European Commission

State of Health in the EU

Bulgaria

Country Health Profile 2021

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 Systems Performance Assessment (HSPA).

Contents

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.

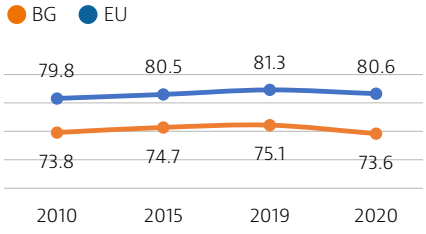
Demographic and socioeconomic context in Bulgaria, 2020

Demographic factors	Bulgaria	EU
Population size (mid-year estimates)	6 951 482	447 319 916
Share of population over age 65 (%)	21.6	20.6
Fertility rate[1] (2019)	1.6	1.5
Socioeconomic factors		
GDP per capita (EUR PPP[2])	16 268	29 801
Relative poverty rate[3] (%, 2019)	22.6	16.5
Unemployment rate (%)	5.1	7.1

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. For EU27, 2020. 3. Percentage of persons living with less than 60 % of median equivalised disposable income. Source: Eurostat database.

1 Highlights

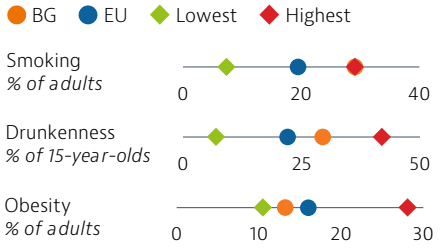
The COVID-19 pandemic has temporarily reversed years of progress in life expectancy among Bulgarians, for whom life expectancy was already the lowest in the EU in 2019. Despite health system improvements over the last decade, the impact of persistently high risk factors, high out-of-pocket payments and excessively hospital-centred care continue to hamper the system's performance. The COVID-19 pandemic highlighted the need for additional investment in the health sector, including better preparedness for future health system shocks. For Bulgaria, this challenge also includes investment to create a uniform health information system to speed up the use of e-health and to ensure appropriate working conditions for the health workforce.



Life expectancy gains, years

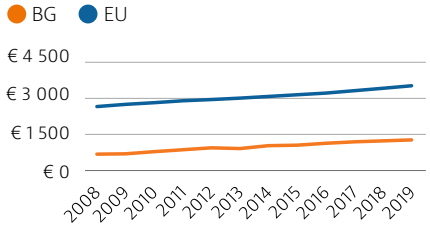
Health Status

Overall life expectancy at birth in Bulgaria temporarily fell by 1.5 years in 2020 compared to 2019, largely due to the high number of deaths from the COVID-19 pandemic. Stroke, ischaemic heart disease and lung cancer are the leading causes of death and accounted for one third of all deaths in 2018.



Risk factors

Smoking, unhealthy diets, alcohol consumption and low physical activity are responsible for nearly half of all deaths in Bulgaria. The adult and adolescent smoking rates are the highest in the EU. Alcohol consumption among adolescents is also a concern. In contrast, obesity among adults is below the EU average.



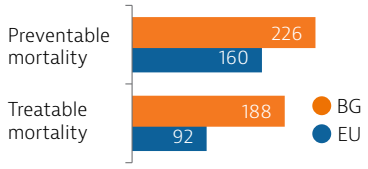
Per capita spending (EUR PPP)

Health system

Bulgaria's health expenditure per capita has doubled overall since 2005. However, it remains much lower than that of the EU as a whole, both in absolute terms and as a share of GDP. Public financing of the health system accounted for 61 % of health spending in 2019. Out-of-pocket spending (38 %), driven mainly by costs for outpatient pharmaceuticals, was more than 2.5 times the EU average.

Effectiveness

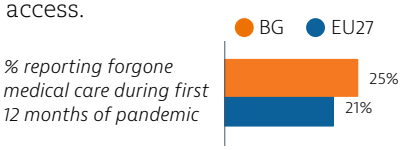
Deaths from both preventable and treatable causes are well above the rates for the EU as a whole, reflecting weak primary prevention and health promotion activities, as well as the need to improve diagnosis and treatment protocols for leading causes of death. Survival rates for the most prevalent cancers are among the lowest in the EU.



Age-standardised mortality rate per 100 000 population, 2018

Accessibility

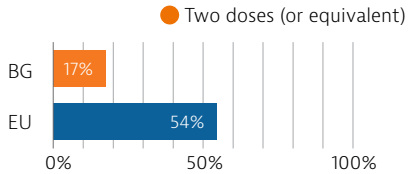
Prior to the COVID-19 pandemic, Bulgaria's rate of self-reported unmet medical needs had declined to reach just below the EU's average. However, during the first 12 months of the pandemic, nearly 25 % of the population reported having to forgo care. Out-of-pocket spending levels, insurance coverage gaps, referral quotas and uneven distribution of medical personnel and equipment across the country remain challenges to access.



% reporting forgone medical care during first 12 months of pandemic

Resilience

Bulgaria had enough intensive care unit and acute bed capacity to treat COVID-19 cases when the hospital system came under strain. The rollout of Bulgaria's COVID-19 vaccination campaign has been slow and, as of the end of August 2021, only 17 % of the population had received two doses (or equivalent).



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

2 Health in Bulgaria

The COVID-19 pandemic has had a dramatic influence on life expectancy

While life expectancy in Bulgaria increased overall from 71.6 years in 2000 to 73.6 years in 2020, as of 2020 it remained the lowest in the EU, and a full 7 years below the EU average in 2020 (Figure 1). Moreover, the outbreak of COVID-19 led to a significant, temporary drop of 1.5 years in life expectancy between 2019 and 2020 – twice as large as the level for the EU as a whole. Life expectancy gains were greater among women than men, thereby widening the gender gap to 7.6 years, compared to 5.6 years on average in the EU. Despite this, Bulgarian women in 2020 had the shortest life expectancy at birth for women in the EU, at 77.5 years.

Figure 1. Life expectancy at birth in Bulgaria remains the lowest in the EU

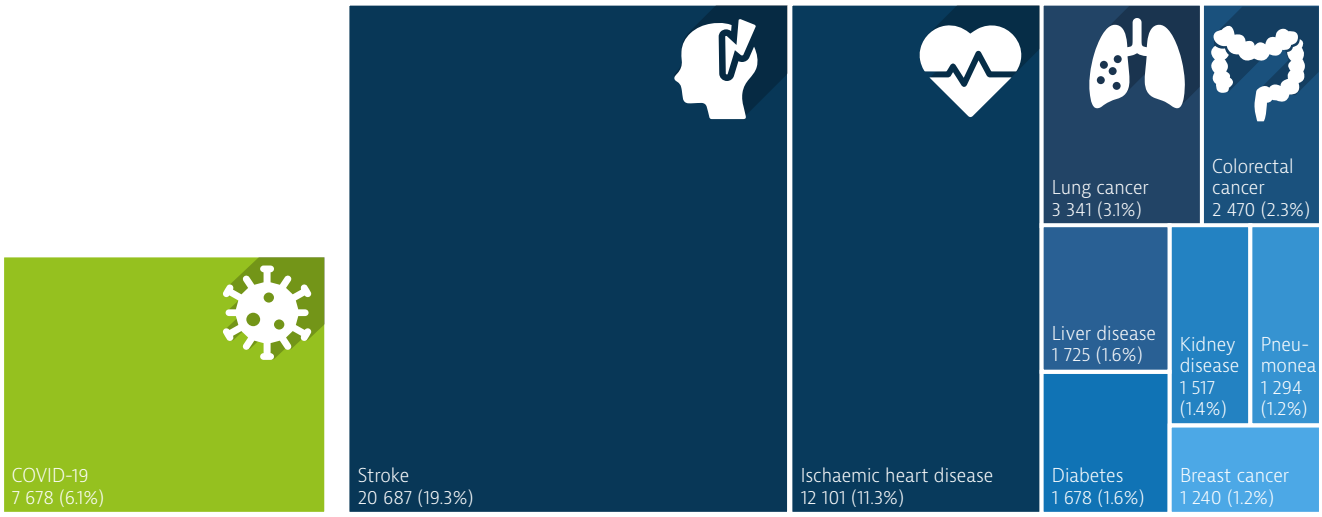
Note: The EU average is weighted. Data for Ireland refer to 2019.
Source: Eurostat Database.

Cardiovascular diseases are the leading cause of death, but COVID-19 accounted for many deaths in 2020

Stroke was the leading cause of death in Bulgaria in 2018, accounting for nearly 20 % of all deaths (Figure 2). Mortality from ischaemic heart disease was the next leading cause, accounting for 11 % of all deaths, despite sharp reductions since 2000. The drop was more marked among women than men, partly from a reduction in some behavioural risk factors and improved early detection and treatment (such as free annual check-ups for cardiovascular diseases – see Section 5.1) and increased use of hypertension medication. Lung cancer was the most frequent cause of death by cancer, followed by colorectal cancer.

In 2020, Bulgaria reported almost 7 700 deaths due to COVID-19 – an estimated 6 % of all deaths. An additional 11 050 deaths were registered between January and the end of August 2021. The majority of deaths have been among people aged 60 and over. The mortality rate from COVID-19 up to the end of August 2021 was about 65 % higher in Bulgaria than the average across EU countries (approximately 2 695 per million population compared with about 1 590 for the EU average). Moreover, the broader indicator of excess mortality suggests that the direct and indirect death toll related to COVID-19 in Bulgaria might be substantially higher (Box 1).

Figure 2. Cardiovascular diseases normally account for most deaths, but COVID-19 was responsible for a substantial share in 2020



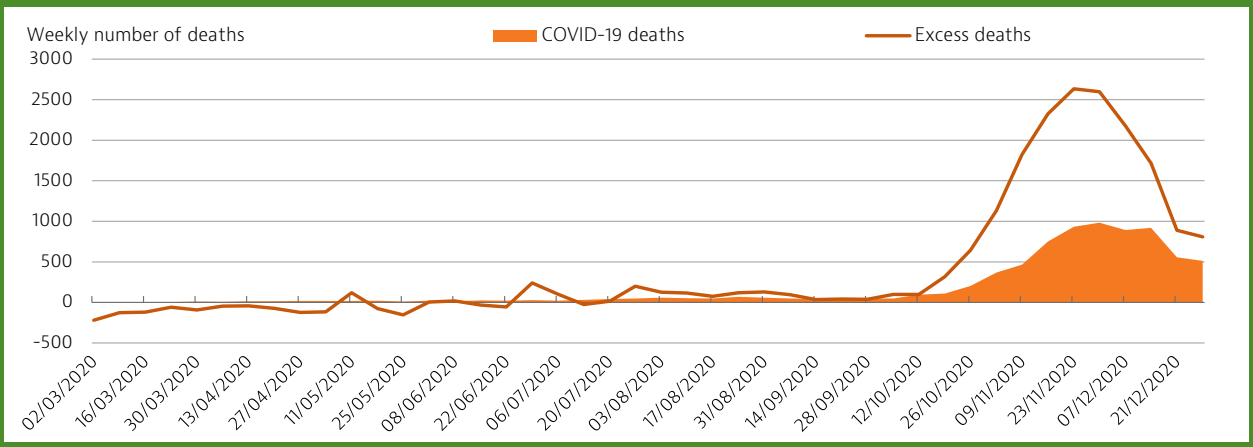
Note: The number and share of COVID-19 deaths refer to 2020, while the number and share of other causes refer to 2018. The size of the COVID-19 box is proportional to the size of the other main causes of death in 2018.
Sources: Eurostat (for causes of death in 2018); ECDC (for COVID-19 deaths in 2020, up to week 53).

Box 1. The gap between recorded COVID-19 deaths and excess mortality in Bulgaria in 2020 was large

In Bulgaria, as in other countries, the actual number of deaths from COVID-19 is likely to have been higher than the number of reported deaths because of limited testing and issues related to attributing causes of death. The number of COVID-19 deaths also does not consider possible increases in deaths from other causes that may arise during or after the pandemic – for example, due to reduced access to health services for non-COVID-19 patients or fewer people seeking treatment out of fear of catching the virus (indirect deaths). The indicator of excess mortality (defined as number of deaths from all causes over what would have been expected based on the baseline from previous years) provides a broader measure of the direct and indirect deaths due to COVID-19 that is less affected by issues related to testing and causes of death registration.

Bulgaria was hit hard by the second wave of the pandemic: roughly 89 % of 2020 deaths attributed to COVID-19 as the leading cause occurred in the last quarter of the year (Figure 3). Throughout this period, the number of excess deaths in Bulgaria was consistently higher than reported COVID-19 deaths. Overall, excess mortality between early March and the end of December 2020 (17 000 deaths) was more than double that of reported COVID-19 deaths (7 678 deaths).

Figure 3. COVID-19 and excess deaths peaked in autumn 2020 in Bulgaria



Note: The calculation of excess deaths is based on the average with the previous five years (2015-19).
Sources: ECDC (for COVID-19 deaths); OECD based on Eurostat data (for excess deaths).

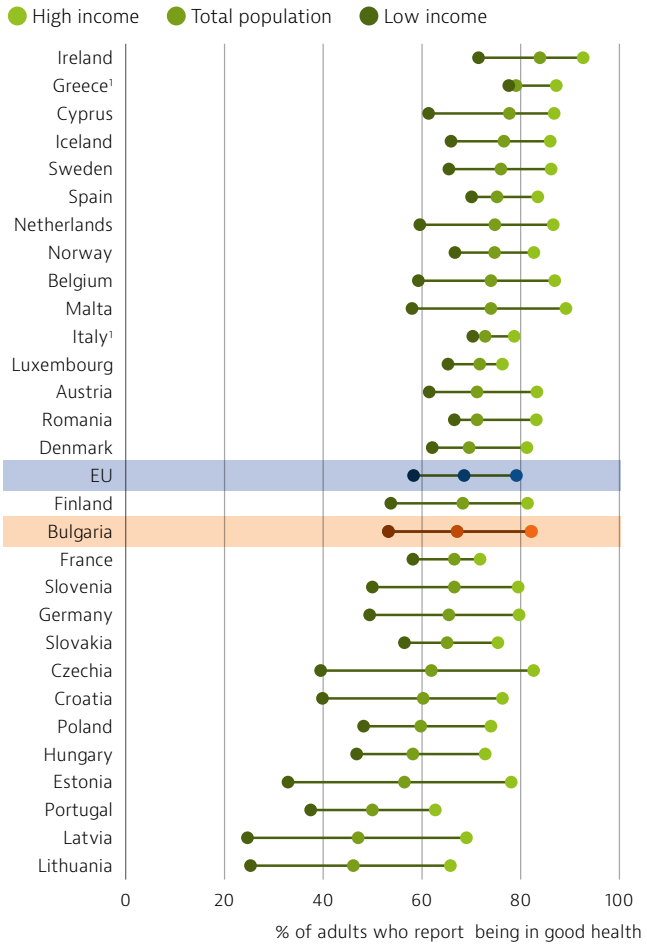
Most people report being in good health, but stark disparities exist by income group

In 2019, two thirds of Bulgarians reported being in good health, which is close to the average for the EU as a whole (69 %) (Figure 4). However, as in other EU countries, large disparities exist across income groups. More than four in five people in the highest income quintile considered themselves to be in good health, compared with only about half of those in the lowest.

The burden of cancer is considerable in Bulgaria

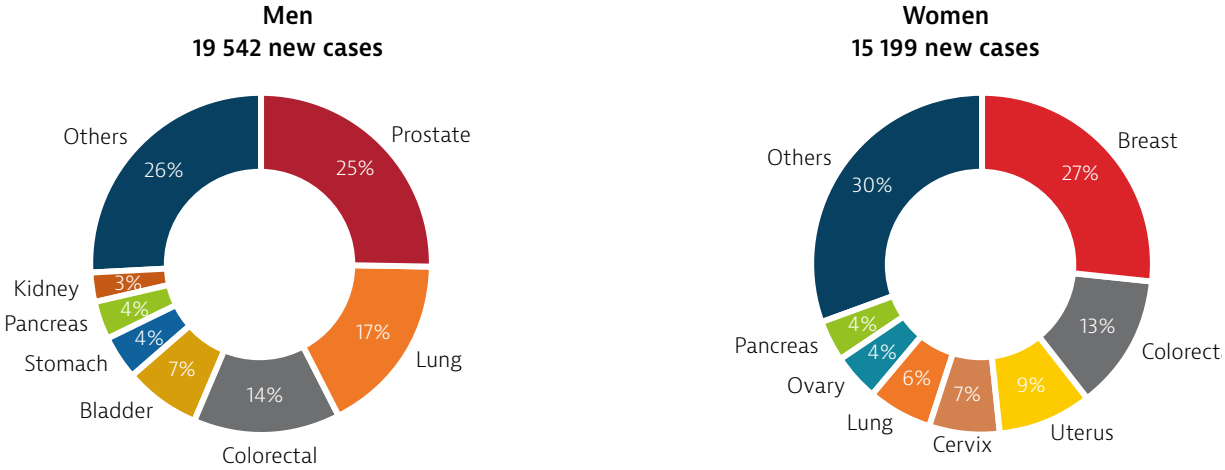
According to estimates from the Joint Research Centre based on incidence trends from previous years, around 35 000 new cases of cancer and about 20 000 deaths from cancer were expected in Bulgaria in 2020[1]. While cancer incidence is lower in Bulgaria than in the EU, overall mortality from cancer (258 deaths per 100 000 population) is close to the EU average (264 deaths per 100 000 population). The lower incidence, coupled with average cancer survival rates and low uptake for preventive check-ups and screenings (see Section 5.1) suggests a level of under-diagnosis or challenges in providing effective treatment. Figure 5 shows that the main cancer types among men are prostate (25 %), lung (17 %) and colorectal (14 %), while among women breast cancer is the leading cancer (27 %), followed by colorectal (13 %) and uterine cancer (9 %).

Figure 4. Two thirds of Bulgarians rate their health positively



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).

Figure 5. An estimated 35 000 people in Bulgaria 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.

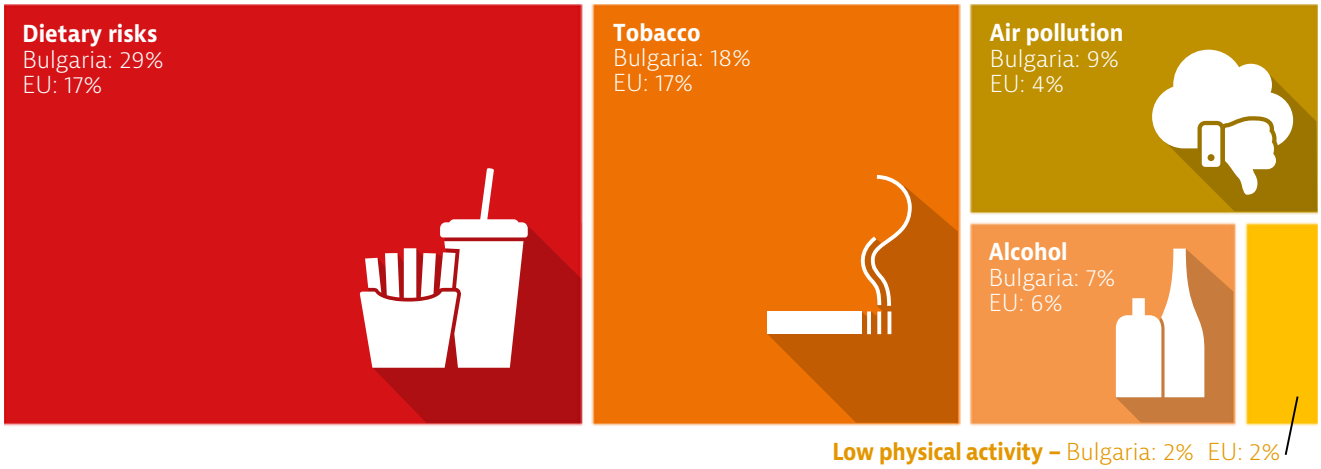
1. It should be noted that these estimates were made before the COVID-19 pandemic; this may have an effect on both the incidence and mortality rates of cancer during 2020.

3 Risk factors

Behavioural and environmental risk factors account for nearly half of all deaths

Almost half of all deaths in Bulgaria can be attributed to behavioural risk factors, including tobacco smoking, unhealthy diets, alcohol consumption and low physical activity. Environmental factors also account for a considerable number of deaths (Figure 6). Poor diet, including low fruit and vegetable intake and high sugar and salt consumption, was implicated in 29 % of all deaths in 2019 – the highest proportion in the EU. Tobacco consumption contributed to an estimated 18 % of all deaths, while around 7 % were attributable to alcohol consumption, and 2 % to low levels of physical activity. Fine particulate matter ($PM_{2.5}$) and ozone exposure alone accounted for an estimated 9 % of all deaths in 2019 (over 11 000 deaths), which is higher than the EU average (4 %). Air pollution contributed to deaths from circulatory diseases, respiratory diseases and some cancers.

Figure 6. Poor diet, tobacco and air pollution are major contributors to mortality in Bulgaria



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).

Bulgaria has the highest smoking rates among adults and adolescents

While Bulgaria has recently achieved some progress in tobacco control (see Section 5.1), smoking remains a major public health problem (Figure 7). The rate of adult smoking is the highest in the EU, with nearly one in three adults (29 %) smoking daily in 2019. Teenage smoking, at 32 %, is also a serious concern, especially among girls: some 38 % of 15-year-old girls reported smoking during the past month in 2018 – the highest rate in the EU for girls – compared with 26 % of boys.

Overweight and obese adolescents are a growing public health issue

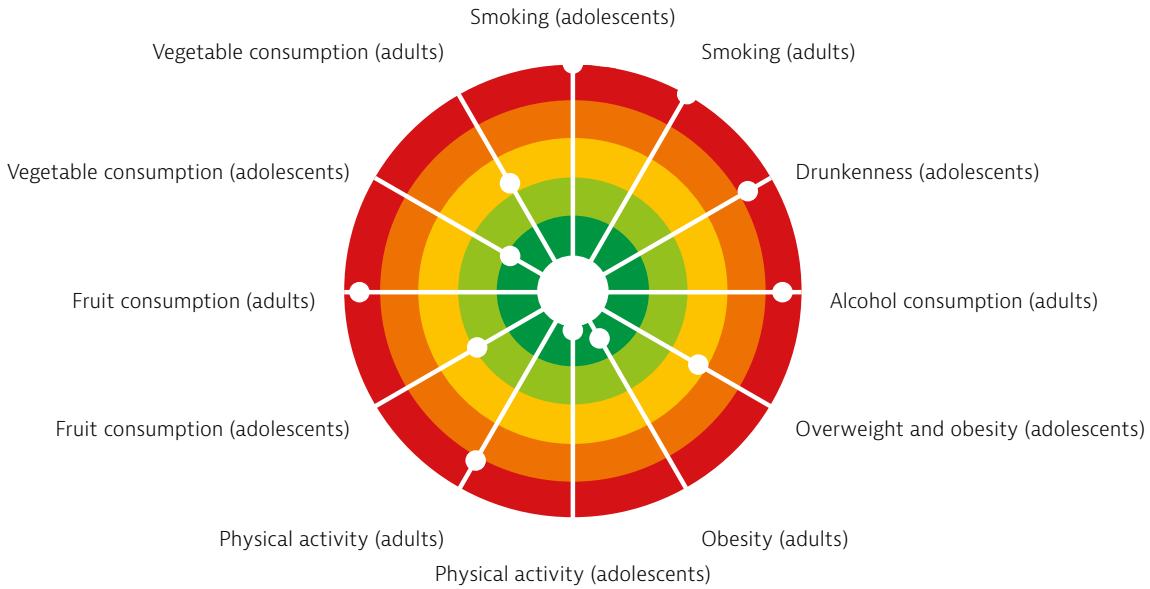
The child obesity rate in Bulgaria (19 %) was equal to the EU average in 2018, while the adult rate of 13 % in 2019 was the third lowest among EU countries and well below the EU average of 16 %.

As in other countries, poor nutrition is the main factor contributing to being overweight and obesity. Consumption of fruit among adults in Bulgaria is very low (the second lowest among all EU countries), and three in five adults do not consume at least one piece of fruit each day. Less than half (49 %) do not eat vegetables daily. Physical activity among adults is also low, with only 58 % engaging in at least moderate physical activity every week, which is lower than the EU average of 64 % (Figure 7). In response to concerns about overweight and obese adolescents, Bulgaria implemented programmes targeted at school-age children to promote healthy eating (see Section 5.1). On a positive note, Bulgarian adolescents are the most physically active among EU countries, with one in five reporting at least moderate physical activity each day in 2018.

Both adults and teenagers consume high levels of alcohol

Alcohol consumption among adults in Bulgaria in 2019 (11.4 litres per capita) was higher than the EU average (10.1 litres) and has increased over the past decade. Alcohol consumption among adolescents is also concerning: the proportion of 15-year-olds who reported having been drunk more than once in their life was among the highest in the EU in 2018 (30 % in Bulgaria compared with an EU average of 22 %).

Figure 7. Bulgaria's population trails EU averages on many risk factors



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, EHIS 2014 and 2019 for adults indicators.

4 The health system

The Bulgarian health system features compulsory social health insurance

The Bulgarian health system is based on a compulsory social health insurance (SHI) scheme, with a small role for voluntary health insurance. Within the SHI system, the National Health Insurance Fund (NHIF), through its branches of 28 regional health insurance funds, is the sole purchaser of health services.

While state health policy is steered by the Council of Ministers, the Ministry of Health is responsible for overall governance of the health system. This includes drafting health legislation, coordinating and supervising the various subordinated bodies, and planning and regulating health care providers. At the district level, public health policy is organised by the regional health inspectorates (RHIs), which are the local bodies of the Ministry of Health. The Ministry and its regional branches were central to implementing the health system response to the COVID-19 pandemic (Box 2).

Box 2. Both centralised and decentralised approaches were used to manage the COVID-19 pandemic

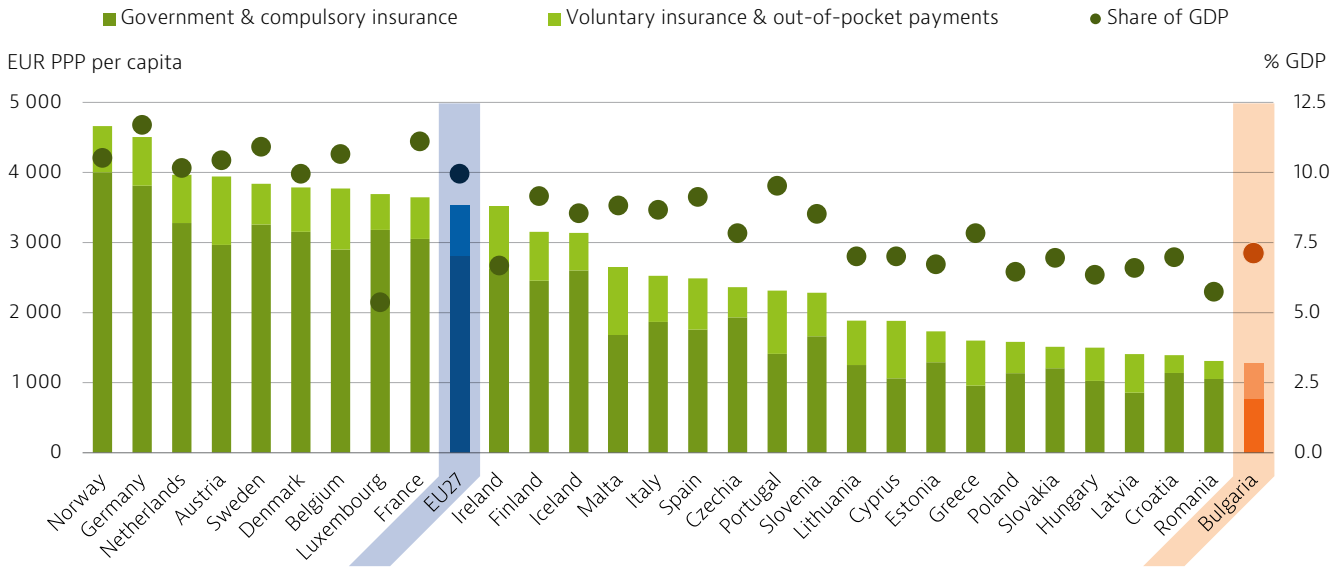
Initially, coordination of Bulgaria's COVID-19 response was highly centralised, with the Ministry of Health and RHIs responsible for planning and implementing pandemic measures. A National Operations Headquarters was also established in February 2020 to advise the Council of Ministers and the Ministry of Health. In autumn 2020, as the number of cases started to increase rapidly, a decentralised approach was adopted, and regional and local authorities were empowered to apply targeted measures where necessary. However, since few authorities imposed stricter measures and the number of daily cases continued to rise, centralised decision-making returned in October and November 2020, with a reintroduction of national-level measures.

Source: COVID-19 Health Systems Response Monitor.

Despite strong growth, health expenditure is the lowest in the EU

Bulgaria's per capita expenditure on health (adjusted for differences in purchasing power) stood at EUR 1 273 in 2019 – the lowest in the EU (Figure 8). Nevertheless, expenditure on health per capita has increased significantly over the past decade, increasing by 83 % between 2009 and 2019 compared to just 28 % across the EU as a whole. When measured as a share of GDP, Bulgaria's spending on health stood at 7.1 %, below the EU average of 9.9 % but higher than 11 other EU countries with comparable levels of health spending per capita. The COVID-19 emergency also prompted additional funding injections in 2020 to support the health sector (Box 3).

Figure 8. Bulgaria dedicates just over 7 % of its GDP to health



Note: The EU average is weighted.
Source: OECD Health Statistics 2021 (data refer to 2019, except for Malta 2018).

Box 3. The Bulgarian government and EU transferred several rounds of funding to fight COVID-19

When the first COVID-19 cases were registered in Bulgaria, the government approved a transfer of BGN 7 million (EUR 3.5 million) from the 2020 state budget to the Ministry of Health for epidemic response measures. Overall, a total of BGN 414.7 million (EUR 212 million) was provided by the national budget in 2020 to fight the COVID-19 pandemic. Bulgaria also reallocated funds from the European Commission's Regions in Growth Project to procure equipment, medicine and tests, and to invest in e-health measures. In summer 2020, national budget funds were used to equip hospitals to fight the pandemic, and the NHIF paid general practitioners (GPs) BGN 1 000 (EUR 511) per month for treating COVID-19 patients. By the end of November 2020, public spending on COVID-19-related health measures was approximately BGN 628 million (EUR 321 million); and roughly BGN 2 billion (EUR 1.02 billion) overall was spent on all measures, including social and economic programmes.

Source: COVID-19 Health Systems Response Monitor.

Out-of-pocket payments constitute a large share of health spending

In 2019, public financing accounted for 60.6 % of total spending on health. This was an increase from 54.3 % in 2009 and is the highest reported public share of health spending since 2005. Per capita, this translates to public funding being responsible for EUR 771 in 2019, up from EUR 377 in 2009. SHI contributions are made by individuals and employers, and the state extends coverage to children, pensioners and people on low incomes. Additional tax revenues are allocated via annual budgets of the Ministry of Health and municipalities.

Household out-of-pocket (OOP) payments made up 37.8 % of health expenditure in 2019 – the highest proportion in the EU and roughly 2.5 times the share for the EU as a whole. Key drivers of OOP expenditure include services not covered by the benefits package and cost-sharing for covered services, particularly medicines (see Section 5.2). Informal payments are estimated to make up a considerable share of household spending on health and add to financial pressures on households (Zahariev & Georgieva, 2018). A recent Eurobarometer survey revealed that 10 % of Bulgarians made an informal payment to a doctor, nurse or hospital in December 2019 (European Commission, 2020).

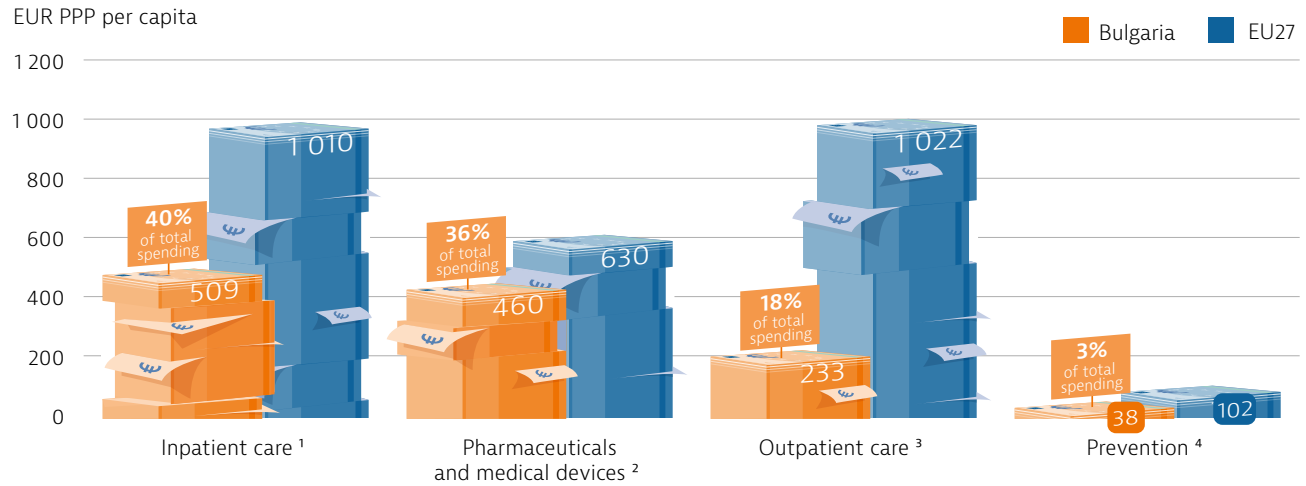
An estimated 1 million Bulgarians have no health insurance

Although the SHI system in Bulgaria is based on universality, a significant proportion of the Bulgarian population is uninsured. The latest figures from the NHIF showed that just over 1 million people (14.8 % of the population) lacked health insurance at the end of 2019 (NHIF, 2020), while Ministry of Finance figures put the proportion at around 10 % (Ministry of Finance, 2020a). The high number of uninsured people poses serious concerns for accessibility of care (Council of the EU, 2019; see also Section 5.2).

Health spending is skewed heavily to inpatient care and pharmaceuticals

With many hospital admissions for treatment of conditions that could be managed effectively in an outpatient care (including asthma and diabetes), Bulgaria's health system remains excessively centred on hospital care. While per capita spending on inpatient care in Bulgaria stood at EUR 509 in 2019 – around half the EU average of EUR 1 010 (Figure 9) – it constituted 40 % of all health spending in the country, compared to an average of 29.1 % spent on inpatient care across the EU as a whole. This reflects both Bulgaria's concentration of spending on hospital care and its considerably smaller health budget compared to most other EU countries. Medicines are another dominant item of health care expenditure: while in absolute terms, per capita spending was more than 25 % less than that for the EU as a whole, at 36.1 %, medicines accounted for the highest share of spending among EU countries and this was double the average across the EU. Although spending on outpatient care has increased substantially since 2010 (from 3.7 % of all health expenditure to 18.3 %), it stood at only EUR 233 per capita in 2019. On the other hand, health prevention takes up 3 % of total health spending in Bulgaria, which is slightly over to the rate in the EU as a whole (2.9 %).

Figure 9. Outpatient spending in Bulgaria is only a quarter of that in the EU as a whole

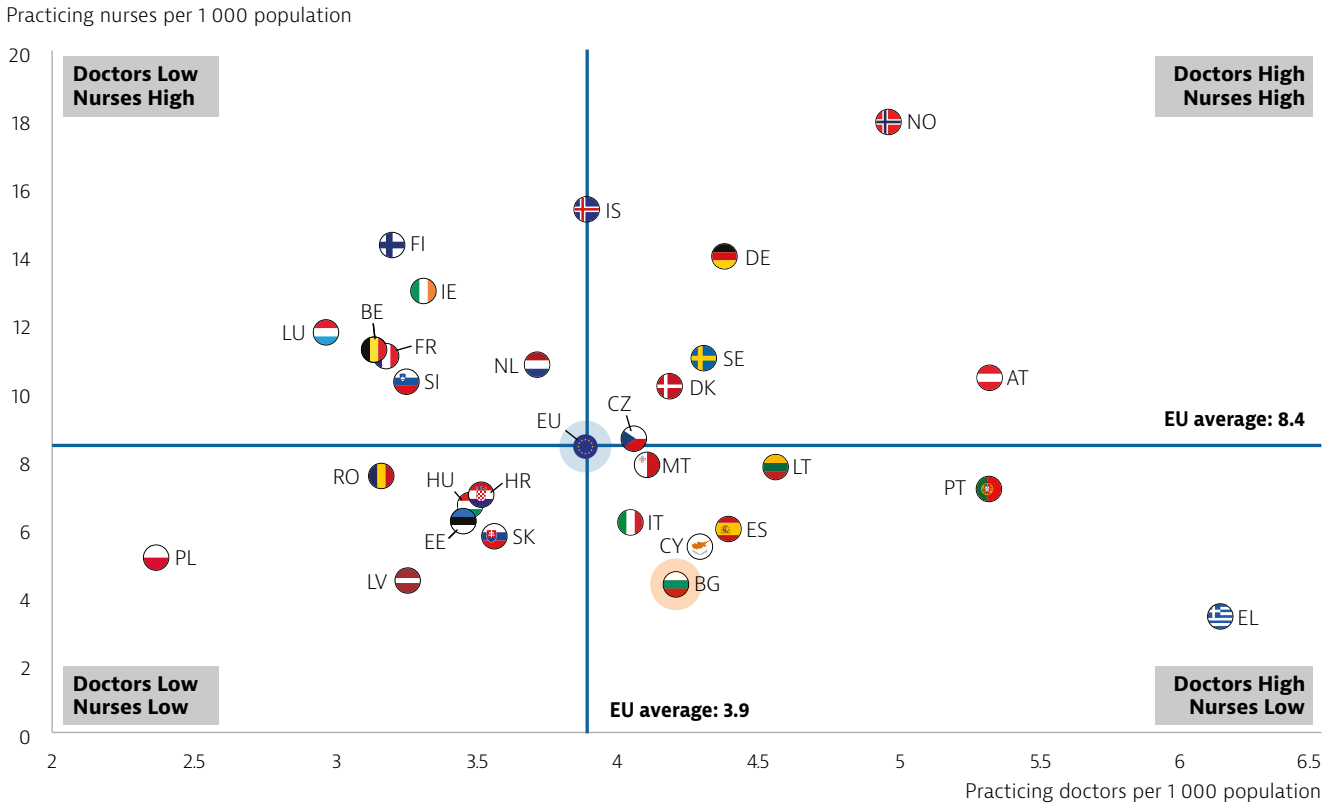


Note: The costs of health system administration are not included. 1. Includes curative-rehabilitative care in hospital and other settings; 2. Includes only the outpatient market; 3. Includes home care and ancillary services (e.g. patient transportation); 4. Includes only spending for organised prevention programmes. The EU average is weighted.
Sources: OECD Health Statistics 2021, Eurostat Database (data refer to 2019).

Bulgaria has a low supply of nurses

While the total number of physicians in Bulgaria (4.2 physicians per 1 000 population in 2019) is above the EU average of 3.9, there are shortages in key specialities, which affected patient management during the COVID-19 pandemic (see Section 5.3). The number of practising nurses in Bulgaria has remained comparatively stable over the last 15 years, at around 31 000 nurses in total. However, with 4.4 nurses per 1 000 population, together with Latvia and Greece, Bulgaria is one of the EU countries with the lowest densities of nurses (Figure 10). Several factors contribute to this nursing shortage, including the low number of nursing graduates, a loss of trained nurses due to emigration, an ageing workforce (the average age of nurses is over 50) and dissatisfaction with salaries and working conditions. In 2019, nurses organised protests across the country calling for fair remuneration, improved working conditions and additional pay for night shifts and overtime. Following this action, minimum starting salaries for nurses working in state hospitals were increased.

Figure 10. The number of doctors is higher than the EU average, but the number of nurses is lower



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).

General practitioners are gatekeepers, but referral quotas often lead patients to bypass primary care

In Bulgaria, GPs play a central role in primary care and function as independent practitioners contracted by the NHIF, operating in individual or group practices. They serve as gatekeepers, and their referrals are necessary to access publicly financed specialised care. Outpatient specialist care services are delivered mainly by a network of private practices, centres for diagnosis and treatment and diagnostic laboratories.

To control the volume of some specialist services, quarterly quotas are imposed on GPs and outpatient specialists on the number of referrals they may make for diagnostic tests and other physicians for highly specialised treatments. When GPs reach their quarterly referral quotas, the remaining patients must choose either to wait or to visit the relevant specialist without a referral and thus pay out of pocket (Zahariev & Georgieva, 2018). Consequently, it is estimated that up to one third of all patients circumvent primary care physicians by going directly to hospital emergency departments.

5 Performance of the health system

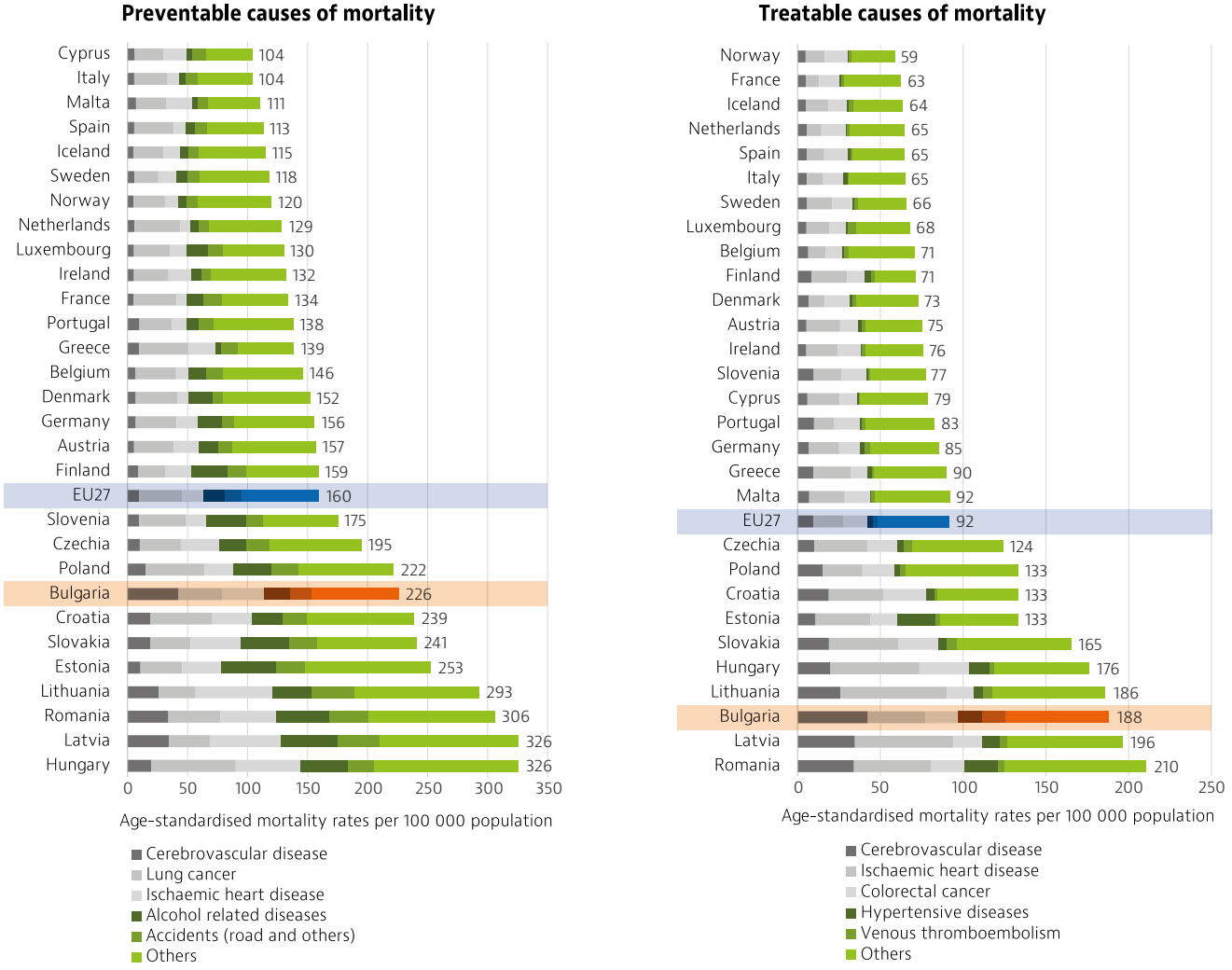
5.1. Effectiveness

Stroke continues to make up a large share of mortality from both preventable and treatable causes

Mortality rates from both preventable and treatable causes in Bulgaria have remained relatively stable since 2011, at levels well above those for the EU as a whole. In 2018, the preventable mortality rate in Bulgaria stood at 226 per 100 000 population, which is considerably higher than the rate across the EU (160 per 100 000; Figure 11). The majority of preventable deaths in Bulgaria are caused by cerebrovascular disease (stroke) (19 %), while lung cancer and alcohol-related disease each account for 16 %. Both ischaemic heart disease and road and other accidents accounted for 15 %.

In 2018, mortality from treatable causes in Bulgaria was 188 per 100 000 – more than double the EU average of 92 per 100 000. Premature deaths from stroke (23 %) and ischaemic heart disease (19 %), considered both preventable and treatable, together accounted for 42 % of all deaths from treatable causes, while colorectal cancer accounted for 10 % of such deaths. This reflects both a higher disease prevalence than other EU countries, and lower quality and effectiveness of care. In turn, this underscores the need for effective primary prevention strategies and policies to improve diagnosis and treatment.

Figure 11. Mortality from both preventable and treatable causes is among the highest in the EU



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).

Preventive and health promotion policies have had a limited impact

High levels of mortality from stroke, cardiovascular disease and lung cancer are associated with high prevalence of behavioural risk factors (see Sections 2 and 3). This can be explained in part by a lack of preventive programmes and accessibility issues, although Bulgaria does earmark 1 % of excise duties on tobacco and alcohol products to fund national primary prevention programmes. Although the impacts of concrete actions in the National Programme for Prevention of Chronic Non-communicable Diseases (2014-20) have been mixed, the Programme has been renewed for the period 2021 – 2024 to continue efforts in this area. Legislation to reduce smoking includes bans on public smoking and on sales to minors, restrictions on tobacco advertising and warnings and images on packaging. Nevertheless, little progress has been achieved in reducing smoking rates (one third of 15-year-olds reported that they had smoked during the past month in 2018), due in part to weak enforcement of legislation and insufficient information campaigns.

Efforts to tackle the increasing numbers of overweight and obese children include the Healthy Kids Project, which promotes physical activity and balanced nutrition in primary schools, and the National Strategy for Physical Education and Sports Development 2012-22. An attempt to introduce a tax on foods and drinks high in salt, trans-fats, sugar and caffeine in 2015 failed to win the support of stakeholders and the Council of Ministers.

A new programme to increase rates of seasonal influenza vaccination among older people has been launched

In 2019, only 3.5 % of the population aged over 65 were vaccinated against seasonal influenza, which is significantly below the 42 % rate in the EU. One key reason for this is that recipients must pay for the vaccination out of pocket. Low health literacy and underestimation of the impact of influenza, especially among high-risk groups, also play roles. In 2019, to expand vaccination coverage among the population aged over 65, the Council of Ministers launched the National Programme for Improving Vaccine Prevention of Seasonal Influenza 2019-22. This provides free vaccines for older people, with the objective of gradually increasing coverage to reach 25 % among this target group by 2022 and to improve awareness of the benefits of vaccination. However, coverage only reached 6 % rather than the targeted 17 % in 2020 (NCIPD, 2020).

Cancer survival rates are among the lowest in the EU

Although five-year cancer survival rates have improved gradually over the last two decades, Bulgaria reports the lowest survival rates among EU countries (for which data are available) for lung and prostate cancer, and the second lowest survival rate for cervical cancer. Five-year survival rates for childhood leukaemia, colon cancer and breast cancer also rank among the lowest across EU countries (Figure 12). These relatively low survival rates can be attributed in part to shortcomings in screening programmes and a paucity of health system sources targeting early detection and diagnosis. Bulgaria has not yet developed a national cancer control plan. Policy support is available through the Europe's Beating Cancer Plan, launched in February 2021, which focuses on four key action areas: prevention, early detection, diagnosis and treatment, and improving quality of life (European Commission, 2021).

Figure 12. Bulgaria's five-year survival rates are lower than the EU average for many cancers

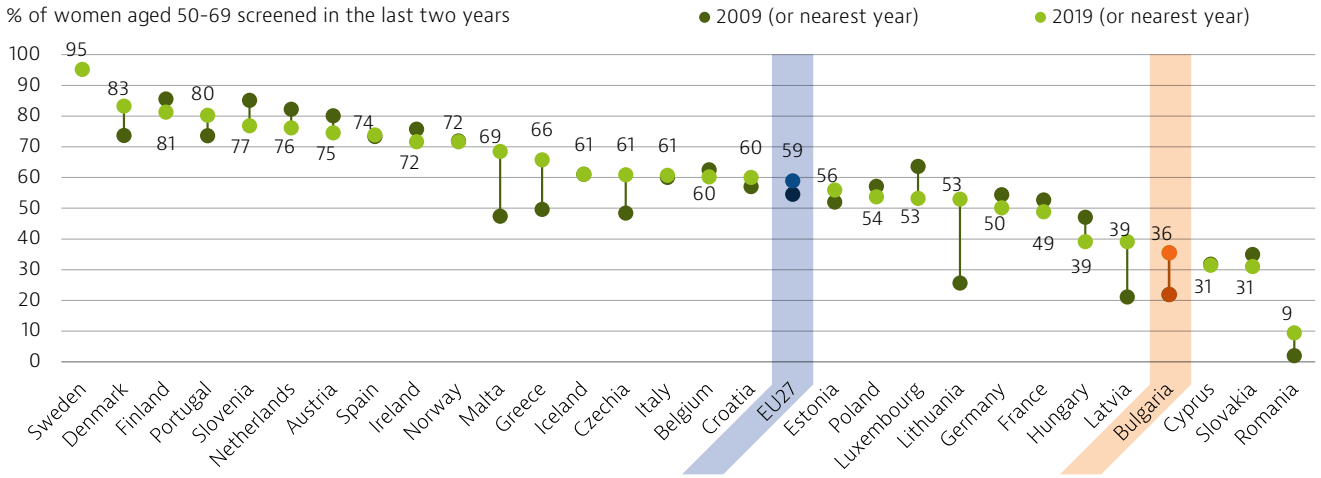
Prostate cancer	Childhood leukaemia	Breast cancer	Cervical cancer	Colon cancer	Lung cancer
Bulgaria: 68 %	Bulgaria: 78 %	Bulgaria: 78 %	Bulgaria: 55 %	Bulgaria: 52 %	Bulgaria: 8 %
EU23: 87 %	EU23: 85 %	EU23: 82 %	EU23: 63 %	EU23: 60 %	EU23: 15 %

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.

Screening rates remain low despite the existence of national programmes

In 2009, a national screening programme for cervical cancer was introduced, but by 2017 only 13.4 % of women aged 20-69 had been screened in the past two years, which is significantly lower than the EU average (58 %). In addition to an annual check-up with a GP, biennial breast cancer screening for women over the age of 50 was introduced in 2011. Since then, screening rates have picked up, but Bulgaria still has one of the lowest rates in the EU: only 36 % of women aged 50-69 were screened in 2019 (Figure 13). Furthermore, despite the introduction of a prostate-specific antigen cancer test for men over the age of 50 in 2011, a 2014 national survey reported that over 70 % of men had never been screened for prostate cancer (Dimitrova et al., 2015).

Figure 13. Bulgaria reports the third lowest rate of women screened for breast cancer in the EU



Note: The EU average is unweighted. For most countries, the data are based on screening programmes, not surveys.
Sources: OECD Health Statistics 2021 and Eurostat Database.

In March and April 2020, and again in November 2020 to January 2021, all preventive check-ups and screening programmes were temporarily suspended because of the COVID-19 outbreak. This, along with the overall reduction in demand for health services during the pandemic, is expected to have long-term negative impacts on morbidity and mortality. National-level data suggest that while target rates for breast cancer screening in 2020 were not affected by the pandemic, rates of screening for cervical cancer decreased significantly (Ministry of Health, 2021).

Progress towards more cost-effective and quality care has been slow

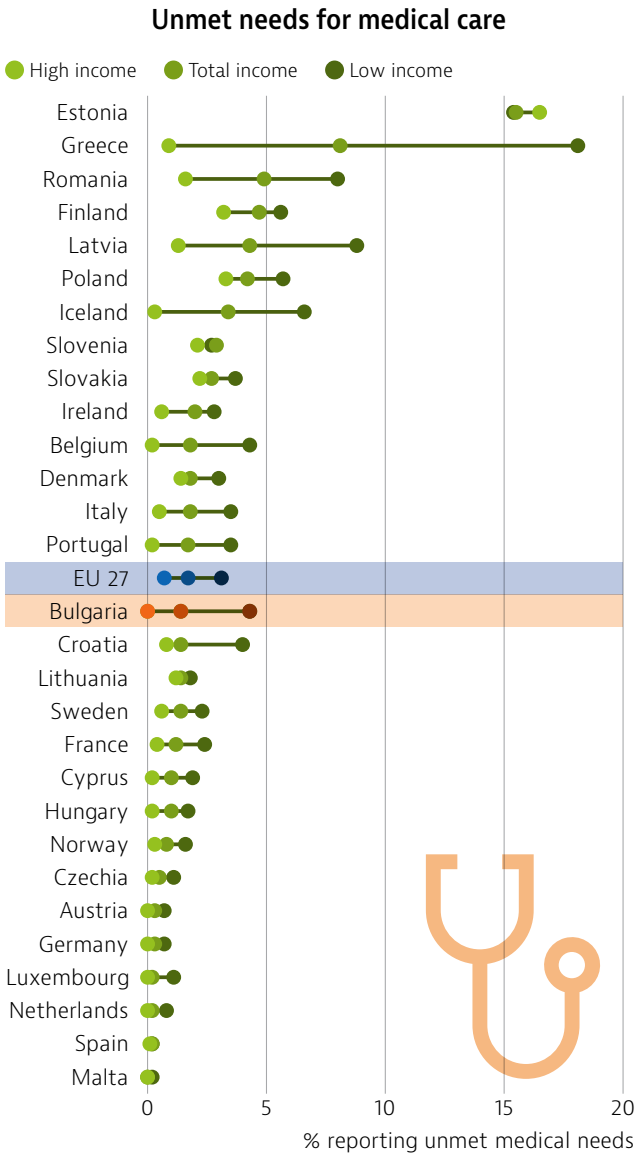
Hospitalisation rates in Bulgaria are high and are partly due to the underdevelopment and underfunding of both preventive health services and primary care. In addition, hospitals are incentivised to admit patients and deliver a wide range of services. In 2019, the hospital discharge rate stood at 34 464 per 100 000 population – double the EU average. Efforts have been made to replace the hospital-centric model of care delivery. For example, some clinical pathways have been transformed into two separate procedures: clinical procedures that involve a hospital stay of up to 24 hours, and procedures that do not require hospitalisation and can be performed by either hospitals or specialised outpatient centres. Moreover, an integrated care model for children with disabilities and chronic conditions is being pursued through the establishment of centres offering a wide range of services, such as screening and diagnostics: one centre was established in 2020 and seven more in February 2021

5.2. Accessibility

Self-reported unmet needs for medical care continue to decline in Bulgaria

Bulgaria has made great progress in reducing the number of people reporting unmet needs for a medical examination due to the combined reasons of cost, distance and waiting times. From having the highest level of unmet needs in the EU in 2009 (10.3 %), in 2019 Bulgaria (1.4 %) dropped below the average for the EU as a whole (1.7 %) for the first time, albeit with a significant difference between high- and low-income groups (Figure 14).

Figure 14. Unmet needs for medical care are close to the EU average, but disparities by income persist



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).

Self-reported unmet needs for dental examination also declined significantly, from 13.4 % in 2009 to 2.1 % in 2019. There are notable disparities by socioeconomic status: 4.4 % of the lowest income quintile had unmet dental needs (above the 5.8 % average for this quintile across the EU), compared with an insignificant reporting total in the highest quintile. Overall, the reasons cited most often for forgoing care are travel times and cost, and the latter is often related to a lack of insurance. The situation is likely to worsen in the following years. A preliminary survey conducted during the COVID-19 pandemic shows that 25 % of Bulgarian respondents in 2021 reported unmet needs for medical care during the first 12 months of the outbreak compared to the EU average of 21 % (Eurofound, 2021)[2].

Universal population coverage remains elusive

A substantial proportion of the population is uninsured and must pay out of pocket for medical services, unless they visit emergency departments to obtain free care (see Section 4). The main groups comprising uninsured Bulgarians are those living abroad; long-term unemployed people; those who choose not to pay into the SHI system; and citizens without a valid identity card, which is a prerequisite for SHI registration. This last issue particularly affects the Roma population and undocumented migrants. Recent government initiatives aimed at addressing these gaps include the National Strategy for People with Disabilities 2021-30 and the National Strategy for Roma Integration 2020, which have shown early progress in recruiting and training health intermediaries, as well as in boosting preventive check-up rates (although health insurance coverage remains a challenge).

Throughout the COVID-19 pandemic, extra funds have been made available to cover the costs associated with the screening, testing, transportation and treatment of all patients, regardless of their insurance status. Both the new National Health Strategy for 2021-30 and the National Strategy for Reducing Poverty and Promoting Social Inclusion 2030 contain measures to strengthen the quality and accessibility of health services and medicines, but in 2021 the status of both is in limbo.

Quarterly referral quotas can hinder access to diagnostic tests and specialist care

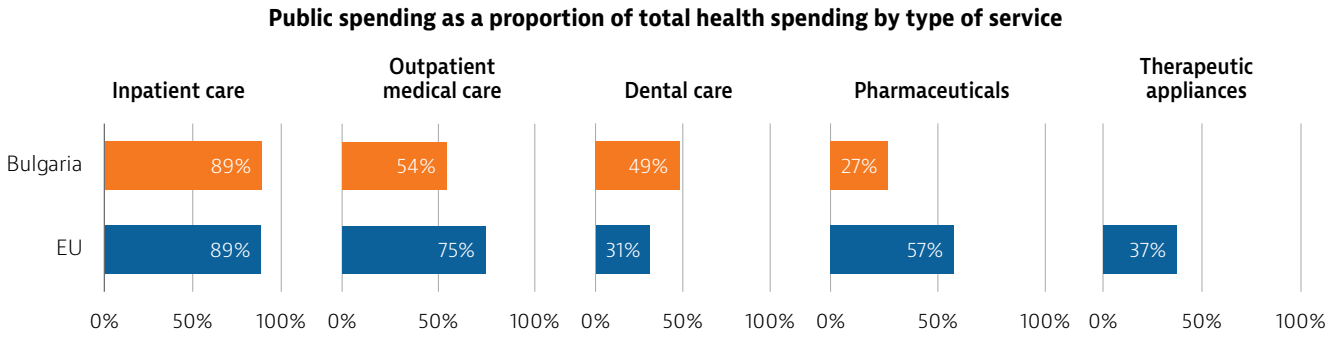
The benefits package includes primary and specialised outpatient medical and basic dental care, laboratory services, hospital diagnostics and treatment, and highly specialised medical services. Particular services such as emergency care and mental health care are covered by the state budget or other dedicated funds. The NHIF also reimburses medicines from the positive drug list and some medical devices. The most important categories of excluded services are dental care, for which only selected services are covered for adults and children, and long-term care, which is not covered. Despite this, the proportion of public financing for dental care in Bulgaria exceeded the EU average in 2019. Adults typically pay less than 20 % of the total price for most of the covered dental services, except for specialised services such as radiography and fixed prosthodontic treatments, while children up to the age of 18 receive covered dental treatments mostly free of charge. In contrast, public expenditure on outpatient care and pharmaceuticals was well below EU averages (Figure 15).

2. *The data from the Eurofound survey are not comparable to those from the EU-SILC survey because of differences in methodologies.*

In practice, an important barrier to access are quarterly quotas imposed on GPs and outpatient specialists on the number of referrals they can make for diagnostic tests, to highly specialised services and to (other) specialists. Patients seeking such specialist care after quotas are reached are faced with either paying for the cost of treatment out of pocket, if they can afford it, or forgoing care for a period (see Section 4).

To help maintain access to services during the COVID-19 pandemic, teleconsultations connecting patients with chronic conditions and medical specialists were introduced in April 2020 by an NGO, the National Patients Organisation, although these were not part of the formal system. More generally, according to the Eurofound survey, 30 % of respondents in Bulgaria reported having a medical consultation online or teleconsultation during the first 12 months of the pandemic, compared to 39 % across the EU. However, these are likely to have been short communications between patients and their doctors between formal visits.

Figure 15. Public financing of outpatient medical care and pharmaceuticals is well below EU averages



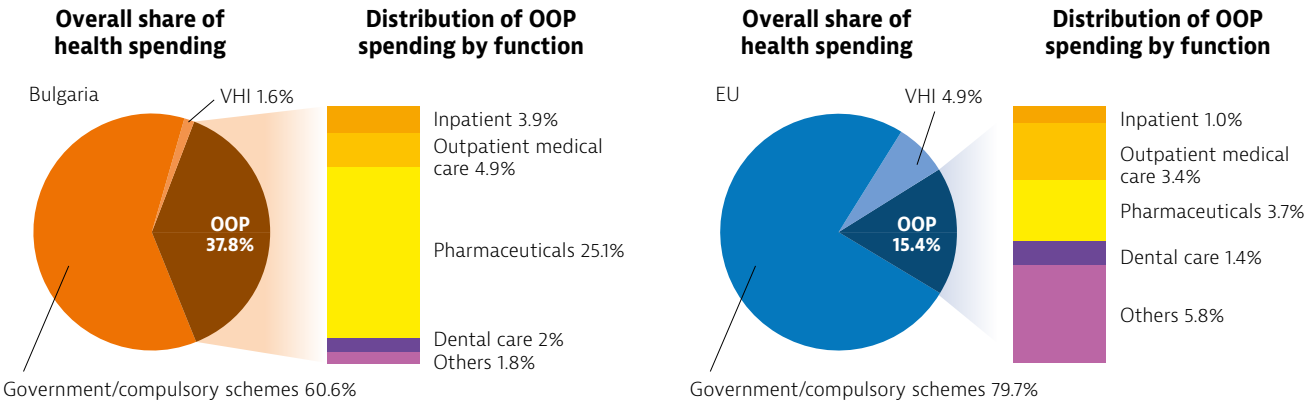
Note: Outpatient medical services mainly refer to services provided by generalists and specialists in the outpatient sector. Pharmaceuticals include prescribed and over-the-counter medicines as well as medical non-durables. Therapeutic appliances refer to vision products, hearing aids, wheelchairs and other medical devices
Source: OECD Health Statistics 2021 (data refer to 2019 or nearest year).

Pharmaceuticals account for the overwhelming bulk of out-of-pocket spending

In 2009, OOP spending in Bulgaria was nearly triple the EU average (44 % compared to 16 %), and was then the second highest among Member States. While household OOP spending declined to 37.8 % of total health expenditure in 2019, it was still the highest in the EU, and far above the EU average of 15.4 %.

High OOP expenditure is driven by co-payments for many services covered by the benefits package, direct payments for services and informal payments. Outpatient pharmaceuticals accounted for about two thirds of all OOP spending in 2019 (Figure 16), with important ramifications for access to prescribed and other medicines.

Figure 16. Bulgaria's out-of-pocket spending is more than double that of the EU as a whole

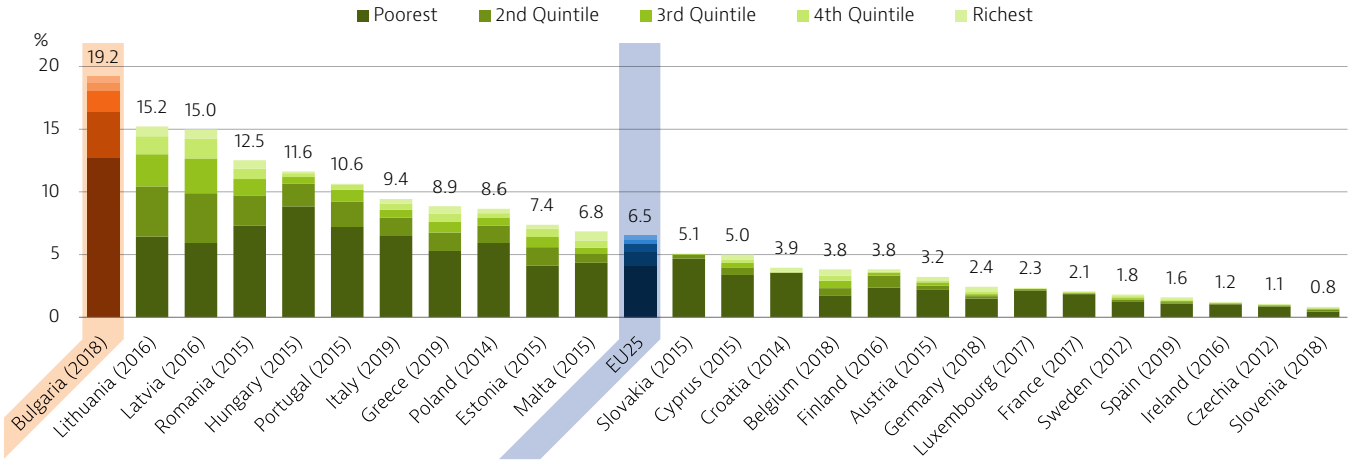


Note: The EU average is weighted. VHI = voluntary health insurance, which also includes other voluntary prepayment schemes.
Sources: OECD Health Statistics 2021; Eurostat Database (data refer to 2019).

Bulgaria has the highest level of catastrophic health expenditure in the EU

Overall, in 2019 OOP medical spending, excluding long-term care, accounted for 4.4 % of final household consumption in Bulgaria – the largest share among EU countries with data available. In 2018, roughly 19 % of households in Bulgaria reported having incurred catastrophic health spending[3] – the highest level in the EU in recent years, and nearly three times the EU average for available countries. Approximately two thirds of all catastrophic spending in Bulgaria is concentrated among the poorest households; this is proportionally more than other countries with high levels of catastrophic spending, such as Lithuania and Latvia (Figure 17). This lack of financial protection and excessively high household spending on health risks pushing poor households towards or further into poverty.

Figure 17. Catastrophic spending affects the poorest households most in Bulgaria

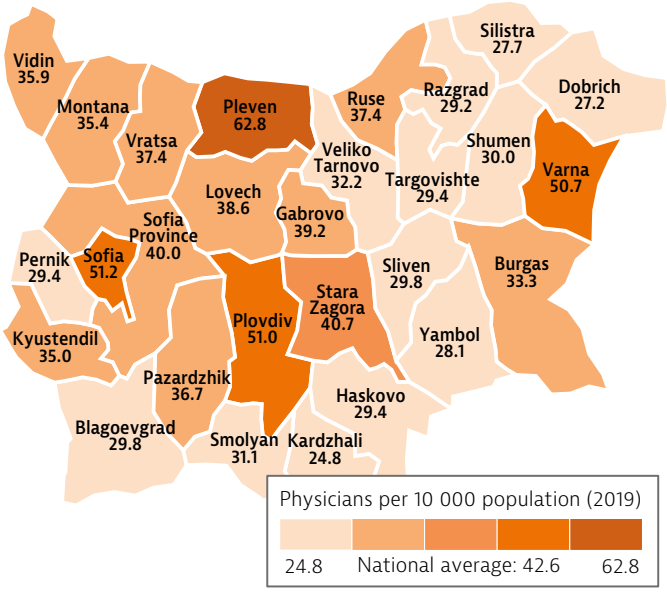


Note: The EU average is unweighted.
Source: WHO Regional Office for Europe data, 2021.

Physicians are concentrated in areas with medical universities and hospitals

The distribution of health workers remains uneven and is particularly evident in the concentration of doctors in more urbanised areas with higher economic activity and medical universities (Figure 18). Disadvantaged areas – remote rural areas and small towns – often experience workforce shortages, and doctors face high caseloads. A key challenge lies in recruiting graduates to move to replace the ageing workforce in less physician-dense areas of the country.

Figure 18. The distribution of doctors is uneven across the country



Note: The national average is calculated by taking into account the total number of physicians, including those attached to health care facilities of other ministries – so-called parallel health systems (run by the Ministries of Defence, Transport, Informational Technology and Communications, Internal Affairs and Justice). It includes practitioners working in individual or group practices under a contract with the NHIF in more than one district. The number of physicians working for other ministries is not distributed by region.
Source: National Centre of Public Health and Analyses (2020).

3. *Catastrophic expenditure is defined as household OOP spending exceeding 40 % of total household spending net of subsistence needs (i.e. food, housing and utilities).*

5.3. Resilience

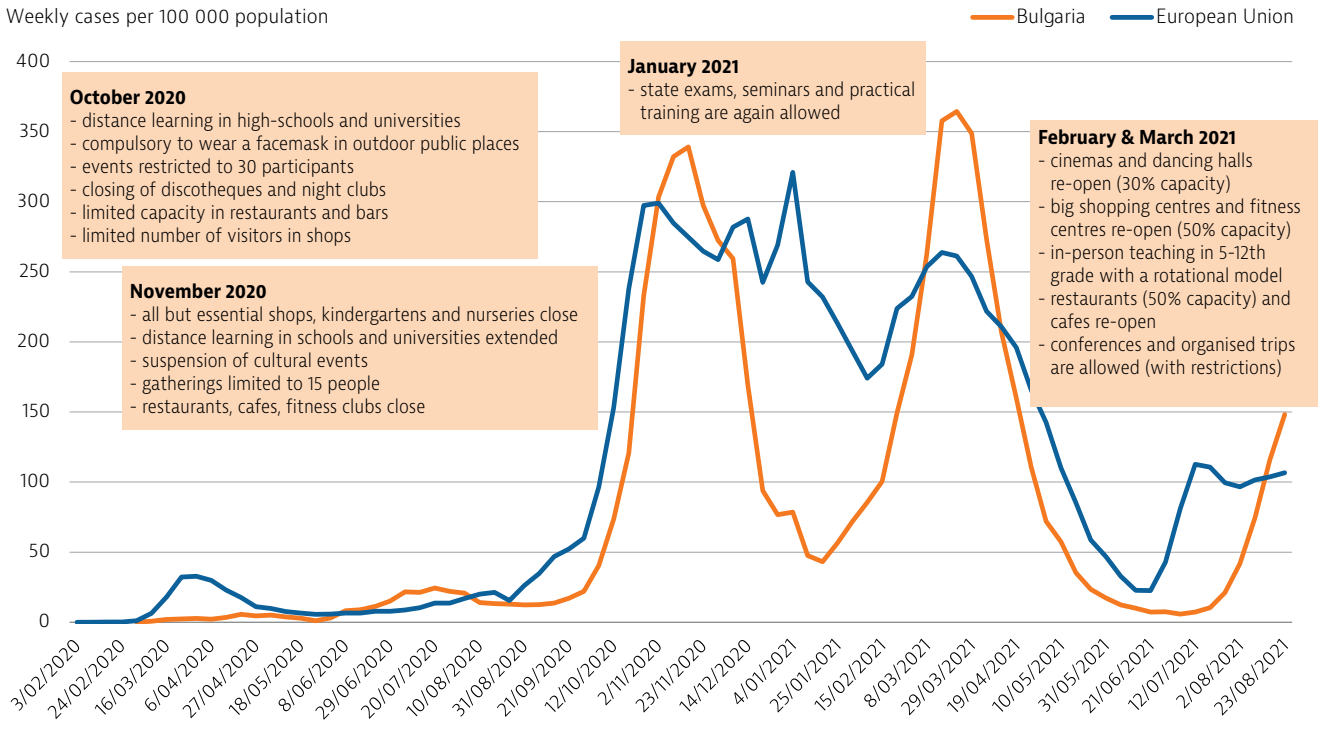
This section on resilience focuses mainly on the impacts of and responses to the COVID-19 pandemic.[4] As noted in Section 2, the pandemic had a major impact on population health and mortality in Bulgaria, with over 18 700 COVID-19 deaths recorded between January 2020 and the end of August 2021. Measures taken to contain the pandemic have also affected the economy, with Bulgaria's GDP falling by 4 % in 2020, reversing several years of robust economic growth (compared to an average 3.6 % growth rate since 2015).

Bulgaria implemented a variety of containment measures during the various waves of COVID-19

Bulgaria confirmed its first cases of COVID-19 in early March 2020 and, while the number of positive cases was still very low, the government implemented a lockdown to contain the spread of the virus. Measures included bans on public gatherings and closures of educational institutions, sports and cultural facilities, restaurants and bars. Additionally, maternity and child consultations, preventive check-ups, vaccinations and planned hospital admissions were postponed. Checkpoints were also introduced across the country to enforce mobility restrictions in large cities. With 1.2 weekly cases per 100 000 at the end of May 2020, Bulgaria came out of the lockdown with relatively few positive cases, and the measures were lifted.

After a slow but steady rise in weekly cases over the summer, numbers surged in October 2020 (Figure 19). The government gradually reintroduced some previous restrictions, including compulsory face masks in public spaces. By the end of November, a partial lockdown was introduced, with almost all restrictions from the first lockdown reinstated; this drove down new cases. The number of cases stayed below the EU average until the beginning of March 2021, and measures were again lifted. However, another steep increase in the number of cases by mid-March meant that Bulgaria experienced a third wave in April. Consequently, restrictions were reintroduced, including closing kindergartens, schools and restaurants for the following 10 days. Case numbers subsequently fell and stayed low until a fourth wave began in summer 2021, resulting in a reintroduction of measures at the beginning of September, this time pairing capacity restrictions in certain spaces with proof of vaccination, proof of recovery from a recent infection or a negative test result.

Figure 19. Bulgaria experienced more severe second and third waves of the COVID-19 outbreak



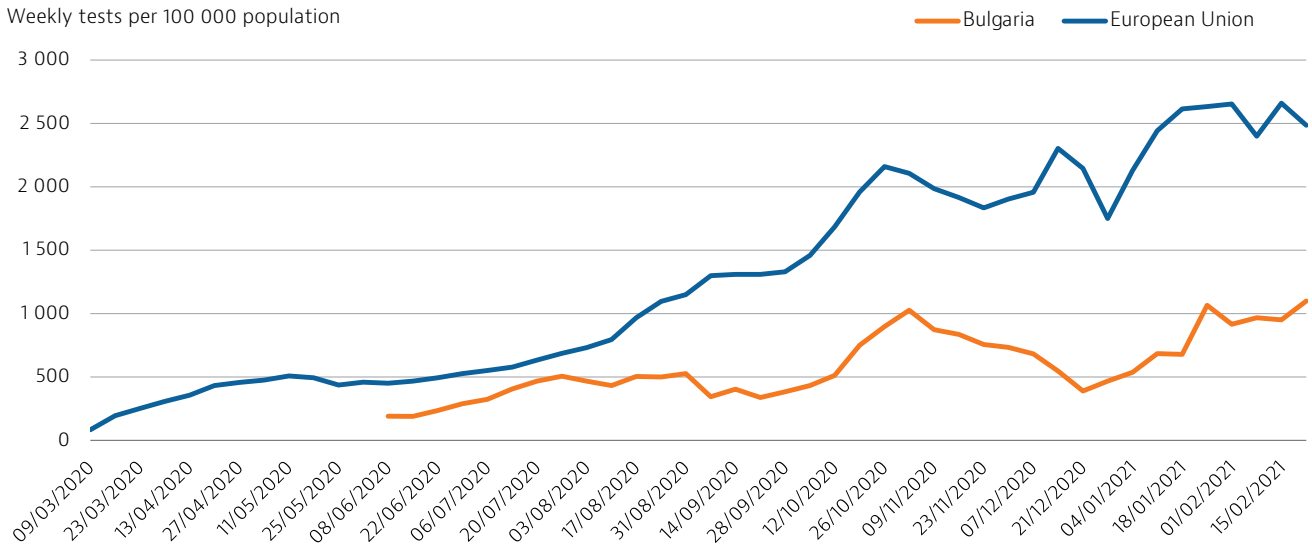
Note: The EU average is unweighted (the number of countries used for the average varies depending on the week).
Source: ECDC for COVID-19 cases and authors for containment measures.

4. *In this context, health system resilience has been defined as the ability to prepare for, manage (absorb, adapt and transform) and learn from shocks (EU Expert Group on Health Systems Performance Assessment, 2020).*

Laboratory capacity increased throughout the pandemic, but testing remained consistently below EU averages

During the initial outbreak, all tests in Bulgaria were conducted by only a handful of laboratories (eight by the end of March 2020), including the National Reference Laboratory for Influenza and Acute Respiratory Diseases of the National Centre of Infectious and Parasitic Diseases in Sofia. By the second wave in November 2020, 75 laboratories were certified to perform PCR testing; by April 2021, this had increased to 110. Nevertheless, Bulgaria conducted fewer tests than neighbouring countries, including Greece and Romania, and the rate remained well below the EU average (Figure 20). Even though Bulgaria rarely exceeded 1 000 weekly tests per 100 000 population during the October-December 2021 wave, the positivity rate hovered around 40 %, indicating capacity problems. Testing increased slowly in 2021, although this is partly explained by the inclusion of antigen tests in official data in December 2020. Another factor is GPs issuing referrals for PCR tests from December 2020, whereas previously only the RHIs were allowed to issue referrals.

Figure 20. Bulgaria has had fairly low testing levels during the pandemic



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

A mobile tool to improve communication between citizens and health authorities gained little traction

A National Information System for Combating COVID-19 has been established as a single entry point for all COVID-19-related data held on individuals. The mobile application "ViruSafe" for residents, facilitating reporting of health status, personal data (such as age and chronic conditions) and location, was integrated into the system as a tool to help manage the COVID-19 outbreak. The app was designed not for contact tracing but for users to enter their health data and report their condition daily to GPs, enabling a real-time link between residents and relevant health authorities. After the initial rollout in spring 2020, there had been a minimal uptake of the app among the population, with just over 50 000 downloads (as of April 2021), and usage data suggest that the app has since become defunct.

Existing workforce shortages worsened due to high numbers of infected medical professionals

The capacity of the Bulgarian health care system to withstand the impact of COVID-19 was challenged by an existing severe shortage of nursing professionals (see Section 4). In addition, despite Bulgaria's relatively high number of doctors, there were shortages of physicians in some specialities, hampering hospitals' treatment capacity. Shortages of critical clinical personnel were exacerbated by the high share of medical professionals who contracted COVID-19: between March 2020 and April 2021, more than 12 500 medical professionals tested positive for the virus.

In response, hospitals called for volunteers among medical students and retired health care professionals. Medical students were often employed to care for patients and were entitled to

the same monthly salary as medical professionals. Municipalities also appealed for help, providing free housing for workers from other districts who volunteered to work in the worst-affected hospitals. Further, the government approved a series of disbursements, including flat-rate monthly payments of BGN 1 000 (EUR 511), for both medical and non-medical professionals in hospitals treating COVID-19 patients, centres for emergency medical care, RHIs and the National Centre of Infectious and Parasitic Diseases. Additional payments for health professionals involved in monitoring and treatment of COVID-19 patients were also approved.

Several measures were implemented to mitigate shortages of personal protective and medical equipment

At the beginning of the outbreak, many hospitals reported shortages of ventilators and personal protective equipment (PPE). Response measures included initiating central procurement of PPE, lab testing kits and ventilators; utilising medical supplies and PPE stored in the state emergency stockpile; a ban on the export of PPE, quinine-containing drugs and disinfectants; and waiving sales tax and duties on essential supplies of medical goods and equipment. Municipalities also made transfers to hospitals for purchasing of medical equipment. Moreover, many private companies redesigned their manufacturing activities to produce PPE, including face masks and shields. Part of this production was donated to the Ministry of Health, hospitals, municipalities and other authorities.

Availability of acute care and intensive care unit beds was not at risk during the pandemic

With 774 hospital beds and 27 intensive care unit (ICU) beds per 100 000 population in 2019, pre-pandemic hospital and ICU capacities in Bulgaria were already among the highest in the EU, further reflecting the hospital-centric model of care delivery. As COVID-19 began to spread in early 2020, three of the largest university hospitals in Sofia transformed some of their wards to treat COVID-19 cases.

From March 2020, a series of government orders stipulated how many beds in every district were to be designated for COVID-19 patients. For example, in October 2020, hospitals in districts with an incidence rate between 60 and 119.9 cases per 100 000 population were required to earmark 5 % of bed capacity for COVID-19 patients, while those with incidence rates above 120 cases were required to earmark at least 10 % of beds for such patients. When COVID-19 cases surged from November 2020 and the hospital system came under severe strain, hospitals and complex oncological centres in all districts were required to reserve at least 20 % of beds for COVID-19 patients. These measures ultimately proved adequate in dealing with higher admission numbers.

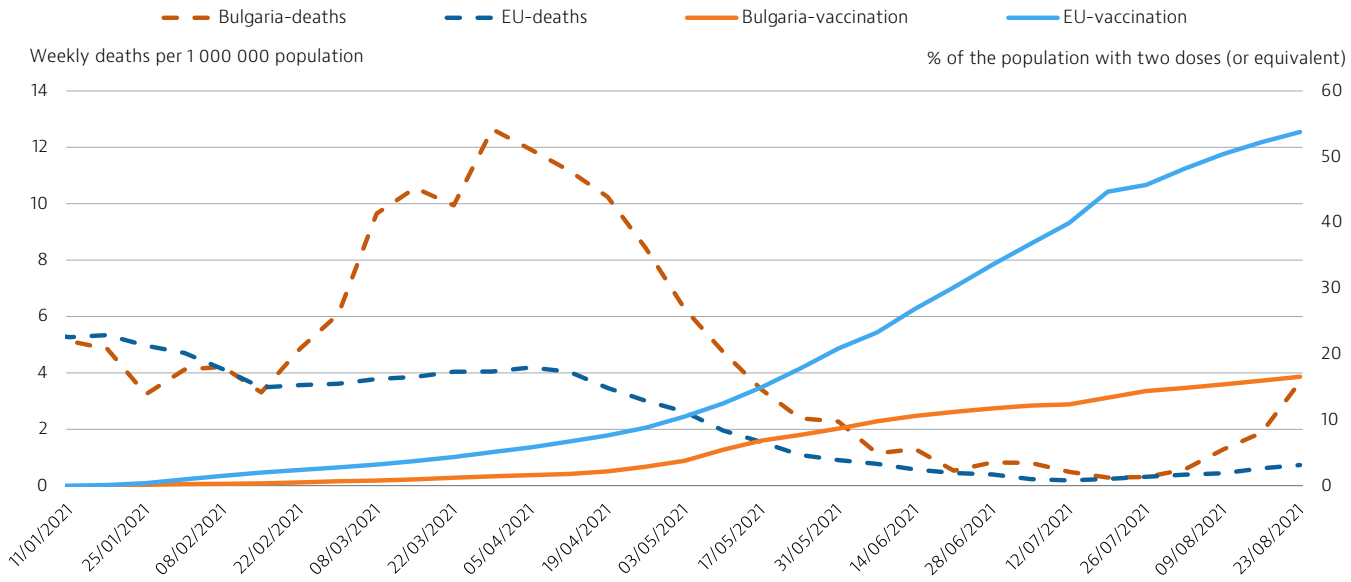
In tandem, to relieve pressure on hospitals throughout the year, elective surgeries and planned hospital admissions were suspended completely, either for fixed periods of time or within districts where COVID-19 cases per 100 000 population reached a certain threshold. However, less attention was given to the role of GPs in dealing with the treatment of COVID-19 patients at home, particularly during the second wave. This resulted in intensified workloads for these doctors, while patients sometimes did not receive the care they needed, or their conditions deteriorated before eventual hospitalisation.

Progress on the COVID-19 vaccination campaign has been sluggish

Bulgaria approved its national COVID-19 vaccination plan in December 2020 and a National Vaccination Headquarters was established to implement the vaccination campaign. The vaccination plan was divided into five phases focusing on different priority groups. Medical personnel, residents and staff working in social institutions (such as care homes for the elderly), people aged over 65, chronically ill patients and vulnerable groups with a high risk of infection received their jabs during the first stages of the vaccination campaign, along with teachers and public order employees such as police officers. Vaccination later opened to the general public and is free of charge.

A system for online registration for COVID-19 vaccinations was launched in March 2021, with users able to book appointments at a chosen immunisation point throughout Bulgaria. Progress has been rather slow, which is only partly explained by vaccine shortages reported at the end of February due to delayed deliveries. By the end of August 2021, roughly 17 % of the population had received two vaccination doses (or equivalent), compared with an average of 54 % across the EU (Figure 21). In parallel, COVID-19 case numbers and deaths began to rise again from August 2021.

Figure 21. Bulgaria's vaccination campaign has fallen far behind throughout 2021



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

COVID-19 accelerated the implementation of e-health in Bulgaria

The pandemic showed the critical need for more real-time data and information systems to support rapid and evidence-based policy making. Prior to the outbreak, there was no unifying system in Bulgaria that could facilitate communication between different information systems and databases. A plan for a national health information system, with e-records, e-prescriptions, e-referrals and a single health information portal, was presented in 2019.

In December 2020, an electronic referral system for PCR tests by GPs and other medical diagnostic tests was launched, representing a major step towards utilising e-health in Bulgaria. An electronic prescription system was introduced in early 2021 as a means of reducing unnecessary in-person contacts with health facilities, followed by an electronic medical record system later in the year. The system records and stores electronic health records and medical data for each patient, including check-ups, treatment, prescription forms, laboratory tests, referrals and digital COVID-19 vaccination certificates, although those without access can get the document printed and signed by a GP.

The pandemic highlighted the need for additional investments in health care

The government boosted public spending on health in 2020 by approximately BGN 628 million (EUR 321 million) in response to the crisis, with the Ministry of Health's budget increased by 18 % in 2021 compared to 2020 – from BGN 662 million (EUR 339 million) in 2020 to BGN 784 million (EUR 401 million) in 2021. The first steps to improve health system preparedness were taken with the state budget for 2021, which secures approximately BGN 6.3 million (EUR 3.2 million) for public health protective measures (Ministry of Finance, 2020b). Moreover, in its Recovery and Resilience Plan for 2021-26, submitted to the European Commission, Bulgaria included a major investment proposal to modernise state hospital facilities as well as diagnostic and medical equipment (EUR 310 million). Apart from renovating ageing capital stock, these upgrades are expected to boost the working environments and job satisfaction of health personnel, and to strengthen the retention of health professionals working in the public system. The Plan also contains proposals to develop the national emergency aid system with a uniform European 112 emergency number and linked communication networks (EUR 28 million), and to upgrade the facilities for psychiatric care (EUR 17 million).

6 Key findings

- Life expectancy at birth in Bulgaria increased by 3.5 years between 2000 and 2019, but then declined by 1.5 years in 2020 due to the COVID-19 pandemic. At 73.6 years, it continues to be the lowest in the EU. Stroke and ischaemic heart disease remain the leading causes of death, while lung and colorectal cancers are the dominant causes of cancer mortality. Excess mortality data for Bulgaria suggest that the death toll from COVID-19 was considerably higher than officially recorded.

- Almost half of all deaths in Bulgaria are related to behavioural risk factors – unhealthy diets, high smoking rates and alcohol consumption. Mixed results for some existing preventive and health promotion policies, coupled with relatively poor resourcing for public health, contribute to high preventable mortality rates. Similarly, deaths from treatable causes are the third highest in the EU, reflecting difficulties in providing effective and timely treatment in the most appropriate settings.

- Health expenditure per capita has grown steadily but ranks lowest among EU countries. The government share of health financing has increased substantially, reaching its highest level in nearly two decades. Nevertheless, out-of-pocket payments are still very large. At 38 % of total health expenditure, they are the highest in the EU and are mainly driven by spending on pharmaceuticals. Heavy reliance on out-of-pocket spending has a disproportionate impact on the low-income population, as evidenced by the levels of catastrophic health expenditure borne by Bulgarian households, most of which are concentrated in the lowest income quintile.

- Aside from the negative impact of out-of-pocket payments on the affordability of health care, other major challenges for accessibility are the prevailing gaps in coverage (an estimated 15 % of the population do not have health insurance), referral quotas for diagnostic tests and some specialist care, and geographic disparities in the availability of health personnel and medical facilities. Nevertheless, all COVID-19-related treatment and services – including medicines – were provided free of charge, regardless of insurance status. Teleconsultations also helped maintain access to medical care, particularly for patients with chronic conditions.

- The COVID-19 pandemic put a spotlight on longstanding challenges facing Bulgaria's health workforce. Existing workforce shortages were exacerbated by medical professionals falling ill from the virus. It also demonstrated the importance of safe working conditions along with adequate remuneration, ensuring job satisfaction and worker retention. As part of its pandemic response, particularly for hospital care, the government recruited medical volunteers and offered material and other support to health professionals working in affected districts.

- Bulgaria acted quickly during the first months of the pandemic to boost and reallocate funding for hospital care, testing and teleconsultations. Nevertheless, specific challenges included delayed implementation of mitigation measures to address case surges during the second wave, low testing rates despite increased laboratory capacity and pressure on health services – both in hospitals and within primary care – where not enough attention was given to the treatment of COVID-19 patients recuperating at home. Bulgaria's slow rate of vaccination has presented a further challenge in trying to respond effectively to the pandemic's impact on people's health and society.

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Country abbreviations

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

European Commission

State of Health in the EU
Country Health Profile 2021

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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