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 Systems Performance Assessment (HSPA).

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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 27 Member States unless otherwise noted. These EU averages do not include Iceland and Norway.

This profile was completed in September 2021, based on data available at the end of August 2021.

Demographic and socioeconomic context in Germany, 2020

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<td>Relative poverty rate³ (%)</td>
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<td>Unemployment rate (%)</td>
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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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The health status of the German population has improved over the last two decades, and life expectancy remains above the EU average despite the temporary reduction registered in 2020 that was caused by the COVID-19 pandemic. Infection and death rates from COVID-19 in 2020 were lower in Germany than in most other EU countries. When measured as a share of GDP, health spending in Germany is the highest in Europe. The health system offers a generous benefits package, high levels of service provision and universal access to relatively high-quality and effective care. The COVID-19 pandemic revealed the challenges faced by federal systems in coordinating and managing such outbreaks.

### Health Status

In 2020, Germany registered a life expectancy of 81.1 years – half a year above the EU average but still somewhat lower than in EU countries with the highest levels. The COVID-19 pandemic had less of an impact on life expectancy in Germany than in the EU as a whole, having fallen by 2.5 months in 2020 compared to an average of just over 8 months across the EU. The leading causes of death in Germany in 2019 were ischaemic heart disease, stroke and lung cancer.

### Risk factors

Around one in five adults smokes on a daily basis in Germany. While smoking rates have been declining, the growing popularity of e-cigarettes, particularly among young people, is a cause for concern. Adult and adolescent obesity rates are growing, and alcohol consumption among adults and 15-year-olds is considerably higher than the EU average.

### Health system

In 2019, Germany spent EUR 4 505 per capita on health – the highest among EU countries, and 28 % more than the average (EUR 3 523). Germany also spends a greater proportion of its GDP on health (11.7 %) than any other EU country. The majority of health spending comes from public sources; out-of-pocket payments amount to only 12.7 %, which is well below most other EU countries.

### Effectiveness

Mortality from preventable causes is lower in Germany than in the EU as a whole, reflecting the country’s effective public health and primary care system. Germany also has lower rates of death from treatable causes, owing to good access to effective treatments.

### Accessibility

Access to care is generally good in Germany. Historically low rates for unmet needs rose during the COVID-19 pandemic when many non-urgent services were cancelled or postponed. One in seven people reported that they had to forgo needed care in 2020. However, the use of teleconsultations increased during the pandemic.

### Resilience

Despite well prepared health infrastructure and resources, Germany scaled up testing and laboratory capacities, intensive care unit beds and the health workforce. By the end of August 2021, around 60 % of the population had received two COVID-19 vaccine doses (or equivalent).

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**Share of total population vaccinated against COVID-19 up to the end of August 2021**

**Preventable mortality**

Germany has lower rates of death from preventable causes than the EU average.

**Treatable mortality**

Germany has lower rates of death from treatable causes than the EU average.

**Access to care**

Germany has low rates of unmet needs, lower than the EU average.

**Resilience**

Germany scaled up testing and laboratory capacities during the COVID-19 pandemic.
2 Health in Germany

Life expectancy fell by about 2.5 months in 2020 during the COVID-19 pandemic

Life expectancy at birth in Germany has increased by almost three years since 2000 (from 78.3 years to 81.1 years in 2020), but most of this gain occurred between 2000 and 2010, and the increase was only eight months between 2010 and 2019. Most other EU Member States achieved greater progress in life expectancy during this period – particularly countries in the central and eastern part of Europe, as well as Denmark and Ireland. As with most other EU countries, life expectancy showed a temporary decrease between 2019 and 2020 owing to the impact of the COVID-19 pandemic: in Germany, this reduction was 2.5 months compared to an EU average of nearly 8.5 months. German life expectancy is now half a year above the EU average (Figure 1) but still around 1.5 years lower than the rate in EU countries with the highest levels.

A substantial gender gap in life expectancy persists in Germany: women can expect to live 4.7 years longer than men (83.7 compared to 79 years), but this gap is slightly smaller than the EU average (5.6 years).

Ischaemic heart disease, stroke and lung cancer remain the main causes of mortality

Increases in life expectancy primarily result from reductions in premature deaths from leading causes of mortality – notably, circulatory diseases (including ischaemic heart disease and stroke) and cancer. Over the last decade, Germany’s death rates have been falling at a slower rate than previously for circulatory diseases and some cancers like lung cancer. At the same time, there has been an increase in mortality rates from some respiratory diseases like chronic obstructive pulmonary diseases (COPD) and influenza (at least in some years with severe epidemics like 2017/18), particularly among people aged over 65. These two factors may partly explain the overall slowdown in life expectancy gains observed over this period. In 2019, circulatory diseases accounted for 35% of all deaths in Germany. Among these, ischaemic heart disease remains by far the leading cause of mortality, responsible for more than one in eight deaths in 2019. Stroke was the second leading cause of death, followed by lung cancer, which is still the most frequent cause of death by cancer (Figure 2).

In 2020, Germany reported over 34 500 deaths due to COVID-19 – an estimated 3.5% of all deaths. An additional 57 640 deaths were registered by the end of August 2021. Most deaths (85%) were among people aged 70 and over. Taking into account different methods of registration of COVID-19 deaths across the EU, the mortality rate from COVID-19 to the end of August 2021 was about 30% lower in Germany than the average across EU countries (approximately 1 100 per million population compared with an EU average of about 1 590).

Figure 1. Life expectancy in Germany is six months higher than the EU average

Note: The EU average is weighted. Data for Ireland refer to 2019.
Source: Eurostat Database.

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Figure 2. COVID-19 accounted for a substantial number of deaths in 2020

Note: The number and share of COVID-19 deaths refer to 2020, while the number and share of other causes refer to 2019. The size of the COVID-19 box is proportional to the size of the other main causes of death in 2019.
Sources: Eurostat (for causes of death in 2019); ECDC (for COVID-19 deaths in 2020, up to week 53).

Differences in self-reported health among socioeconomic groups are considerable

Overall, about two thirds of the German population (66 %) reported being in good health in 2019 – less than the share in both the EU as a whole (69 %) and most other western European countries, with little difference between men (66 %) and women (65 %). There is a large gap in self-reported health by income group: only about half of Germans in the lowest income group reported being in good health compared to 80 % of those in the highest (Figure 3).

Figure 3. Self-reported health in Germany is below the EU average, with large disparities by income

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 2019).
The burden of cancer in Germany is considerable

According to estimates from the Joint Research Centre based on incidence trends from previous years, around 540 000 new cases of cancer and about 250 000 deaths from cancer were expected in Germany in 2020. Notably, cancer incidence among men in Germany was lower than the EU average, while it was higher among women. Figure 4 shows that the main cancer sites among men are prostate (23 %), lung (13 %) and colorectal (11 %), while among women breast cancer is the leading cancer (28 %), followed by colorectal (11 %) and lung (10 %). Reductions in risk factors like smoking could reduce the burden of several types of cancer (see Section 3). Moreover, Germany’s cancer control policy – notably the National Cancer Plan and the more recently launched National Decade Against Cancer initiative – also seeks to improve diagnosis and treatment of cancer (see Section 5.1).

Figure 4. An estimated half a million Germans were diagnosed with cancer in 2020

Note: Non-melanoma skin cancer is excluded. Uterus cancer does not include cancer of the cervix.
Source: ECIS – European Cancer Information System.

3 Risk factors

Tobacco and poor nutrition are still important public health issues

About 4 in 10 deaths every year in Germany are linked to the prevalence of behavioural risk factors such as smoking, dietary risks, alcohol consumption and low physical activity – a level similar to the EU average. Environmental factors such as air pollution also account for a considerable number of deaths: in 2019, an estimated 30 000 deaths (or 3 % of all deaths) were attributable to fine particulate matter (PM$_{2.5}$) and ozone exposure alone (Figure 5).

Unhealthy diets are also a significant driver of mortality in Germany, and are linked to 14 % of deaths. Self-reported data show that nearly one in five adults (18.5 %) were obese in 2019, and more than one in five 15-year-olds were overweight or obese in 2018, with a higher share of boys reporting being overweight or obese. Overall, obesity rates – particularly among adolescents – are higher than in many other EU countries (Figure 6). They have also increased over the last decade, although national data indicate that the rate for children has stabilised somewhat since 2015. These trends are driven in part by dietary habits: although the share of adults consuming fruit every day is higher in Germany than in most EU countries, the opposite is true for vegetables. Among adolescents, only 30 % consume fruit and 25 % eat vegetables daily.

Weekly physical activity among adults is more common in Germany than in many EU countries. However, only 10 % of 15-years-olds reported doing at least moderate physical activity every day in 2018 – a lower proportion than in most other European countries (the EU average is 14 %).
Figure 5. Tobacco and dietary risks are major contributors to mortality

Note: The overall number of deaths related to these risk factors is lower than the sum of each one taken individually, because the same death can be attributed to more than one risk factor. Dietary risks include 14 components such as low fruit and vegetable intake, and high sugar-sweetened beverages consumption. Air pollution refers to exposure to PM$_{2.5}$ and ozone.
Sources: IHME (2020), Global Health Data Exchange (estimates refer to 2019).

Smoking among adults and teenagers has decreased, but e-cigarettes have become more popular among young people

Smoking rates have decreased among adults and adolescents over the past decade, but they are still higher than in some EU countries that have achieved further progress. Nearly one in five adults reported smoking every day in 2019, slightly below the EU average. One in seven 15-year-olds reported smoking tobacco (regular cigarettes) in the past month in 2018, down from nearly one in five in 2014. However, use of e-cigarettes and shisha pipes has become more popular, especially among young people, and 16% of 15- and 16-year-olds in Germany reported smoking e-cigarettes in 2019 – a higher proportion than the EU average of 14%, according to the ESPAD survey. Some measures to prevent people from smoking differ between states within Germany; for example, laws on smoking in public places vary from weak regulations to full smoking bans in all public institutions (see Section 5.1).

Heavy drinking persists in Germany

While alcohol consumption among adults has declined slowly over the last 10 years and is just above the EU average (at 10.6 litres per person), the percentage of adults in Germany engaging in binge drinking is high, with one in three adults reporting in 2019 heavy drinking at least once a month. This is the fourth highest share in the EU after Denmark, Romania and Luxembourg. The percentage of 15-year-olds who report having been drunk more than once in their life is also greater than in most EU countries (the sixth highest), and increased between 2014 and 2018, underlining the need for further targeted prevention programmes.

Figure 6. Obesity among adolescents and excessive 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 HBSC survey 2017-18 for adolescents indicators; and EU-SILC 2017 and EHS 2019 for adults indicators.

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 adolescents.
4 The health system

The multi-payer health system provides nearly universal health coverage

Germany has the oldest social health insurance (SHI) system in the world. Health insurance is compulsory, but people with an income above a fixed threshold or belonging to a particular professional group (e.g. self-employed people or civil servants) can opt out of SHI coverage and enrol in (substitutive) private health insurance (PHI). About 11% of the population are covered by PHI; 89% by SHI. Although coverage is universal for all legal residents and only 0.1% of the population do not have health insurance, there are still gaps due to financial or administrative barriers (see Section 5.2). The multi-payer SHI system currently consists of 103 sickness funds and 41 PHI companies, and the three biggest sickness funds cover more than one third of the German population.

Decision-making is shared between the federal and state levels, along with strong self-governing bodies

The German health system has a complex governance structure. The federal government defines only the legal framework, while regulatory details are specified in directives issued by the Federal Joint Committee – the highest self-governing decision-making body in the country. The Committee consists of representatives of associations of sickness funds, physicians, dentists and hospitals, as well as three independent members (plus patient representatives without voting rights). It takes decisions on SHI benefits, reimbursement systems and quality assurance.

The states (Bundesländer) supervise the self-governing bodies at the regional level and are responsible for hospital planning and investments, as well as medical education. They are also responsible for public health services and the running of public health offices, which gained in importance during the COVID-19 crisis. At the same time, the crisis revealed the challenges faced by federal systems in coordinating and managing the pandemic. Governance mechanisms have been put in place to enable rapid, cross-state measures to respond to the crisis through ordinance authorisations, particularly by the Federal Ministry of Health (Box 1).

Box 1. The federal government was granted temporary powers to enable coordinated COVID-19 responses across states

In 2020, a pandemic crisis management system was set up under the leadership of the Federal Ministry of Health and the Ministry of Interior, Building and Community, aided by several public health bodies to provide scientific advice. Moreover, the federal government formed an additional “Corona Cabinet” led by the federal chancellor, which met weekly to coordinate decision-making, although many decisions were made in consultation and negotiation with state leaders, as the states have the powers to implement mitigation policies.

The Federal Ministry of Health had not previously had the authority to enforce measures nationwide and across state lines, so in March 2020, new legislation authorised the Ministry to put in place temporary measures on the provision of pharmaceuticals and medical devices as, well as laboratory diagnostics and items of personal protective equipment. The law also broadened opportunities to strengthen the health workforce and defined protective measures that can be taken by states, such as social distancing requirements and internal movement restrictions.

The parliament held a key oversight role: the federal and state governments could only issue specific COVID-19 ordinances on the basis of defined criteria, and only if the parliament declared an epidemic situation of national scope. For example, measures that involve restricting freedom of assembly, confinement measures or bans on access to care homes must be tied to specific infection incidence rates or other preconditions.

Source: COVID-19 Health Systems and Policies Monitor
Germany has the highest health expenditure among EU Member States

In 2019, Germany devoted EUR 4 505 per capita (adjusted for differences in purchasing power) to health care – the highest level in the EU and 28 % higher than the EU average (Figure 7). The country also spends the highest share of its GDP on health among EU Member States (11.7 % in 2019, compared to the EU average of 9.9 %). The bulk of health care spending is publicly funded: 84.6 % of total health expenditure (including mandatory substitutive PHI) was public in 2019. In the EU, this share was only higher in Luxembourg (85.0 %) and Sweden (84.9 %). Extra public funding was approved in 2020 and 2021 to support the health sector during the COVID-19 pandemic (Box 2).

Figure 7. Germany spends more on health than any other EU country, most of which comes from public sources

Box 2. Funding injections were approved to support health system responses to COVID-19

In response to the COVID-19 health crisis, the federal government provided additional funding to hospitals and clinics across the country for the procurement of masks, gloves and other protective equipment. To shield health care providers from the financial impact of the pandemic, the government compensated hospitals’ loss of earnings caused by the postponement of non-essential surgery and treatment, and granted a bonus for every intensive care unit bed they put in place. Hospitals also received an extra payment of EUR 50 per patient to cover additional costs, particularly for personal protective equipment. Doctors working in medical practices received compensatory payments if they had suffered loss of earnings as a result of the pandemic.


Spending on long-term care has increased since a major reform in 2017

Germany spends almost an equal amount on inpatient and outpatient care. At EUR 1 221 per capita for outpatient care and EUR 1 212 for inpatient care in 2019, these figures are above the EU averages (EUR 1 022 for outpatient and EUR 1 010 for inpatient care), as was Germany’s spending across all categories of health care (Figure 8). However, overall spending has increased more slowly than the EU average since 2016, and the distribution of resources across different functions is close to the EU averages at around 27 % each for inpatient and outpatient care (EU: 29.1 % and 29.5 %), 19 % for long-term care (LTC) (EU: 16 %), 19 % for medical goods (EU: 18 %) and 3 % for prevention (EU: 3 %). Over recent years, LTC spending has grown more strongly than other expenditure categories. In 2015, Germany spent EUR 637 per capita on LTC (the health component); this increased to EUR 849 in 2019. The 2017 reform of LTC increased spending as it expanded the benefits package and increased the number of recipients entitled to LTC services.

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Germany’s high number of hospital beds results in low staff per bed ratios

Germany has a very large hospital inpatient sector, with 7.9 hospital beds per 1,000 population – the highest in the EU and 50% more than the EU average (5.3 beds). Bed capacity has been reduced by only 13% since 2000, whereas countries like Finland and Denmark have reduced capacity by more than 40% over the same period. This high capacity has long been criticised on efficiency grounds, and there are calls to reduce overcapacity. It is noteworthy, though, that during the COVID-19 crisis the high number of hospitals and acute and intensive care beds were available as a reserve to cope with the increase in patients (see Section 5.3).

Germany also has high numbers of physicians and nurses, with per population ratios and growth rates well above the EU average (Figure 9). Growth in physician numbers has been particularly strong for hospital physicians. Since 2004, when the diagnosis-related group (DRG)-based hospital payment system was introduced, the number of doctors (by head count) in hospitals increased by 42% (from 138,000 to 196,000 in 2017), while the number of doctors in ambulatory care increased by 25%. Nevertheless, given the high number of hospital beds, the physician to bed ratio is comparatively low, and the nurse to bed ratio is one of the lowest in the EU.

Recent reforms aim to strengthen numbers of nursing staff

To address reductions in nursing staff working in hospitals since the introduction of the DRG system in 2004, the Nursing Staff Empowerment Act (2019) instructed the self-governing bodies to exclude the costs for nursing personnel from the DRG-based payment system. From 2020, the costs of nursing staff in acute care hospitals are fully covered by the sickness funds, while all other operating cost are covered by DRGs. This is expected to release hospital funds to bolster nurse numbers in these facilities.

Minimum staffing requirements is another tool to increase the number of practising nurses in hospitals. The maximum number of patients per nurse is defined for hospital units where nursing staff are in particular need – such as intensive or geriatric care – to guarantee patient safety. A distinction is also made between day and night shifts. For example, a cardiac surgery unit must have a maximum of 7 patients per nurse on a day shift and a maximum of 15 patients per nurse on a night shift. The minimum staffing requirement was temporarily lifted in 2020 to free up more nurses for COVID-19-related activities (see Section 5.3). Legislation in 2018 further expanded the capacities of nurses in hospitals and in LTC, and reformed salaries and working conditions.
Figure 9. Germany has comparatively high numbers of physicians and nurses for its population

Note: The EU average is unweighted. In Portugal and Greece, data refer to all doctors licensed to practise, resulting in a large overestimation of the number of practising doctors (e.g. of around 30 % in Portugal). In Greece, the number of nurses is underestimated as it only includes those working in hospitals.
Source: Eurostat Database (data refer to 2019 or the nearest year).

5 Performance of the health system

5.1 Effectiveness

Improvements in reducing mortality from treatable and preventable causes are possible

The preventable mortality rate has remained fairly stable in Germany since 2011, in contrast to many other EU countries where it has fallen. In 2018, preventable mortality was lower than the EU average, but the rate (at 156 deaths per 100 000 population) was around 25 % higher than in the five best performing countries (Figure 10). The leading causes of preventable mortality are lung cancer (22 %), alcohol-related diseases (13 %), ischaemic heart disease (12 %) and chronic lower respiratory diseases (10 %). Stronger prevention policies and greater public health efforts could help to reduce preventable mortality. For example, even though lung cancer accounts for over one fifth of preventable deaths, Germany was the last EU country to ban tobacco advertising on billboards and in cinemas in 2020 (the bans were phased in from 2021), and the country has not yet passed a smoking ban in private vehicles to protect children from second-hand smoke. While Germany has taken important steps to enhance health promotion and prevention, the measures and financial support planned in the 2015 Act to Strengthen Health Promotion and Prevention have not yet been fully implemented.

Germany’s mortality rate from treatable causes – namely, deaths avoidable through timely and effective health care – is 85 deaths per 100 000 population; this also remains below the EU average of 92 deaths per 100 000 population. However, in comparison to other western European countries such as France, the Netherlands, Spain and Italy, this rate is rather high. Against the backdrop of a health care system that is generally effective in treating patients, this result reflects the significantly higher prevalence of risk factors to health in Germany. Ischaemic heart disease, colorectal cancer and breast cancer accounted for half of all treatable deaths in 2018.
Figure 10. Overall, mortality from preventable and treatable causes is lower in Germany than in the EU as a whole

Preventable causes of mortality

- Cyprus: 104
- Italy: 104
- Malta: 111
- Spain: 111
- Iceland: 115
- Sweden: 118
- Norway: 120
- Netherlands: 129
- Luxembourg: 130
- Ireland: 134
- France: 134
- Portugal: 138
- Greece: 139
- Belgium: 146
- Denmark: 152
- Germany: 156
- Austria: 157
- Finland: 159
- EU27: 160
- Slovenia: 175
- Czechia: 196
- Poland: 222
- Bulgaria: 226
- Croatia: 239
- Slovakia: 241
- Estonia: 253
- Lithuania: 293
- Romania: 306
- Latvia: 324
- Hungary: 324

Age-standardised mortality rates per 100 000 population

- Lung cancer
- Alcohol related diseases
- Ischaemic heart disease
- Chronic lower respiratory diseases
- Accidents (road and others)
- Others

Treatable causes of mortality

- Norway: 59
- France: 63
- Iceland: 64
- Netherlands: 65
- Spain: 65
- Italy: 65
- Sweden: 66
- Luxembourg: 68
- Belgium: 71
- Finland: 71
- Denmark: 73
- Austria: 75
- Ireland: 76
- Slovenia: 77
- Cyprus: 79
- Portugal: 83
- Germany: 85
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- Czechia: 124
- Poland: 133
- Croatia: 133
- Estonia: 133
- Slovakia: 165
- Hungary: 176
- Lithuania: 186
- Bulgaria: 188
- Latvia: 196
- Romania: 210

Age-standardised mortality rates per 100 000 population

- Ischaemic heart disease
- Colorectal cancer
- Breast cancer
- Cerebrovascular disease
- Pneumonia
- Others

Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Treatable mortality is defined as death that can be mainly avoided through health care interventions, including screening and treatment. Half of all deaths for some diseases (e.g. ischaemic heart disease and cerebrovascular disease) are attributed to preventable mortality, the other half are attributed to treatable causes. 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 2018, except for France 2016).

A high and increasing rate of avoidable hospital admissions may point to shortcomings in ambulatory care

Hospital admission rates for asthma and COPD, congestive heart failure and diabetes are higher in Germany than on average in the EU. Admissions of patients with these conditions are generally considered to be avoidable because they can be treated effectively in outpatient care. Disease prevalence may explain some variation in the rates across countries, but in Germany a lack of effective coordination within ambulatory (outpatient) care and strong sectoral boundaries between ambulatory and inpatient care are likely to be contributing factors to the higher rates.

The hospital admission rate for asthma and COPD has generally decreased in the EU. It was lower in Germany (216 admissions per 100 000 population) than the EU average (279) in 2007, but since then it has steadily increased, surpassing the EU average in 2011, and reaching 281 per 100 000 population in 2019, compared to 235 in the EU (Figure 11).
**Influenza vaccination coverage among older people is low**

In Germany, vaccination against seasonal influenza is recommended for people from 60 years of age, among other groups, but immunisation rates in this population group are low. In 2019, around 39% of people over 60 were vaccinated against influenza, a level that has remained fairly constant over the last 10 years. Survey results show that a large share of adults at increased risk of developing influenza-related complications did not perceive it to be a dangerous illness and doubted the safety and effectiveness of the vaccination (Bödeker et al., 2015).

Interestingly, increased education about infection control and prevention in the wake of the COVID-19 crisis appears to have had an effect on vaccination behaviour. In the 2020/21 season, the availability of the influenza vaccine could not meet demand, causing the government to procure additional doses. As a result, more than 26 million doses of influenza vaccine were available that season, which is almost twice as many as the 2019/20 season, when 14 million doses were administered. Indeed, at the start of the flu season in autumn 2020, more people in Germany had received flu vaccinations than in previous years. According to national data, with 1.8 million vaccinations in September 2020, there had been a 165% increase compared to the same period the previous year.

**Cancer care is proving effective**

Germany has relatively high survival rates for breast, cervical and colon cancer (Figure 12). Survival rates for some of these cancers have remained stable over time, while for others they have slightly improved since 2000. Improvements are partly due to advances in cancer care. Germany has had a National Cancer Plan in place since 2008, which aims to develop early cancer detection through screening as well as the care structures of specialised and certified cancer centres, to ensure efficient treatment and to strengthen patient pathways. These strategies are bolstered by more recent initiatives at both the national and European levels (Box 3).

**Figure 11. Avoidable admission rates for asthma and COPD are relatively high**

![Graph showing avoidable admission rates for asthma and COPD](source)

Source: OECD Health Statistics 2021

**Figure 12. Germany’s five-year net survival rates are mostly above the EU average**

![Survival rates graph](source)

Note: Data refer to people diagnosed between 2010 and 2014. Childhood leukaemia refers to acute lymphoblastic cancer.

Source: CONCORD Programme, London School of Hygiene and Tropical Medicine.
COVID-19 had a dampening effect on uptake of the breast cancer screening programme

High survival rates notwithstanding, in 2018, only one in two women between the ages of 50 and 69 had participated in breast cancer screening in the last two years, which is lower than in most other EU countries and below the EU average of 57.4% (in 2019). In fact, the share of screened women decreased by 8% between 2009 (54.4%) and 2018 (50.1%) (Figure 13).

Moreover, in the first wave of the COVID-19 pandemic, and especially during the lockdown in March/April 2020, the temporary suspension of the mammography screening programme contributed to a reduction of up to 97% in this early detection activity between March and May 2020. National data for the third quarter of 2020 show a slow recovery of the numbers, but no catch-up effect as yet (ZI, 2020).

Figure 13. Only about 50% of women in Germany participated in the recommended mammography screening

Note: The EU average is unweighted. For most countries, the data are based on screening programmes, not surveys. Data for Germany refer to 2018.
Sources: OECD Health Statistics 2021 and Eurostat Database.
5.2 Accessibility

Small gaps in population coverage still exist despite policy efforts

Health insurance – either SHI or substitutive PHI (see Section 4) – is mandatory in Germany, resulting in nearly universal coverage for residents (99.9 %), but certain population groups are at risk of not having health insurance. Between 2015 and 2019, the share of uninsured individuals decreased from around 79 000 to 61 000 people, of whom the majority were male (64 %). Self-employed and unemployed people were particularly likely to lack health insurance coverage in 2019. Legislation in 2013 and 2018 aimed to reduce the risk of not having health insurance due to financial or administrative hurdles, which are the main barriers.

Germany provides comprehensive benefits coverage, but with limited initial access for migrants

SHI covers a broad benefits package, well beyond essential services, and benefits are the same for everyone who is insured. Individuals covered by substitutive PHI usually enjoy benefits equal to or better than those covered by SHI (with some exemptions, such as prevention or psychotherapy). This depends, however, on the chosen insurance policy/plan and the differences in the scope of coverage; these differences are reflected in the premium. During the first 15 months of their stay, benefits coverage is limited for asylum seekers, recognised refugees and undocumented migrants. During this time they are often only entitled to emergency care, maternity care and preventive care (including screening and all recommended vaccinations).

SHI covers a very large proportion of the costs for hospital and outpatient care, as well as for all licensed prescription pharmaceuticals (Figure 14). Particularly with regard to dental care, SHI provides around twice as much public coverage as the EU average, although considerable user charges still apply for dental services. SHI also fully covers the costs of a PCR coronavirus test if an SHI-licensed physician has prescribed the test or the public health department deems testing to be necessary.

Out-of-pocket spending mostly relates to long-term care and pharmaceuticals

Out-of-pocket (OOP) payments accounted for 12.7 % of Germany’s health expenditure in 2019 – below the EU average of 15.4 %. About one third of OOP expenditure is directed to LTC (35 % in 2019) (Figure 15). This relatively high share can be explained by the fact that SHI usually covers only around 50 % of total costs for LTC delivered in institutions. After LTC, a sizeable share of OOP spending in Germany is on pharmaceuticals (20 % of OOP spending, mostly for over-the-counter medicines), therapeutic items such as spectacles and hearing aids (16 %) and dental care (13 %). For SHI patients, OOP spending on outpatient medical care relates exclusively to what are known as “individual health services”, such as some ophthalmic services or additional diagnostics during pregnancy, which are provided in ambulatory care settings. In contrast to substitutive PHI, SHI does not cover these services because they have not (yet) demonstrated therapeutic benefit.
### Self-reported unmet needs for medical and dental care are among the lowest in the EU

Prior to the COVID-19 pandemic, Germany had one of the lowest levels of unmet needs for medical care due to financial reasons, distance or waiting times in the EU. Only 0.3% of the population reported having forgone needed care in 2019 (Figure 16). As in most EU countries, unmet needs are higher for lower than for higher income groups, but the difference between income groups is much smaller in Germany than in most other countries. In 2019, 0.7% of Germans in the lowest income quintile reported an unmet medical need, whereas nobody (0%) in the highest income quintile experienced financial hardship. Levels of unmet needs for dental care are similarly low: the proportion of people who reported forgoing dental care was 0.4%, varying between 0.8% in the lowest income quintile and 0% in the highest.

### Figure 15. Long-term care accounts for the highest share of a comparatively low out-of-pocket spending rate

**Notes:** The EU average is weighted. VHI = voluntary health insurance, which includes other voluntary prepayment schemes.
**Sources:** OECD Health Statistics 2021; Eurostat Database (data refer to 2019).

**Table: Overall share of health spending**

| Spending by function | Germany | EU
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**Table: Distribution of OOP spending by function**

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### Figure 16. Germans reported almost no unmet needs prior to the pandemic

**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 2019, except Iceland 2018).
The COVID-19 pandemic led to delayed and forgone care, but also to a surge in teleconsultations.

The demand for COVID-19-related care and the introduction of containment measures during the pandemic were drivers of delayed consultations and treatment, as well as for increasing levels of unmet needs. The Eurofound survey found that during the first 12 months of the COVID-19 pandemic, 14 % of Germany respondents reported unmet needs for medical care compared to 21 % across the EU as a whole (Eurofound, 2021). Although medical practices in ambulatory care were never closed, patients made significantly less use of primary care and psychotherapy services during March 2020 than in the previous year. Utilisation only gradually returned to normal towards the end of May. Thus, the number of cases in ambulatory care was 23 % lower in the period 1-28 April 2020 and 15 % lower from 29 April to 26 May 2020 compared to the same periods in the previous year (ZI, 2020).

At the same time, regulations and payment of teleconsultations for physicians and psychotherapists were expanded. Some 23 % of Germans reported having a medical consultation online or by telephone during the first 12 months of the pandemic, compared with an average of 39 % in the EU as a whole (Eurofound, 2021). National data reported by the Federal Association of SHI Physicians show that during the early months of the pandemic the number of teleconsultations increased from 1 700 in January and February 2020 to 19 500 in April.

Germany guarantees good access to pharmaceuticals and provides generic drugs efficiently.

Generic prescribing is an important driver of efficiency and is one of the tools that ensures good access to pharmaceuticals for the population – a key goal of the new pharmaceutical strategy for Europe (European Commission, 2020). The growing generic market share in Germany is the highest in the EU, at 83 % by volume. By value, 32 % of the publicly funded pharmaceutical market consists of generics. This is due to pharmaceutical policies relying on mandatory discounts and reference price setting for groups of comparable drugs. Unlike many other countries, Germany does not have a positive list of SHI-covered pharmaceuticals. Instead, all licensed prescription medicines are generally reimbursable (with cost-sharing), including new and often very expensive ones, if they pass a comparative benefit assessment. As a result, the share of people reporting unmet needs for prescribed medicines for financial reasons is low, at 3.7 % (compared to an EU average of 6.2 %).

5.3 Resilience

This section on resilience focuses mainly on the impacts of and responses to the COVID-19 pandemic. As noted in Section 2, the COVID-19 pandemic had a major impact on population health and mortality in Germany with over 92 000 COVID-19 deaths recorded between January 2020 and the end of August 2021. Measures taken to contain the pandemic also had an impact on the economy. German GDP fell by 5 % in 2020, although this is lower than the rate across the EU as a whole (6.2 %).

Germany responded to the pandemic with a variety of containment measures.

After the first cases of COVID-19 were identified in Germany in early 2020, measures were implemented to contain the virus, such as cancellation of events with more than 1 000 participants, travel restrictions and the closure of some shops. After reaching a peak of laboratory-confirmed cases during the first wave of the pandemic (Figure 17), the federal and state governments decided to impose far-reaching restrictions on public life, resulting in the first lockdown, which included the closure of schools and childcare facilities. In May, the federal states took responsibility for loosening containment measures. Following a surge of cases after summer 2020, a hotspot strategy was implemented, according to which stricter infection control measures should apply in counties or independent cities with particularly high case incidence rates. The implementation of new mitigation measures at the beginning of November 2020 (such as closure of restaurants) halted the rise in cases temporarily, but at a much higher level. Case numbers then increased again sharply in December 2020, at which point a second lockdown was introduced. The duration of these restrictions was extended several times until early March 2021, when the federal and state governments agreed on a re-opening roadmap based on the development of each federal state’s local epidemiological situation. From April 2021, this hotspot approach to mitigation measures was continued, and case numbers only started to rise again from July 2021.
Most sectors were well prepared for a public health emergency

Germany had an effective initial response to the COVID-19 pandemic in early 2020. It was prepared relatively well for a public health emergency, putting its pandemic emergency preparedness plan into place quickly, and had strong capacity in disease surveillance, detection and testing. Responses regarding borders and points of entry included the establishment of COVID-19 test centres at several airports, train stations and motorway service stations. For example, in the second week of October 2020, 31,687 tests were reported at these entry points, of which 421 (1.3%) were positive (RKI, 2020).

A broad PCR testing strategy for COVID-19 was enabled by good laboratory capacity

Germany’s large laboratory capacity put the country in a good position to detect emerging diseases accurately and in good time. The number of COVID-19 PCR tests performed in Germany was higher than the EU average at the beginning of the pandemic (Figure 18). This high number of tests early on and the related data on test positivity rates allowed German health authorities to track the spread of COVID-19 with a high level of accuracy. Over the course of the pandemic, laboratory capacity was further expanded to enable a broad testing strategy. With the onset of the second wave in autumn 2020, an anticipated increase in seasonal respiratory tract infections and overburdened physicians’ offices and laboratories meant that the testing criteria for people with mild symptoms were changed, leading to a decreased testing rate. However, the policy reverted a few weeks later to recommend PCR tests for all symptomatic people, regardless of symptom severity. In 2021, free antigen tests were available for everyone, and confirmatory PCR tests were available for those requiring one.
The availability of acute care and intensive care unit beds was not at risk at any time during the pandemic

Pre-pandemic hospital and intensive care unit (ICU) capacity in Germany was the highest among EU countries, providing 602 acute hospitals beds and 33.4 ICU beds per 100,000 population in 2018. Many countries increased their ICU capacity during the first wave of the pandemic to respond to the demand for hospital and intensive care. Germany increased its initial ICU capacity by 20% to 39.5 ICU beds per 100,000 population in April 2020, mostly by shifting capacities through postponing and cancelling planned and elective procedures. ICU beds occupied by COVID-19 patients remained far from saturation until the end of 2020 (Figure 19) and beyond. The German Interdisciplinary Association for Intensive and Emergency Care (DIVI) created a registry to monitor ICU occupancy rates more closely and to identify hospitals with free ICU capacity.

The clinical health workforce was strengthened to meet needs, particularly in hospitals

The density of practising physicians and nurses in Germany is well above the EU average (see Section 4). Despite this, the clinical workforce has generally faced high workloads in ICUs and other wards, as well as nursing shortages, reflected in low rates of nurses per ICU hospital bed; for example, in 2017, there were 34,703 nurses with a specialisation in ICU care for an estimated 27,463 intensive care beds (DIVI, 2020).

Figure 18. Germany demonstrated high COVID-19 testing activity, particularly at the beginning of the pandemic

Note: The EU average is weighted (the number of countries included in the average varies depending on the week).
Source: ECDC.

Figure 19. Germany boosted its intensive care unit capacity by 20% at the start of the pandemic

Note: The blue line represents the daily number of COVID-19 patients in ICU units; the orange line represents the initial bed capacity in ICU units before the pandemic; the orange dashed line represents the additional bed capacity mobilised during the pandemic in 2020.
Staffing levels in intensive care and geriatric care were suspended between March and August 2020, and for high-maintenance areas such as trauma surgery, heart surgery, neurology and in stroke units until the end of the year. In addition, a series of measures were employed to scale up workforce capacity during the first wave of the pandemic. These included asking part-time health professionals to work full time and asking retired health professionals to return to clinical practice. The authorities also called on medical, nursing and allied health students to work in clinical practice and eased mutual recognition procedures for foreign-trained health professionals.

**The capacity of public health offices was expanded**

In the summer of 2020, around 13,900 physicians and non-medical staff worked in Germany’s 375 public health offices, which are the agencies that are, among other things, responsible for monitoring infectious diseases at the regional level. Around 5,900 additional employees were deployed, primarily for contact tracing and testing and to control quarantining. However, these public health offices often struggled with their workloads due to a lack of information technology and digitalised processes. They, along with local authorities, also struggled to find enough people to administer COVID-19 tests or trace infection chains, so the German military offered support throughout the pandemic. In early November 2020, 300 operations were carried out by the military, deploying a total of 3,000 members of the armed forces to take on tasks such as providing advice and carrying out COVID-19 tests in airports. In addition, from spring 2020, over 1,500 “containment scouts” were deployed temporarily, as needed, under an initiative to support the work of public health offices. Medical and health sciences students, as well as other people with suitable skills, undertook tasks such as contact tracing and assisting with COVID-19 advisory hotlines. They were either based at a permanent office or – if required – sent to support particularly overburdened health offices at short notice.

**Uptake of the contact tracing app was high, despite initial criticism and scepticism among the population**

In early March 2020, the government started developing a smartphone application using Bluetooth to trace possible chains of COVID-19 infection. Following a great deal of criticism and public debate regarding data storage and data protection, the decentralised Corona-Warn-App was launched in June 2020. The app helps to notify users as quickly as possible if they have been exposed to a person diagnosed with COVID-19, and to trace and identify infection chains. In addition to the core functionality of anonymous contact tracking, features were expanded to establish European interoperability, event registration, integration of rapid antigen test results and the ability to view EU digital COVID-19 certificates. By April 2021, around 31% of the German population had downloaded the app (Figure 20).

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**Figure 20. One in three Germans had downloaded the tracing Corona-Warn-App by April 2021**

% of the population who downloaded the app

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Source: National data.

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**The rollout of COVID-19 vaccines has progressed quickly**

Due to initially low supplies of COVID-19 vaccines, Germany’s vaccination strategy followed a hierarchical plan, with three priority stages according to age, disease groups at high risk or risk of exposure. The vaccination campaign began in December 2020, with hospitals offering inoculations for front-line health workers, and mobile teams
providing vaccinations to residents and workers in LTC facilities. In addition to these, vaccinations were carried out in around 440 vaccination centres and – from early April 2021 – in up to 70 000 ambulatory practices throughout the country. By 21 June 2021, around 34 % of the population had received two doses (or equivalent), rising to 60 % by the end of August (Figure 21).

Figure 21. Rising COVID-19 vaccination rates in Germany coincided with a fall in deaths

![Weekly deaths per 1 000 000 population vs % of the population with two doses (or equivalent)](image)

Note: The EU average is unweighted (the number of countries used for the average varies depending on the week). Sources: ECDC for COVID-19 deaths and Our World In Data for vaccination rates.

Germany’s EU presidency in 2020 prioritised health data and information systems

The COVID-19 pandemic has shown that data exchange between health care providers and availability of national datasets in research is essential for a well-functioning and fast-responding health care system. Particular challenges for Germany during the pandemic were slow digitalisation in public health offices and delays in transmitting data to the Robert Koch-Institute, the body responsible for monitoring and evaluating information on COVID-19 cases and deaths. However, the introduction of the German Electronic Reporting and Information System for Infection Control in 2020 was a significant development, which led to digital reporting of positive COVID-19 test results from laboratories to health authorities and the Robert Koch-Institute.

Generally, the use of health data and information systems is less advanced in Germany than in several other European countries, partly due to the complex structure of the health system. The Digital Healthcare Act (2019) lays the legal foundation to transfer data from the sickness funds into a research data centre and make it accessible to the scientific community, while the Public Health Pact, agreed in 2020, will promote the digitalisation of public health services.

To reinforce the importance of this policy area, Germany placed digitalisation and the safe exchange of health-related data within the EU on the agenda of its presidency of the Council of the EU during 2020, leading to the new initiative of the European Health Data Space (European Commission, 2021b), which is expected to promote better exchange and access to different types of health data (such as electronic health records, genomics data, data from patient registries), to support health care delivery, health research and policy-making.

The pandemic has boosted structural investment in the health system, particularly hospitals

Capital investment accounted for 5.9 % of total health expenditure in 2018. Although this had decreased considerably between 2005 and 2016, it was still higher than the EU average (5.0 %). In the wake of the COVID-19 pandemic, the federal government began implementing the Hospitals of the Future Programme, adopted in June 2020. Funding for the programme has been incorporated into Germany’s National Recovery and Resilience Plan. It is the largest single measure in the Plan and worth EUR 4.3 billion – dedicated to investments in modern emergency capacity and better digital infrastructure for hospitals. In 2021, the federal government also provided retroactive funding for research and development to enable the early and large-scale delivery of an effective and safe COVID-19 vaccine. Three individual projects were funded with a total of more than EUR 740 million.
6 Key findings

- Life expectancy in Germany is higher than in the EU as a whole despite a temporary drop of 2.5 months in 2020 due to the COVID-19 pandemic. Ischaemic heart disease, stroke and lung cancer remain the main causes of mortality, and risk factors – including smoking and poor diet – account for about 4 in 10 deaths. Progress has been made in reducing smoking and alcohol consumption among adults and children, but heavy drinking, poor diets and tobacco use are still challenges that need to be addressed to improve the health status of the population.

- Germany spends more of its wealth on health than any other EU country, and most comes from public sources. Health expenditure per capita is the highest among Member States. This robust funding is reflected in the resources Germany has at its disposal: it provides the highest number of hospital beds per population in the EU, and the rates of physicians and nurses per population are well above the EU average.

- Mortality from preventable and treatable causes is lower in Germany than the EU average, but considerably higher than in several other European countries. Comparatively strong separation between ambulatory and hospital care and a lack of effective coordination between primary and specialist ambulatory care has led to problems with continuity and coordination. Higher-than-average cancer survival rates suggest that the quality of cancer care is good, and that treatment is effective. Germany’s National Cancer Plan aims to develop early cancer detection and the care structures of specialised and certified cancer centres.

- Access to health services is very good. The population has access to a broad benefits package, and out-of-pocket payments by households accounted for only for 12.7 % of health expenditure in 2019, which is below the EU average (15.4 %). Prior to the COVID-19 pandemic, self-reported unmet needs for medical care were close to zero, but surveys show that this rate increased considerably in 2020. The pandemic led to delayed and forgone care, but also to a higher uptake of e-health options, such as medical teleconsultations.

- Germany acted rapidly in response to the COVID-19 pandemic, and was relatively well prepared in terms of health infrastructure and resources. The country demonstrated high testing activity from the beginning of the crisis, which was enabled by good laboratory capacity, but later surges in cases saw this capacity stretched to its limits. The availability of intensive care unit beds was not at risk during the first wave of the pandemic or the second, which saw a higher number of positive cases. The number of health workers was scaled up, and overburdened public health offices received help from the military and ‘containment scouts’ to conduct contact tracing.

- The COVID-19 crisis also revealed the challenges faced by federal systems in coordinating and managing the pandemic. To tackle problems like ensuring consistency in regulations across states in lockdown measures or testing strategies, governance mechanisms were put in place to enable rapid, cross-state measures to respond to the crisis through ordinance authorisations, particularly by the Federal Ministry of Health.
**Key sources**


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**References**


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European Commission (2021b), *The European Health Data Space*.


WHO Regional Office for Europe, European Commission, European Observatory on Health Systems and Policies (2021), *COVID-19 Health Systems Response Monitor – German*.


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**Country abbreviations**

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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


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