European Commission

State of Health in the EU

Germany

Country Health Profile 2019

OECD
BETTER POLICIES FOR BETTER LIVES

European Observatory on Health Systems and Policies
a partnership hosted by WHO

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 GERMANY 4
3. RISK FACTORS 7
4. THE HEALTH SYSTEM 9
5. PERFORMANCE OF THE HEALTH SYSTEM 12
   5.1. Effectiveness 12
   5.2. Accessibility 15
   5.3. Resilience 18
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-Germany.xls

Demographic and socioeconomic context in Germany, 2017

Demographic factors	Germany	EU
Population size (mid-year estimates)	82 657 000	511 876 000
Share of population over age 65 (%)	21.2	19.4
Fertility rate[1]	1.6	1.6
Socioeconomic factors		
GDP per capita (EUR PPP[2])	37 100	30 000
Relative poverty rate[3] (%)	16.1	16.9
Unemployment rate (%)	3.8	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.

Disclaimer: The opinions expressed and arguments employed herein are solely those of the authors and do not necessarily reflect the official views of the OECD or of its member countries, or of the European Observatory on Health Systems and Policies or any of its Partners. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

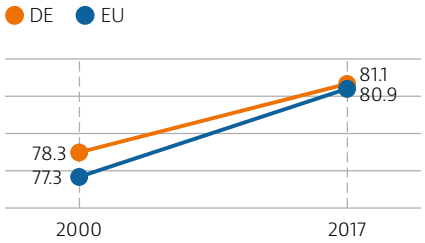
This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Additional disclaimers for WHO are visible at http://www.who.int/bulletin/disclaimer/en/

© OECD and World Health Organization (acting as the host organisation for, and secretariat of, the European Observatory on Health Systems and Policies) 2019

1 Highlights

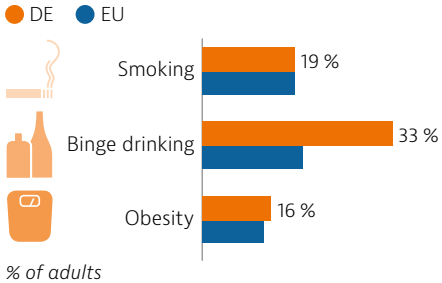
Germany spends more per person on health than other EU countries, providing a broad benefit basket, high level of service provision and good access to care. However, the system is fragmented among numerous payers and providers, leading to inefficiencies and diminished quality of care in certain care settings, and often reflected in average health outcomes. Recent legislation has emphasised long-term care, the supply and skills of care staff and improving the availability of services, especially in rural areas.



Life expectancy at birth, years

Health status

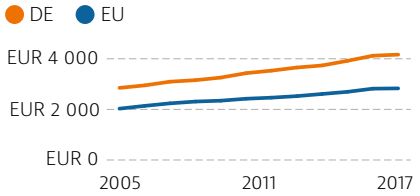
Germans born in 2017 can expect to live nearly three years longer than those born in 2000. Although life expectancy in Germany slightly exceeds the EU average, it has increased more slowly and falls below many western European countries. Heart disease and stroke still cause the most deaths but rates have been falling. While the general trend for mortality due to lung cancer also has been decreasing, the death rate for lung cancer among women has been increasing.



% of adults

Risk factors

Behavioural risk factors, especially poor diet, smoking and alcohol consumption, are a major driver of morbidity and mortality in Germany. One third of adults report binge drinking, significantly higher than the rest of the EU (20 %). Obesity rates also exceed those in many EU countries, with self-reported data from 2017 indicating 16 % of Germans are obese. A smaller share of adults and adolescents smoke now than 10 years ago with smoking rates close to the EU average.



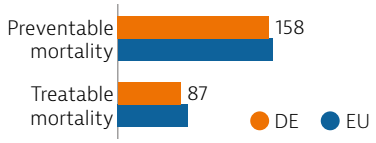
Per capita spending (EUR PPP)

Health system

In 2017, Germany spent EUR 4 300 per capita on health care (11.2 % of GDP), about EUR 1 400 more than the EU average (EUR 2 884), and the highest level among Member States. Germany also has some of the highest rates of beds, doctors, and nurses per population in the EU. The share of spending on long-term care has increased significantly since 2000 and is expected to grow further due to the expanded benefit basket and population ageing.

Effectiveness

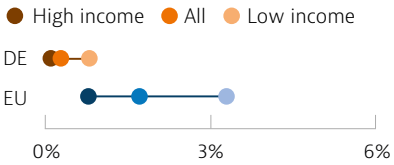
Germany's rates for preventable and treatable causes of mortality are slightly lower than the EU average, but are generally higher than other western European countries. Strengthening health promotion, prevention and coordination in health care delivery could enable Germany to increase the effectiveness of its health system.



Age-standardised mortality rate per 100 000 population, 2016

Accessibility

Germany reports low levels of self-reported unmet medical needs. It provides a broad benefit basket and financial safety nets that cover most health care costs. A dense network of doctors, nurses and hospitals ensure overall high availability of care across Germany, albeit with lower availability in rural areas.



% reporting unmet medical needs, 2017

Resilience

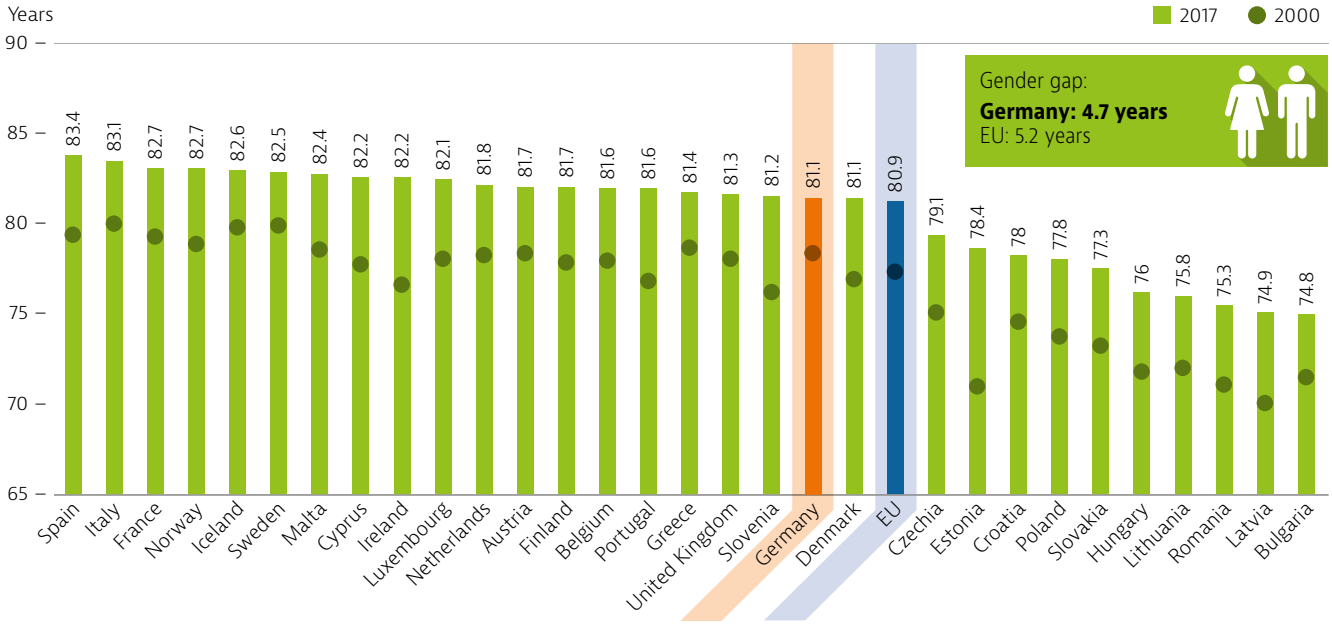
Financial reserves accumulated by the social health insurance system offset economic downturns, but future financial sustainability may become challenging as the population ages. There is potential for efficiency gains by centralising hospital activity, containing rising expenditures on pharmaceuticals and making better use of eHealth.

2 Health in Germany

Life expectancy in Germany is lower than in most other western European countries

Life expectancy at birth has increased by almost three years since 2000, from 78.3 years to 81.1 years. While this is a considerable health gain, the improvement in life expectancy in other EU Member States has risen more sharply during this period, and the life expectancy of Germans is now only slightly above the EU average of 80.9 years (Figure 1). This means that other western European countries have a higher life expectancy than Germany, with people in Spain and Italy living about two years longer. As in other EU countries, a substantial gap in life expectancy persists: women can expect to live over four and a half years longer than men (83.4 compared to 78.7 years), with this gender gap being smaller than the EU average (5.2 years).

Figure 1. Life expectancy in Germany is close to the EU average



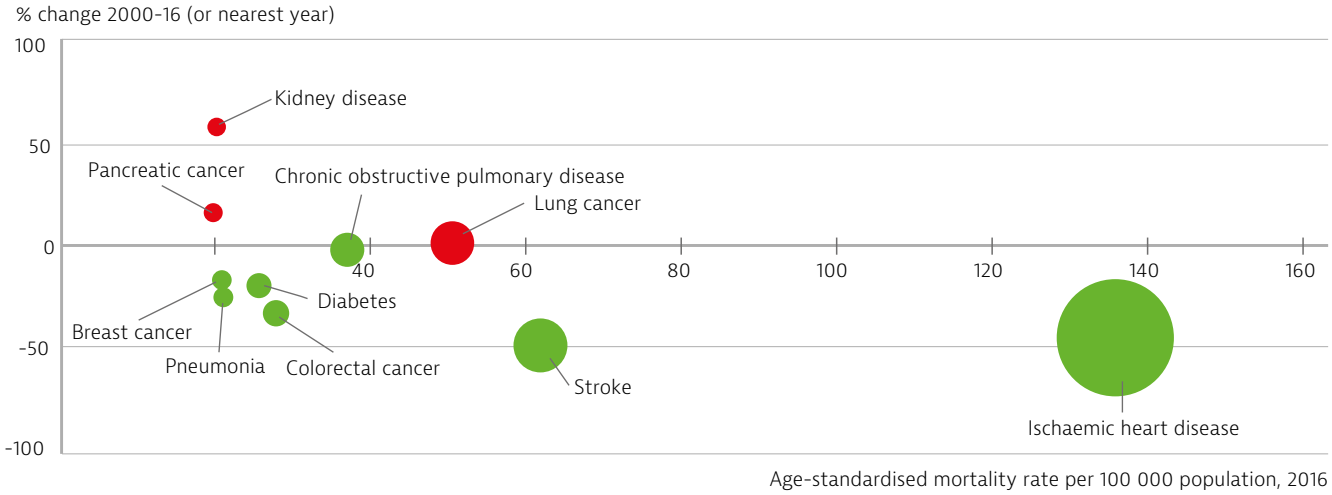
Source: Eurostat Database.

Ischaemic heart disease and stroke still account for the majority of deaths

Increases in life expectancy primarily result from reductions in premature deaths from circulatory diseases, notably ischaemic heart disease and stroke. The decrease in mortality can be mainly attributed to reductions in important risk factors like smoking, and improvements in the quality of health care, e.g. the implementation of stroke units in hospitals (see Sections 3 and 5.1). However, despite slowing death rates, circulatory diseases still account for 37 % of all deaths in Germany. Ischaemic heart disease remains by far the leading cause of mortality, responsible for more than one in ten deaths. Lung cancer is the most frequent cause of death by cancer, at 20 % of all cancer deaths. Notably, while lung cancer deaths have decreased in men, they have been rising for women, reflecting changes in smoking habits in both sexes (Section 3).

Mortality rates for other causes of death, including diabetes, breast cancer, pneumonia, colorectal cancer and chronic obstructive pulmonary disease (COPD), have fallen between 2000 and 2016, albeit at different rates. In contrast, mortality rates for kidney disease and pancreatic cancer have shown the strongest increases since 2000, although they account for relatively fewer deaths (Figure 2).

Figure 2. Mortality from lung cancer has slightly increased



Note: The size of the bubbles is proportional to the mortality rates in 2016.
Source: Eurostat Database.

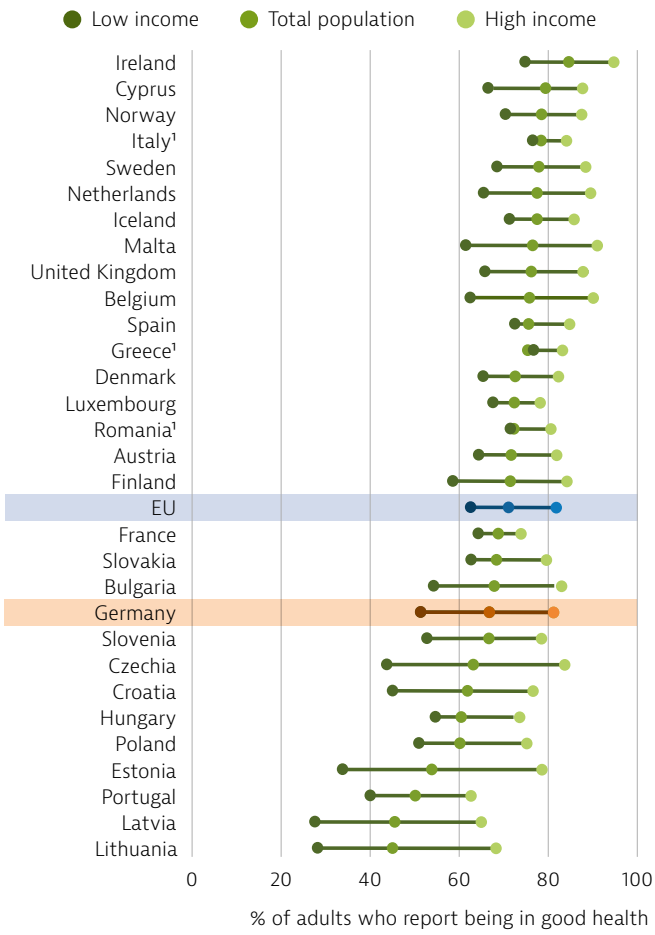
A wide gap in self-reported health by income groups indicates inequality

Overall, almost two thirds of the German population (65 %) report being in good health, less than the EU as a whole (70 %) and less than most other western European countries (Figure 3). Men are more likely to rate themselves in good health (67 %) than women (64 %). This gap is much more pronounced in lower income groups. Only half of Germans in the lowest income group have self-reported good health compared to 80 % of those in the highest income group (Figure 3).

Around three in five Germans are affected by chronic diseases in later life

Due to rising life expectancy and declining fertility rates, the share of people aged 65 and over is growing. In 2017, about one in five Germans were over 65, and this rate is projected to rise to one in three by 2050. Life expectancy at age 65 is almost 20 years in Germany (close to the EU average). The majority of these years are lived in good health,[1] but about eight years are spent with some form of disability (Figure 4). Some 58 % of Germans aged 65 and over reported suffering from at least one chronic disease, a proportion that is slightly above other EU countries. Additionally, around one quarter also reported living with symptoms of depression, a smaller proportion than in other EU countries (29 %). More than one in five (21 %) Germans aged 65 and over reported severe disabilities that result in limitations in basic activities of daily living such as dressing and showering, but these limitations are mainly concentrated among people aged over 80.

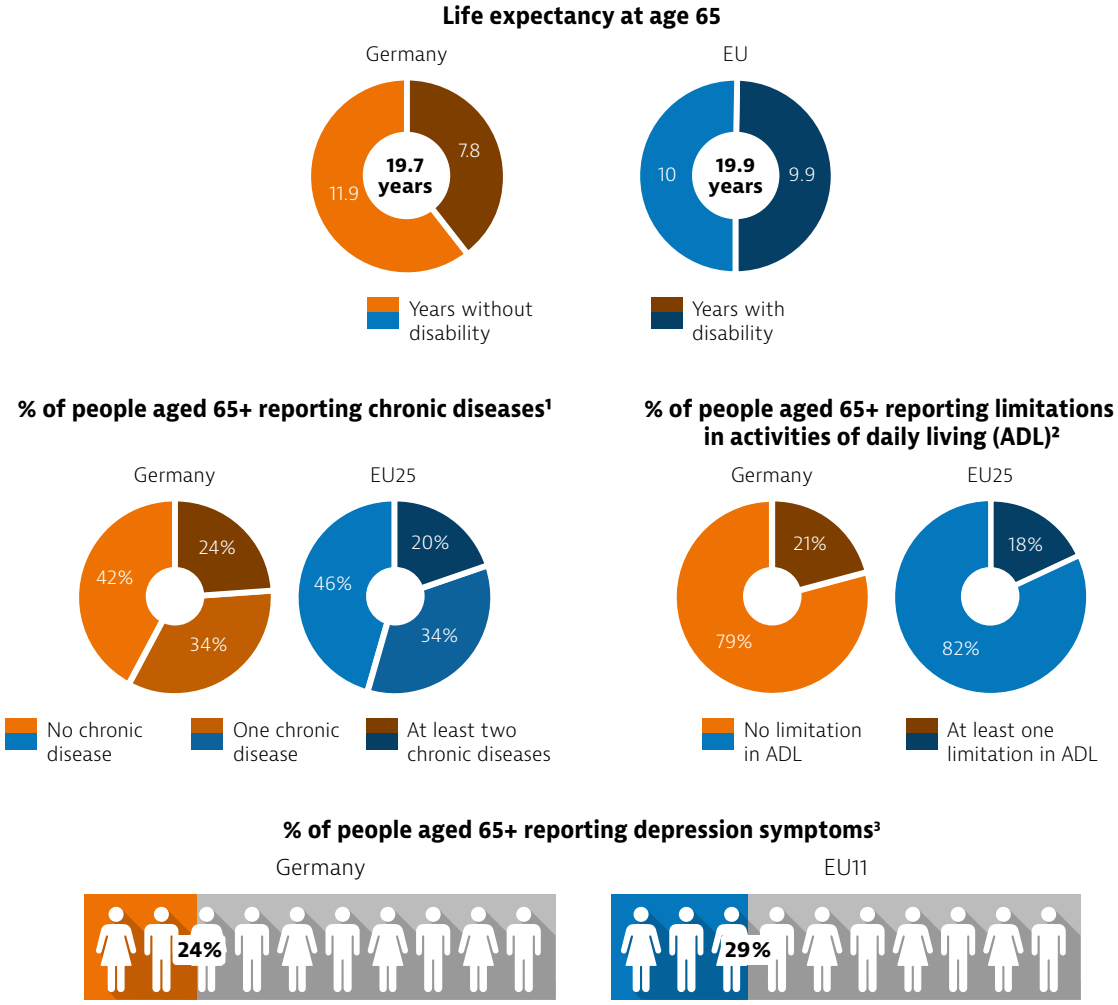
Figure 3. Self-reported health below the EU average



Note: 1. The shares for the total population and the population on low incomes are roughly the same.
Source: Eurostat Database, based on EU-SILC (data refer to 2017).

1: These are measured in 'Healthy life years', which are the number of years that people can expect to live free of disability at different ages.

Figure 4. In Germany, the majority of years beyond age 65 are spent free from disability



Note: 1. Chronic diseases include heart attack, stroke, diabetes, Parkinson's disease, Alzheimer's disease and rheumatoid arthritis or osteoarthritis. 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. People are considered to have depression symptoms if they report more than three depression symptoms (out of 12 possible variables).
Sources: Eurostat Database for life expectancy and healthy life years (data refer to 2017); SHARE survey for other indicators (data refer to 2017).

Infectious disease rates are being contained

Since 2000, new cases of tuberculosis and HIV have stayed below the EU average in Germany. In 2016, there were 7.2 new tuberculosis cases per 100 000 population compared with 9.2 new cases in the EU. Rates for new HIV cases were 4.2 per 100 000 population in Germany and 5.8 in the EU. The numbers mirror a general trend in declining rates for both diseases in most EU countries, but in Germany there was a temporary rise (of 28 %) in reported tuberculosis cases between 2014 and 2016, which was partly related to the increased number of refugees who came from countries with a higher incidence of tuberculosis and the arduous circumstances of their journeys.

3 Risk factors

High overweight and obesity rates, as well as poor nutrition, are public health issues

Similar to the EU average, about four in ten deaths in Germany result from behavioural risk factors, including dietary risks, smoking, alcohol consumption and low physical activity (Figure 5). In particular, 19 % of deaths can be attributed to bad diets. Self-reported data show that about one in six adults were obese in Germany in 2017[2] and nearly one in five 15-year-olds were overweight or obese, with a higher share of boys reporting being overweight. Overall, obesity rates among adults and adolescents are higher than in many other EU countries (Figure 6), and have increased over the last decade, although national data indicates the rate for children has stabilised somewhat.

These trends are driven partly by dietary habits. Daily consumption of vegetables is lower in Germany than in most countries. Daily fruit consumption is roughly the same as the EU as a whole, but about 40 % of German adults reported in 2017 that they do not eat fruit or vegetables every day. More positively, weekly physical activity among adults is more common in Germany than in many EU countries. However, only 13 % of 15-years-olds reported doing at least moderate physical activity every day in 2014, a lower proportion than in most other European countries (the EU average is 15 %).

Figure 5. Dietary risks and tobacco are major contributors to mortality

Note: The overall number of deaths related to these risk factors (364 000) is lower than the sum of each one taken individually (402 000) 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 beverage consumption.
Source: IHME (2018), Global Health Data Exchange (estimates refer to 2017).

Smoking among adults and teenagers is widespread, but declining

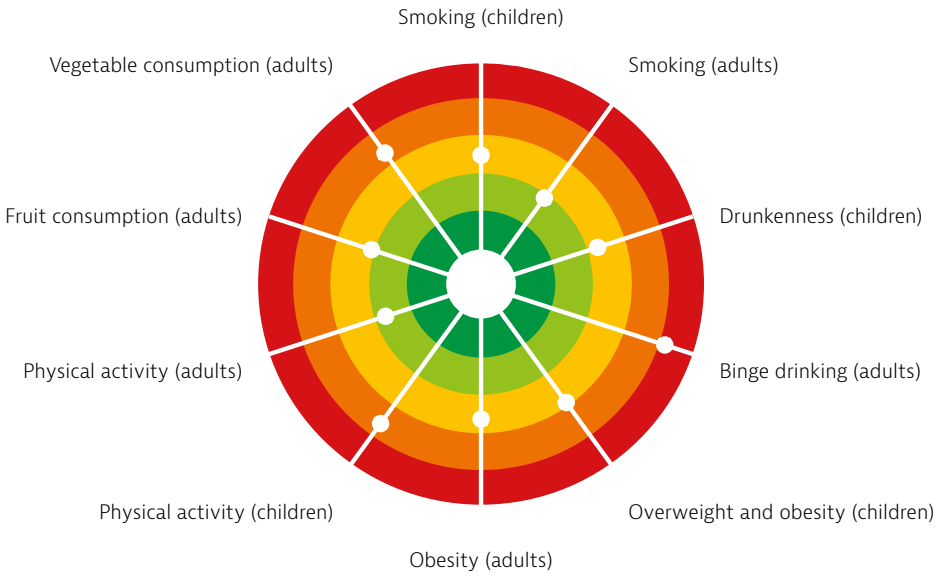
Smoking rates have decreased among adults and adolescents over the past decade, but are still higher than in many other EU countries. Nearly one in five adults reported smoking every day in 2017, with more than one fifth of men and nearly one sixth of women reporting daily tobacco consumption. These rates are similar to the EU average (21 % for men and 16 % for women). One in seven 15-year-olds reported smoking tobacco in the past month in 2013–14, down from one in five in 2005–06, but still higher than in several other EU countries. The proportion of girls who smoke (15 %) is slightly higher than boys (13 %). Despite decreasing smoking rates in recent years, the use of e-cigarettes and shisha pipes has become more popular, especially among young people. Some measures to prevent people from smoking differ between states; e.g. laws on smoking in public places vary between weak regulations to full smoking bans in all public institutions (see Section 5.1).

Heavy drinking persists in Germany

The percentage of adults in Germany engaging in binge drinking[3] is high, with one in three adults reporting heavy drinking at least once a month. This is the fifth highest percentage in the EU after Denmark, Romania, Luxembourg and Finland. Although overall alcohol consumption per adult has decreased in Germany by 15 % since 2000, it remains above the EU average, which underlines the need for targeted prevention programmes.

2: Based on data measuring the actual weight and height of people, the obesity rate among adults is even higher reaching one in four (24 %) in 2012.
3: Binge drinking is defined as consuming six or more alcoholic drinks on a single occasion for adults, and five or more alcoholic drinks for children.

Figure 6. Obesity and alcohol consumption are important public health problems



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

Behavioural health risks are more common among people with low socio-economic status

As in most other EU countries, many behavioural risk factors are more common among people with lower socioeconomic status in Germany. In 2014, one in six adults (17 %) who had not completed secondary education smoked daily, compared to only 11 % with a tertiary education.[4] Similarly, 18 % of people without a secondary education were obese, compared to 13 % with a higher education. National data show that the higher prevalence of risk factors among socially disadvantaged groups contributes to increased premature mortality, and this is mirrored in differences in life expectancy between the highest and lowest income quintiles - 8.4 years for women and 10.8 years for men.

4: Lower education levels refer to people with less than primary, primary or lower secondary education (International Standard Classification of Education (ISCED) levels 0–2), while higher education levels refer to people with tertiary education (ISCED levels 5–8).

4 The health system

Germany's complex health system provides nearly universal health coverage

Health insurance in Germany is compulsory and consequently offers almost universal coverage. The German health system is split into public social health insurance (SHI) and private health insurance (PHI), with a number of criteria determining who is insured in which. Employees are usually insured in the SHI, but people whose income is above a fixed threshold or who belong to a certain professional group, e.g. self-employed or civil servants, can opt to enrol in PHI for full insurance. The multi-payer SHI system currently consists of 109 sickness funds covering 87 % of the population, and about 11 % of the population is covered under one of the 41 private health insurance companies. Other specific groups (e.g. soldiers, police) are covered under special schemes. Although coverage is universal for all legal residents, there are still gaps due to financial or administrative barriers (Section 5.2).

Deeply-rooted self-governance structures regulate the health system

Responsibilities for health system governance are highly complex, and divided among three levels: federal, state (Länder) and self-governance bodies. The Federal Ministry of Health is responsible for policy-making at the federal level; that is, developing laws and drafting administrative guidelines. Länder are responsible for hospital planning and the financing of hospital investments. Self-governance bodies, such as associations of sickness funds and providers, come together in the Federal Joint Committee, which is in charge of translating legislative objectives into specific regulations. The Federal Joint Committee issues directives for providers, payers, patients and manufacturers concerning, for example, the benefits covered by SHI funds.

Germany is taking legislative steps to correct warped provider payment incentives

SHI is financed primarily through mandatory income-related contributions deducted from employers and employees, and tax revenues. SHI contributions are pooled in the Central Health Fund (Gesundheitsfonds) and reallocated to the sickness funds according to a morbidity-based risk adjustment scheme. PHI premiums depend on individual health risks. For ambulatory service provision, there are different payment systems in place for patients covered under SHI and PHI, and treating PHI patients is generally much more profitable for doctors. This leads to inequalities, with SHI patients being exposed to longer waiting times than patients with PHI (National Association of Statutory Health Insurance Physicians, 2018). The need to reform the payment system is currently one of the main topics on the political agenda (Box 1).

Box 1. Improved care delivery and quality are at the centre of political action

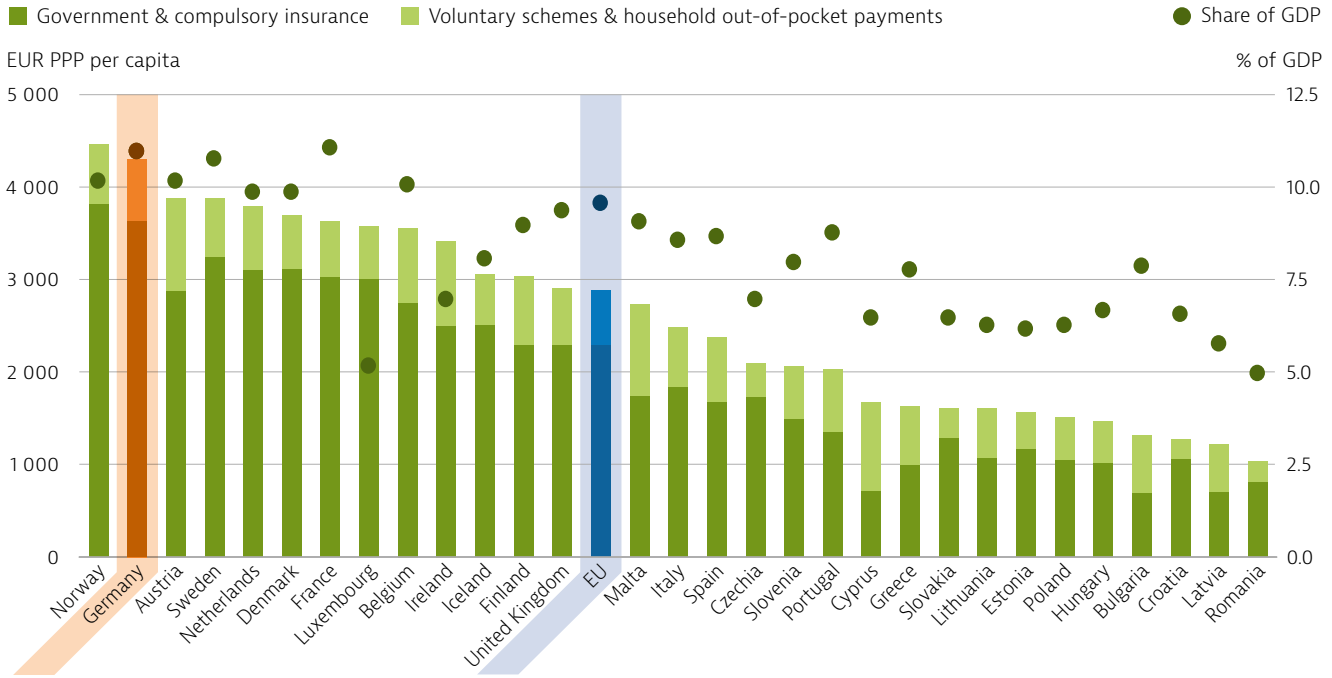
Ensuring high quality and comprehensive care is now at the centre of political action. A bundle of small parameter changes in recent years have adapted existing laws - for example, to enable quality-based planning of hospital care - without changing the overall architecture of the system. More fundamental reform plans like abolishing the two-tier health insurance system have stalled because of opposing party positions in the current coalition government. However, in 2018, a commission was established, which will develop proposals for the revision – and possibly harmonisation – of the fee schedule in ambulatory care for SHI and PHI, which would reduce incentives to prioritise PHI patients. The most recent Strengthening Appointment Service Centres and Care Delivery Act aims to ensure the availability of (primary care) doctors, particularly in rural areas, and to improve efficiency in care delivery (see Section 5.2).

Low out-of-pocket spending suggests adequate financial protection for households

In comparison with other countries in the EU, spending on health is high in Germany. In 2017, total health expenditure accounted for 11.2 % of GDP, which was above the EU average (9.8 %) and second only to France. Per capita spending (adjusted for differences in purchasing power) was the highest in the EU (EUR 4 300) and substantially higher than the EU average (EUR 2 884) (Figure 7).

Of the total health expenditure, some 84.4 % was financed through spending by government schemes and compulsory insurance schemes including both SHI and PHI, a share that is considerably above the EU average of 79.3 % (and only in Norway is public spending higher). Due to the near universal coverage through SHI and PHI, out-of-pocket spending is low, at 12.5 % compared to EU average of 15.8 %. Voluntary health insurance (VHI) plays only a minor role (1.4 %).

Figure 7. Total health spending is among the highest in the EU and is expected to grow



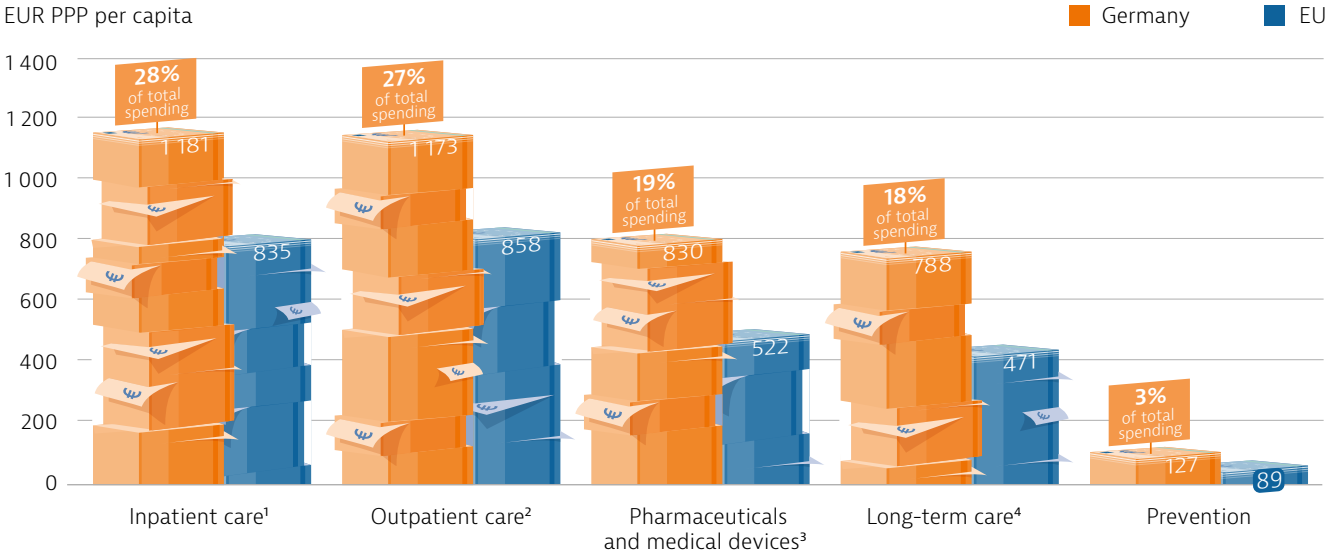
Source: OECD Health Statistics 2019 (data refer to 2017).

Recent reforms contribute to increased spending on long-term care

On a per capita basis, all categories of health spending are above the respective EU averages (Figure 8), with spending on pharmaceuticals and medical devices almost 60 % higher than average. Over recent years, long-term care (LTC) spending has grown more strongly than all other expenditure categories.

The recent LTC reform is likely to further increase expenditures because the benefit basket and eligibility criteria have been expanded and demand for services has increased (Section 5.3). Furthermore, spending on prevention has increased since 2015 due to the legal obligation for sickness funds and long-term care funds to invest more in health promotion and prevention.

Figure 8. Germany spends around the same amount on outpatient and hospital care



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

The health care workforce is comparatively large but the number of GPs is decreasing

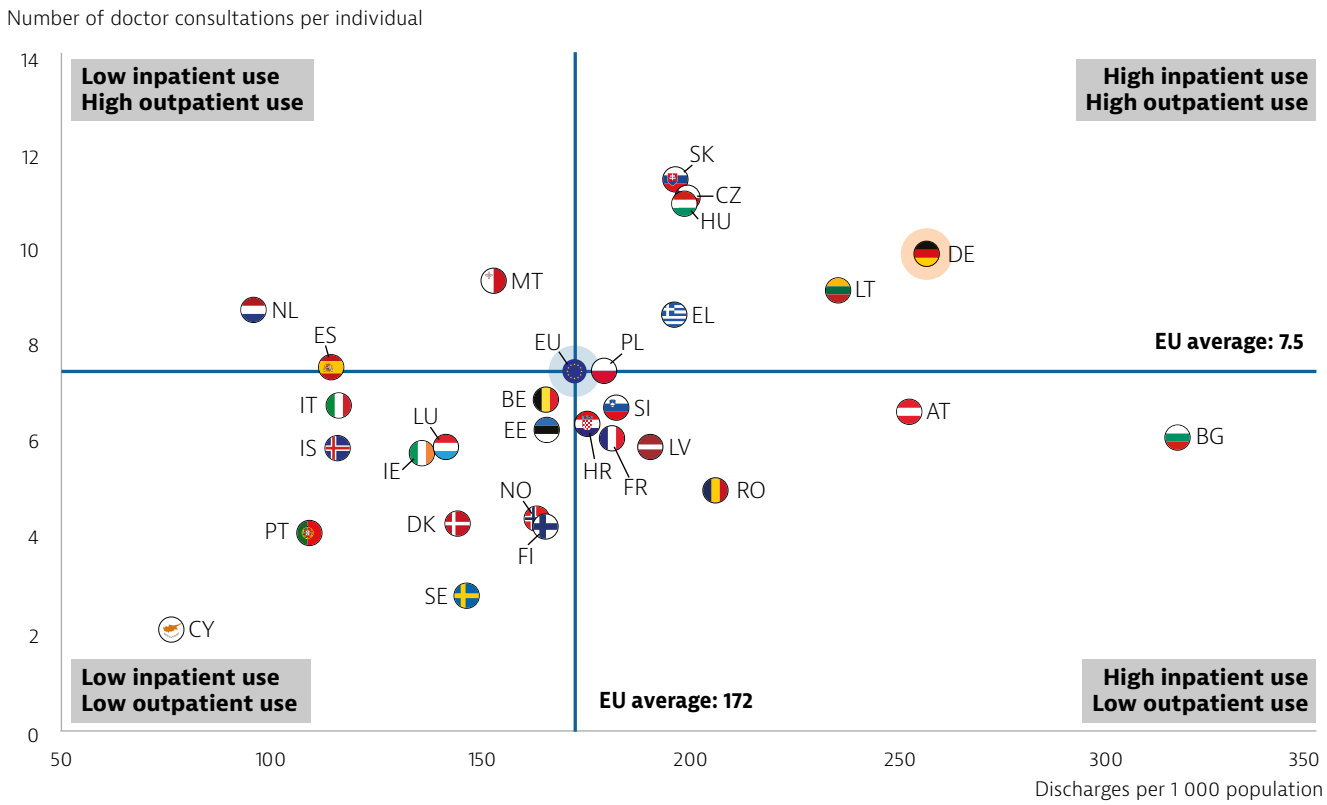
In 2017, the number of doctors (4.3) and nurses (12.0) per 1 000 population in Germany was higher than the EU averages (doctors 3.6 and nurses 8.5). In particular, the number of doctors in hospitals has grown substantially since the 2004 introduction of a hospital payment system based on diagnosis-related groups (DRGs), while the number of nurses declined. Numbers of doctors have also grown in ambulatory care, but the share of general practitioners (GPs) has decreased since 2000. In 2016, only 16.7 % of doctors worked as GPs, which was 25 % lower than the average share in the EU. Recent reform efforts have focused on recruiting GPs in remote and rural areas, where the shortage of health care personnel is an important health system challenge (Section 5.2).

Germany has the highest number of hospital beds in Europe

In 2017, Germany had 8.0 hospital beds per 1 000 population, after numbers decreased by about 11 % since 2000. Bed density is the highest across the EU, and much higher than in neighbouring countries such as France (6.0 per 1 000). This signals that there is scope to move more care into the community (Section 5.3). Because of the exceptionally high number of beds, there are relatively few doctors and nurses per bed – despite the comparatively high number of health professionals.

Hospital activity is very high in Germany (Figure 9), with the number of discharges per 100 000 population being far above the EU average (257 compared with 172). Activity is also high in the outpatient sector (Figure 9), which consists almost exclusively of doctor services provided outside hospitals.[5] The high number of consultations can partially be explained by the absence of a gatekeeping system or requirement to enrol with a GP, which means that patients can see several GPs and consult specialists without a referral. The number of consultations is also high because nurses and other health professionals still play a minor role in primary care (Section 5.3).

Figure 9. There is high use of both inpatient and outpatient care in Germany



Note: Data for doctor consultations are estimated for Greece and Malta.
Source: Eurostat Database; OECD Health Statistics (data refer to 2016 or the nearest year).

5: *The data on doctors' consultations in Figure 9 are an underestimate because it shows only the number of consultations according to reimbursement regulations.*

Progress on integrated care is limited

Service provision in Germany is highly fragmented and uncoordinated. Fragmentation exists between primary and specialist care because of the absence of a gatekeeping system and information is often lost because there is no system of electronic health records (Section 5.3). Moreover, different organisation and financing rules mean that there is a strong separation between hospitals and ambulatory care. Incentives to enhance cross-sector collaboration remain weak.

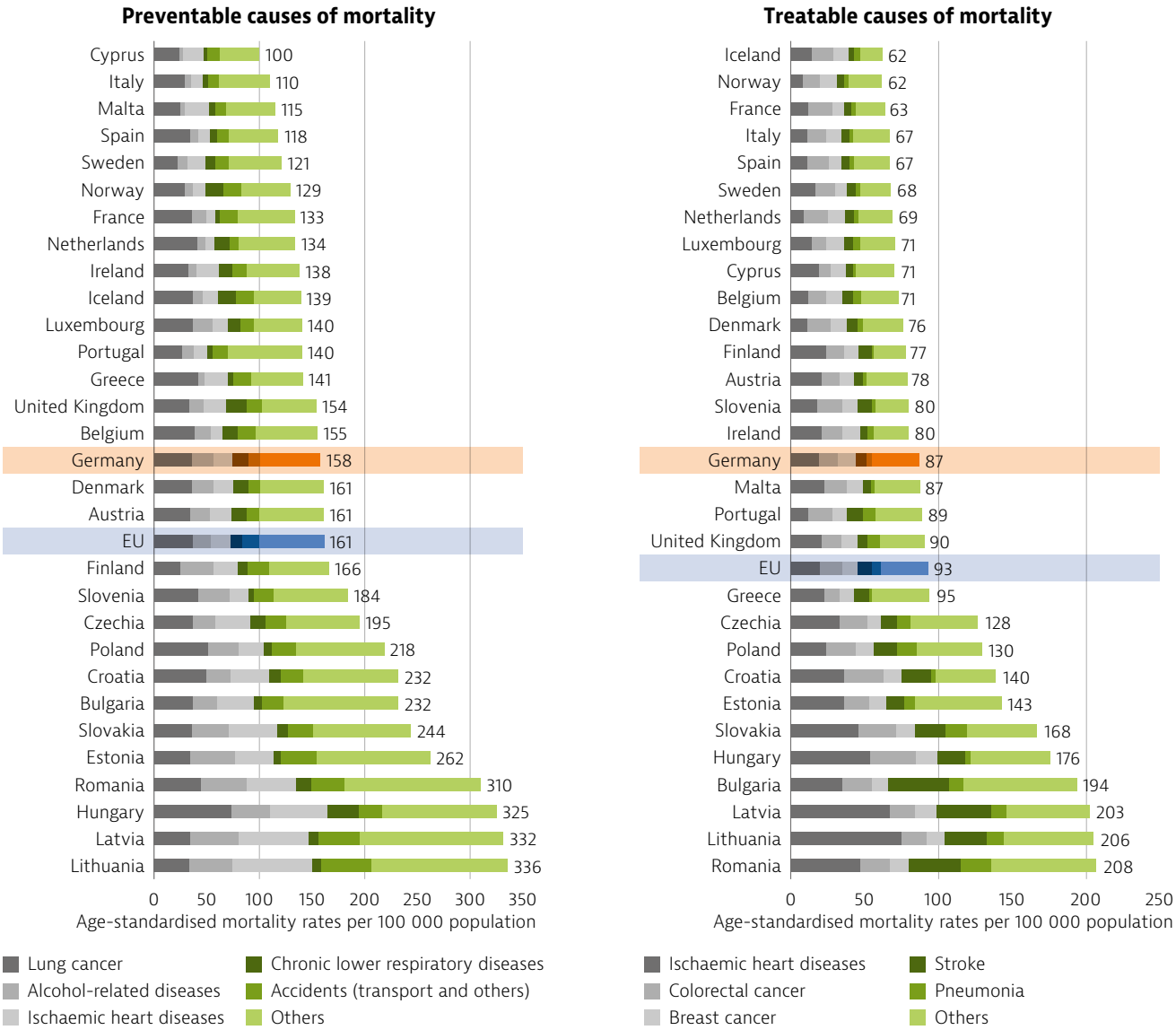
5 Performance of the health system

5.1. Effectiveness

Reducing deaths from preventable and treatable causes present challenges

Preventable mortality has remained stable in Germany since 2011, while it has fallen in many other EU countries. In 2016, Germany could have prevented 158 deaths per 100 000 population through effective public health and coordinated primary care interventions (Figure 10). This is on a par with the EU average of 161 preventable deaths per 100 000 population.

Figure 10. Avoidable deaths from preventable and treatable causes are close to the EU average but higher than in many other western European countries



Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary preventive 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).

Germany has recognised the importance of preventive health policies through the 2015 Strengthening Health Promotion and Prevention Act. This legislation proposes measures and financial support to tackle the rising burden of behavioural risk factors. Using a setting approach, the aim is to support the population in their daily life context (e.g. in day-care facilities, schools, working environment) to develop health-promoting ways of life. Nevertheless, stronger prevention policies and greater public health efforts could help reduce preventable mortality. For example, despite the fact that lung cancer accounts for a quarter of preventable deaths, Germany is the only EU country that still allows tobacco advertising on billboards and in cinemas. Moreover, most states allow smoking rooms in restaurants, pubs and cafés.

Germany also has results that are similar to the EU average for avoidable deaths from treatable causes - that is, deaths that could have been avoided through timely and effective health care interventions. However, the rate is higher than in nearly all other western European countries. In 2016, around 65 000 deaths from treatable causes were deemed avoidable, with ischaemic heart disease being the main cause (19 per 100 000 population in 2016).

After occasional measles outbreaks, the number of reported cases has decreased

For children immunisation coverage rates against measles have been stable since 2007, and in 2018, 97 % of 2-year-olds received a measles vaccination, above the EU average of 94 % and the 95 % target set by WHO (Figure 11). After occasional measles outbreaks between 2013 and 2015, the number of reported cases in Germany (11 per 100 000 population) dropped below the EU average in 2017 (36 per 100 000 population). Nevertheless, the introduction of mandatory measles vaccination is currently high on the German health policy agenda (Box 2).

Box 2. Vaccination policies are a current topic of debate

The 2015 Strengthening Health Promotion and Prevention Act implemented stricter vaccination policies, requiring counselling for parents of unvaccinated children before the child can enter a day-care facility or school. Vaccinations are not mandatory in Germany and immunisation rates have not yet changed (Rechel, Richardson & McKee, 2018). Discussions about nationwide mandatory vaccination against measles continue, and in July 2019, the Federal Government passed a draft law to introduce compulsory vaccination against measles for medical staff and children, adolescents and staff in community facilities (childcare, schools, asylum seekers' homes).

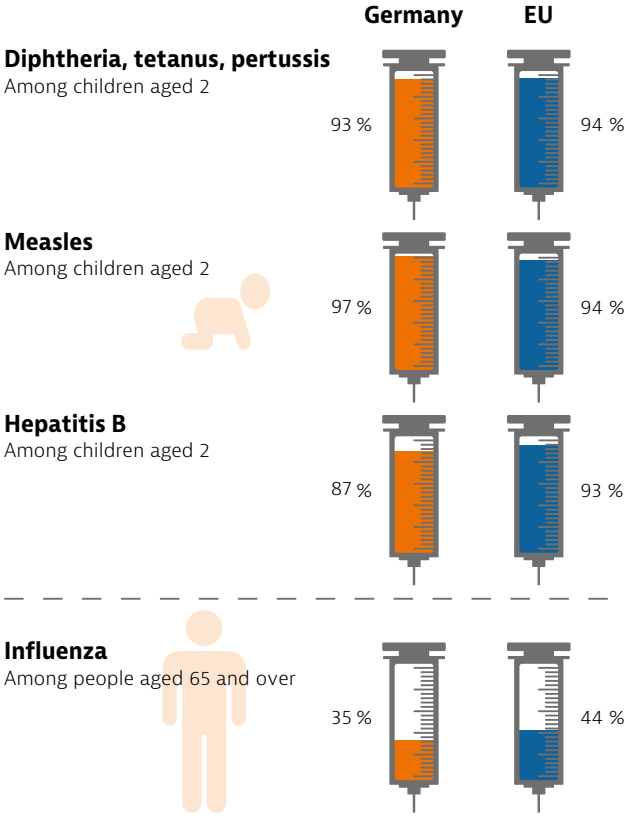
Hepatitis B immunisation coverage among 2-year-olds is only 87 %, which is below the EU average of 93 %. Among adults, about every third person aged 65 and over is vaccinated against seasonal influenza, which is below the EU average and even further from the WHO target of 75 %.

Stronger improvements in hospitals are needed to ensure quality of care

The 30-day mortality rate after hospital admission for stroke has declined by 23 % since 2007 and was lower than in most other EU countries in 2017 (6 % in Germany compared with 8 % in the EU). This is partly because higher payments for stroke unit treatment incentivised a doubling of the number of these units between 2005 and 2010. As a result, every second patient with stroke is now treated in a stroke unit.

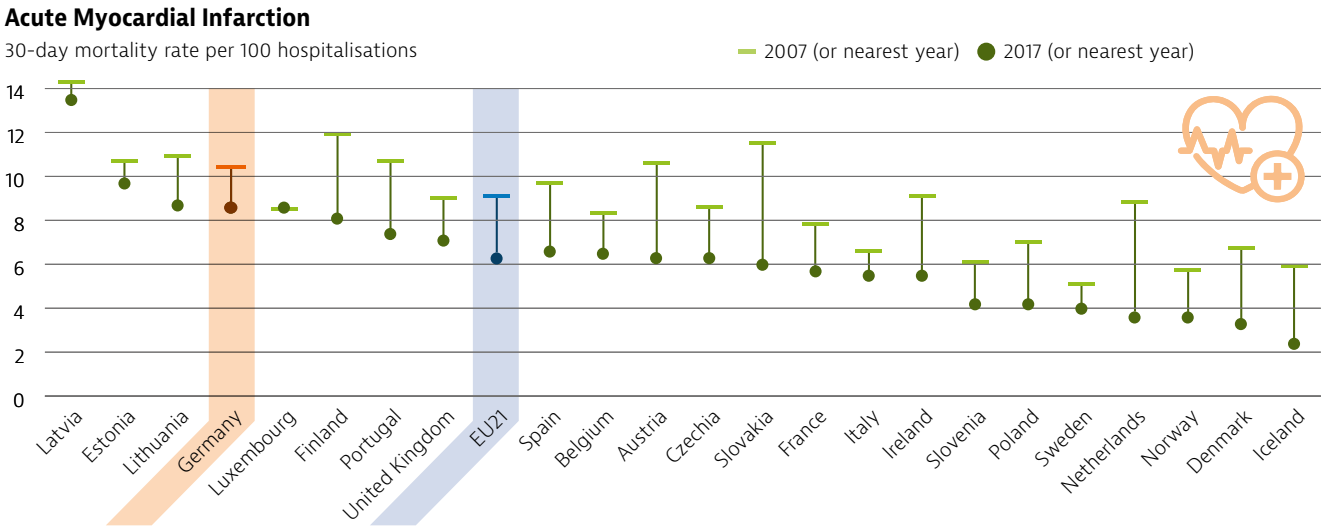
Although the number of deaths within 30 days after admission for acute myocardial infarction (AMI) sharply decreased from 10.5 % in 2007 to 8.5 %, in 2017, it remains higher than in many other EU countries (Figure 12). One problem is that many small hospitals continue to provide inpatient services without human resources (e.g. 24-hour availability of a range of specialists) or technical equipment (e.g. computed tomography scanners, intensive care units) necessary to provide high quality of care.

Figure 11. Children's vaccination coverage rates vary



Note: Data refer to the third dose for diphtheria, tetanus, pertussis and hepatitis B, and the first dose for measles.
Sources: 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 2018 or nearest year).

Figure 12. Inpatient mortality for acute myocardial infarction is comparatively high



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

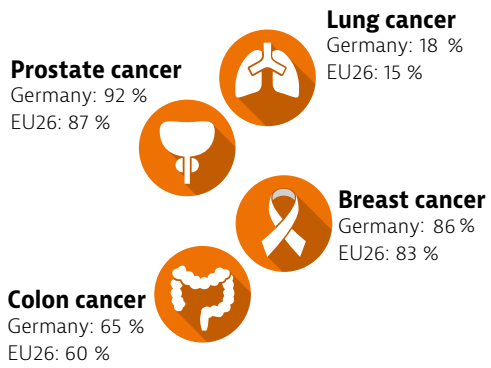
Cancer survival rates are good, but breast cancer screening uptake could be higher

The relative survival rates of patients with cancer over a five-year period (2010-14) show comparatively good results for Germany (Figure 13). Survival rates for prostate cancer (92 %) and colorectal cancer (65 %) are well above the EU average of 87 % and 60 %, respectively. Survival rates for breast cancer are also higher than in most other EU countries and reflect the effectiveness of treatment. Screening programmes show some mixed results: while there is a low screening rate of 52 % for breast cancer (compared to 60 % in the EU), the share of women aged 20-69 who have had a cervical cancer screening within the past two years is high at 80 %.

High avoidable admission rates point to a fragmented care delivery system

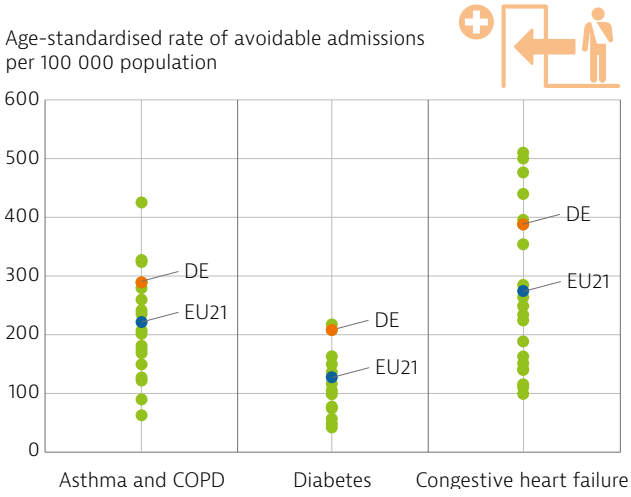
Although disease prevalence may account for some variations across countries, Germany has considerably higher avoidable hospital admission rates for all reported conditions compared to the EU average (Figure 14). Fragmentation in the provision of ambulatory and hospital care in Germany, leading to a lack of continuity of care and lower quality of care, may explain these high admission rates. Although disease management programmes, which should enable chronic disease patients to manage their diseases within the community, have a high uptake, patients with asthma, diabetes or congestive heart failure are more frequently admitted to hospitals than in other countries.

Figure 13. Germany has above average five-year survival rates for different cancer



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

Figure 14. Avoidable hospital admission rates are higher than in most other EU countries



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

5.2. Accessibility

Policies attempt to close population coverage gaps through financial relief

A law introduced in 2009 requires all residents to have health insurance, so population coverage in Germany is de facto universal (Section 4). However, the complex coverage mechanisms mean that certain population groups are at risk of not having health insurance due to financial or administrative hurdles. The most recent estimates suggest that in 2015 around 100 000 people (0.1 % of the population) were uninsured.

Self-employed people on low incomes are one of the population groups at high risk of being uninsured since it can be difficult for them to afford SHI contributions or PHI premiums. Up to January 2019, SHI stipulations required self-employed people to pay a contribution based on an expected minimum income of EUR 2 284 per month, irrespective of their actual income. The reference amount used to calculate the minimum contribution was subsequently halved to reduce the financial burden on these individuals and to close coverage gaps. Refugees, asylum seekers and irregular migrants are another group with limited coverage and access to health care (Box 3).

Germany has extremely low levels of unmet medical needs

The proportion of people who reported unmet medical needs due to financial reasons, distance or waiting times was close to zero in 2017, with almost no difference between high-income and low-income groups (Figure 15). However, as SHI does not fully cover dental care, 11 % of the German population reported unmet dental care needs in 2014. The proportion was much greater among low-income groups (18 %) than high-income groups (5 %).

Purchasing voluntary health insurance to cover co-payments for dental care is becoming more common

SHI covers a broad benefit package, well beyond essential services. As an incentive to enlist members, sickness funds may also include additional services (e.g. alternative and complementary medicines) but these are generally limited in scope. In 2016, almost one in four Germans had complementary health insurance (e.g. to cover a single hospital room or dental care). Around 80 % of these VHI contracts covered dental care, because even though SHI benefits include partial payments for dental prostheses and orthodontics, considerable user charges apply.

Comparatively low out-of-pocket spending reflect comprehensive benefit coverage

High levels of public expenditure on health and broad coverage of health care services result in low out-of-pocket (OOP) spending – 12.5 % in 2017 (Figure 16). This is below the EU average of 15.8 %. About one third of OOP expenditure is related to LTC: for LTC in institutions, benefits usually cover only part of the costs. Other important categories of OOP spending include pharmaceuticals (18 %, mostly for over-the-counter medicines), dental care (14 %, due to co-payments) and outpatient medical care (12 %). Direct spending on medical devices such as eyeglasses, hearing aids or wheelchairs (categorised as 'others' in Figure 16) accounts for another 20 % of OOP payments.

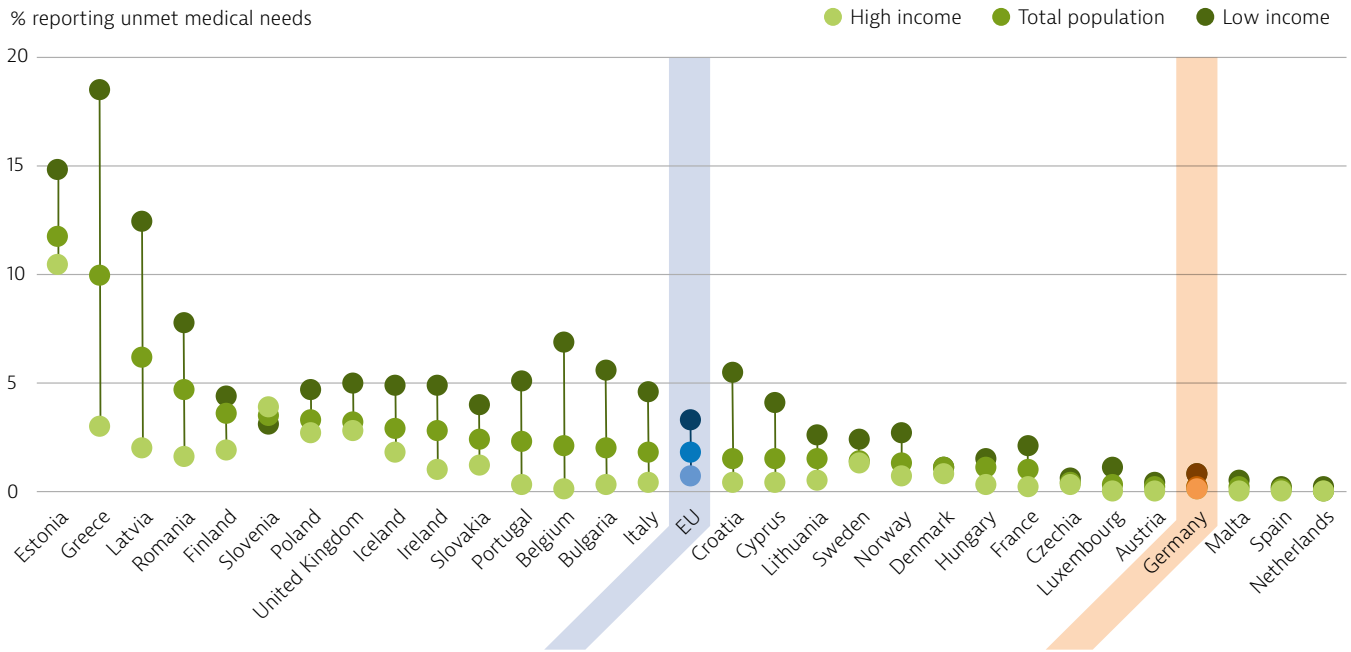
For SHI patients, OOP spending for outpatient medical care exclusively relates to so-called 'individual health services' (Individuelle Gesundheitsleistung) provided in ambulatory care settings, which SHI does not cover because they have no demonstrated therapeutic benefit according to directives issued by the Federal Joint Committee (Section 4), e.g. an additional ultrasound during pregnancy.

Box 3. There are regional variations in the coverage of health services for migrants

Health care coverage and access for refugees, asylum seekers and irregular migrants are limited in Germany. These individuals are often only entitled to emergency, maternal and preventive care (e.g. screenings and all recommended vaccinations). They all have to undergo a preliminary medical check-up upon arrival in Germany. The primary goal of these check-ups is to contain and prevent infectious diseases through treatment and vaccination. Further access to health care depends on their individual status (e.g. asylum seeker, recognised refugee, irregular migrant) and the specific regulations of the state in which they reside.

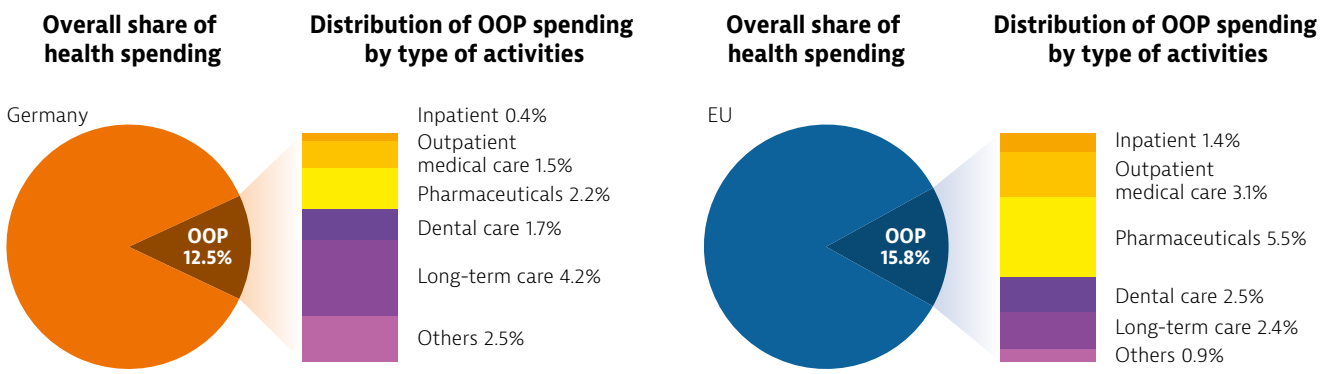
During the first 15 months of stay, access to health care varies between the states, with three main configurations. Half of the German states use electronic health cards to manage entitlement, and settle reimbursements after contact with providers, although access to health services is still restricted. Some states require prior authorisation for any medical treatment beyond emergency treatment. Others only offer medical consultations in designated facilities. After 15 months of residing in Germany, refugees, asylum-seekers and irregular migrants should have full entitlement to medical services under SHI.

Figure 15. Self-reported unmet medical needs are close to zero



Note: Data refer to unmet needs for a medical 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).

Figure 16. Long-term care makes up the largest share of out-of-pocket spending



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

Caps on co-payments protect most people from financial hardship due to illness

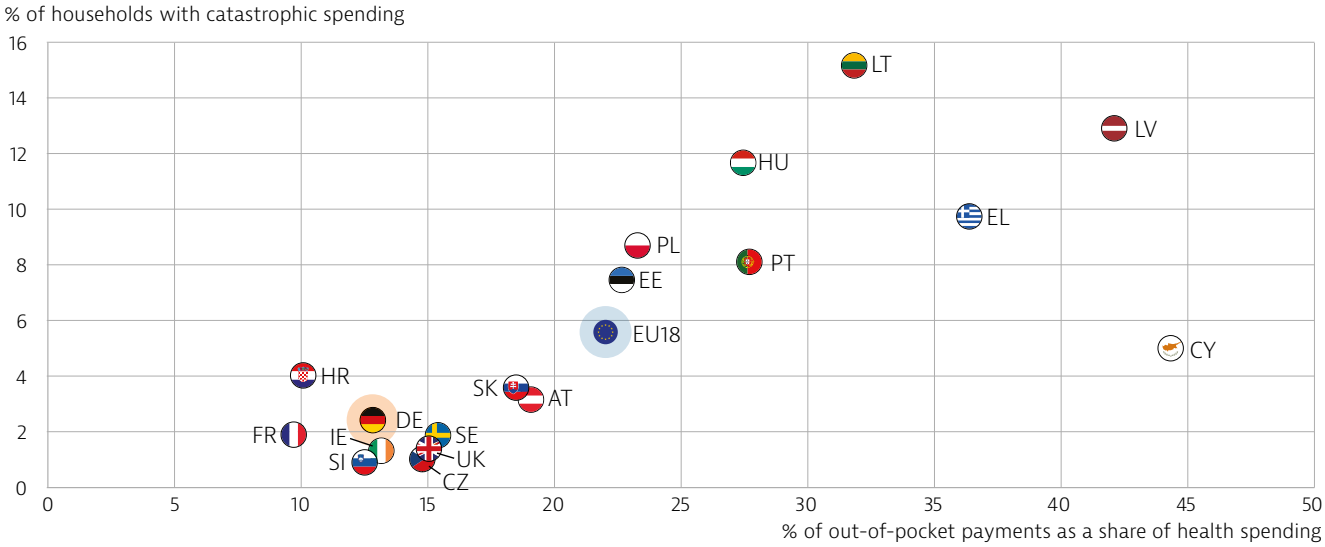
In 2013, 2.4 % of Germans experienced catastrophic spending on health[6], a relatively low proportion compared to other EU countries (Figure 17). Germany has several safety nets in place to protect its population from catastrophic spending. Children under 18 years of age are generally exempt from co-payments. For adults, SHI has an annual cap on mandatory co-payments equal to 2 % of household income. About 0.4 % of all SHI insured people exceeded the 2 % cap in 2018 and were exempted from further co-payments. People with serious disabilities or chronic diseases who require LTC have an even lower cap - 1 % of household income.

The dense supply of doctors and hospitals contributes to high service availability

For the majority of the population, the closest GP is less than 1.5 km away (Figure 18). However, rural areas can face a potential shortage of doctors, which can lead to longer travel distances for patients. The number of Germans who reported foregoing care due to waiting times decreased to essentially zero in 2017.

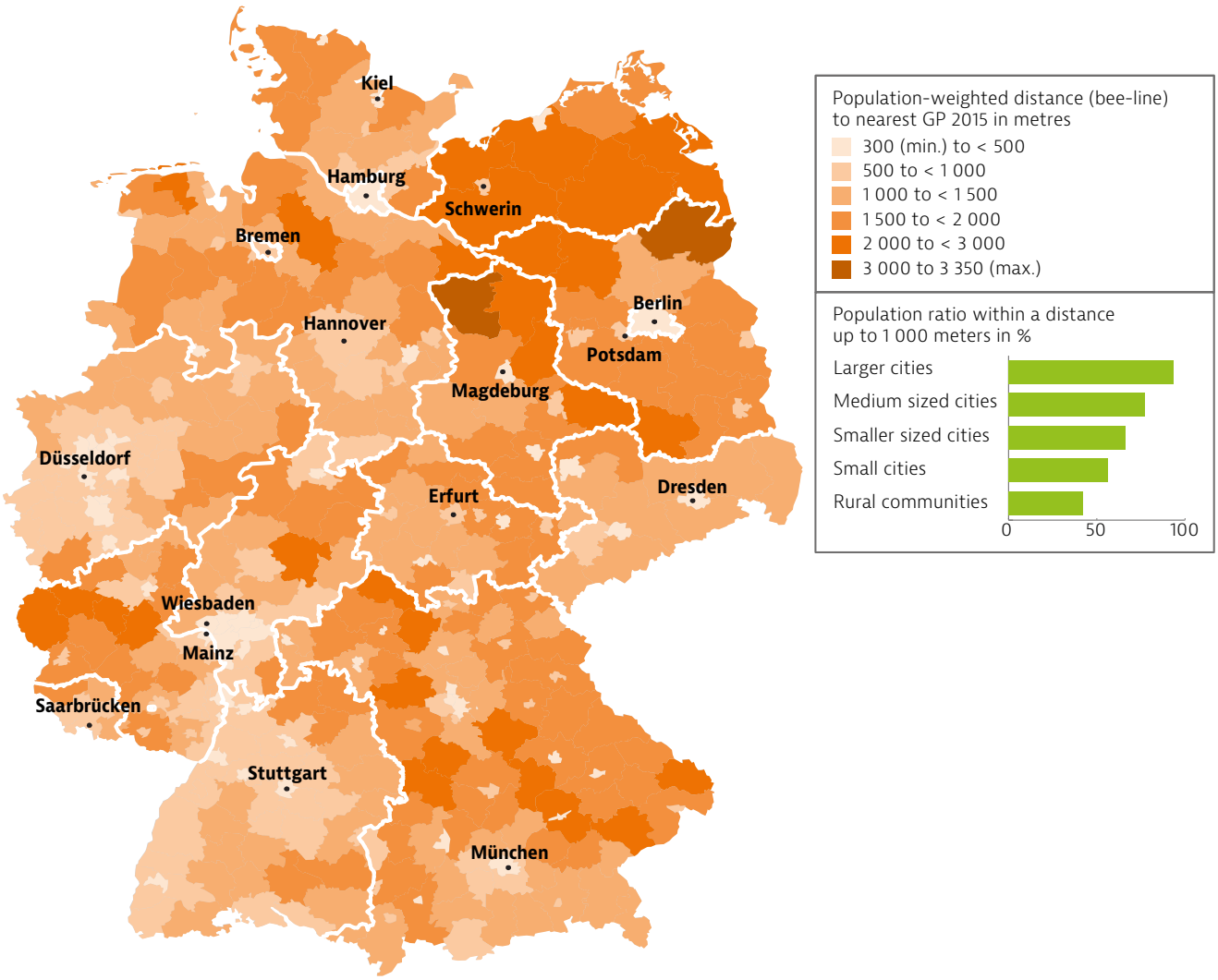
6: Catastrophic expenditure is defined as household out-of-pocket spending exceeding 40 % of total household spending net of subsistence needs (i.e. food, housing and utilities).

Figure 17. Germany has low out-of-pocket spending and few households with catastrophic expenditure



Sources: WHO Regional Office for Europe 2018; OECD Health Statistics 2019 (data refer to 2017 or the nearest year).

Figure 18. Most Germans have a doctor nearby, but in more rural areas, significant distances often have to be covered



Source: Modified figure based on Federal Institute for Research on Building, Urban Affairs and Spatial Development, 2019. Database: BBSR Spatial Monitoring System, Wer-zu-Wem-Verlag. Geometric Database: Kreise, 31.12.2014 © BKG/GeoBasis-DE.

Germans experience the shortest waiting times for specialist appointments in the EU, with only 3 % of survey respondents waiting for two months or longer. This development may be attributable to the SHI Care Provision Strengthening Act of 2015, which required the Regional Associations of SHI Physicians to set up appointment service points (European Commission, 2019a). These service points should recommend a specialist appointment within a reasonable distance within one week. The waiting time for the appointment must not exceed four weeks.

Reforms aim at improving the availability of out-of-hour services

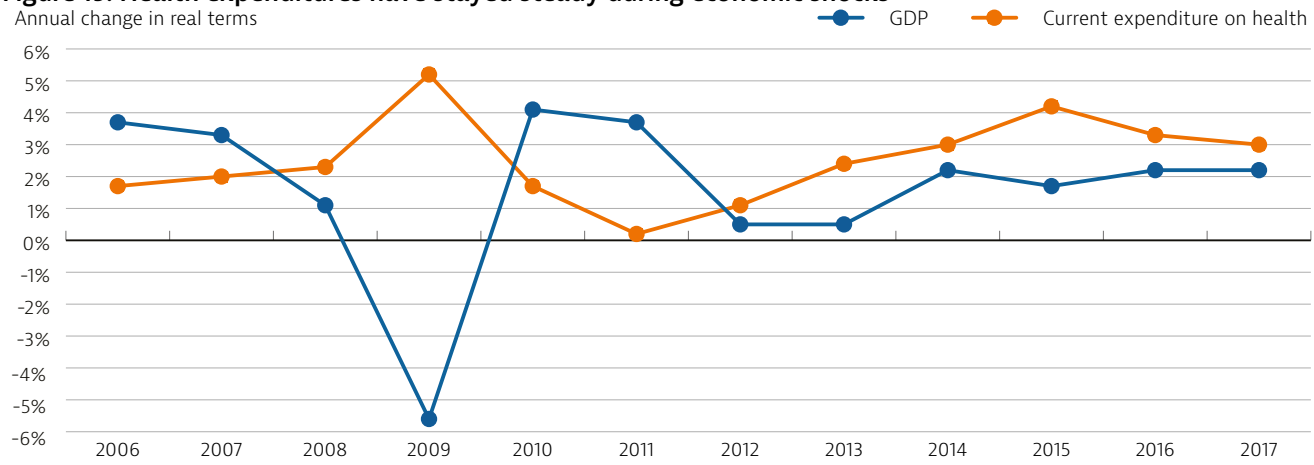
Overcrowded hospital emergency departments are a much discussed topic in Germany. National surveys have shown that patients use emergency departments even if the symptoms do not call for urgent treatment because ambulatory care doctors are unavailable (e.g. in the evenings or on weekends). In response, the Regional Associations of SHI Physicians are required to set up practices at hospitals where SHI doctors can treat patients with non-urgent conditions out of hours. Recently passed legislation aims to increase service availability by further strengthening existing appointment service points and pledging SHI-affiliated doctors to extend opening hours for SHI patients from 20 to 25 hours per week (see also Box 1 in Section 4). Moreover, in July 2019 the Federal Minister for Health presented a draft plan to reform emergency care, to be developed with the Länder, in order to reduce the number of unnecessary visits to emergency departments.

5.3. Resilience[7]

The social health insurance system's financial reserves may offset economic downturns

Health care funding in Germany is highly cyclical as it mainly relies on wage-related health insurance contributions. Germany's strong economy, with rising wages and increasing employment, accompanied by moderate increases in health expenditures benefits the SHI system (Figure 19). In 2018, the sickness funds achieved a surplus of around EUR 2 billion and accumulated financial reserves of more than EUR 21 billion, equivalent to more than one month of SHI expenditure – and more than four times the legally required minimum reserve (Federal Ministry of Health, 2019).

Figure 19. Health expenditures have stayed steady during economic shocks



Source: OECD Health Statistics 2019; Eurostat Database.

The future sustainability of long-term care is challenging

A reform of LTC has considerably expanded the number of people eligible for LTC services by redefining LTC needs, changing eligibility criteria and the benefit package. In 2017, when most changes came into force, the number of LTC benefits recipients increased by around 20 % compared to 2016, from 2.7 million people to 3.3 million. As a result, LTC expenditure increased by EUR 7.5 billion (24 %). Although this was coupled with a 0.5 percentage point increase in contribution rates for the long-term care insurance scheme (LTCI), expenditure increased

7: Resilience refers to health systems' capacity to adapt effectively to changing environments, sudden shocks or crises.

more than revenues. For the first time since 2007, LTCI posted a deficit with a shortage of EUR 2.4 billion (Federal Ministry of Health 2018). In response, the government raised the contribution rate for LTCI by a further 0.5 percentage points in 2019. For those with children, the contribution rate is now 3.05 % of gross income (up to an annually defined threshold) – payable by employees and employers (at equal shares in most states).

The long-term financial sustainability of LTCI depends on future demographic developments and migration patterns, which are difficult to predict. Public expenditure for LTC as a share of GDP is – depending on the indexation method – projected to increase from 1.3 % in 2016 to 1.9 % in 2070 (European Commission-EPC, 2018). To stabilise future contributions, LTCI uses 0.1 % of contributions for a LTC provident fund, which is administered by the German Central Bank and can only be used from 2035 onwards.

An ageing health workforce creates further challenges for care provision

The expansion of LTC coverage and demographic changes also affect the labour force – even if the percentage of employees in the care sector remains stable, the number of employees in this sector will decrease because the working-age population is shrinking. This could result in a considerable workforce gap in the care sector in the years to come. To meet demand, Germany has implemented reforms to strengthen nursing care (Box 4).

While the number of medical graduates has been stable since 2000, the number of nursing graduates has increased by 40 %. The health system increasingly relies on doctors from abroad, who accounted for 12 % of all practising doctors in Germany in 2018 (up from 4 % in 2000). The ageing workforce is also an issue; the proportion of doctors under 35 reached a low of 15 % in 2005, although it increased to 19 % in 2018 (German Medical Association, 2019). The Federal Ministry of Education and Research initiated the 'Master Plan Medical Studies' to change the structure and content of the medical curriculum to better prepare future doctors for practical work. It also sets incentives for working in rural areas. The federal states may award up to 10 % of the places for medical training in universities to applicants who commit to working in primary care for up to 10 years in underserved or rural areas after completing their studies.

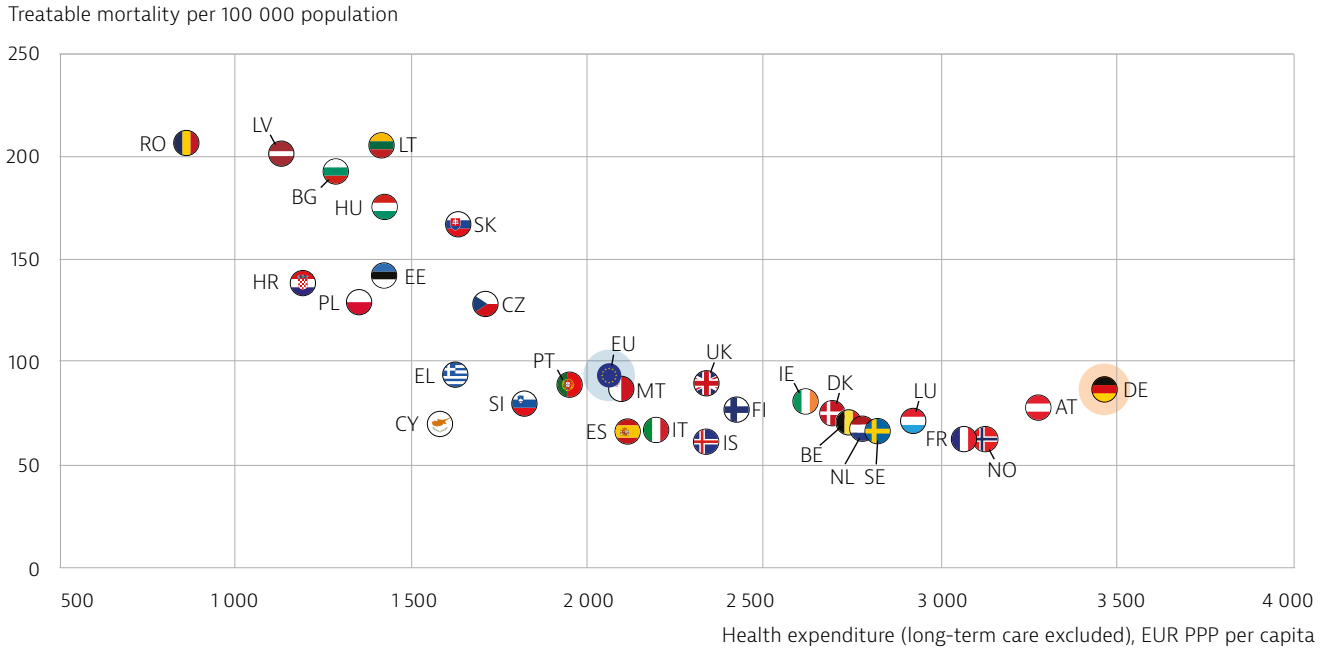
There is scope for efficiency gains, particularly by reducing over-utilisation of hospital care

While the health system effectively contributes to population health (Section 5.1), Germany has the highest per capita health expenditure in the EU. Figure 20 shows that several European countries spend less per person and achieve lower rates of mortality from treatable causes. From a macro-level perspective, therefore, the system has potential to achieve much higher efficiency.

Box 4. Skill mix innovations focus on educational change and expand training for nurses

In 2017, a bachelor's level degree for nurses was introduced (which previously had only been implemented as part of pilot programmes) in addition to maintaining existing vocational training. Graduates are trained to manage highly complex care processes and to promote quality of care. While early evaluations have been promising, the integration of graduates into existing care structures has not yet been systematically resolved. Moreover, the three existing vocational nursing programmes (general nurse, paediatric nurse and geriatric nurse) have been combined into one standardised two-year programme with the opportunity for specialisation, to facilitate the movement of nurses across care sectors. Innovations in the ambulatory sector, especially in rural areas and for the elderly, focus on training nurses and medical assistants to take on new tasks to support GPs (e.g. home visits). Although such initiatives are increasing throughout Germany, task shifting from doctors to nursing staff is fragmented and mostly limited to pilots or a few regions.

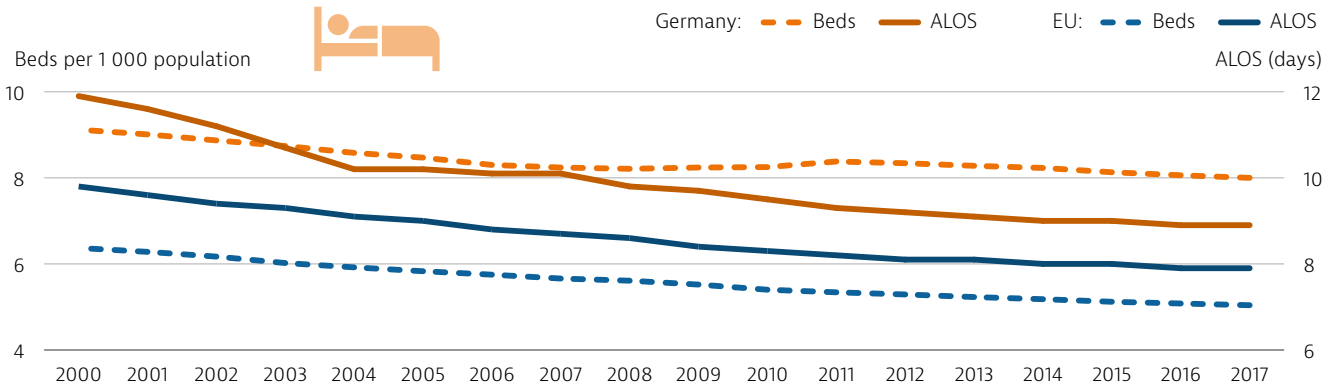
Figure 20. Several countries have lower rates of mortality from treatable causes, but spend less per capita than Germany



Note: The EU average is unweighted only for health expenditure data.
Sources: Eurostat Database; OECD Health Statistics 2019.

One possible way to improve efficiency is to reduce over-utilisation of expensive inpatient treatment and to expand ambulatory care and day surgery. The decline in hospital beds has been modest since 2000 and Germany still has the highest ratio of beds per population in the EU (Section 4). Average length of stay has declined more rapidly, but is still above the EU average (Figure 21). The number of hospital discharges, against the European trend, increased by 14 % between 2000 and 2016 and was 50 % higher than the EU average in 2016, resulting in a stable occupancy rate of around 80 %. This high level of inpatient care activity raises doubts about efficiency. Germany has been less successful than other countries in moving service provision for certain conditions to an outpatient or day surgery setting.

Figure 21. Both bed numbers and average length of stay are above the EU average



Source: Eurostat Database.

Germany prioritises generic medicines to provide pharmaceuticals more efficiently

Germany has the highest per capita spending on pharmaceuticals in the EU (Section 4). Measures have been implemented to address rising costs and make pharmaceutical care more efficient, but with moderate effects (European Commission, 2019b).

Pharmaceutical policies rely on mandatory discounts and internal reference price setting for groups of comparable medicines. Germany does not have a positive list of SHI-covered pharmaceuticals. Instead, all licensed prescription medicines are generally reimbursable, including new and often very expensive ones, if they pass a comparative benefit assessment (Box 5), assuring good access to new – but often

Box 5. Health technology assessments ensure efficient access to effective medicines

Since 2011, an early benefit assessment of all new pharmaceuticals is undertaken. Manufacturers of newly licensed medicines must submit a dossier to the Federal Joint Committee, which assesses potential added benefit over existing therapeutic alternatives. If the medicine offers no additional benefit, it is placed in a reference price group and receives the same level of SHI reimbursement as existing treatment alternatives. For medicines with an added benefit, the National Association of Statutory Health Insurance Funds negotiates a reimbursement amount with the manufacturer.

The benefit assessment takes place in the first 12 months after market authorisation of a new pharmaceutical. During this time, the SHI covers it and SHI-insured people have access to it. This price setting mechanism aims to ensure that pharmaceutical prices are economically efficient without inhibiting innovation. However, during the pharmaceutical's first year on the market, manufacturers can determine the price freely and without restriction. This can lead to high SHI expenditure for some innovative medicines. One year after market entry, the pharmaceutical will be sold at the negotiated price but prices are not applied retroactively.

expensive – pharmaceuticals. At the same time, the market share of generics of 82.3 % by volume is one of the highest in the EU (Figure 22). By value, 34.1 % of the publicly funded pharmaceutical market consists of generics.

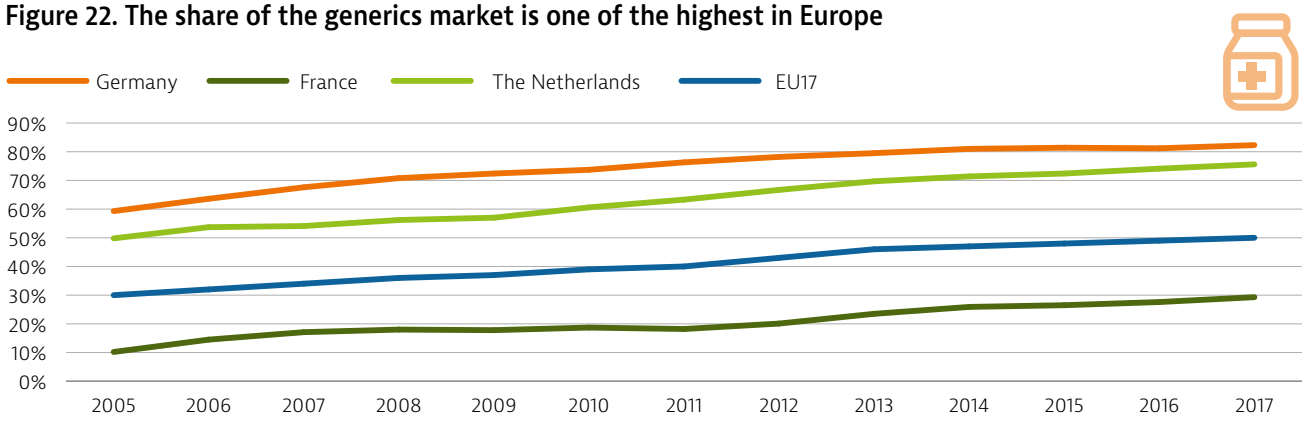
Fragmentation hinders the implementation of health system performance assessment

Many health system indicators on quality, safety, provision of care and health resources are available and regularly monitored. However, the fragmented structure of the system, with its plurality of payers and providers, leads to fragmented databases that make a comprehensive assessment of health system performance difficult. Several monitoring mechanisms and registers focus on different aspects of the system or single diseases, but they are either initiated or carried out by individual stakeholders. The multitude of initiatives and coexisting programmes suffer from a lack of systematic evaluation, involvement of all sectors, and overall formulation of goals. A regular performance assessment would give the opportunity to better understand the performance of the German health system and provide insight into how to improve care and reduce costs.

Germany still has a lot of catching up to do in the area of eHealth applications

Germany's health system exhibits a comparatively low degree of digitalisation (European Commission, 2019b), but the government does emphasise digital health. The eHealth Act (2015) set the timeline to roll out a data network for all health care actors and a statutory electronic patient record in 2019. Several eHealth services were scheduled to start in 2019: e.g. emergency data storage and an electronic medication plan. However, electronic health records and ePrescriptions are currently available only by way of pilot-projects, with mandatory national rollout scheduled for 2021. Individual sickness funds have introduced personal electronic patient records for their insured, but these are based on insurance data as not all providers are linked to the necessary IT systems. In July 2019, the Federal Government passed a bill to accelerate the implementation of digital innovations in the SHI system.

Figure 22. The share of the generics market is one of the highest in Europe



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

6 Key findings

- Life expectancy in Germany is around the EU average but lower than most western European countries. This is mainly due to comparatively high mortality rates from causes of death that could be avoided through more effective public health and prevention policies. Although smoking and alcohol consumption rates have decreased they are still above the EU average, and the number of overweight and obese adults is rising.

- The German health system provides almost universal health coverage with a broad social health insurance benefit basket, and access to services is good. Few people report foregoing care for financial reasons, waiting times or distance, and the gaps between socioeconomic groups are relatively small. The low share of out-of-pocket payments in health financing contributes to strong financial protection and catastrophic health expenditure levels are lower than in most other European countries. Recent legislation aimed to close remaining coverage gaps, for instance by reducing minimum contributions for self-employed people on low incomes and simplifying coverage for migrants.

- The number of doctors and nurses is higher than in many other EU countries and is increasing. However, there is currently a shortage of skilled health workers, especially in rural and remote regions. The expansion of publicly funded long-term care benefits is also increasing the demand for nurses. Germany has sought to counteract a potential health workforce shortage, by making the nursing profession more attractive and providing incentives to young doctors to open a practice in rural areas. However, skill mix innovations, which extend the tasks of nurses to relieve general practitioners, have not yet been implemented nationwide.

- Utilisation of both inpatient and outpatient care in Germany is substantial and leads to oversupply, particularly in some urban areas. The large number of services provided in an inpatient setting raises some doubts as to the appropriateness of these utilisation patterns. Germany still has the highest ratio of hospital beds per population in the EU and hospital discharge rates have increased significantly in recent years (partly reflecting population ageing). Services are provided in many small and often inadequately equipped hospitals, resulting in lower quality. Policymakers are aware of this problem and reforms are under discussion to promote the centralisation and specialisation of hospitals.

- The German health system is moderately effective, but more expensive than most other EU countries. It is effective in avoiding mortality from treatable causes and provides substantial human and infrastructural resources, which translate into the second highest health expenditure as a share of GDP in the EU, after France. However, the costs of Germany's health system do not match the often average health outcomes of the population, leaving room for further efficiency gains.

- The German health system is complex, with shared responsibilities between different levels of government and self-governing bodies of payers and providers. Delegation of responsibilities to bodies of self-governance assures well informed decisions, but also contributes to the fragmented structure of the system with its plurality of payers and providers.

- There is no systematic and integrated evaluation across different health care sectors or regular performance assessment to better understand processes and outcomes. Overcoming this obstacle would increase the scope for health system improvements and possibly reduce expenditures.

Key sources

Busse R, Blümel M (2014), Germany: Health system review. *Health Systems in Transition*, 16(2):1–296.

European Observatory on Health Systems and Policies, *Germany, Health Systems and Policy Monitor,* https://www.hspm.org/countries/germany28082014/countrypage.aspx

OECD, EU (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*. OECD Publishing, Paris, https://www.oecd.org/health/health-at-a-glance-europe-23056088.htm

References

European Commission (2019a), *Joint report on health care and long-term care systems and fiscal sustainability – Country documents 2019 update*. Institutional Paper 105. European Commission, Brussels.

European Commission (2019b), *Country Report Germany 2019.* 2019 European Semester. European Commission, Brussels, https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-country-report-germany_en.pdf

European Commission (DG ECFIN)-EPC (AWG) (2018), *The 2018 Ageing Report – Economic and budgetary projections for the EU Member States (2016-2070)*, Institutional Paper 079. May 2018. European Commission, Brussels.

Federal Institute for Research on Building, Urban Affairs and Spatial Development (2019), *Distance to nearest general practitioner,* Bonn.

Federal Ministry of Health (2018), *Zahlen und Fakten zur Pflegeversicherung* [Facts and figures on long-term care insurance], Berlin.

Federal Ministry of Health (2019), *Pressemitteilung Nr. 8 vom 7.* März 2019 [Press Release No. 8 from 7th March 2019]. March 2019, Berlin.

German Medical Association (2019), *Ärztestatistik zum Stichtag 31. Dezember 2018* [Medical statistics as of 31 December 2018], Berlin.

National Association of Statutory Health Insurance Physicians (2018), *Vesichertenbefragung der Kassenärztlichen Bundesvereinigung 2018* [National Association of Statutory Health Insurance Physicians survey of insured persons 2018], Berlin.

Rechel B, Richardson E, McKee M, eds. (2018), *The organization and delivery of vaccination services in the European Union.* European Observatory on Health Systems and Policies and European Commission, Brussels, http://www.euro.who.int/__data/assets/pdf_file/0008/386684/vaccination-report-eng.pdf?ua=1

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

European Commission

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

Please cite this publication as: OECD/European Observatory on Health Systems and Policies (2019), *Germany: Country Health Profile 2019, State of Health in the EU*, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels.

ISBN 9789264583115 (PDF)
Series: State of Health in the EU
SSN 25227041 (online)

OECD
BETTER POLICIES FOR BETTER LIVES

European Observatory on Health Systems and Policies
a partnership hosted by WHO