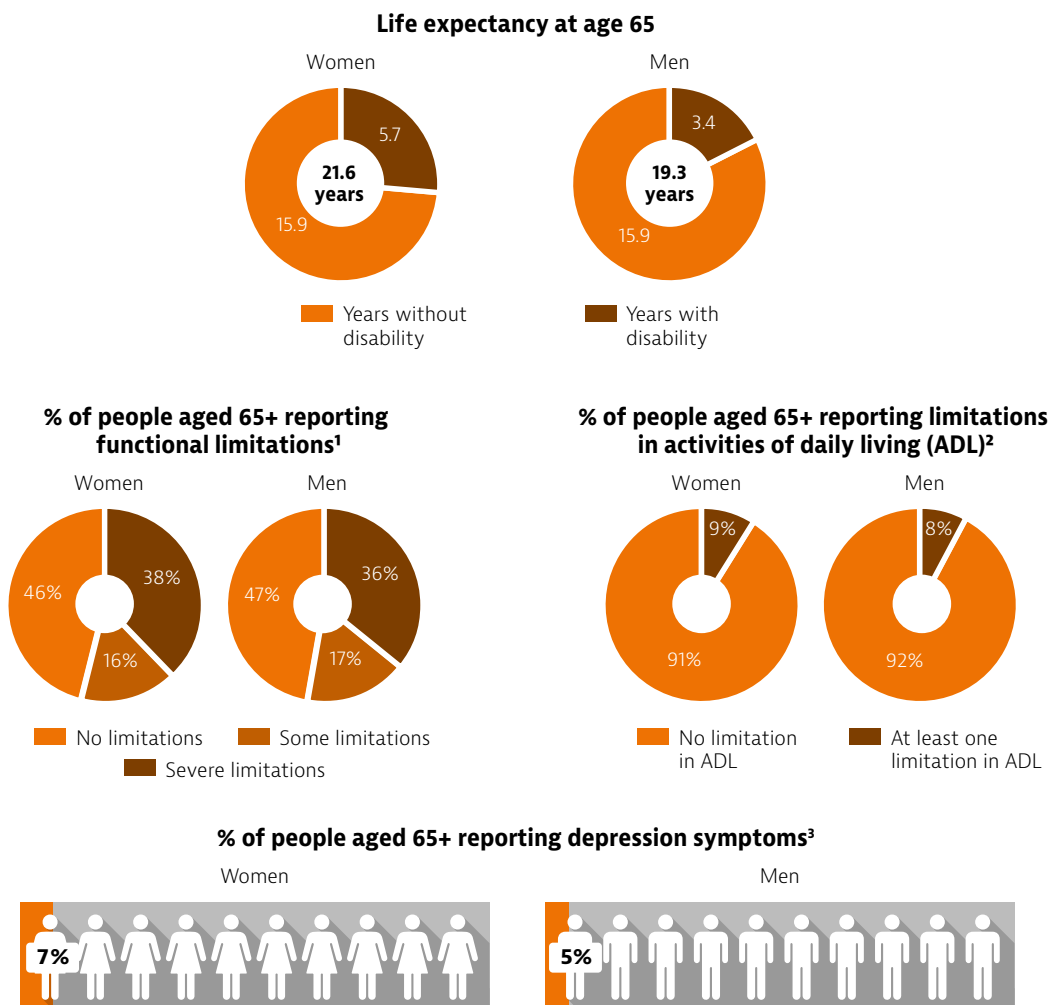
In 2017, more than three-quarters of people in Norway reported being in good health, a share greater than the EU as a whole (77 % vs. 70 %). However, as in other countries, people on lower incomes are less likely to report being in good health: 70 % in the lowest income group, compared to 86 % in the highest income group. This gap across income levels is similar to the EU average.

## Norwegians live about three-quarters of their lives after age 65 free from disability

In 2017, Norwegians aged 65 could expect to live an additional 20.5 years, about six months more than the EU average, and an increase of almost 2.5 years since 2000. The gender gap in life expectancy at age 65 was 2.3 years in favour of women (21.6 years for women vs. 19.3 years for men) (Figure 4). However, there is no gender gap in the number of healthy life years, because women tend to live a greater proportion of their lives after age 65 with some health issues and disabilities.

In 2015, slightly over half of Norwegian women and men aged 65 and over reported experiencing functional limitations such as seeing, hearing or walking impairments. While most people are able to continue leading independent lives, about one in 11 people aged 65 and over reported limitations in basic activities of daily living such as dressing and eating. These limitations are mainly concentrated among people aged over 80.

Figure 4. At age 65, Norwegians can expect to lead an additional 16 years of healthy life



Note: 1. Functional limitations include physical and sensory limitations (seeing, hearing and walking). 2. Basic activities of daily living include dressing, walking across a room, bathing or showering, eating, getting in or out of bed and using the toilet. 3. Based on the PHQ-8 index, people are considered to have depression symptoms if they report two or more depression-related problems (out of eight variables).  
Sources: Eurostat database for life expectancy with and without disability (data refer to 2017); European Health Interview Survey for other indicators (data refer to 2015).



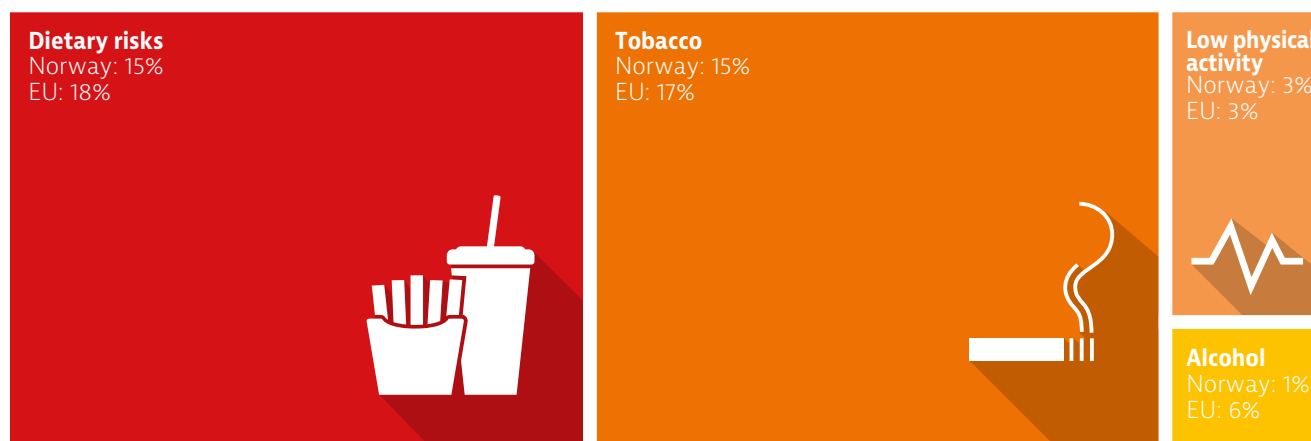
## 3 Risk factors

### Behavioural risk factors account for one-third of all deaths, lower than in most EU countries

One-third of all deaths in Norway can be attributed to behavioural risk factors, compared to four in ten deaths in the EU. Behavioural risk factors include dietary risks, tobacco smoking, alcohol consumption and low physical activity (Figure 5). Roughly one

in six deaths in 2017 could be attributed to dietary risks, including low fruit and vegetable intake, and high sugar and salt consumption. Tobacco smoking, including second-hand smoking, is responsible for a similar share of deaths every year. About 3 % of deaths are related to low levels of physical activity, and about 1 % can be attributed to excessive alcohol consumption.

**Figure 5. Unhealthy diets and tobacco smoking are the leading behavioural risk factors contributing to death**



*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.*

*Source: IHME (2018), Global Health Data Exchange (estimates refer to 2017).*

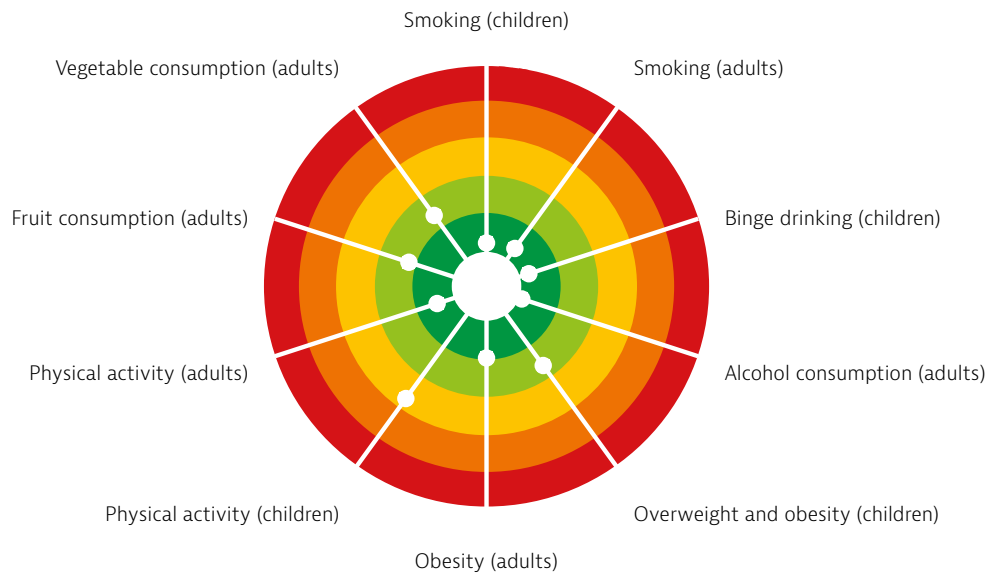
### Obesity levels in Norway are comparatively low, but childhood obesity is a growing concern

Almost one in seven (14 %) of adults in Norway was obese in 2017, a rate that has doubled over the past two decades yet remains lower than in most other European countries. Regular physical activity and relatively healthy nutritional habits among adults may explain this positive result (Figure 6).

Growing overweight and obesity rates among children are an important public health concern. Almost one in six Norwegian 15-year-olds was overweight or obese in 2013-14, a rate close to the EU average (17 %). Obesity alone has increased by more than 50 % over the past decade among 5- to 19-year-olds. There is a clear social gradient in how overweight and obesity, healthy diets and physical activity are distributed across Norway's younger population. For example, children living in rural areas with mothers with lower levels of education have higher excess weight problems than children living in more urban areas with mothers with higher education levels (Biel et al., 2013). Parents' level of education is also associated with an increased

prevalence of healthy lifestyles and diet: children of parents with higher education tend to be more physically active, eat more fruit and vegetables and drink fewer sugar-sweetened beverages (Ministry of Finance, 2018).

**Figure 6. Child obesity and physical inactivity are growing public health concerns**



Note: The closer the dot is to the centre, the better the country performs compared to EU countries. No country is in the white 'target area' as there is room for progress in all countries in all areas.

Source: OECD calculations based on ESPAD survey 2015 and HBSC survey 2013-14 for children indicators; and EU-SILC 2017, EHIS 2014 and OECD Health Statistics 2019 for adults indicators.

### Tobacco smoking has declined, but use of other tobacco products is on the rise

Norwegians report one of the lowest smoking rates in Europe, second only to Sweden: in 2017, just over 10 % of adults reported smoking on a daily basis, down from 32 % in 2000. A similar pattern is observed among adolescents, whose smoking rates have steadily declined over the last 20 years and are below those of nearly all EU countries, at less than 10 % in 2015.

Among adults, one in four people who reported having quit smoking in 2017 did so by substituting cigarettes with snus, a moist powder tobacco that has become increasingly common in Norway over the past two decades. Since 2000, the consumption of snus per capita in Norway has tripled, with the majority of snus users being young adults (aged 16-24). In 2017, one in four men and one in six women reported using snus on a daily basis. Although the majority of snus users are former or current smokers, snus consumption also increased considerably among men who had previously never smoked (Lund, Vedøy & Bauld, 2016). The use of snus is by no means free of risk, but the estimates of associated adverse effects on health attributable to snus use vary greatly.

### Comparatively low alcohol consumption is reported for both adults and adolescents

Alcohol consumption is among the lowest in Europe. Sales estimates show that in 2017 Norwegians aged 15 and over consumed nearly seven litres of pure alcohol per person, about 30 % less than the EU average (9.9 litres). In a similar vein, Norwegian adolescents report declining rates of binge drinking<sup>1</sup> behaviour. Less than one-fifth of 15- and 16-year-old boys and girls reported at least one episode of heavy episodic drinking during the past month in 2015 – the second lowest proportion in Europe after Iceland and half the EU average.

Differences in alcohol consumption exist across socioeconomic groups. While 15-year-olds in higher socioeconomic groups drink more frequently, those in lower socioeconomic groups start drinking alcohol at a younger age and are found to adopt harmful drinking habits more easily (Norwegian Directorate for Health, 2016).

1: Binge drinking is defined as consuming six or more alcoholic drinks on a single occasion for adults, and five or more alcoholic drinks for adolescents.



# 4 The health system

## The Norwegian health system is semi-decentralised

The Norwegian health system is semi-decentralised: the state is responsible for specialist care and municipalities for primary health care, long-term care and social services. Dental care for adults is provided by private providers. Counties are in charge of providing dental care for all aged 20 years or younger and for adults suffering from some specific conditions. Municipalities have been playing an increasing role in coordinating care (Box 1). In 2020, the 18 counties will be replaced by 11 regions and the number of municipalities will be reduced from 422 to around 350.

Purchasing and provision have historically been integrated for most types of care. The state owns the four regional health authorities, which in turn own hospital trusts. Hospital workers are salaried public employees. The majority of general practitioners (GPs) are self-employed, but they are fully embedded in the public system through contracts with the municipalities.

## The Norwegian health system relies heavily on public funds

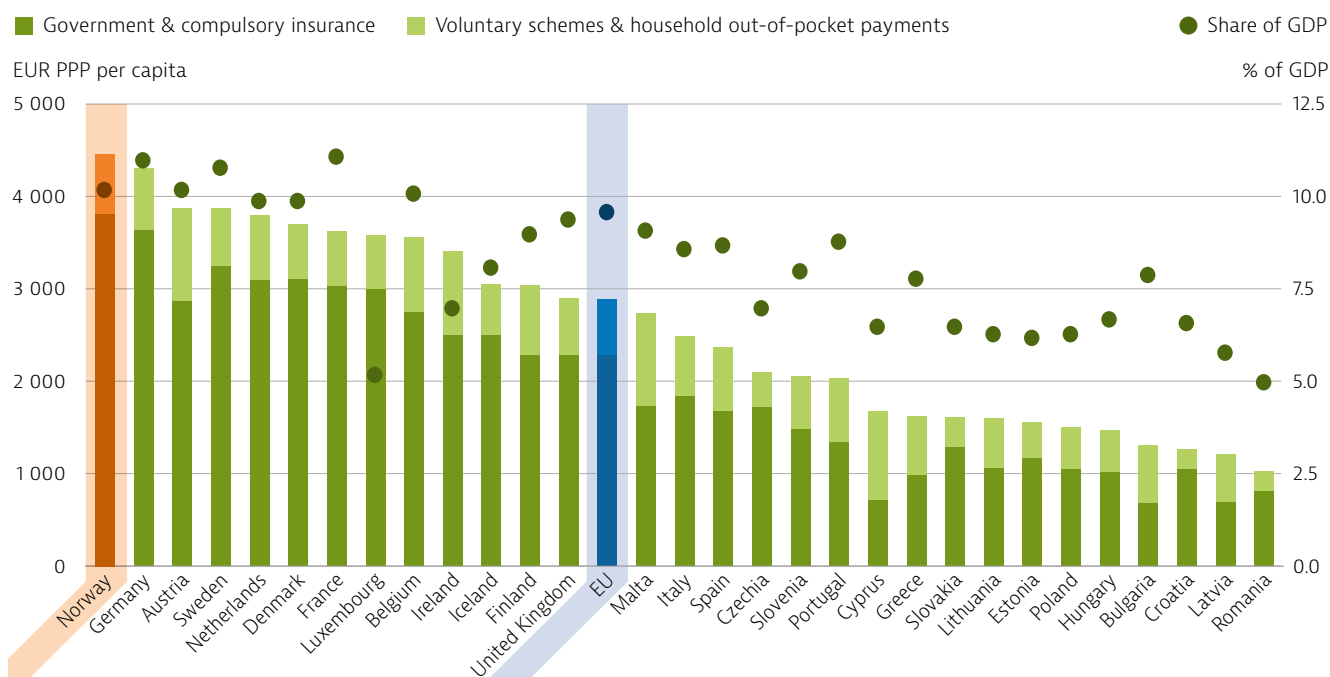
In 2017, Norway spent 10.4 % of its GDP on health, which is above the EU average of 9.8 %, but in line with other Scandinavian countries. Health spending per capita in 2017 was the highest in Europe at EUR 4 545, compared with the EUR 2 884 EU average (adjusted for differences in purchasing power) (Figure 7). Health spending per capita in Norway grew at a rate of 3.3 % between 2009 and 2017 (in real terms), which is twice the rate across the EU (1.5 %).

### Box 1. Recent reforms and national plans aim to improve care coordination

Assuring continuity of care and consistent information flows has historically been challenging in Norway, given that responsibilities for care delivery are divided among different administrative levels. Recent initiatives to improve care coordination include the Coordination Reform of 2012 (between hospitals and municipal care), the National Health and Hospital Plan for 2016-19 (between hospitals) and the 2015 White Paper on Primary Care.

Following the Coordination Reform, the municipalities became responsible for providing 24/7 local emergency care beds for patients in need of pre- or post-hospital services but these beds cannot be used in the delivery of long-term care services.

A central goal of the National Health and Hospital Plan is to improve care coordination by organising hospitals in regional networks. Each network is expected to include a regional hospital (one in each regional health authority), larger acute care hospitals (providing specialised emergency care to a population of about 60 000 to 80 000 people) and hospitals providing acute care and elective surgery.

**Figure 7. Norway spends more on health per capita than any EU country**

Source: OECD Health Statistics 2019 (data refer to 2017).

The Norwegian health system has three main sources of revenue: general taxation revenues (accounting for 74 % of the total), insurance contributions to the national insurance scheme (11 %) and private expenditure (15 %), which in Norway consists mainly of out-of-pocket (OOP)<sup>2</sup> spending by households. Private health insurance only plays a marginal role. Taken together, the two public sources account for 85 % of health spending, a higher share than in any EU country.

In 2017, Norway allocated roughly the same amount of health spending on inpatient care, outpatient care and long-term care – just under 30 % of the total for each spending category. The proportion spent on long-term care was higher than in any EU country (Figure 8), reflecting the government's priority of enabling family carers to stay in the labour force. On the other hand, the share of total health spending on pharmaceuticals and medical devices of just over 10 % was the second lowest, and has decreased over the past decade. This figure does not include pharmaceutical and medical device expenditure in hospitals, which is reported under inpatient or outpatient care. Spending on prevention accounted for about 3 % of all health spending, close to the EU average.

### Health coverage is universal, but cost-sharing requirements are high for some services

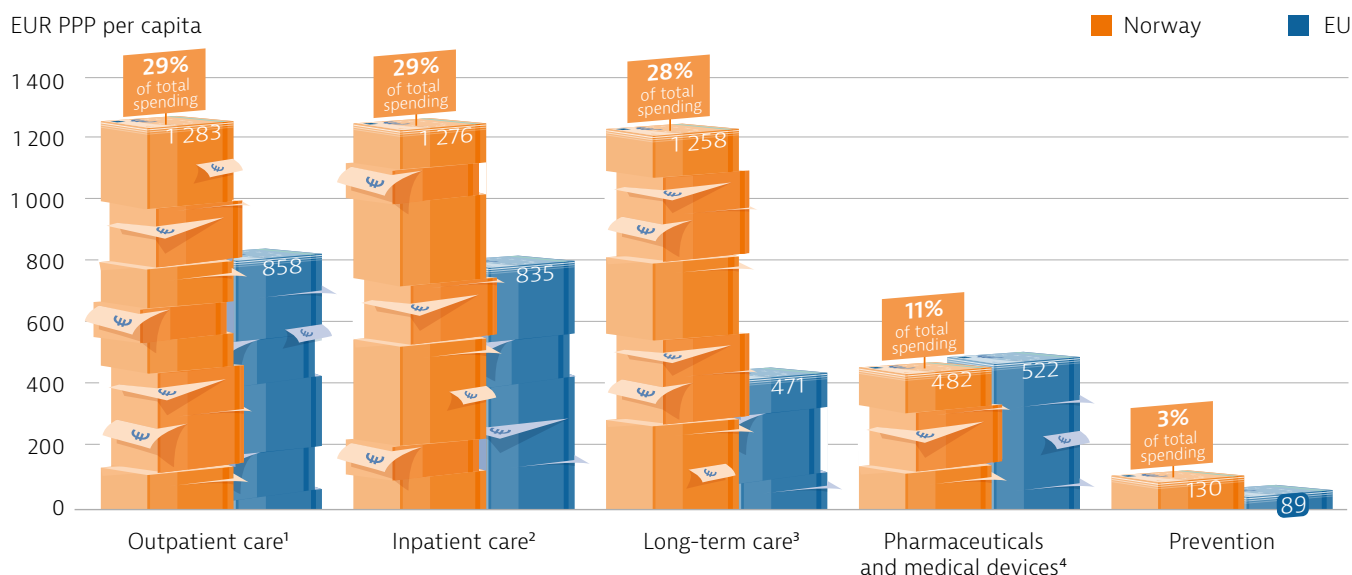
Health coverage among Norwegian residents is universal, covering the whole population. While the benefit basket covers a broad range of services, all services except inpatient care and home-based nursing care require some level of cost-sharing. As most adults are largely excluded from dental care coverage, dental care accounted for the largest share of cost-sharing, corresponding to 26 % of total OOP spending in 2017. Outpatient pharmaceuticals absorbed the second largest share, with 24 % of OOP spending in 2017. Children under the age of 16, people receiving low pensions and those injured in occupational accidents are exempted from co-payments.

2: OOP payments include direct payments, cost-sharing for services outside the benefit package and informal payments.

Two separate caps, depending on the service patients receive, define the cost-sharing requirements. The first concerns cost-sharing for doctor consultations, outpatient specialist consultations, pharmaceuticals, laboratory tests and medical imaging; this was set at 2 369 Norwegian kroner (EUR 236) in 2019. Once patients have reached the annual cap, they are exempted from further cost-sharing and care is free

at point of care. Similar arrangements are in place for the health services defined by the second cap: physiotherapy, dental care for specific chronic dental conditions, treatment abroad and some rehabilitation treatments. In 2019, this cost-sharing cap corresponded to 2 085 Norwegian kroner (EUR 208), after which access is free of charge.

**Figure 8. Norway has historically spent more on long-term care than other European countries**



Note: Administration costs are not included. 1. Includes home care; 2. Includes curative-rehabilitative care in hospital and other settings; 3. Includes only the health component; 4. Includes only the outpatient market.  
Source: OECD Health Statistics 2019; Eurostat Database (data refer to 2017).

### Despite high numbers of nurses, there are concerns about future workforce shortages

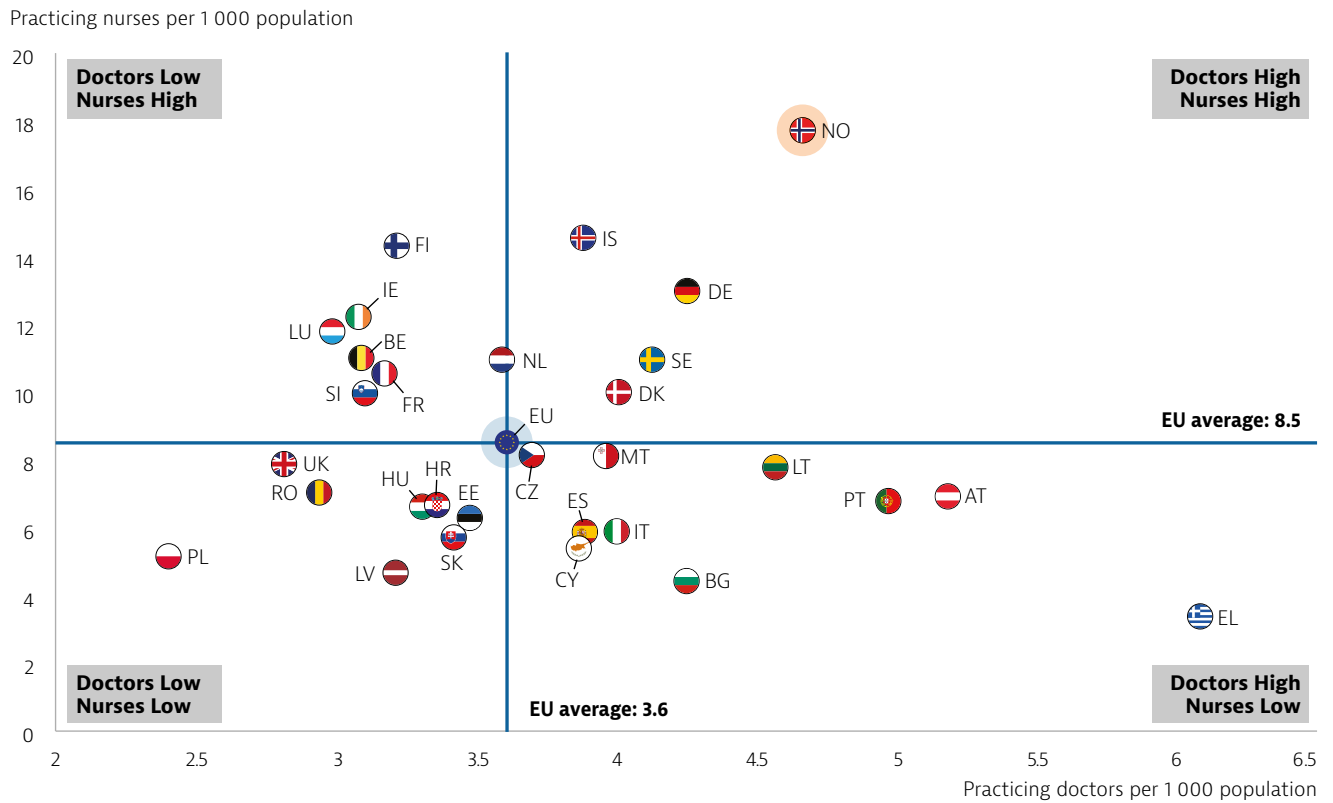
The numbers of both doctors and nurses per 1 000 population in Norway are well above the EU average (Figure 9). Nevertheless, health workforce projections indicate that a shortage could emerge by 2035 due to growing health and long-term care needs from population ageing, combined with the retirement of many doctors and nurses. This shortage could be mitigated by strengthening the education and training of new nurses, and reducing dropout rates both from nursing studies and the nursing profession (Statistics Norway, 2019). The dropout rate of nurses and auxiliary nurses is particularly high for those working in long-term care.

### GPs act as gatekeepers to specialist care, and patients are free to choose their health provider

Norwegian GPs typically work in group practices of two to six physicians alongside nurses and other personnel. A new model of multidisciplinary GP-led teams for general and chronically ill patients is currently being piloted (see Section 5.1). GPs act as gatekeepers to hospital care and are responsible for delivering care outside working hours. Patients are free to choose among any public and approved private providers, and general and specialised hospitals. In 2015, freedom of choice of hospital was extended to any hospital in the EU/EEA<sup>3</sup>, although transportation costs are not covered.

3: European Economic Area.

Figure 9. The Norwegian health system has among the highest shares of health professionals



Note: In Portugal and Greece, data refer to all doctors licensed to practice, resulting in a large overestimation of the number of practising doctors (e.g. of around 30 % in Portugal). In Austria and Greece, the number of nurses is underestimated as it only includes those working in hospital.  
Source: Eurostat Database (data refer to 2017 or nearest year).



# 5 Performance of the health system

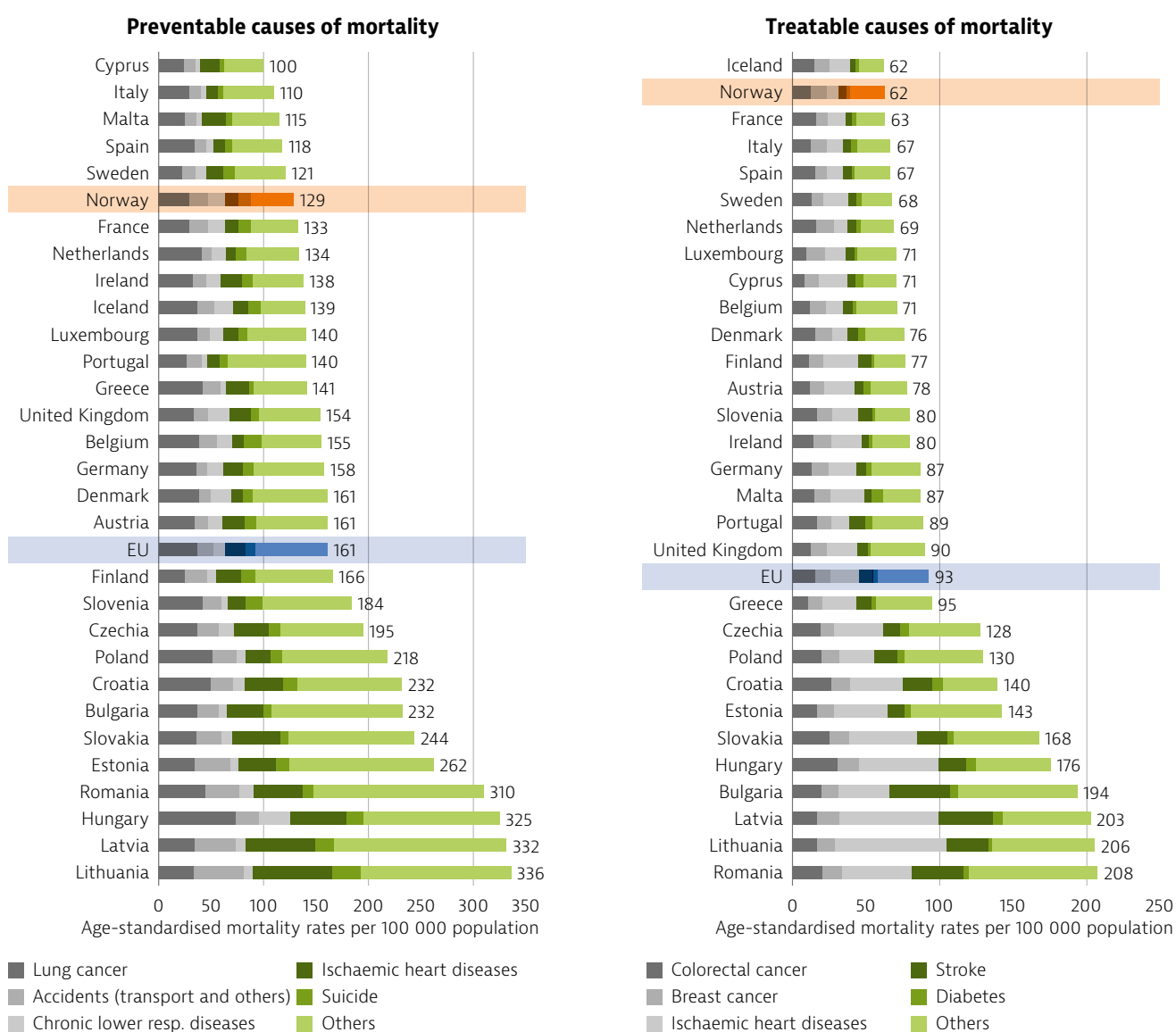
## 5.1. Effectiveness

### Preventable and treatable causes of mortality are among the lowest in Europe

The mortality rate from preventable deaths in Norway is well below the EU average, having declined by over 10 % between 2011 and 2016 (Figure 10). Norway fares even better in terms of mortality from treatable

causes, with the rate decreasing by over 15 % between 2011 and 2016. In 2016, Norway had the lowest rate of mortality from treatable causes, along with Iceland and France, indicating that the health care system provides effective and timely diagnosis and treatment for a number of life-threatening conditions.

Figure 10. Mortality from treatable and preventable causes are among the lowest in Europe



Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Mortality from treatable (or amenable) causes is defined as death that can be mainly avoided through health care interventions, including screening and treatment. Both indicators refer to premature mortality (under age 75). The data are based on the revised OECD/Eurostat lists. Source: Eurostat Database (data refer to 2016).

## While smoking rates are dropping, other types of tobacco products have gained popularity

Norway reported the steepest decline in smoking rates since 2000 and had a very low share of adult daily smokers compared to EU countries in 2017. The potential to reduce smoking rates among adults further has nevertheless not yet been entirely exploited, as in 2017 nearly half of daily smokers reported their intention to quit smoking (Norwegian Institute of Public Health, 2018).

The Norwegian Tobacco Control Act was first implemented in 1975 and is considered to be one of the strictest tobacco control legislations in the world. Together with high taxation applied to tobacco products, legislation has been instrumental in reducing the incidence of tobacco consumption among young people, providing incentives for smokers to quit and disincentivising non-smokers from starting.

As smoking rates among Norwegians have declined, other types of tobacco products have gained popularity. In recent years, different varieties of snus have been introduced to the market at a rapid pace, particularly targeting younger consumers. Although Norway has prohibited advertising and marketing of all tobacco products, consumption of snus among 16- to 24-year-olds has skyrocketed. In order to limit the appeal of tobacco products and increase the effectiveness of health warnings, Norway introduced plain packaging for all tobacco products in 2017. The impact of this measure is currently being evaluated.

## Strict alcohol policies successfully limit access and reduce consumption

Norway reports one of the lowest levels of alcohol consumption and sales in Europe. The enforcement of strict regulation and policies on the sale of alcoholic beverages has contributed towards this objective, which was achieved by means of high taxes, a ban on advertising for alcoholic beverages, strictly enforced age limits for purchases and restricted hours for selling and serving alcohol. A non-profit model for the distribution of beverages with an alcohol content higher than 4.75 % was also established: these are exclusively sold in government-owned alcoholic beverage retailer *Vinmonopolet* (The Wine Monopoly).

## Municipalities and GPs are at the heart of health promotion

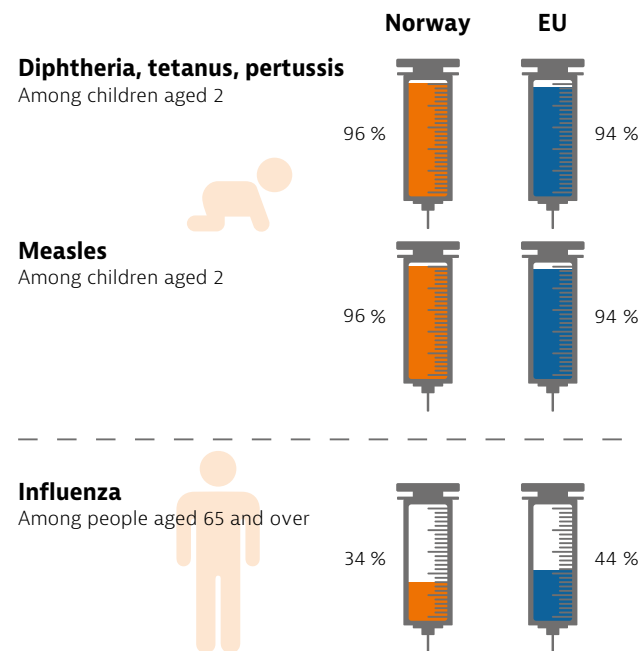
Public health and health promotion fall under the responsibility of municipalities. The Norwegian Association of Local and Regional Authorities develops strategic programmes and tools supporting municipalities in carrying out public health interventions at the local level.

GPs play a central role in encouraging healthy lifestyles. In addition to prescribing medical treatment to support people to quit smoking, GPs can prescribe physical activity as a treatment for people who want to adopt healthier behaviours. The Healthy Life Centres (*Frisklivssentraler*) offer a range of health promotion programmes targeting people with, or at high risk of developing, health problems or chronic disease.

## Immunisation rates for children are high, but flu vaccination rates for elderly people are low

Vaccination remains one of the most effective means to reduce the spread of several infectious diseases. The Norwegian Institute of Public Health is responsible for developing and overseeing the implementation of the Childhood Immunisation Programme, through which vaccines against 20 conditions are offered to all children free of charge. The vaccination rates of Norwegian children against measles, diphtheria, tetanus and pertussis are high, reaching over 96 % of children (Figure 11). The Childhood Immunisation Programme was extended to include Hepatitis B in 2016, and as of autumn 2018 HPV vaccinations are also offered to 12-year-old boys, nine years after being introduced for 12-year-old girls.

Figure 11. Influenza vaccination coverage for elderly people is below the EU average



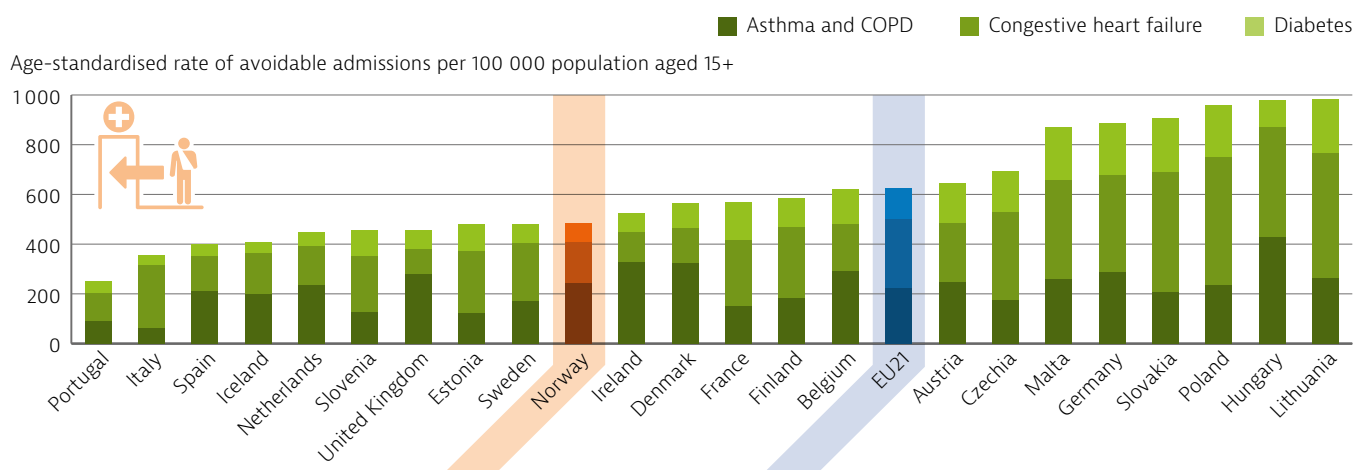
Note: Data refer to the third dose for diphtheria, tetanus, pertussis, and the first dose for measles.  
Source: WHO/UNICEF Global Health Observatory Data Repository for children (data refer to 2018); OECD Health Statistics 2019 and Eurostat Database for people aged 65 and over (data refer to 2017 or nearest year).

Nevertheless, vaccination coverage among elderly people is relatively poor at 34 %, ten percentage points lower than the EU average. Unlike the situation in several countries in the EU, influenza vaccines in Norway must partly be covered out of pocket. To increase the flu vaccination rate among older people and other high-risk populations, a 2018 report from the Institute of Public Health suggested offering the vaccine free of charge to elderly people and other high-risk groups as a means to meet the goal of 75 % coverage recommended by WHO.

### Strengthening primary care remains a priority, especially for people with complex care needs

Chronic conditions such as asthma, COPD, diabetes and congestive heart failure can normally be managed effectively outside hospitals. Although Norway reports relatively low hospital admission rates for some of these chronic diseases, admission rates for asthma and COPD are above the EU average (Figure 12). Among the Nordic countries, only Denmark reports higher potentially avoidable admission rates for chronic respiratory diseases.

**Figure 12. Avoidable admissions for chronic respiratory conditions are relatively high**



Source: OECD Health Statistics 2019 (data refer to 2017 and nearest year).

Building on the objectives and achievements of the Coordination Reform of 2012 and subsequent reforms (see Box 1 in Section 4), Norway continues to strengthen primary care services for people with complex care needs (Box 2). One recent step is to strengthen team-based, multidisciplinary care provision to make primary care more people-centred.

The ultimate goal is to improve the management and follow-up of patients with chronic conditions who can still live at home, to reduce hospitalisation or entry into nursing homes as much as possible.

#### Box 2. Efforts to improve coordination of care change service provision and training programmes

As part of efforts to improve care coordination, in 2018 Norway introduced a new approach to GP-led teams focusing on patients with complex care needs, including those with chronic diseases and addiction problems. The new model, currently being piloted (2018-21), adds nurses to these primary care teams (one full-time nurse per three GPs in the group practice), who are responsible for coordinating care under the leadership of a GP.

New training programmes have also supported greater coordination of care. These include a new Master's degree programme in leadership for managers of health care institutions in the municipalities. Since 2017, coordination of care

has been part of the specialist education offered to all physicians, irrespective of speciality. This is intended to improve integration and comprehensive care, including communication between specialists, hospitals and professionals working in primary care.

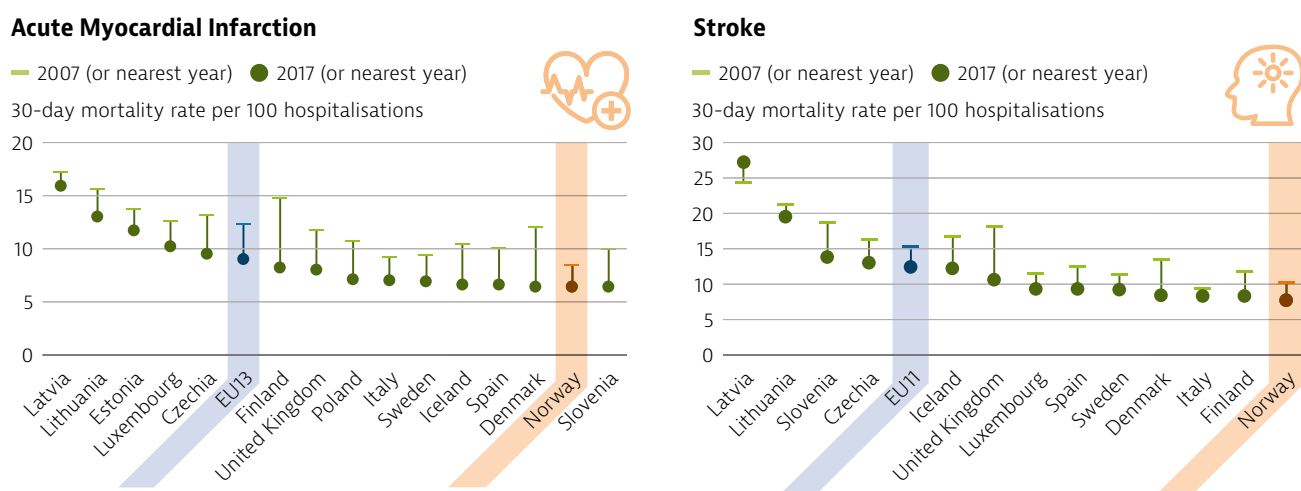
Norway is also establishing a Master's degree programme for advanced nurse practitioners, tailored to the meet the growing demand in primary care delivered by municipalities. Coordination of care and collaboration across levels of care are included in the curriculum.

## The quality of acute care for heart attack and stroke is among the best in Europe

Hospitals in Norway provide effective treatment for people requiring acute care for life-threatening conditions. This is particularly the case for cardiovascular diseases. In 2017, Norway reported among the lowest case fatality rates for acute myocardial infarction (AMI) and stroke among the group of European countries with available data (Figure 13). Reductions reported since 2007, on top of the already low rates, point to further improvements in timeliness and quality of acute care.

Improving quality of care for stroke patients has received increased attention in recent years. A patient care pathway for stroke has been developed, along with a campaign called 'Smile, speak, lift', which aims to raise awareness around early symptoms and signs of stroke. The survival gains seen for stroke are mainly attributable to more rapid and timely access to care after the onset of symptoms. The recently launched National Strategy on Brain Health (2018-24) aims to improve acute care treatment for stroke patients further, and to reduce geographical differences in access to post-stroke rehabilitation services.

Figure 13. Norway reports the lowest rate of case fatality following acute myocardial infarction and stroke



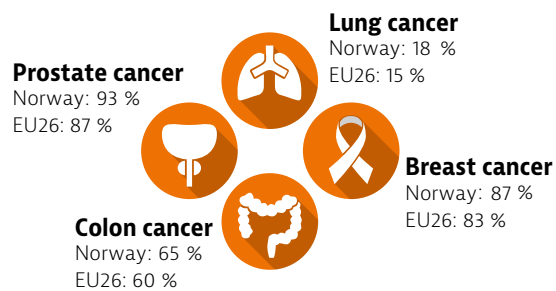
Note: Figures are based on patient data and have been age-sex standardised to the 2010 OECD population aged 45+ admitted to hospital for AMI and ischaemic stroke.  
Source: OECD Health Statistics 2019.

## Cancer survival rates are among the highest in Europe

Norway's cancer survival rates are substantially higher than the EU average, reflecting earlier diagnosis in some cases and effective cancer treatment once diagnosed (Figure 14). This is partly attributable to the strong focus on nationwide screening programmes, particularly for breast and cervical cancer, which have increased over the past decade and are relatively high compared with EU countries. The implementation of a national screening programme will start in 2020.

Norway has launched a number of initiatives in recent years to further improve the quality of cancer care. Cancer patient pathways were introduced in 2015 for 28 different types of cancer to reduce unnecessary waiting times and improve coordination of care. Throughout the course of treatment and in the follow-up period the patient is assigned a designated pathway coordinator responsible for ensuring continuity of care.

Figure 14. Norwegian cancer survival rates are among the highest in Europe



Note: Data refer to people diagnosed between 2010 and 2014.  
Source: CONCORD programme, London School of Hygiene and Tropical Medicine.



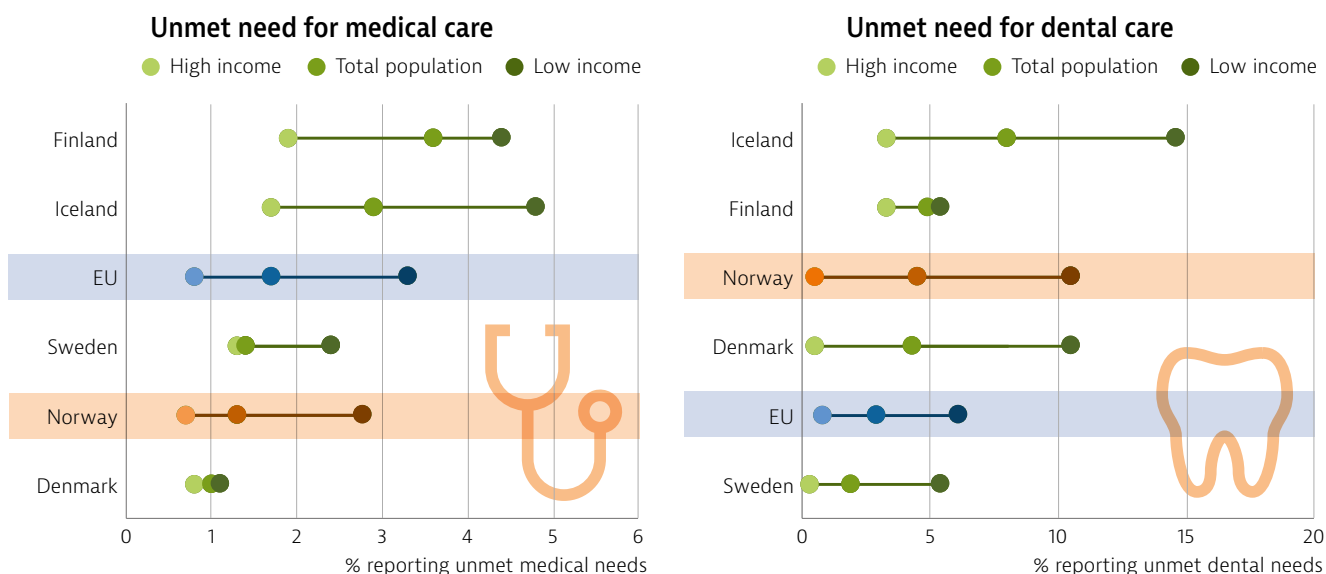
## 5.2. Accessibility

### Unmet needs for medical care are generally low, but are higher for dental care

Although coverage is universal, slightly over 1 % of Norwegian residents reported having experienced unmet needs for care because of financial reasons, distance or waiting times in 2017 – a share below the EU average. However, unmet needs for medical care are substantially higher among people in the lowest income quintile than those in the highest (Figure 15).

Unmet needs for care are more prominent for services that are not covered or only partly covered under the national health insurance scheme, such as dental care. Dental care is only covered for children, people suffering from chronic dental conditions and those receiving social support. Overall, close to 5 % of the population reported unmet needs for dental care in 2017, mainly for financial reasons, with this proportion exceeding 10 % among people in the lowest income group.

Figure 15. Unmet needs for medical and dental care are higher for people on low incomes



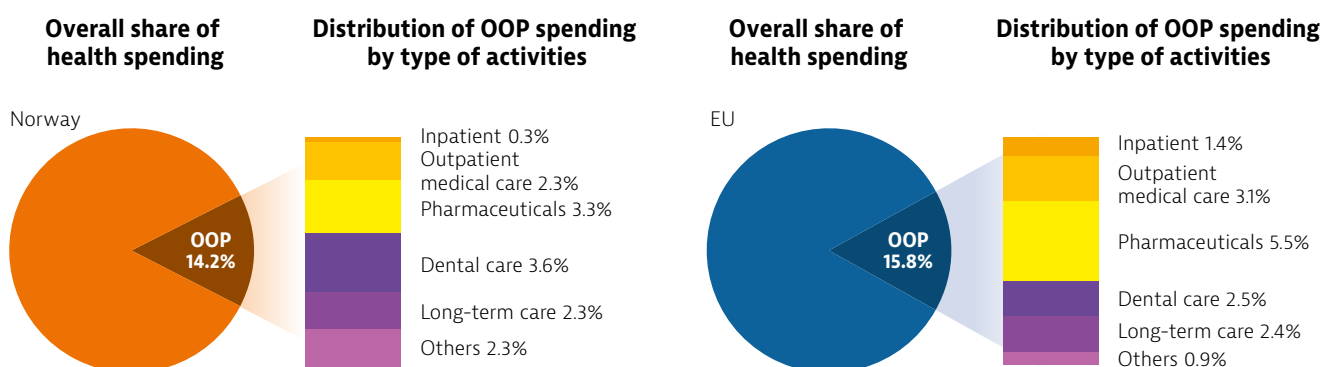
Note: Data refer to unmet needs for a medical or dental examination or treatment due to costs, distance to travel or waiting times. Caution is required in comparing the data across countries as there are some variations in the survey instrument used.  
Source: Eurostat Database based on EU-SILC (data refer to 2017).

### Out-of-pocket spending is mainly on pharmaceuticals and dental care

While most health spending come from public sources, Norwegians pay for about 14.5 % directly out of pocket (Figure 16). This share of OOP spending is comparable to that in Denmark and Sweden and has

remained fairly stable over the past decade. There is no cost-sharing for inpatient hospital services and home-based nursing care, but other health services require a moderate co-payment. The main drivers of OOPs are outpatient pharmaceuticals and dental care – equivalent to 3.3 % and 3.6 % respectively.

Figure 16. Dental care and pharmaceuticals account for the highest share of out-of-pocket payments



Source: OECD Health Statistics 2019 (data refer to 2017).

## Future nurse shortages are expected

As described in Section 4, despite the current relatively high number of nurses, there are concerns that the supply of nurses may not meet the growing demand for care, resulting in shortages in the future (Statistics Norway, 2019). The number of students admitted to and graduating from nursing education programmes has grown steadily since 2010, and the number of new nursing graduates in 2017 was nearly 30 % higher than in 2010, which should contribute to increasing the supply. However, as many as one in five recently graduated nurses work outside the health sector. Norway has implemented a series of measures in recent years to recruit more students to nursing education and to improve the working conditions of nurses to increase retention rates and attract those who have left back to the health sector.

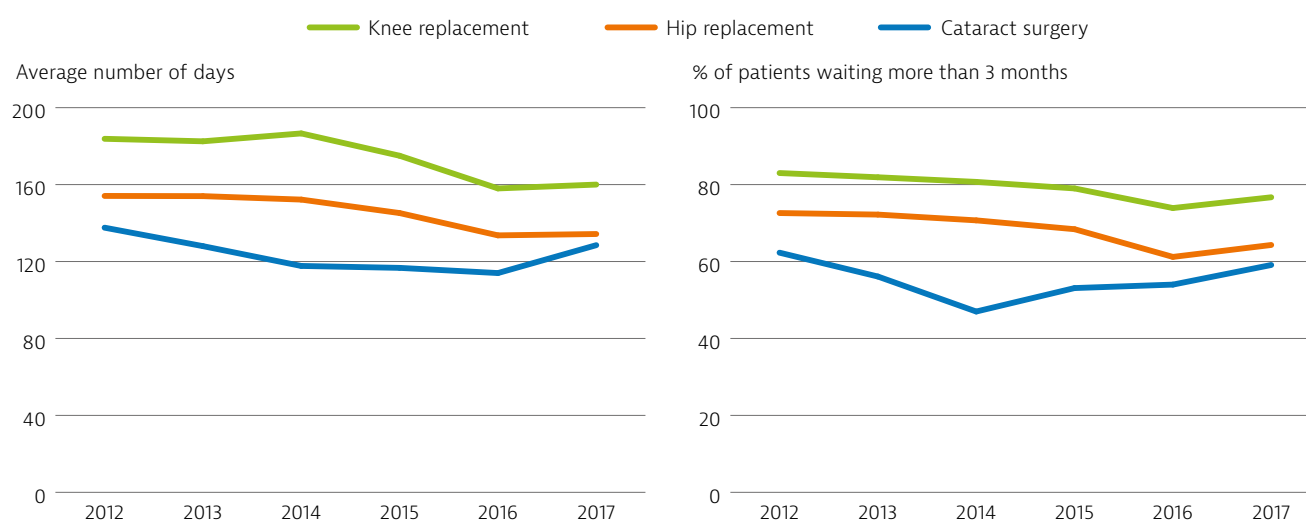
## Despite some progress, waiting times for elective surgeries remain long

Waiting times have been a long-standing issue in Norwegian policy debates, which is embedded in the Patients' Rights Act first adopted in 1999 and amended a few times since then. Within ten days after GP's referral to specialist consultation and treatment, patients must be informed about the next steps of treatment as well as receive the date for surgery if required or further examinations at the hospital. A broad national objective is to gradually reduce waiting times for all elective treatments.

The average waiting times for specific elective surgeries, such as cataract surgery, hip replacement and knee replacement, have come down slightly between 2012 and 2017, but still remain fairly high. On average, Norwegian patients waited about 130 days from referral to having a cataract surgery or a hip replacement in 2017, and the average waiting times to get a knee replacement was 160 days. About 60% of patients waited more than three months to get a cataract operation or a hip replacement, with this proportion reaching close to 80% for a knee replacement in 2017 (Figure 17).

There are considerable variations in waiting times for these elective surgeries across hospitals. For cataract surgery, for example, waiting times can range from 3 to 70 weeks depending on the hospital. However, the number of hospitals failing to initiate treatment by the defined date has decreased in recent years, from 5.3% of hospitals in 2014 to 2.0% in 2018 (Norwegian Directorate for Health, 2018a).

**Figure 17. Patients in Norway still have long waits for cataract surgery, hip or knee replacement**



Source: Norwegian Patient Register (Norwegian Directorate of Health).

## 5.3. Resilience<sup>4</sup>

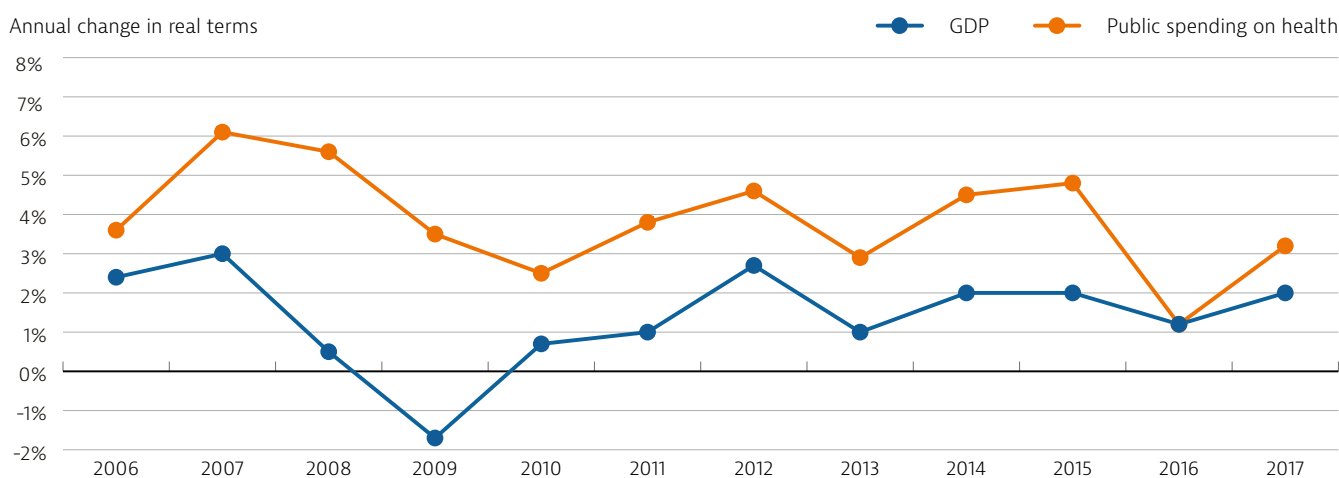
### Long-term fiscal sustainability is challenged by growing pressures on long-term care spending

As noted in Section 4, both the total amount per capita and the public share of health expenditure in Norway are the highest in Europe. Public spending on health has grown more rapidly than GDP over the past decade, and the share of GDP allocated to health spending increased from 8.0 % in 2007 to 10.4 % in 2017 (Figure 18).

Looking ahead, demographic, technological and other factors are projected to add pressure on health and long-term care spending over the medium to long

term. Public spending on health as a share of GDP is projected to grow by 1.2 percentage points of GDP between 2016 and 2070, above the 0.9 percentage point average growth expected for the EU. The increasing prevalence of chronic conditions associated with population ageing is expected to exert further pressure on the public budget: projections suggest that public spending on long-term care in Norway may grow by 3.4 percentage points of GDP between 2016 and 2070, a higher growth rate than in any EU country (European Commission-EPC, 2018). Devising means to respond efficiently to the growing needs for health and long-term care in the years ahead, while ensuring the long-term fiscal sustainability of the system, is therefore a policy priority.

**Figure 18. Health spending growth has outpaced GDP over the past decade**



Source: OECD Health Statistics 2019; Eurostat Database.

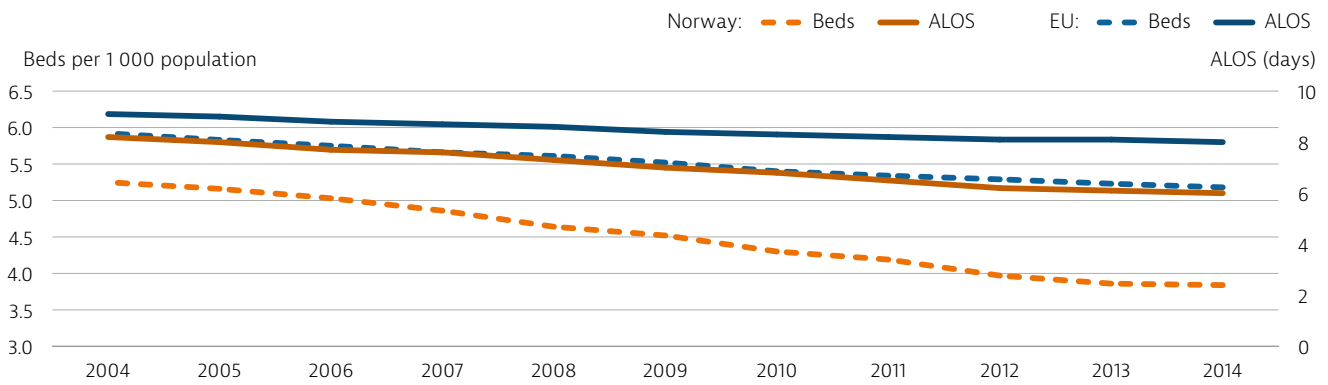
### The hospital system has become more efficient, but coordination remains a challenge

Norway has followed the overall western European trend of rationalising the use of inpatient care by shifting care volumes to outpatient settings as a means to improve health system efficiency. The subsequent reduction in the number of hospital beds has been accompanied by a reduction in average length of stay (ALOS), and the shift of volumes from inpatient to outpatient care has been accompanied by greater use of day surgery (Figure 19).

Some potential efficiency gains remain in further strengthening coordination of care between hospitals and municipalities. Delayed discharges from hospitals are still challenging in some parts of the health system, while readmissions of patients recently discharged from hospitals increased until 2016. One of the reasons contributing to this increase was that several municipalities do not have the capacity to provide appropriate care for frailer patients and postoperative care for discharged patients in outpatient settings. Recent statistics, however, indicate that the trends have turned and that the number of readmitted patients is decreasing (Norwegian Directorate for Health, 2018b).

<sup>4</sup> Resilience refers to health systems' capacity to adapt effectively to changing environments, sudden shocks or crises.

**Figure 19. Hospital beds and average length of stay are both substantially below the EU average**



Note: The data on ALOS for Norway stop in 2014 as there is a break in the time series in 2015.  
Source: Eurostat Database.

Patients have expressed dismay with the discharging process from hospital. As a response, Norwegian health authorities developed a new model that requires hospitals to contact municipalities within 24 hours following admission if they believe that the patient will require follow-up from health or social care services once discharged (OECD/EU, 2018). Hospitals also facilitate a discharge conversation with patients and relatives, and create a discharge checklist to ensure a smooth transition of care back into the municipalities.

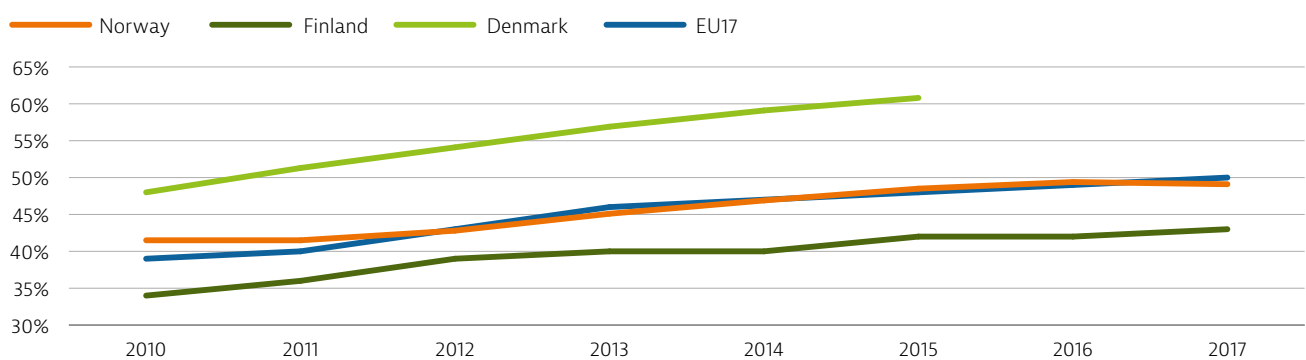
**There is still capacity to increase the uptake of more cost-effective pharmaceuticals**

Thanks to a series of measures aimed at moderating spending growth for pharmaceuticals, Norway has seen a gradual decline in the share of health spending

allocated to pharmaceuticals over the past decade, which is now the second lowest in Europe after Denmark and slightly lower than the EU average in per capita terms (see Figure 8 in Section 4).

Promoting the development of competitive markets for generics and biosimilars is an important step towards attaining greater efficiency of pharmaceutical spending. The share of the generic market in Norway has followed the EU average over the past decade, as generics constituted about half of all pharmaceuticals sold in Norway in 2017. Nonetheless, this share remains about ten percentage points below that of Denmark (Figure 20).

**Figure 20. The market share of generics in Norway has grown at the same pace as the EU average**



Note: Data refer to the share of generics in volume.  
Source: OECD Health Statistics 2019.

The share of biosimilars in Norway has increased quite rapidly for some categories of pharmaceuticals but less so for others. In 2015, 82 % of the market share for some medicines prescribed for rheumatoid arthritis were biosimilars, compared to an EU average of 24 %. However, the biosimilar market share for medicines used in the treatment of renal failure was only close to the EU average of 45 % (OECD, 2018).

In an effort to increase market share of biosimilars, Norway and Denmark joined forces in promoting access to new and innovative medicines. The Norwegian government announced a new agreement with the Danish government to facilitate joint tenders for hospital drugs and sharing of information about new pharmaceuticals in September 2018. The collaboration also aims to increase access to generic pharmaceuticals in the two markets.

### **Norway joined a Nordic collaboration on health technology assessment**

The Finnish, Norwegian and Swedish health technology assessment agencies agreed in 2018 to strengthen their collaboration in assessing new pharmaceutical products under the FINOSE initiative. Its overall objective is to pool resources to assess jointly the relative effectiveness of new pharmaceuticals and to carry out economic analysis. In practice, this collaboration means that companies only have to submit one dossier to the three countries at the same time and agree to sign a waiver on data sharing. Following these joint assessments, each country still has the flexibility to make its own final decisions regarding the reimbursement and prices of these new pharmaceuticals, in accordance with national context and regulations.

### **Increased use of eHealth aims to improve patient-centredness and health system efficiency**

The Norwegian health authorities established the Norwegian Directorate of eHealth (NDE), a subordinate institution of the Ministry of Health and Care Services, in 2016. Its objective is to develop national eHealth policies; coordinate national eHealth initiatives between regional health authorities, municipalities and other actors in the field of eHealth; and initiate services to improve health system efficiency.

Via an online platform, patients can access a wide range of personal health information, including their ePrescriptions, referrals and scheduled appointments. Patients older than 16 and parents of children younger than 12 have the right to access and read the contents of the electronic health record and summary care record. The former includes the same information as the hospital electronic medical record, with some

variations between the different regional health authorities. The latter is primarily meant for providers to use in urgent medical situations and access is only granted to health care facilities authorised by the NDE and patients themselves.

### **eHealth plays a central role in public health promotion**

Norway has adopted innovative ways of promoting public health. The NDE promotes the use of mobile applications for those in pursuit of healthier lifestyles and mental wellbeing. Via the website Bare du (Only you), people can access and freely download applications to tackle physical inactivity, adopt healthier diets, improve sleep quality, quit smoking and reduce alcohol intake. Under the slogan 'The change starts with you', the website offers thematic pages educating people on the risks of unhealthy habits and providing links to different programmes and tips on how to adopt healthier behaviours.

### **Norway expands quality of care monitoring to include patient-reported measures**

Quality of care and health care delivery are closely monitored in Norway. The annual collection of some 174 indicators across different levels of care provides valuable information on how quality of care is developing over time.

Norway has a total of 53 national quality registries. In 2016, the Ministry of Health and Care Services included patient-reported experience measures (PREMs) and patient-reported outcome measures (PROMs) in these registries. Currently, 26 registries collect PROMs and 13 collect PREMs data. Norway has also decided to take part in the OECD-led PaRIS survey.

More broadly, Norway was one of the first countries to launch initiatives to promote people-centred care. Nationwide studies have focused on promoting meaningful dialogue between patients and providers since the early 2000s. Following the international campaign initially launched by the Institute of Healthcare Improvement, Norway introduced 6 June as the Hva er viktig for deg (What matters to you) day in 2014. Providers are encouraged to ask patients what really matters to them. This question helps to change the interaction from a traditional clinical focus towards focusing on outcomes that matter to patients.

## 6 Key findings

- Life expectancy in Norway increased by nearly four years from 2000 and is now one of the highest in Europe at 82.7 years. Gains in life expectancy are largely due to reductions in mortality from cardiovascular disease, driven at least partly by effective public health policies aimed at reducing risk factors like smoking. The number of preventable deaths is among the lowest in Europe, having decreased by 10 % between 2011 and 2016.
- Norwegians have a healthier lifestyle than most other Europeans. The relatively low alcohol consumption and low obesity rates contribute to the overall good health status and high life expectancy of the Norwegian population. Since 2000, Norway has seen a 30 % drop in smoking rates among adults. However, Norwegians' consumption of snus (a moist tobacco) has more than tripled in the meantime, with the majority of users being young adults aged 16 to 24. Although the adverse effects of snus on human health are less severe than smoking, this may constitute a public health challenge in the future.
- The Norwegian health system is comparatively accessible and the population enjoys a broad benefit package. Means-tested ceilings protect vulnerable groups from facing high direct health spending, and unmet needs for medical care are low. However, unmet needs for dental care are more often reported by people on low incomes, as this is not covered for adults under the national health insurance scheme.
- Norway spent 10.4 % of GDP on health in 2017, the fourth highest share compared to EU countries, of which 85 % is publicly funded (the highest share in Europe). A large share of public spending on health is allocated to long-term care, reflecting the government's goal of enabling family carers to stay in the labour force. The most recent projections foresee that budgetary pressures in the coming decades are likely to come mainly from rising long-term care expenditure due to population ageing.
- The growing demands of an ageing population have led to several reforms to increase the value for money spent. There has been a gradual shift to care provided in the community, allowing people to continue living independently as long as possible. Recent reforms have also aimed to strengthen the municipalities' capacity to provide chronic care to frail and elderly people, in order to reduce delayed discharges from hospital and readmissions. However, the results of these reforms have not fully met the initial expectations, with many municipalities lacking the capacity to provide appropriate care in outpatient facilities.
- Cancer care is generally good in Norway. Survival rates are well above the EU average for many types of cancer, indicating good access to early diagnosis and quality of care. In 2015, Norway implemented cancer patient pathways, which focus on improving coordination, continuity and patient involvement throughout the cancer treatment process.
- People-centredness is an important element of the Norwegian health system. Since the 1990s, patient-reported information has been used as a measure of health care quality alongside more traditional clinical measures. Recent initiatives from the Norwegian Ministry of Health and Care Services have focused on including patient-reported experience and outcome measures in the different quality registries used for performance evaluation.



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### Country abbreviations

Austria	AT	Denmark	DK	Hungary	HU	Luxembourg	LU	Romania	RO
Belgium	BE	Estonia	EE	Iceland	IS	Malta	MT	Slovakia	SK
Bulgaria	BG	Finland	FI	Ireland	IE	Netherlands	NL	Slovenia	SI
Croatia	HR	France	FR	Italy	IT	Norway	NO	Spain	ES
Cyprus	CY	Germany	DE	Latvia	LV	Poland	PL	Sweden	SE
Czechia	CZ	Greece	EL	Lithuania	LT	Portugal	PT	United Kingdom	UK

# State of Health in the EU

## Country Health Profile 2019

The Country Health Profiles are an important step in the European Commission's ongoing *State of Health in the EU* cycle of knowledge brokering, produced with the financial assistance of the European Union. The profiles are the result of joint work between the Organisation for Economic Co-operation and Development (OECD) and the European Observatory on Health Systems and Policies, in cooperation with the European Commission.

The concise, policy-relevant profiles are based on a transparent, consistent methodology, using both quantitative and qualitative data, yet flexibly adapted to the context of each EU/EEA country. The aim is to create a means for mutual learning and voluntary exchange that can be used by policymakers and policy influencers alike.

Each country profile provides a short synthesis of:

- health status in the country
- the determinants of health, focussing on behavioural risk factors
- the organisation of the health system
- the effectiveness, accessibility and resilience of the health system

The Commission is complementing the key findings of these country profiles with a Companion Report.

For more information see: [ec.europa.eu/health/state](http://ec.europa.eu/health/state)

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