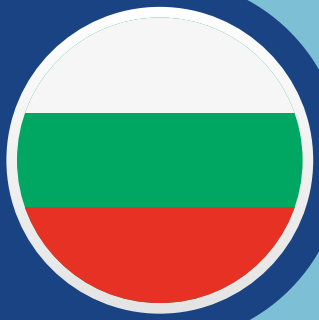
European Commission









State of Health in the EU

Bulgaria

Country Health Profile 2017

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* profiles provide a concise and policy-relevant overview of health and health systems in the EU Member States, emphasising the particular characteristics and challenges in each country. They are designed to support the efforts of Member States in their evidence-based policy making.

The Country Health 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 Member States and the Health Systems and Policy Monitor network.

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Data and information sources

The data and information in these Country Health Profiles are based mainly on national official statistics provided to Eurostat and the OECD, which were validated in June 2017 to ensure the highest standards of data comparability. The sources and methods underlying these data are available in the Eurostat Database and the OECD health database. Some additional data also come from the Institute for Health Metrics and Evaluation (IHME), the European Centre for Disease Prevention and Control (ECDC), the Health Behaviour in School-Aged Children (HBSC) surveys and the World Health Organization (WHO), as well as other national sources.

The calculated EU averages are weighted averages of the 28 Member States unless otherwise noted.

To download the Excel spreadsheet matching all the tables and graphs in this profile, just type the following StatLinks into your Internet browser:
http://dx.doi.org/10.1787/888933593399

Demographic and socioeconomic context in Bulgaria, 2015

		Bulgaria	EU
Demographic factors	Population size (thousands)	7 178	509 394
	Share of population over age 65 (%)	20.0	18.9
	Fertility rate[1]	1.5	1.6
Socioeconomic factors	GDP per capita (EUR PPP[2])	13 600	28 900
	Relative poverty rate[3] (%)	15.5	10.8
	Unemployment rate (%)	9.2	9.4

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 50% of median equivalised disposable income.

Source: Eurostat Database.

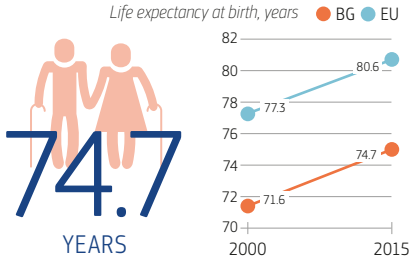
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1 Highlights

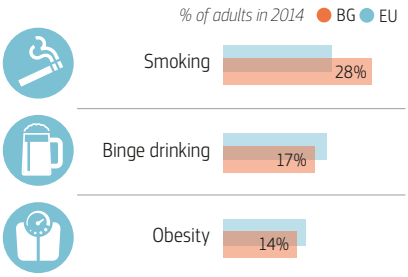
The health status of people in Bulgaria has improved more slowly than in other EU countries, as shown by persistently low life expectancy. Several recent reforms have attempted to shift the Bulgarian health system away from over-reliance on hospital care and to increase efficiency. Nevertheless, challenges in terms of access and quality remain substantial.

Health status



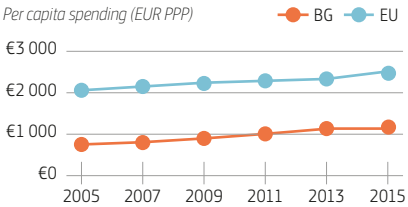
Life expectancy at birth was 74.7 years in 2015, which is the second lowest in the EU, and almost 6 years below the EU average. Cardiovascular diseases and cancer cause more than four-fifths of all deaths. Furthermore, vast regional inequalities exist as exemplified by up to six-fold differences in infant mortality across regions. Bulgaria also has large differences in health status between socioeconomic groups.

Risk factors



In 2014, smoking rates were the highest in the EU with 28% of adults in Bulgaria smoking tobacco every day. Levels of binge drinking (as a measure for excessive alcohol consumption), are lower than in other EU countries but overall per capita alcohol consumption is the fifth highest. Prevalence of obesity is low but rising quickly, in particular among male adolescents. Legislative efforts to mitigate risk factors have yet not been effective.

Health system

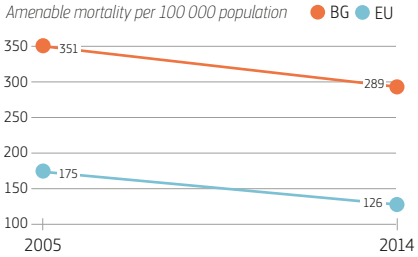


In 2015, Bulgaria spent EUR 1 117 per head on health care, less than half the EU average (EUR 2 797). Roughly half of total health expenditure is publicly financed and Bulgaria has exceptionally high out-of-pocket payments – 48% – the highest in the EU. Some 12% of the population lack insurance coverage. The revenue base for the Social Health Insurance (SHI) remains narrow due to low incomes, many uninsured individuals and a large informal sector.

Health system performance

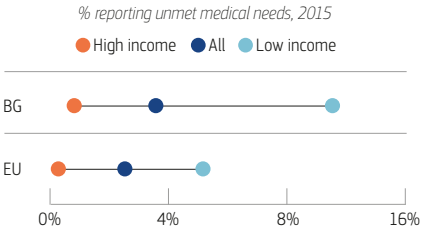
Effectiveness

Amenable mortality remains very high in Bulgaria. Together with other indicators (e.g. survival rates, avoidable hospitalisations), this indicates great scope to improve health service quality and coordination.



Access

Unmet needs for medical care point to access problems across all income quintiles for financial reasons. Travel distance and availability of doctors remain important barriers, especially for lower income groups.



Resilience



Some progress has been made in terms of governance and accountability. Given the wide range of challenges – a fast ageing society, revenue mobilisation, professional migration and workforce shortages, to name but a few – the direction of recent reforms is encouraging, but these reforms need more time to become effective.

2 Health in Bulgaria

Life expectancy at birth has increased, but remains below the EU average

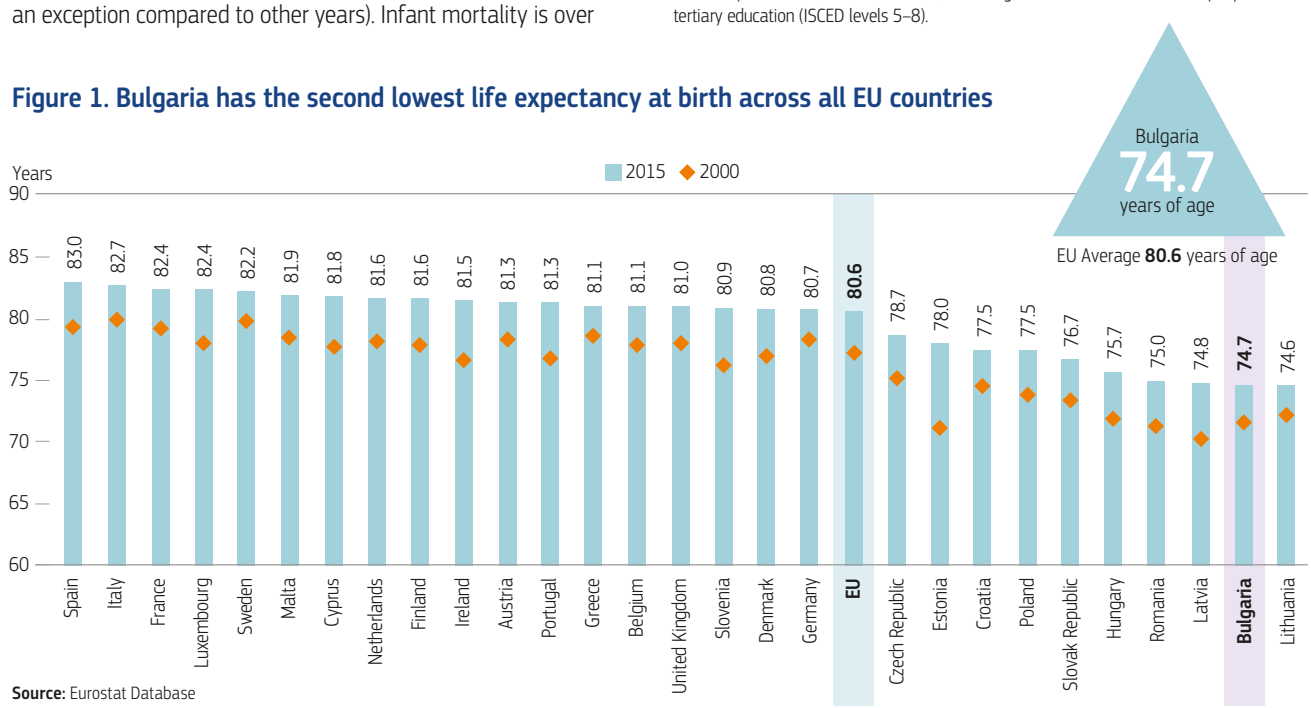
At 74.7 years, life expectancy at birth in Bulgaria is the second lowest in the EU (after Lithuania), and almost 6 years lower than the EU average (Figure 1). Furthermore, with 3.1 years gained, improvements in life expectancy since 2000 have not been as rapid as in most other countries. Life expectancy at birth for women remains the lowest in the EU, although women recorded a steeper increase than men. As of 2015, the gender gap is seven years.

Bulgaria has relatively high maternal mortality rates (although the 12 deaths per 100 000 births recorded in 2013 seems to be an exception compared to other years). Infant mortality is over 80% higher than the European average (6.6 deaths per 1 000 births versus 3.6 in 2015). What is more, the worst performing region (Yambol) recorded an infant mortality rate that is six times higher than the best performing region (the capital Sofia) in 2016 (National Statistical Institute, 2017) (Section 5.2).

The difference in life expectancy by socioeconomic factors, such as level of education, is particularly large in Bulgaria. Life expectancy at birth for university-educated Bulgarians is seven years higher than for those with no more than lower secondary education.[1]

1. Lower education levels equate to people with less than primary, primary or lower secondary education (ISCED levels 0–2) while higher education levels refer to people with tertiary education (ISCED levels 5–8).

Figure 1. Bulgaria has the second lowest life expectancy at birth across all EU countries



Source: Eurostat Database

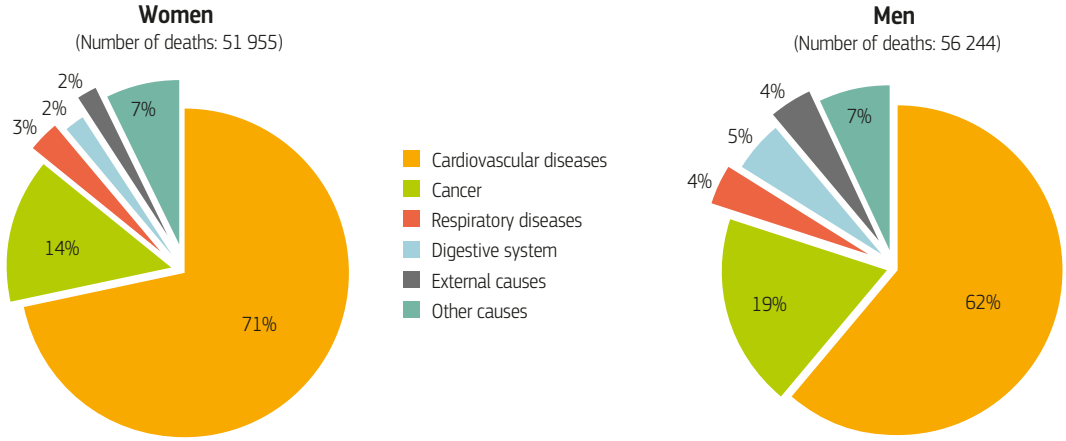
A large part of the gains in life expectancy since 2000 have been after the age of 65, with the life expectancy of Bulgarian women at age 65 reaching 17.6 years in 2015 (up from 15.3 years in 2000) and that of men reaching 14.0 years (up from 12.7 years in 2000). At age 65, Bulgarian women can expect to live more than half (54%) of their remaining life years free of disability, while men can expect to live slightly less than two-thirds (62%) of them without disability.[2]

2. These are based on the indicator of 'healthy life years' which measures the number of years that people can expect to live free of disability at different ages.

Cardiovascular diseases and cancer cause more than four-fifths of all deaths

Despite decreases since 2000, deaths from cardiovascular diseases remain the leading cause of death for both women and men (Figure 2) and are far above the EU average. Cancer is the second leading cause of death, accounting for 19% of all deaths among men and 14% of all deaths among women, which is below the EU average and slightly increasing. Deaths from diseases of the digestive system caused 5% of all deaths in men (2% in women) and deaths from respiratory diseases 4% in men and 3% in women.

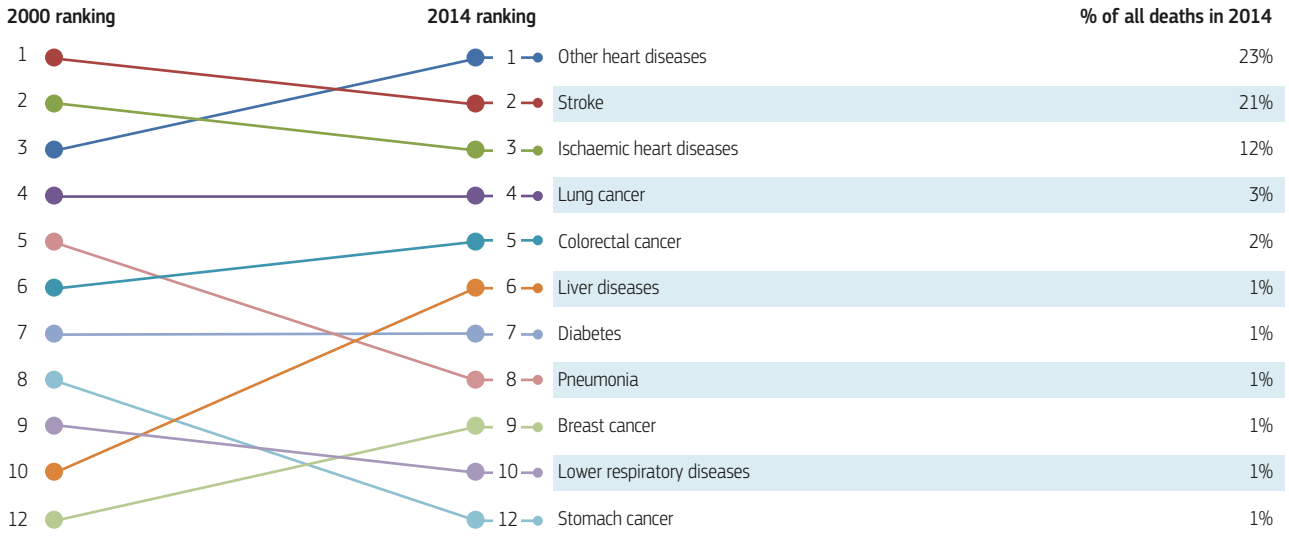
Figure 2. Over 80% of both men's and women's deaths are caused by cardiovascular diseases or cancer



Note: The data are presented by broad ICD chapter. Dementia was added to the nervous system diseases' chapter to include it with Alzheimer's disease (the main form of dementia).

Source: Eurostat Database (data refer to 2014).

Figure 3. Cardiovascular diseases and cancers are the main contributors to overall mortality



Source: Eurostat Database.

Looking at more specific causes of deaths, heart diseases and stroke remain the leading causes of mortality (Figure 3) and are three times as high as the EU average. In 2014, deaths from cancers — with lung cancer as the leading cause of cancer mortality – were below the EU average. Deaths from colorectal and breast cancer, as well as chronic liver diseases, have increased steadily and were above the EU average in 2014. On a more positive note, deaths from diseases of the musculoskeletal system, diabetes, asthma and allergies are far below EU average. And deaths from dementia (including Alzheimer's disease) are the lowest in the EU.

3. DALY is an indicator used to estimate the total number of years lost due to specific diseases and risk factors. One DALY equals one year of healthy life lost (IHME).

Many chronic conditions are among the leading determinants of disability-adjusted life years

A range of conditions, including musculoskeletal problems (including low back and neck pain, and osteoarthritis), diabetes, sense organ diseases (including hearing loss), diseases of the respiratory system and mental health problems (including depression and anxiety disorders), are leading causes of disability-adjusted life years (DALYs)[3] lost in Bulgaria (IHME, 2016).

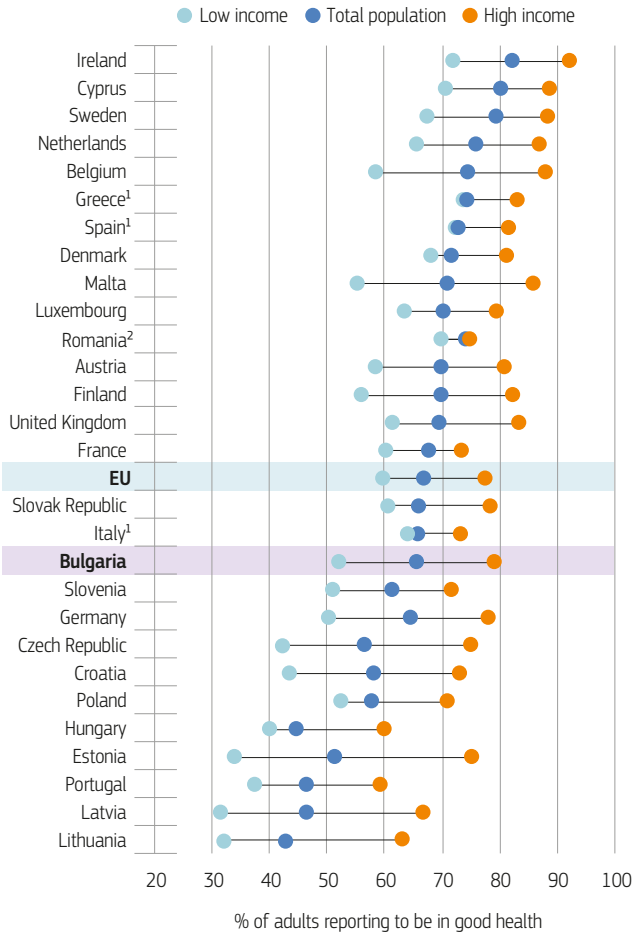
Based on self-reported data from the European Health Interview Survey (EHIS), 3 in 10 people in Bulgaria live with hypertension,

3 in 100 people live with asthma and 3 in 100 people live with chronic depression (2014). Additionally, there is a higher prevalence of self-reported depressive episodes that are severe among Bulgarian respondents than in the EU. Wide disparities exist in the prevalence of these and other chronic diseases by education level. People with the lowest level of education are almost twice as likely to live with diabetes or asthma as those with the highest level of education.[4]

There is a wide variation between income groups when reporting on their health

Overall, the proportion of the population reporting to be in good health (65%) is close to the EU average (67%). More men than women consider themselves to be in good health (69% for men versus 62% for women). Again, the gap between groups of different socioeconomic status is wide: only half of Bulgarians in the lowest income quintile consider their health to be good, compared to four in five within the highest income quintile (Figure 4).

Figure 4. There are large differences in self-reported health status by income level



1. The shares for the total population and the low income population are roughly the same.
2. The shares for the total population and the high income population are roughly the same.

Source: Eurostat Database, based on EU-SILC (data refer to 2015).

4. Inequalities by education may partially be attributed to the higher proportion of older people with lower educational levels; however, this alone does not account for all socioeconomic disparities.

Infectious diseases continue to be challenging

Several infectious diseases continue to pose major threats to the health of the Bulgarian population. While the HIV notification rate remains below the EU average, it has increased nearly five-fold since 2004, which is in contrast to an overall decrease across the EU. In spite of this, deaths from AIDS have remained below EU average. Furthermore, while tuberculosis (TB) notification rates are twice the EU average (2015), the rate of new and relapse cases has decreased (by almost 30%), as has estimated TB mortality per 100 000 population (by more than 40%) since 2011 (ECDC, 2017). Lastly, the Hepatitis B Virus among first-time blood donors is 3.2%, one of the highest in Europe (ECDC, 2016).

3 Risk factors

High blood pressure, diet, smoking and high body mass index are major causes of poor health

The poor health status of many Bulgarians can be connected to a range of health determinants, including living and working conditions, the physical environment and behavioural risk factors. At least 40% of the overall burden of disease in Bulgaria (measured in terms of DALYs) can be attributed to behavioural risk factors, including smoking, alcohol consumption, dietary risks and low physical activity. Of all risk factors, dietary risks, smoking and a high body mass index contribute the most to poor health in Bulgaria (IHME, 2016).

Smoking rates and alcohol consumption remain well above the EU average

The prevalence of smoking in the Bulgarian population is the highest in the EU, and nearly seven percentage points above the EU average. No less than 28% of the adult population, including more than one in three (35%) men, are daily smokers. Youth smoking rates are similarly high: 15-year-old boys have the second-highest smoking prevalence in the EU (21%, after Croatia), while 30% of 15-year-old girls – the highest level in the EU – are regular smokers (see Figure 5). New tobacco-control policies came into effect just recently (see Section 5.1).

While levels of binge drinking[5] are lower than in other EU countries, per capita alcohol consumption is the fifth highest in the EU. Bulgarians consumed more than 12 litres of alcohol per head in 2014, exceeding the EU average by more than 2 litres. Another concern is alcohol consumption among adolescents, with Bulgaria again ranking fifth in terms of repeated drunkenness among 15-year-olds. Among boys, this self-reported figure is 11 percentage points higher in Bulgaria than across the EU.

Obesity levels are low, but climbing among male adolescents

Although adult obesity levels are below the EU average, they have risen by 25% since 2008. More troublingly, levels of overweight and obesity among adolescents rose by two-thirds between 2005–06 and 2013–14, and reached 20%. While this indicator remains low among girls (12%), the prevalence among boys is now the third highest in the EU (after Malta and Greece), at 28%. These developments are particularly concerning given that being overweight or obese during childhood and adolescence is strongly correlated with becoming overweight or obese as an adult.

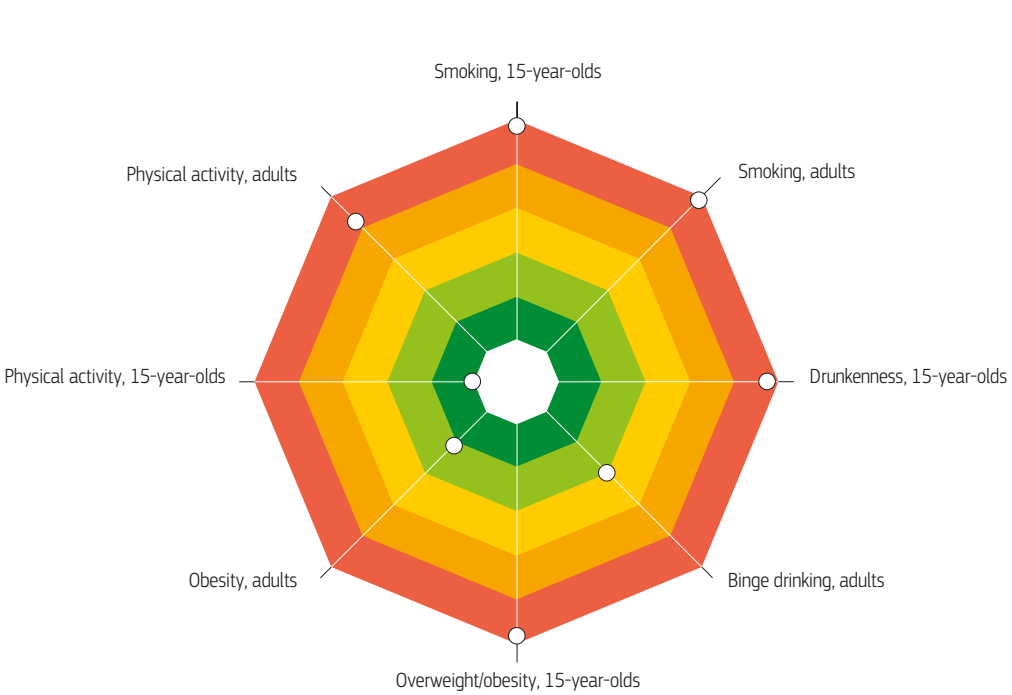
On a positive note, a higher percentage of 15-year-old boys and girls in Bulgaria report regular physical activity than in other EU countries, although less than 25% report engaging in moderate-to-vigorous physical activity on a daily basis.

Some behavioural risk factors are more prevalent among lower education or income groups

Populations disadvantaged by income or education are more prone to engage in risky health behaviours.

This is particularly the case for obesity among adults: the obesity rate of lower-educated Bulgarians is five percentage points higher than that of the higher-educated population. Another concern is the Roma minority (5% of the population), which some studies show experiences disproportionately bad health status, a factor that probably also relates to access problems (Dimitrov, 2014) (see also Section 5.2). Policies seeking to reduce socioeconomic inequalities and regional inequities have been attempted, most notably the Regional Health Maps (see Box 1).

Figure 5. Compared to other EU countries, Bulgaria performs poorly on most behavioural 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.

Source: OECD calculations based on Eurostat Database (EHIS in or around 2014), OECD Health Statistics and HBSC survey in 2013–14. (Chart design: Laboratorio MeS).

5. Binge drinking behaviour is defined as consuming six or more alcoholic beverages on a single occasion, at least once a month over the past year.

4 The health system

Bulgaria's Social Health Insurance system is highly centralised

In 1998, Bulgaria introduced a centralised SHI system, a decision that ran in parallel with the country's transformation from a centrally planned economy to a market economy. The Ministry of Health is responsible for overall organisation and policy formulation, while the National Health Insurance Fund (NHIF) is the core purchaser in the system. By law, all citizens are required to obtain insurance and have a right to access care.

A persistently high share of citizens remains uninsured

In 2013, an estimated 12% of the population did not have SHI coverage (Advisory Services Agreement, 2015). Moreover, if citizens fail to pay three monthly contributions in the previous 36 months, they lose coverage. This especially puts vulnerable groups, such as the long-term unemployed and the poor at risk. Furthermore, some may not be aware of their eligibility to receive government funded SHI contributions.

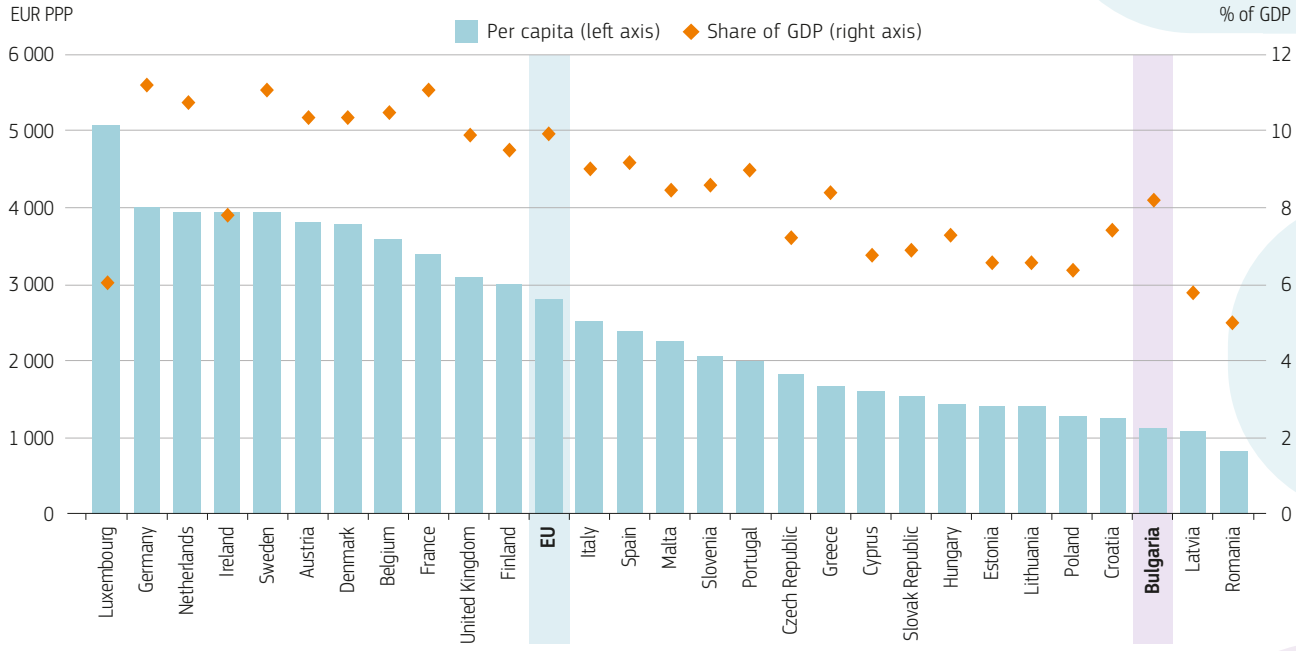
Lack of insurance is particularly prevalent among the Roma population, of which 35% have no health coverage (Advisory Services Agreement, 2015). These numbers need to be treated with caution, however, as registration systems are weak and many of those counted as uninsured may be living abroad.

Strengthening purchasing and care coordination are key aims

New reforms have aimed to strengthen the purchasing process in Bulgaria. The main purchaser of health services is the NHIF, which operates through 28 Regional Health Insurance Funds. A National Framework Contract signed with national provider associations governs the relationship between the NHIF and providers. Since 2015, there have been plans to allow selective contracting of hospitals if the capacity exceeds population needs as defined by National and Regional Health Maps (see Box 1).

Furthermore, changes to the Law on Health introduced the concept of integrated care (2015). This law established and allowed a new type of health care provider, integrated social and health service centres for children with disabilities and chronic conditions. Although implementation has yet to start, it has the potential to overhaul the delivery of care.

Figure 6. Bulgaria is one of the lowest spenders on health in Europe



Sources: OECD Health Statistics, Eurostat Database, WHO Global Health Expenditure Database (data refer to 2015).

BOX 1. WILL THE NATIONAL AND REGIONAL HEALTH MAPS BE IMPLEMENTED?

In 2015, the National and Regional Health Maps were introduced as an instrument for defining the needs of the population in outpatient (or ambulatory) and inpatient care. A year later, the Council of Ministers defined the rules and criteria under which the regional branches of the NHIF can selectively contract with hospitals. This formal step was highly important as it gave the maps a practical meaning. However, in May 2017, the Supreme Administrative Court repealed these criteria based on administrative and rather technical grounds. This decision, coupled with uncertainty surrounding the newly elected government's policies (March 2017), increase the risk of significant implementation delays.

Health spending is very low and strongly reliant on out-of-pocket payments

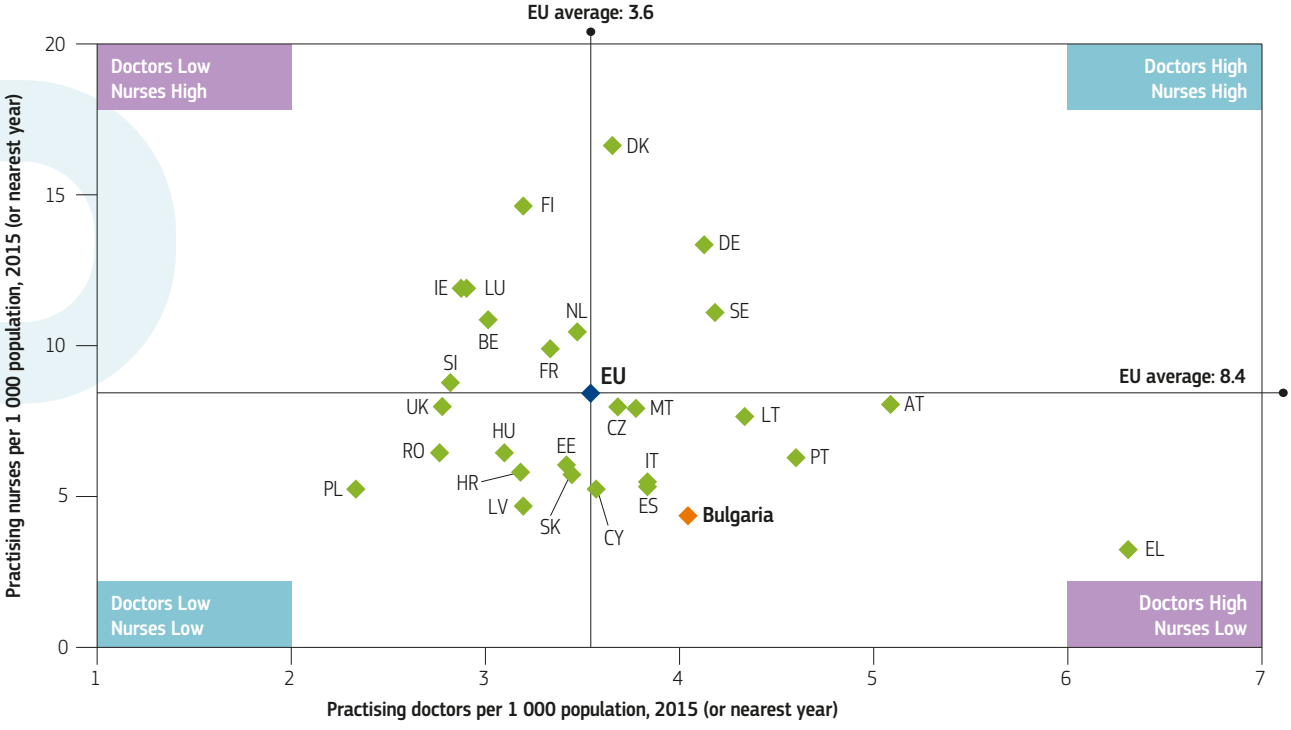
At EUR 1 117 per capita in 2015 (adjusted for purchasing power), Bulgaria's health expenditure was the third lowest in the EU in 2015 (Figure 6). This translates to 8.2% of GDP, well below the EU average of 9.9%. About half (51%) came from public sources, which is the second lowest share in the EU after Cyprus. In 2017, the NHIF budget was increased by 7.7%, with the additional money earmarked for health promotion efforts and strengthening outpatient care (see Section 5.1).

The level of out-of-pocket payments in Bulgaria is the highest in the EU. Indeed, out-of-pocket spending accounted for 48% of health expenditures, compared to a 15% average in the EU. Inevitably, this has adverse implications for health care access (see Section 5.2). Pharmaceuticals absorb the largest share of out-of-pocket payments followed by hospital services. External sources account for 1% of total health spending. Among them is the European Structural and Investment Fund, which is used for capacity building in data collection and processing, as well as human resource development and health infrastructure.

The workforce is challenged by severe shortages and a persistent migration problem

Bulgaria has a comparatively high proportion of physicians but the second lowest proportion of nurses in the EU (Figure 7). Although the proportion of physicians is high, only 15.6% are general practitioners (GPs) compared to 30.2% at EU level. In contrast, density of midwives is well above the EU average, while the proportion of dentists is among the highest in Europe.

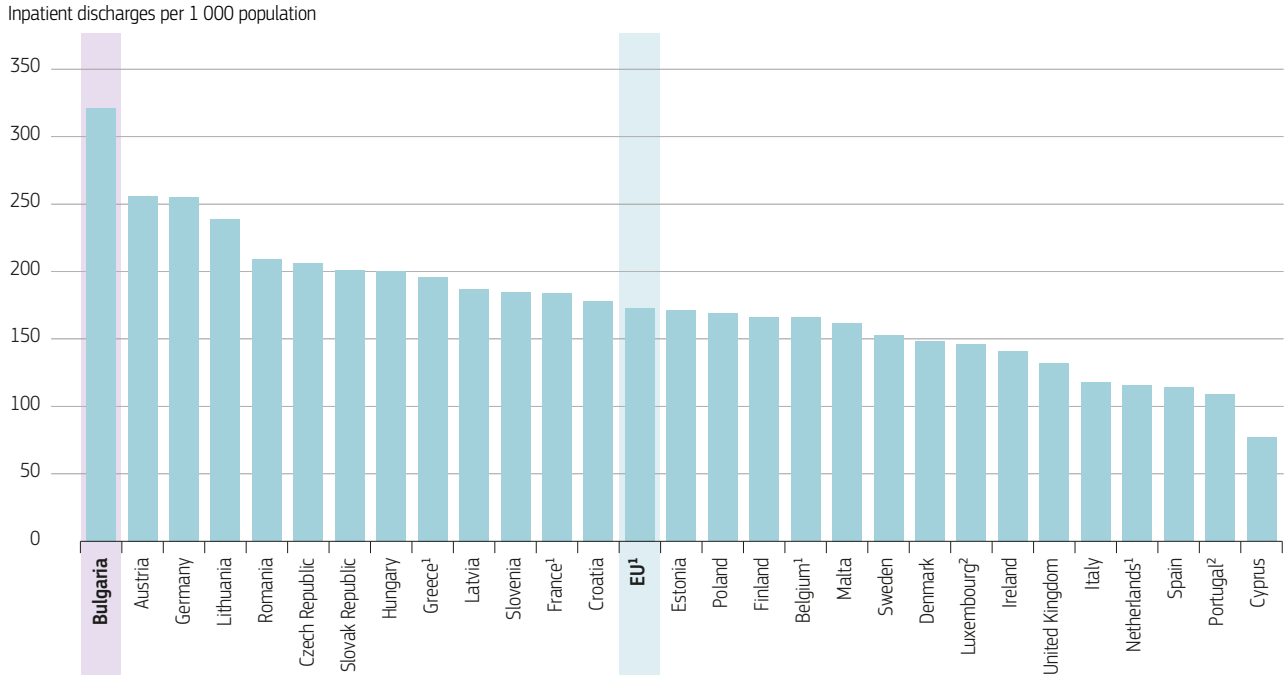
Figure 7. The Bulgarian health workforce has very low numbers of nurses



Note: In Portugal and Greece, data refer to all doctors licensed to practice, resulting in a large overestimation of the number of practising doctors (e.g. by around 30% in Portugal). In Austria and Greece, the number of nurses is under-estimated as it only includes those working in hospital.

Source: Eurostat Database.

Figure 8. Bulgaria has the highest number of inpatient discharges per 1 000 population in the EU



Note: These values have been estimated by OECD to calculate the EU28 weighted average. 2. Estimated values.

Source: Eurostat Database (data refers to 2015).

The low numbers of graduates entering the health workforce has been a long-standing concern. Moreover, many professionals go abroad due to low recognition and low pay at home. In 2015, 2 636 medical doctors who had trained in Bulgaria worked abroad, with Germany, France and the United States being the most popular destinations. This reflects a six-fold increase since 2003 and constitutes more than half of the currently employed GP workforce (OECD, 2016). According to the Bulgarian Nursing Association, a similar trend exists for nurses but exact data are lacking (BAHPN, 2017).



In health service provision, hospital care remains dominant

Bulgaria's primary care system is comparatively weak (Kringos et al., 2013) (see also Section 5.1). GPs are supposed to act as gatekeepers, operating with a limited number of referrals to outpatient specialists and inpatient services. However, considerable regional variation exists in the density of GPs and the number of enlisted patients per GP (see Section 5.2). Furthermore, Bulgarians only have about 5.9 outpatient contacts per capita (2015), below the EU average of 7.5.

Reflecting weak primary care as well as over-reliance on hospitals, the number of inpatient discharges is the highest in the EU (Figure 8). Furthermore, Bulgaria has one of the largest number of acute care beds in the EU with 6.0 beds per 1 000 population (2015) as compared to an EU average of 4.2.

5 Performance of the health system

5.1 EFFECTIVENESS

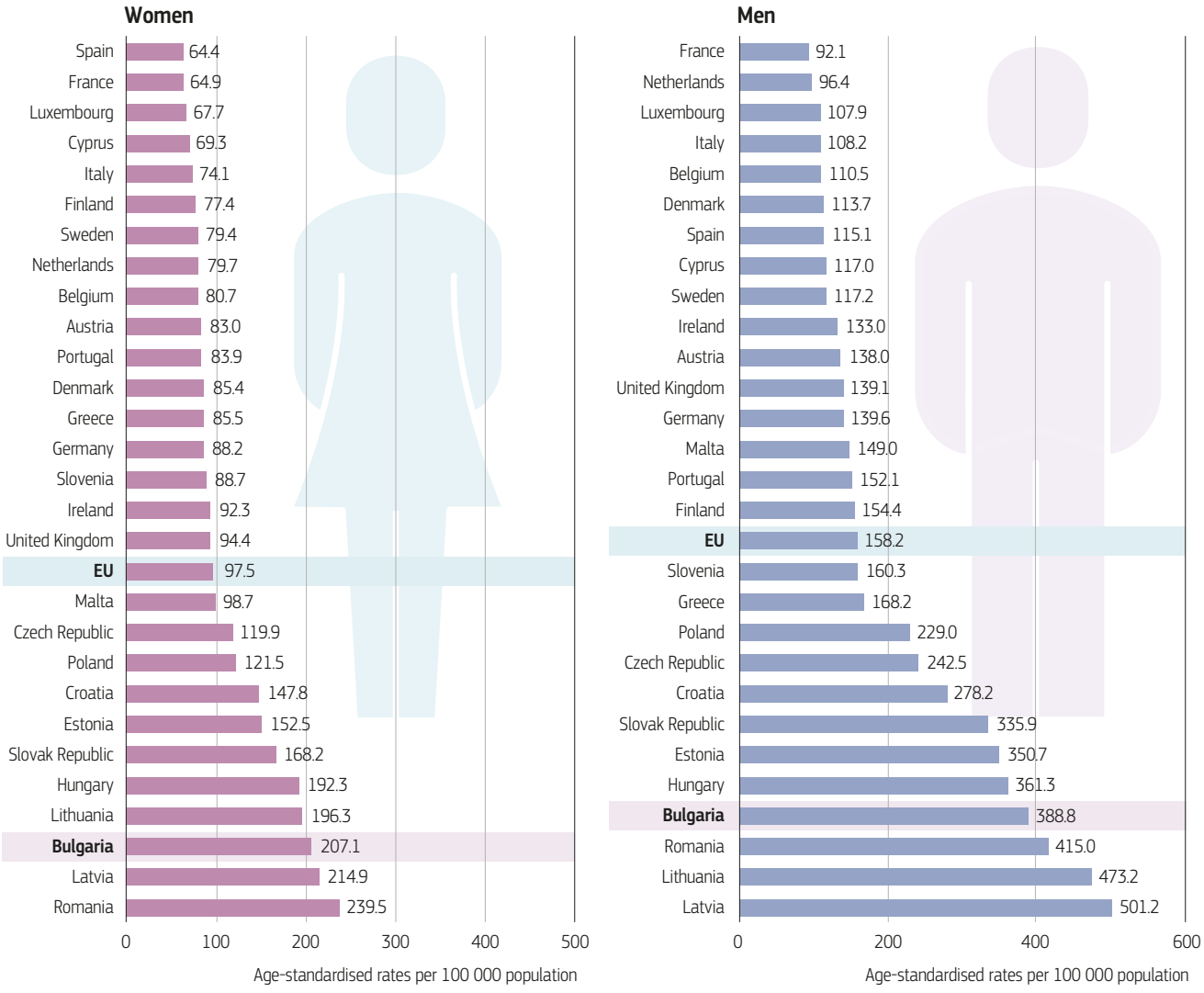
Amenable mortality from cardiovascular diseases is exceptionally high

Despite a 17% reduction of amenable mortality between 2004 and 2014, the Bulgarian health system is one of the worst performing countries in this respect.[6] Amenable mortality for both men and women is about twice as high as the EU average in 2014 (Figure 9). About 20 000 deaths (or 19% of all deaths) in 2014 were still considered to be avoidable, much higher than the European average of 11%.

The most important contributor to high rates of amenable morality is the persistently high mortality from cardiovascular diseases (CVDs). The standardised death rate (SDR) from cerebrovascular diseases (e.g. stroke) was more than four times the EU average in 2014 and more than seven times that of the country with the lowest SDR, France (Figure 10). In addition, mortality rates from hypertension (almost four times the EU average) and ischaemic heart disease (1.5 times greater than the EU) are very high. If Bulgaria could reduce CVD mortality to the EU average, it would push all-cause mortality below the EU average. Improvements in CVD prevention and treatment are possible and could have a large impact on population health.

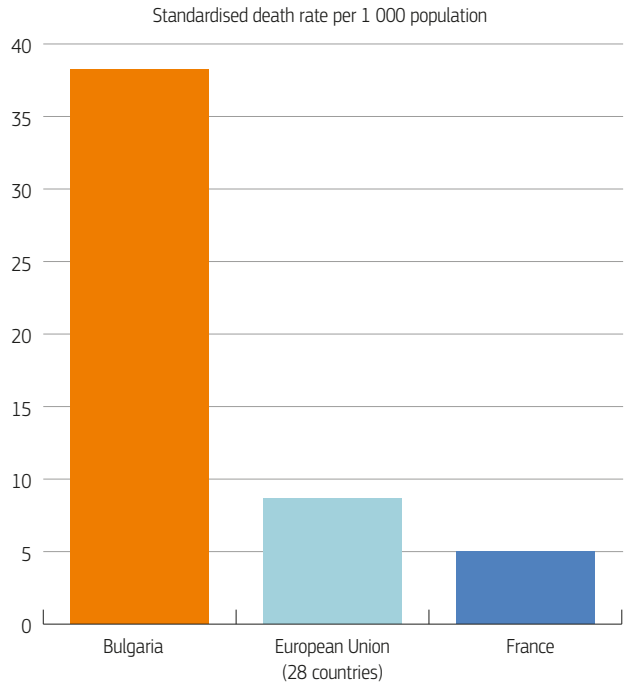
6. Amenable mortality is defined as premature deaths that could have been avoided through timely and effective health care.

Figure 9. Amenable mortality is among the highest in Europe for both men and women



Source: Eurostat Database (data refer to 2014).

Figure 10. Mortality from stroke in Bulgaria is more than four times the EU average



Note: This data refers to population aged less than 65 years and comprises all cerebrovascular diseases.
Source: Eurostat Database, 2017 (data refer to 2014).

Another challenge is rising cancer mortality. Whereas the SDR for colorectal cancer is close to the EU level, for cervical cancer (4.7 per 100 000) it is more than double the average (2.1 per 100 000). Furthermore, the SDR for TB remains high at 1.7, which is almost twice the EU average. Finally, comparatively high amenable mortality rates for nephritis (8.6 in Bulgaria versus 2.4 on average in the EU) indicate that there is room for improvement in renal replacement therapy (dialysis).

Recent efforts to strengthen health promotion and prevention have yet to show their effects

A substantial proportion of deaths could be prevented by tackling behavioural risk factors and strengthening primary prevention. In particular, the prevalence of smoking and alcohol consumption in Bulgaria continues to be among the highest in Europe (see Section 3). However, in 2014 alcohol-related death rates were only slightly above EU average, as were deaths rates due to traffic accidents.

On a positive note, Bulgaria has recently scaled up health promotion and prevention efforts. A smoking ban in public places was introduced in 2012 and the National Prevention Programme (2014–20) focuses attention on early detection of non-communicable diseases, especially CVDs. This is supported by a budget increase in 2017, earmarked for early detection and screening. Providers are incentivised to participate in screening, examination and prophylaxis.

High rates of avoidable hospital admissions point to weak primary care and lack of coordination

Hospital admission rates due to chronic conditions, such as diabetes, CVDs and diseases of the respiratory system are among the highest in the EU. Hospital (re-)admissions of patients with these conditions can be effectively treated in ambulatory care. In fact, a 2013 analysis of hospitalisations suggested that at least 20% of inpatient procedures performed in Bulgaria could have been conducted in outpatient settings (World Bank, 2013). Nevertheless, the inpatient care sector has continued to grow since 2013.

There are various explanations for the high number of potentially avoidable hospital admissions, including the fact that accessibility of outpatient care is limited in some regions; financial incentives encourage hospitals to treat more patients; ceilings on some diagnostic referrals in primary care lead to patients being admitted for inpatient care; and patients preferring inpatient care over outpatient settings (see also Section 4).

Unstable financing and low coverage in rural areas lead to low cancer screening rates

According to CONCORD Programme data, five-year cancer survival rates have increased between 2000–04 and 2010–14 for cervical cancer (from 49.2% to 54.8%), breast cancer (70.9% to 78.3%) and colon cancer (43.9% to 52.4%) but they remain lower than in most other EU countries. Additional points of concern are the very low survival rates from lung cancer (6.3% in 2005–09) and liver cancer (5%) (Allemani et al., 2015).

Bulgaria is still implementing nationwide mechanisms for early detection of non-communicable diseases. Since 2009, it has screening programmes for cervical, breast, prostate and colorectal cancer. However, limited resources and a focus on treatment rather than on prevention hinder full screening coverage of the population, which up until now have focused on certain districts and high-risk groups. Indeed, in 2015, screening uptake for breast cancer and cervical cancer were 13.6% and 8.6% respectively, and even lower in rural areas.[7]

Vaccination rates are low

Child immunisation rates are low compared to the EU average and have begun to drop since 2013. In addition, there have been recurrent infectious disease outbreaks among the Roma population. In response, special vaccination programmes have been rolled out

7. Self-reported data from the 2014 EHIS show higher rates: 32% of Bulgarian women aged 50–69 reported having had a breast cancer screening over the past two years and 69% of women aged 20–69 reported having had a cervical cancer screening over the past three years.

to reach vulnerable groups, such as the Roma. Uptake of influenza vaccination among those aged 65 and over is very low in Bulgaria, just 2.4%, the second lowest in the EU, after Estonia.

Ensuring quality of care is challenging

There is no reliable national monitoring or quality assurance system and information on quality is scarce. Many (often small) hospitals lack the necessary qualified staff and technical equipment (CT scanners, intensive care units) to provide high quality care and do not exchange data across providers. Quality concerns have been repeatedly reported for both local hospitals and local outpatient services. However, a recent EU-funded initiative aims to develop electronic health records, electronic referral and electronic prescription systems. Another quality-related issue is the high use of antibiotics and rising rates of antimicrobial resistance (see Box 2).

5.2 ACCESSIBILITY

Lack of affordability contributes most to unmet needs for medical care

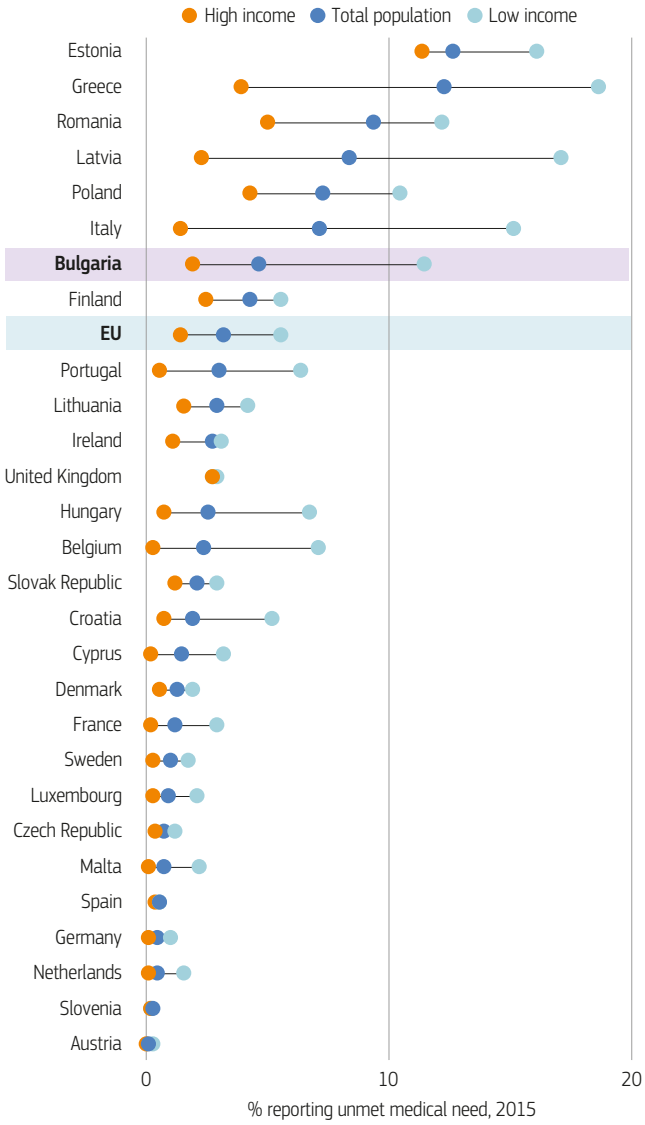
A considerable share of Bulgarians (4.7% in 2015) reported unmet needs for a medical examination or treatment (Figure 11), with financial reasons being the most important cause. Travel distance and the availability of doctors also remain important barriers to access, especially for low income patients. In contrast, unmet needs for dental care are comparatively low in Bulgaria, which may relate to the high density of dentists (see Section 4).

National surveys also confirm regional inequalities, with a higher share of foregone care in small towns and villages (Atanasova, Mircheva and Dokova, 2016). Interestingly, waiting times are not perceived to be an important reason for unmet needs – possibly because money can usually buy faster access.

The gap in population coverage is also hindering disease prevention and control

Lack of SHI coverage creates a major barrier to access for a considerable share of the population (Section 4). Uninsured individuals have to pay directly for medical services and goods, unless they visit an emergency centre in a life-threatening situation. To limit the spread of infectious diseases among people who lack insurance, the NHIF receives additional funding to pay for the screening of uninsured individuals.

Figure 11. Unmet needs for medical care are high, in particular for low-income households



Note: The 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 2015).

BOX 2. ANTIMICROBIAL RESISTANCE IS A MAJOR PROBLEM

Antimicrobial resistance is a major public health threat in Bulgaria. Surveillance data reported to EARS-Net shows that, in 2015, 22.9% of *Streptococcus pneumoniae* bloodstream infections were resistant to penicillin, which is much higher than the EU/EEA (European Economic Area) median and is rising (ECDC, 2017). A National Programme for the Rational Use of Antibiotics and Surveillance was adopted in 2016, in accordance with the National Health Strategy 2020.

The basic benefit package changes frequently which contributes to uncertainty

The SHI system guarantees access to a basic package of health services for the insured population. It covers primary and specialised outpatient medical and dental care; laboratory services; hospital diagnostics and treatment; and highly specialised medical activities. In addition, emergency care, inpatient mental health care, renal dialysis, in vitro fertilisation and transplantations are covered by the state budget or other dedicated funds. Long-term care is mostly excluded.

The benefit basket is set by the Ministry of Health, while tariffs and payment mechanisms are specified in the National Framework Contract and negotiated on an annual basis by the NHIF and representative organisations of physicians and dentists. Attempts to reform the benefit package failed in 2016 (see Box 3). User charges were set in 2012, and certain frequent changes in the benefits package create uncertainty among patients, and financial insecurity.

BOX 3. AN ATTEMPT TO REFORM THE BENEFIT PACKAGE WAS PARTIALLY STRUCK DOWN IN COURT

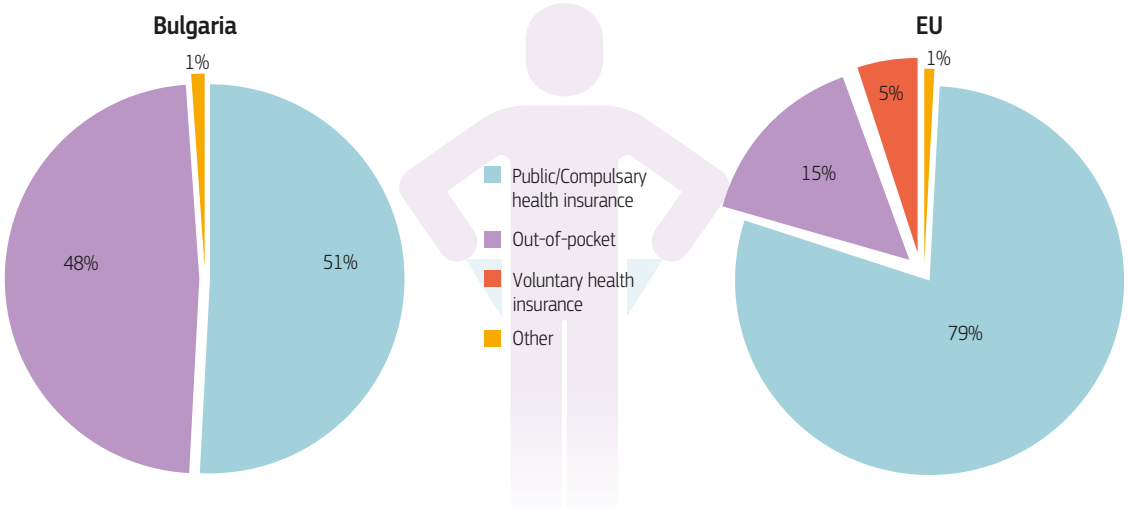
In 2016, the benefit package was to be split into two parts: basic and complementary. The basic part would cover prophylaxis, diagnosis and treatment of major diseases and conditions that cause death and disability, and maternal and child health – in accordance with the health priorities listed in the National Health Strategy *'Health 2020'*. The complementary part was to include treatment services which could be postponed without the immediate risk of a patient's condition deteriorating, such as hip replacement surgery. In 2016, the Constitutional Court rejected this proposal as unconstitutional, halting the reform. Less controversially, changes to the benefit package were successfully made which aimed to reduce hospital activity by transforming some inpatient services to ambulatory procedures (performed by hospitals or outpatient medical centres) and to promote the integration of services.

Out-of-pocket payments are the highest in Europe and threaten access for vulnerable groups

Out-of-pocket payments accounted for 47.7% of spending in 2015 – more than three times the EU average (Figure 12). Looking at out-of-pocket payments as a share of final household consumption provides an even more dramatic picture, with Bulgaria outpacing all other countries by a large margin (Figure 13). High out-of-pocket payments are caused by substantial cost sharing for most covered services (GPs, hospitals, services outside standard patient pathways, pharmaceuticals); direct payments for excluded services; and informal payments.

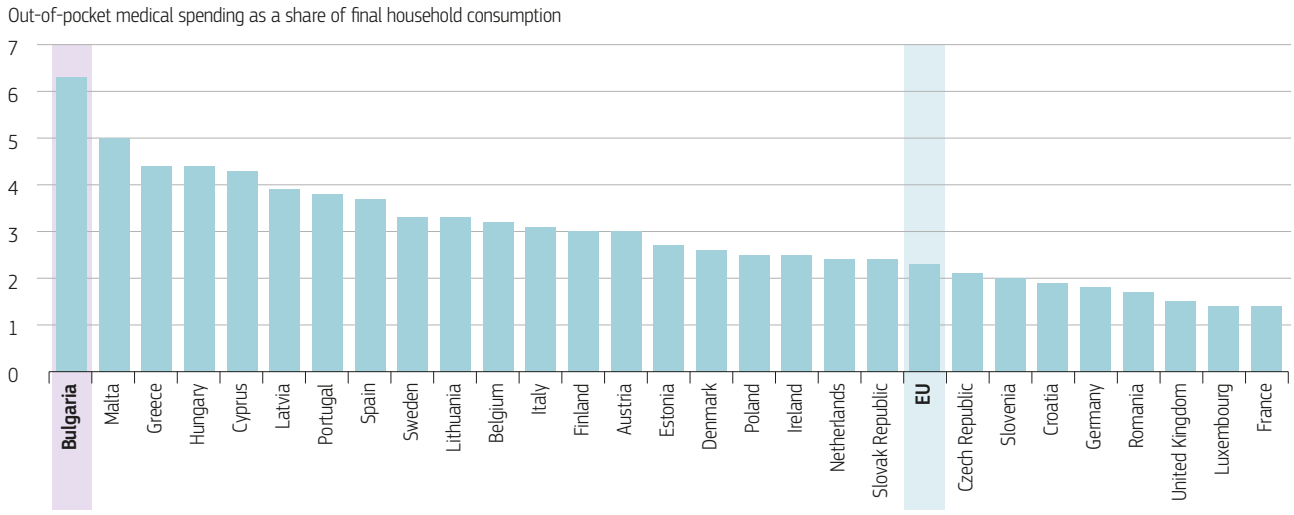
Exemptions from cost sharing exist for a range of groups, including children, pregnant women, chronically sick patients and some other eligible groups. In addition, pensioners pay reduced user fees per visit. Nevertheless, financial reasons remain the most important barrier to accessing health services, althought unmet need due to this reason fell from 16.4% in 2006 to 3.7% in 2015. This is often blamed on the existence of informal payments (Atanasova, Pavlova and Groot, 2015). Unmet need due to cost remains particularly high among the lowest income quintile (9.3% compared to 4.1% in the EU) and the difference between income quintiles is among the largest in Europe.

Figure 12. Out-of-pocket spending in Bulgaria is triple that of the EU



Source: OECD Health Statistics, Eurostat Database (data refer to 2015).

Figure 13. Bulgarians spend the most in terms of final household budget on medical care



Note: This indicator relates to current health spending excluding long-term care (health) expenditure and is displayed as percentage of final household consumption

Sources: OECD Health Statistics, Eurostat Database, WHO Global Health Expenditure Database.

A lack of personnel worsen access to health care in certain geographical areas

There is a large variation in the distribution of providers (Figure 14), which threatens accessibility. Although the number of medical graduates rose by more than 75% between 2005 and 2015, disparities in the physician workforce were not remedied for a number of reasons: first, most foreign medical students in Bulgaria are likely to pursue their career in their home country; second, many medical graduates migrate abroad (see Section 4); and, third, providers are concentrated in a few urbanised regions. The number of nursing graduates has stabilised at a very low level of approximately 300 per year since 2005. Given the already severe shortage of nurses in the country and similar migration patterns to those of medical doctors, the (regional) availability of health services will suffer.

5.3 RESILIENCE[8]

High out-of-pocket payments, unemployment and ageing threaten the system's financial stability

The heavy reliance on out-of-pocket payments as a revenue source poses substantial risks for the mid- to long-term stability of the health system, in particular during times of economic crises. A sizable part of the population is poor and cannot afford to pay for care directly. Indeed, Bulgaria reported a 41.3% share of the population at risk of poverty and social exclusion, almost double the EU average of 23.8% in 2015.

On the other hand, per capita current health spending doubled from 2005 to 2015 in nominal terms, outpacing overall economic growth. However, low incomes, the high level of uninsured individuals, a large informal sector, and continuing migration of young and well-educated people, narrows the revenue base and could threaten the stability of health system financing. Moreover, the population is ageing fast, which is caused by low fertility rates and high levels of migration. By 2050, one in three Bulgarians is projected to be 65 years or older, while only one in two Bulgarians will be of working age.

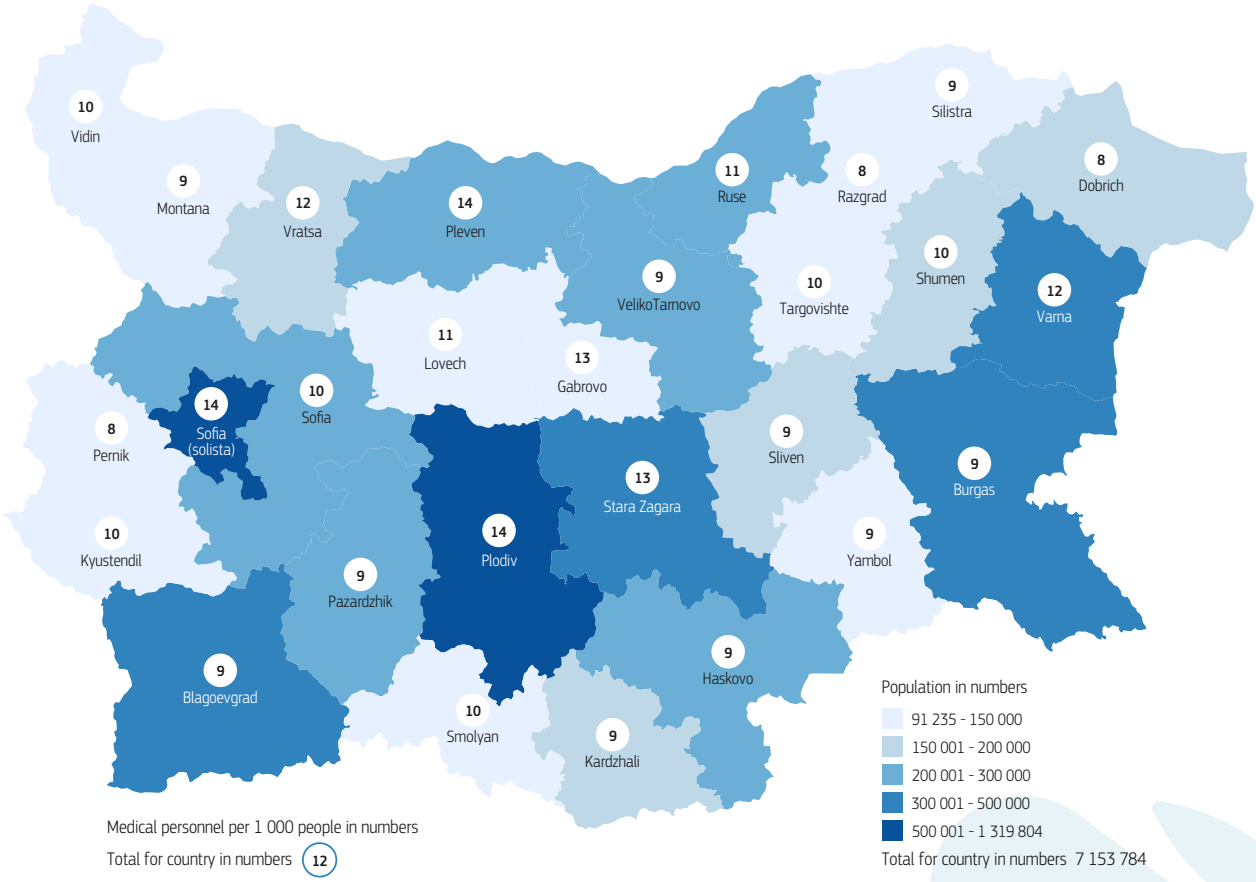
Better allocation and use of resources could potentially increase efficiency

Bulgaria spends most of its limited resources on pharmaceuticals and inpatient care. In 2015, the country spent more than 40% of total health spending on pharmaceuticals and medical goods, the highest share in the EU and more than twice the EU average. In addition, the inpatient care sector is comparably large as share of total health spending (34% versus 29% in the EU), while the share of outpatient care spending (18%) is the smallest in the EU.

Efficiency could be improved by strengthening primary care and shifting provision from expensive inpatient care to outpatient and day care. For example, tonsillectomies and cataract surgeries are still virtually all carried out in inpatient settings. Important gains could also be made on pharmaceutical spending (see section on Health Technology Assessment below).

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

Figure 14. Medical personnel are mostly concentrated in more urbanised regions



Source: National Statistical Institute (2017).

More resources are needed

Relating the level of amenable mortality to health expenditures shows that Bulgaria is performing in line with what can be expected with current spending levels. This suggests that to actually achieve improvements in health outcomes, besides polices that address risk factors and improve care, more resources are also likely needed. Indicatively, countries spending slightly more (e.g. Croatia and Poland) have much lower amenable mortality (Figure 16).

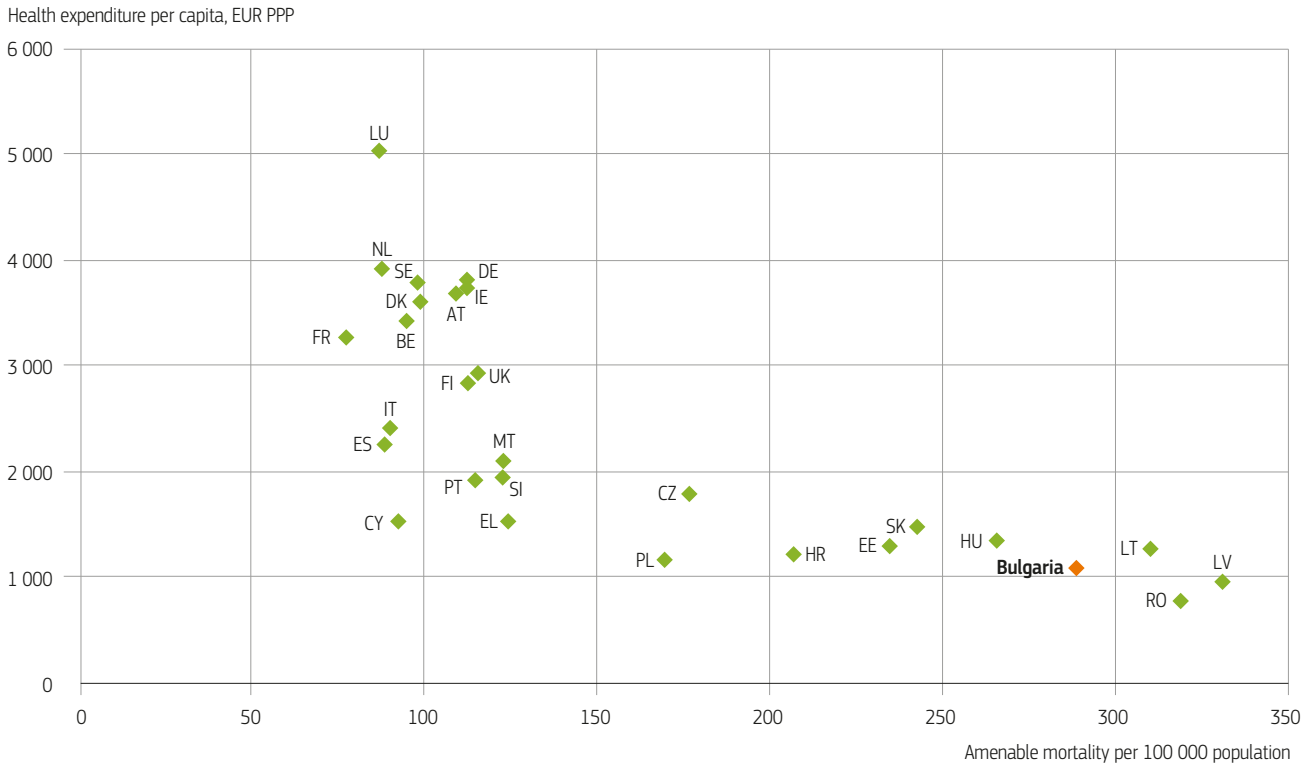
Health Technology Assessment for pharmaceuticals foreshadows better value for money

Several mechanisms have been introduced or planned to reduce pharmaceutical-related costs since 2011. In addition, the introduction of Health Technology Assessment (HTA) in 2015 is expected to (further) increase the effectiveness of pharmaceutical spending. The implementation process started only in 2016, with the establishment of a special commission at the National Centre of Public Health and Analysis. HTA is now applied for medicines belonging to new International Non-proprietary Name groups that previously are not included in the Positive Drug List.. Notwithstanding this, the root causes of Bulgaria's high share of pharmaceutical spending need to be better understood. It is most likely the result of high prices due to a lack of (centralised) purchasing power, an overconsumption of drugs paid out of pocket and perhaps still low generic penetration. Comprehensive studies and good data are lacking.

Structural reforms to contain costs and integrate care are in their early stages

Improving the efficiency of the hospital sector has been the focus of several recent reforms. These have sought to reduce inpatient capacity by allowing selective contracting, making changes to the benefit package (see Sections 4 and 5.2), allowing more ambulatory treatments, and fostering cost-effectiveness and quality information. Additionally, recent plans to introduce integrated care into the health system are encouraging (see Section 4).

Figure 15. Bulgaria could improve amenable mortality by spending more on health



Source: OECD Health Statistics, Eurostat Database, WHO Global Health Expenditure Database (data refer to 2014).

Combined, these initiatives could both help to reduce inpatient care activity and increase the degree of coordination of care. Some early results show that certain inpatient care procedures are now performed in outpatient settings. In light of rising chronic conditions and complex co-morbidities, improving coordination across sectors could potentially improve quality and reduce costs.

The new approach to stakeholder engagement in health policy making is promising

Bulgaria has improved its accountability mechanisms in recent years. An interest among public bodies in undertaking performance assessments has grown. The National Health Strategy (2008–13) prioritised care quality and access to health services, human resources development, as well as restructuring and efficient management of hospital care. It also laid out plans to the increase the adequacy of the financing system. The strategy sets out indicators for assessing and monitoring implementation, deadlines for activities and institutional responsibilities.

Additionally, strategies for the prevention, mitigation and early detection of non-communicable diseases resulted in initial successes, such as the smoking ban in 2012. The National Prevention Programme 2014–20 continues to prioritise health prevention but it is too early to assess the overall impact of this strategy.

Lastly, since 2015, an innovative forum, the Partnership for Health, acts as a consultative body to the Council of Ministers and is chaired by the Minister of Health. Based on consultations with a wide range of stakeholders, it has played a key role in recent reform initiatives, such as pharmaceutical policy, structural changes in the health system, and quality of care.

6 Key findings

- Bulgaria's health system faces several major challenges simultaneously. It has the second lowest life expectancy in the EU (after Lithuania) and some alarmingly high behavioural risk factors (smoking, drinking, increasing obesity), as well as a rapidly ageing population, workforce shortages and low spending on health. Bulgaria will have to choose wisely to strategically spend its limited resources and maintain the resilience of the health system.

- The health system has not been effective in reducing amenable or preventable mortality, as reflected in persistently high mortality from diseases such as cardiovascular diseases and a rising mortality from cancer, diabetes and non-communicable diseases. In fact, Bulgaria has the highest mortality rate from cerebrovascular diseases (e.g. stroke) in the EU and very low survival rates for several cancers. This signals substantial room to improve health services, for example by improving access and care quality, as well as better prevention and better care coordination.

- More positively, some progress has been made with health prevention and early detection of chronic diseases since 2008, and more recently, with attempts to introduce integrated care. The 2017 budget allocates additional funds for early detection of cardiovascular diseases for example. Yet more time is needed for results to materialise.

- Health financing is characterised by low total spending, as well as very high out-of-pocket payments. Although growth in health spending outpaced the overall economy in recent years, the revenue base needs broadening to protect it from economic shocks, low employment, a large informal sector and a deteriorating dependency ratio due to ageing.

- A better allocation and use of resources has the potential to increase efficiency. Currently, Bulgaria spends most of its resources on pharmaceuticals and inpatient care. Primary care could be strengthened and more cases could be treated in day care and outpatient care. Recent reforms in the hospital sector have sought to address this problem. Furthermore, pharmaceutical spending should be a focus going forward. With the introduction of Health Technology Assessment already under way, the root causes (e.g. prices and volumes) of high pharmaceutical spending can be properly assessed and new policies developed.

- Access to health services remains a problem. Some 12% of citizens are without insurance and high out-of-pocket payments threaten access to health care for vulnerable groups, including the Roma, lower income households, and older people. Although some out-of-pocket exemptions exist, this does not protect people from informal payments, which are still present in Bulgaria. Travel distance and availability of doctors also pose important access barriers, especially for people in lower income groups.

- The (future) workforce is challenged by severe shortages and a persistent migration problem. Most notably, there are great regional disparities in the distribution of GPs and large shortages of nurses. Health professionals migrate to other countries in search of better career prospects and better pay. Policies to address these issues are needed so that an effective health workforce and skill mix can be guaranteed in the long term.

- Much-needed progress has been made in strengthening the governance and accountability of the Bulgarian health system. Given the wide range of challenges ahead, the direction and implementation of recent reforms are encouraging.

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Country abbreviations

Austria	AT	Denmark	DK	Hungary	HU	Malta	MT	Slovenia	SI
Belgium	BE	Estonia	EE	Ireland	IE	Netherlands	NL	Spain	ES
Bulgaria	BG	Finland	FI	Italy	IT	Poland	PL	Sweden	SE
Croatia	HR	France	FR	Latvia	LV	Portugal	PT	United Kingdom	UK
Cyprus	CY	Germany	DE	Lithuania	LT	Romania	RO		
Czech Republic	CZ	Greece	EL	Luxembourg	LU	Slovak Republic	SK		

European Commission

State of Health in the EU

Country Health Profile 2017

The Country Health Profiles are an important step in the European Commission's two-year *State of Health in the EU* cycle and 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. This series was co-ordinated by the Commission and produced with the financial assistance of the European Union.

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 Member State. The aim is to create a means for mutual learning and voluntary exchange that supports the efforts of Member States in their evidence-based policy making.

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