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State of Health in the EU

Czechia

Country Health Profile 2019

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European Observatory on Health Systems and Policies
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The Country Health Profile series

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

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

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Data and information sources

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

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

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

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

Demographic and socioeconomic context in Czechia, 2017

Demographic factors	Czechia	EU
Population size (mid-year estimates)	10 594 000	511 876 000
Share of population over age 65 (%)	18.8	19.4
Fertility rate[1]	1.7	1.6
Socioeconomic factors		
GDP per capita (EUR PPP[2])	26 900	30 000
Relative poverty rate[3] (%)	9.1	16.9
Unemployment rate (%)	2.9	7.6

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

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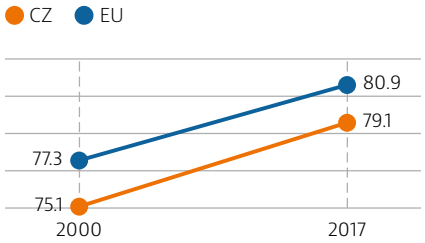
1 Highlights

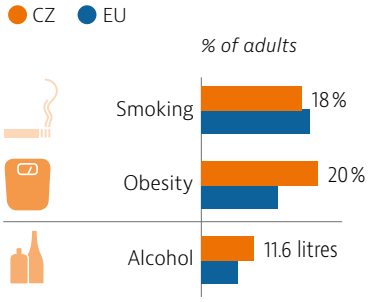
The Czech Social Health Insurance scheme offers universal health coverage, a broad benefits basket, high levels of accessibility, and good financial protection to its citizens. In general, the health system has been successful in tackling life-threatening diseases but could improve its response to chronic diseases and strengthen disease prevention. The Ministry of Health has a strong regulatory role but has yet to tackle the most pressing issues facing the system, including population ageing, low capital investments and workforce disparities.



Life expectancy at birth, years

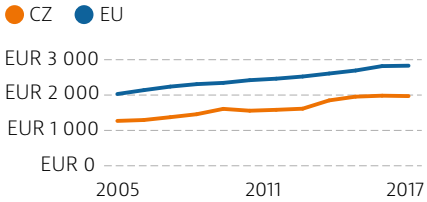
Health status

Life expectancy increased by four years between 2000 and 2017 but remains about two years below the EU average. Czechia has successfully reduced mortality from ischaemic heart disease, stroke, colorectal and breast cancer, but mortality from Alzheimer's disease is growing. Disparities in health status by gender and socioeconomic status are also pronounced: the least educated men live 11 years less than the most educated, and there are also wide gaps in self-reported health by income groups.



Risk factors

Behavioural risk factors, such as poor diet and low physical activity, contribute to a high prevalence of obesity, which reached 20 % of the population in 2017 – above the EU average (15 %). Obesity is rising in adolescents and adults, with particularly drastic increases among males and those with lower education. The smoking rate for adults fell to 18 % in 2017 and has the potential for further reduction after the introduction of a strengthened smoking ban in 2017. The Czech population consumes on average 1.7 litres more alcohol per person than their EU counterparts.



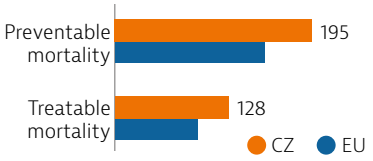
Per capita spending (EUR PPP)

Health system

Health expenditure in 2017 stood at EUR 2 096 per person, below the EU average (EUR 2 884) but has been increasing since 2005. Public spending accounts for more than 80 %, which is among the highest in the EU. Nevertheless, out-of-pocket spending, mainly from cost-sharing, has slightly increased from 2015-16. Outpatient (or ambulatory) care absorbs most health funding followed by inpatient care, together reflecting a dense provider network and a high level of utilisation.

Effectiveness

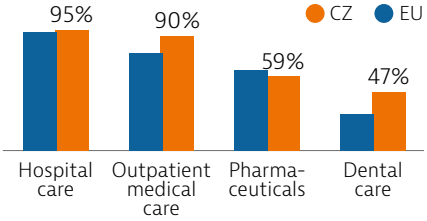
Mortality from preventable and treatable causes are both higher than the EU average. Ischaemic heart disease and stroke cause the majority of avoidable deaths, despite notable reductions. Cancer survival is improving but still below the EU average.



Age-standardised mortality rate per 100 000 population, 2016

Accessibility

Few people reported unmet needs for medical care in 2017. The health system provides broad coverage with many benefits and low cost-sharing. The primary care network is characterised by large regional disparities, which can hamper access.



Public coverage for selected goods and services, 2016

Resilience

The long-term fiscal sustainability of the health system is a long-standing and well-known challenge. Diversifying the funding base and increasing capital investment are major challenges. Population ageing will put further pressure on public spending, as well as on long-term workforce planning.

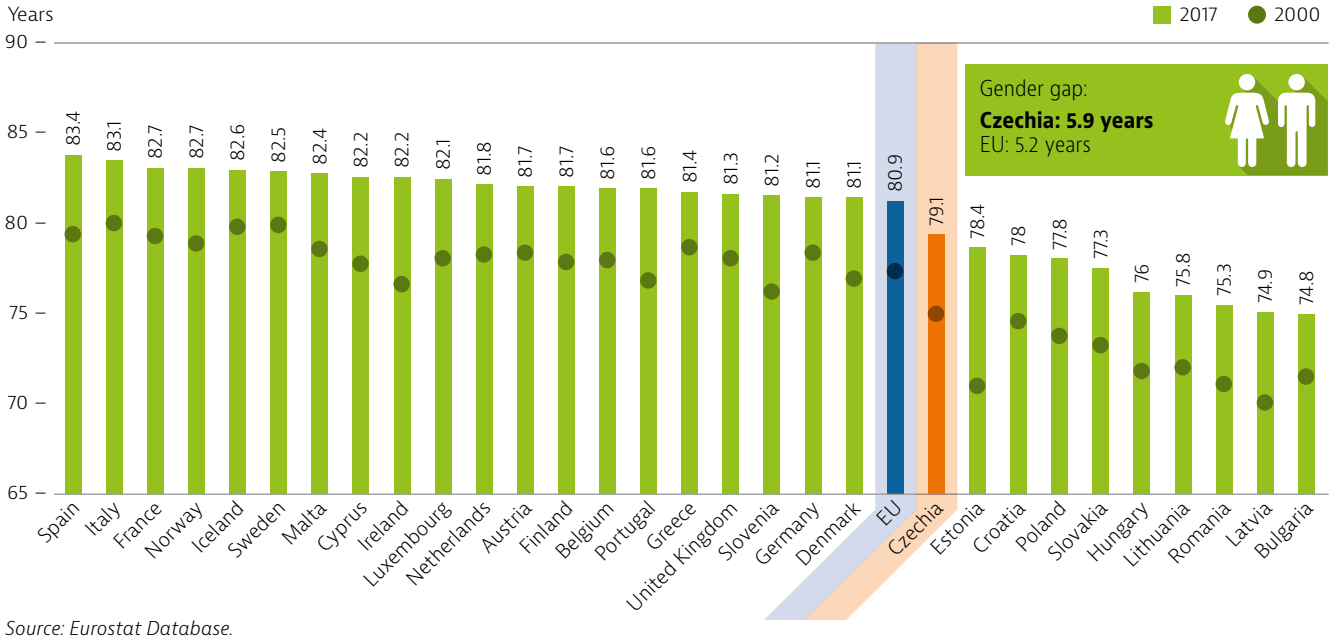
2 Health in Czechia

Life expectancy at birth has increased but continues to be below the EU average

Life expectancy at birth increased by four years between 2000 and 2017 (from 75.1 to 79.1 years) and is among the highest of the newer EU Member States. Nevertheless, in 2017, it was still almost two years below the EU average (80.9 years, Figure 1). On average, women live nearly six years longer than men (76.1 compared to 82 years). The gender gap has continuously narrowed since 2000 but is above the EU average (5.2 years).

The gains in life expectancy can be attributed to a 25 % reduction in mortality between 2000 and 2016. However, based on the data in 2016, mortality from external causes, including transport and other accidents, as well as mortality from infectious diseases, continue to be of concern as they remain above EU averages. There are also substantial regional variations in life expectancy, with the capital region of Prague registering life expectancy that is nearly four years higher than the worst performing regions Moravskoslezský and Severozápad. In fact, life expectancy in Prague (80.8 years in 2017) is similar to the EU average.

Figure 1. Life expectancy at birth in Czechia is almost two years below the EU average



Source: Eurostat Database.

Inequalities in life expectancy by education are substantial

In addition to regional disparities, inequalities across educational levels are substantial. Men with low levels of education live on average 11 years less than those with a tertiary education (Figure 2). The education gap is much smaller for women (3 years), and below the EU average of 4.1 years. The results relate to the higher prevalence of risk factors among those with lower education as well as unemployment and eroding accessibility to health services in some areas (European Commission, 2019).

Ischaemic heart disease and stroke are the leading causes of death

In 2016, ischaemic heart disease represented approximatively one fifth (22 %) of all deaths. These deaths decreased by 20 % between 2000 and 2016

Figure 2. The education gap in life expectancy at age 30 in Czechia is 11 years for men and 3 years for women

Education gap in life expectancy at age 30:

Czechia: 3 years
EU21: 4.1 years

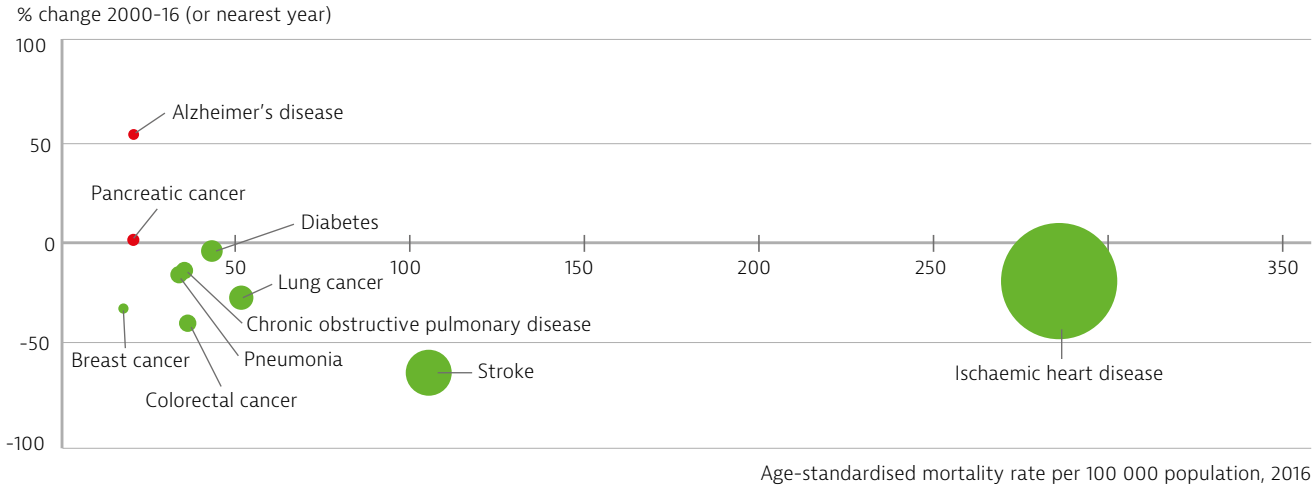
Czechia: 11.1 years
EU21: 7.6 years

Note: Data refer to life expectancy at age 30. Lower education levels refer to people with less than primary, primary or lower secondary education (International Standard Classification of Education (ISCED) levels 0-2), while higher education levels refer to people with tertiary education (ISCED levels 5-8).
Source: Eurostat Database (data refer to 2016).

(Figure 3), but the rate is still more than twice the corresponding EU average. In contrast, deaths from stroke more than halved during this time period, reflecting policies after the mid-2000s to reduce risk factors and centralise care for this condition (Section 5.1). Nonetheless, stroke accounted for around 9 % of all deaths in 2016.

Lung cancer is the most frequent cause of death by cancer, but Czechia has seen a notable decrease of 27 % since 2000, coinciding with reductions in smoking rates (Section 3). There is a similar trend for colorectal and breast cancer. Respiratory system diseases account for the third largest share of deaths, with chronic lower respiratory diseases (e.g. chronic obstructive pulmonary disease (COPD) and pneumonia) making up a large portion. Mortality related to pancreatic cancer has stagnated with a small increase while mortality rates from Alzheimer's disease increased considerably, which is largely due to improved diagnostics and changing death coding practices and data processing.

Figure 3. While heart disease and stroke are the major causes of mortality, deaths from Alzheimer's disease are rising

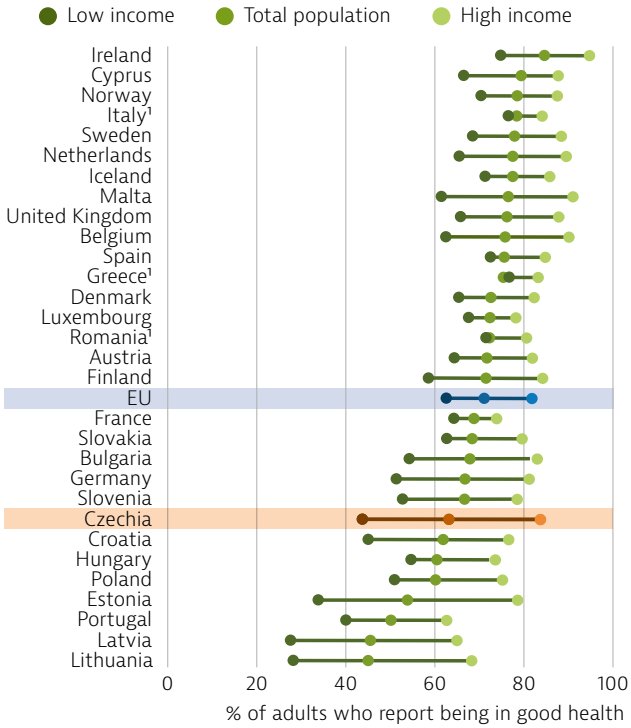


Note: The size of the bubbles is proportional to the mortality rates in 2016. The increase in mortality rates from Alzheimer's disease is largely due to changes in diagnostic and death coding practices.
Source: Eurostat Database.

Three fifths of the population report being in good health, but with marked disparities between income groups

In 2017, three in five Czech adults reported being in good health, which is less than in the EU as a whole (62 % compared to 70 %, Figure 4). However, disparities across income groups are substantial and one of the highest in the EU. More than 80 % of those in the highest income quintile consider themselves to be in good health, compared to only 42 % in the lowest income quintile. The proportion of people who report being in good health declines with age: only about one quarter of Czech people aged over 65 report being in good health, compared with three quarters among adults aged 16-64.

Figure 4. Inequalities in self-reported health by income level are substantial



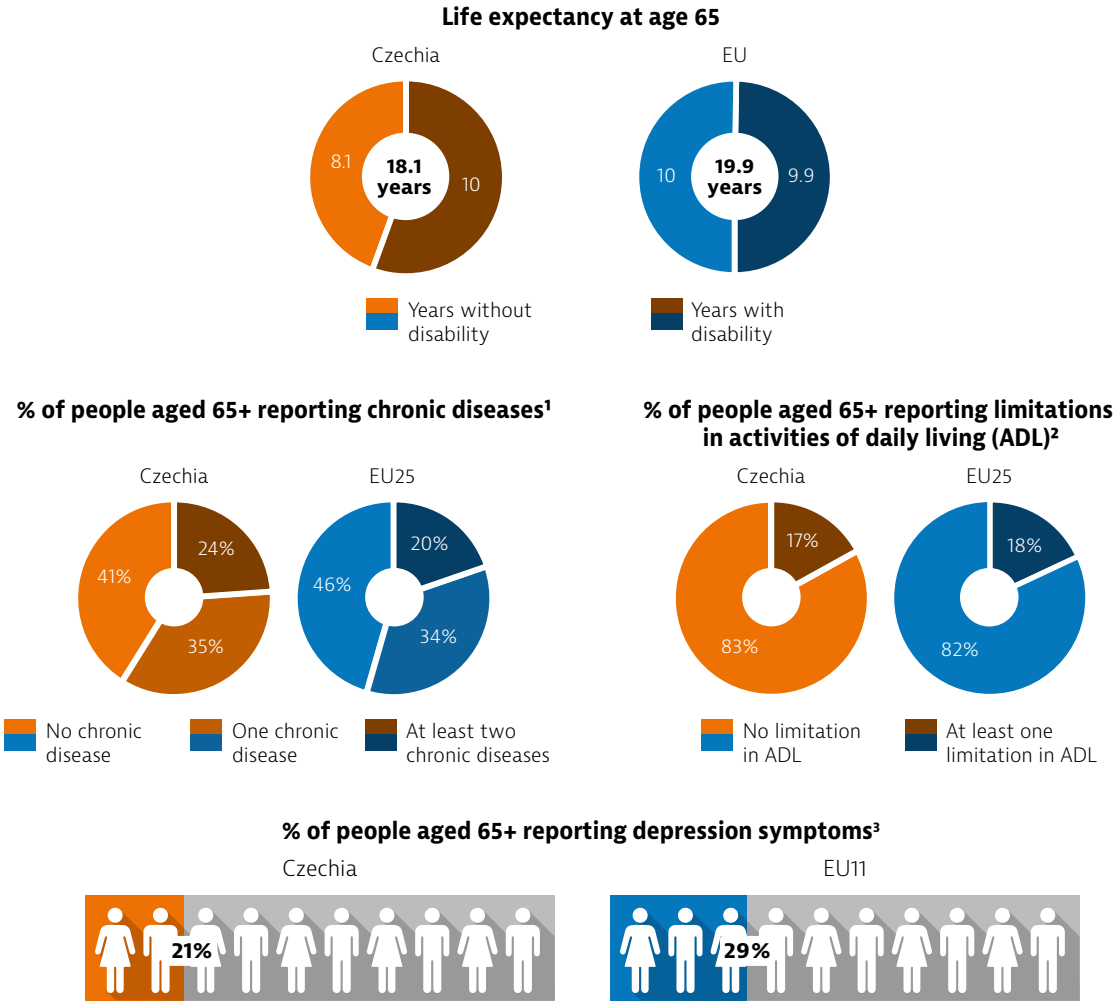
Note: 1. The shares for the total population and the population on low incomes are roughly the same.
Source: Eurostat Database, based on EU-SILC (data refer to 2017).

Just over half of life after 65 is lived with disabilities

In 2017, Czechs aged 65 could expect to live an additional 18.1 years, 2.4 years more than in 2000. However, more than half of this period is spent with some chronic diseases and disabilities (Figure 5). The gender gap in life expectancy at age 65 is almost four years (16.2 years for men compared to 19.8 years for women). However, there is almost no gender gap in the number of healthy life years[1] because women tend to live a greater proportion of their lives after age 65 with some disabilities.

About three in five individuals aged 65 and over (59 %) report having at least one chronic disease, which is above the EU average of 54 %. In addition, around a quarter of the Czech population report having two or more chronic conditions, while the percentage of people reporting some limitations in basic activities of daily living (ADL; such as bathing, dressing or getting out of bed) is around the same as the EU average (Figure 5). Czechs aged 65 and older are less likely to report some mild or severe symptoms of depression than their EU counterparts.

Figure 5. Around three in five people aged 65 and over report having at least one chronic disease



Note: 1. Chronic diseases include heart attack, stroke, diabetes, Parkinson's disease, Alzheimer's disease and rheumatoid arthritis or osteoarthritis. 2. Basic activities of daily living include dressing, walking across a room, bathing or showering, eating, getting in or out of bed and using the toilet. 3. People are considered to have depression symptoms if they report more than three depression symptoms (out of 12 possible variables).
Sources: Eurostat Database for life expectancy and healthy life years (data refer to 2017); SHARE survey for other indicators (data refer to 2017).

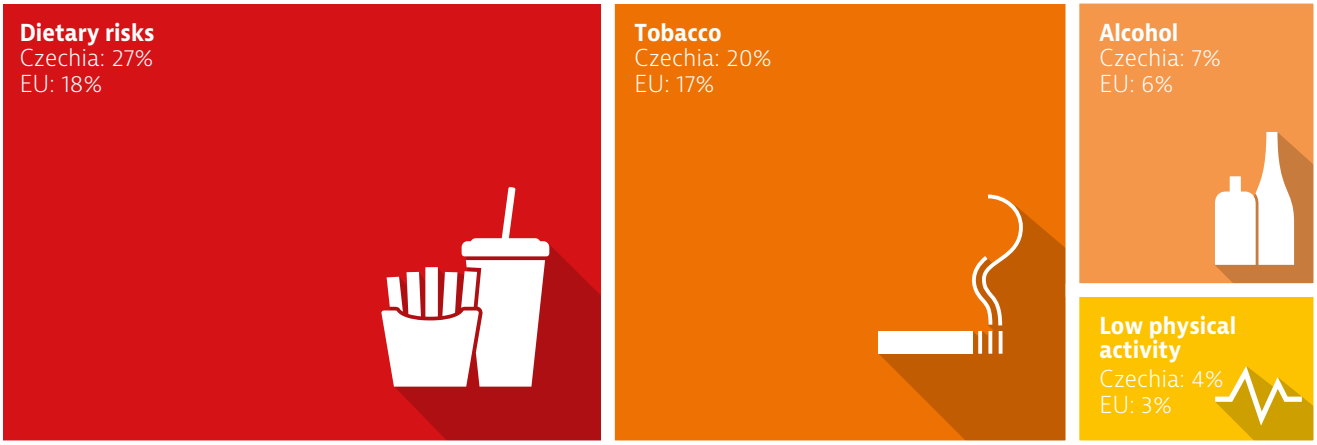
1: 'Healthy life years' measure the number of years that people can expect to live free of disability at different ages.

3 Risk factors

Behavioural risk factors, especially unhealthy diet, contribute substantially to mortality

Estimates show that about 48 % of all deaths in Czechia in 2017 could be attributed to behavioural risk factors; that is, dietary risks, tobacco smoking, alcohol consumption and low physical activity (Figure 6). Despite a small decrease of 4 percentage points from 2007, this is above the EU average where only 39 % of all deaths can be attributed to the same risk factors. Dietary risks such as low fruit and vegetable intake and high salt consumption contributed to more than one quarter of all deaths (27 %), well above the EU average of 18 %. Similarly, mortality related to tobacco consumption was also higher than the EU average (17 %) and estimated at 20 %. Other risk factors such as alcohol consumption and low physical activity are equally above the corresponding EU average.

Figure 6. Dietary risks and tobacco are major contributors to mortality



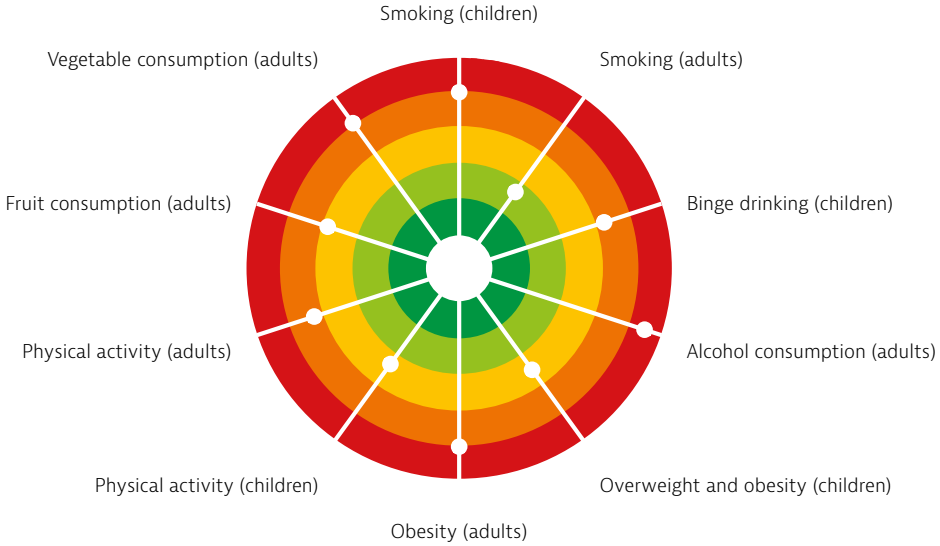
Note: The overall number of deaths related to these risk factors (53 600) is lower than the sum of each one taken individually (64 300) because the same death can be attributed to more than one risk factor. Dietary risks include 14 components such as low fruit and vegetable consumption and high sugar-sweetened beverage consumption.
Sources: IHME (2018), Global Health Data Exchange (estimates refer to 2017).

Obesity is a major public health challenge

In 2017, the adult obesity rate in Czechia was among the highest in the EU, and it has increased by over 30 % over the past 15 years. Approximately 20 % of adults were obese, which is above the EU average (15 %), with similar values between genders (21.5 % for men and 19.4 % for women). In terms of healthy lifestyles, 44 % of adults reported eating less than one piece of fruit every day. The frequency of vegetable consumption is even lower, with half of all adults eating less than one portion of vegetables daily (Figure 7). Some 62 % of adults report engaging in at least moderate physical activity every week, lower than the EU average (64 %).

Overweight and obesity levels are rising among children. About 17.5 % of 15-year-olds were overweight or obese in 2013-14. Notably, being overweight or obese is more prevalent among boys (23 %) than girls (12 %). Levels of physical activity among 15-year-olds (16.5 %) are comparable to the EU average (15 %), but girls tend to exercise less than boys.

Figure 7. The Czech population scores relatively well on some risk factors but adult obesity and smoking in children are particular challenges



Note: The closer the dot is to the centre, the better the country performs compared to other EU countries. No country is in the white 'target area' as there is room for progress in all countries in all areas.
Sources: OECD calculations based on ESPAD survey 2015 and HBSC survey 2013-14 for children indicators; and EU-SILC 2017, EHIS 2014 and OECD Health Statistics 2019 for adults indicators.

One fifth of the adult population smoke daily

Even though tobacco consumption has decreased slightly over the past decade, the proportion of daily smokers in 2017 is comparatively high, with about 23 % of men and 14.5 % of women smoking daily. Regular tobacco consumption in children is also an important issue, with more than one quarter of 15- to 16-year-old boys and one third of girls reporting that they had smoked during the past month in 2015, one of the highest rates in the EU. The introduction of comprehensive tobacco control legislation in 2017 will take time to impact on smoking rates (Section 5).

Alcohol consumption remains high among adults and adolescents

Total alcohol consumption of adults in 2017, at 11.6 litres per person, is among the highest in the EU. Drinking among teenagers is also a concern, as almost half of 15- to 16-year-old boys and one third of girls reported at least one episode of binge drinking[2] during the past month in 2015. This proportion is above the EU average and is of particular concern considering the long-term health effects and risk of accidents and injuries related to heavy alcohol consumption.

Socioeconomic inequality, particularly in education, contributes to health risks

Many behavioural risk factors are more common among people with lower education. In 2014, one fifth of adults (20 %) who had not completed their secondary education smoked daily, compared to only 9 % among those with a tertiary education. Similarly, in 2017, one quarter (24 %) of people without a secondary education were obese, compared to only 12 % among those with a higher education. This higher prevalence of risk factors among socially disadvantaged groups contributes to inequalities in life expectancy.

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

4 The health system

The Ministry of Health has a strong regulatory role in the Social Health Insurance system

Czechia operates a Social Health Insurance (SHI) system with a strong regulatory role for the Ministry of Health. Seven quasi-public health insurance funds act as purchasers of care and negotiate annually with health providers to set prices and volumes. The population enjoys a broad benefit package and has access to a large number of hospitals, most of which are owned either by the state (27 %) or the regions and municipalities (45 %). Health insurance funds may offer additional services to their insured in the area of prevention (e.g. vitamins, voluntary immunisations). The largest health insurance fund (VZP) insured 56 % of Czechs in 2017 (Box 1).

Box 1. A new reform aims to encourage health insurance funds to be more active purchasers for patients with chronic diseases

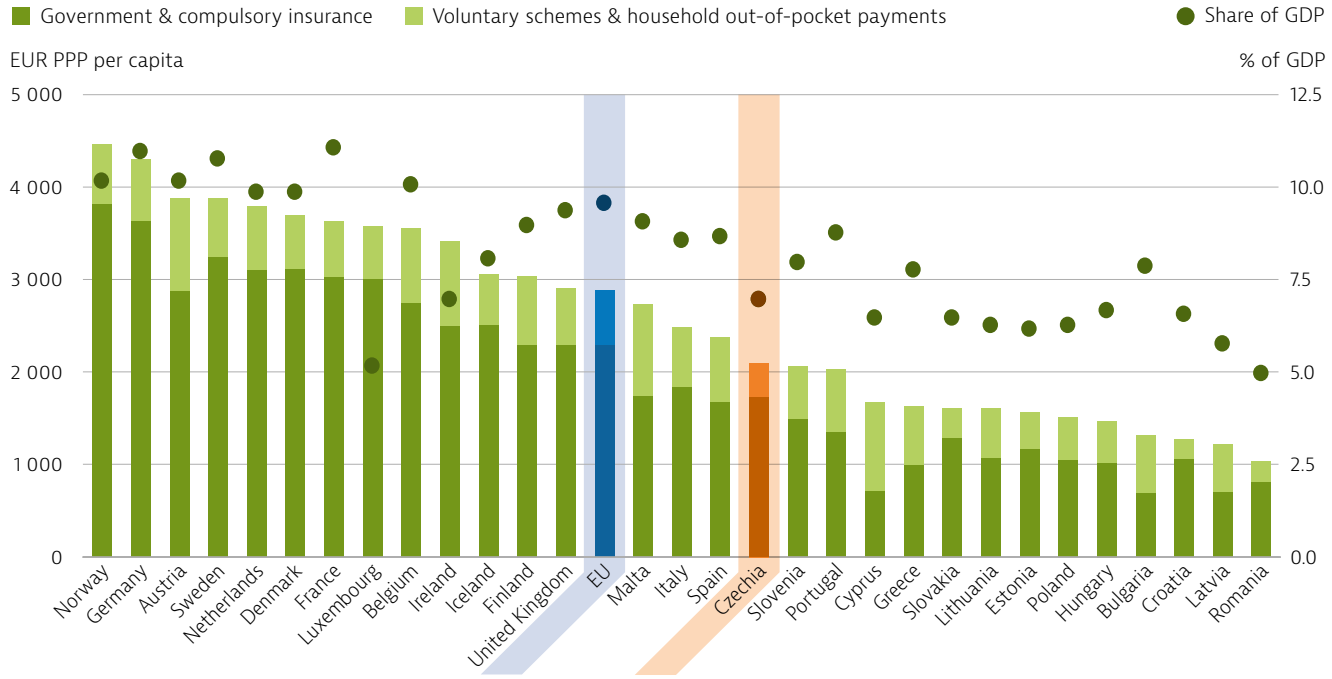
Every Czech citizen is mandatorily insured with one of the seven health insurance funds. Since 2006, the redistribution formula among these funds adjusted for age and gender and included an ex-post partial compensation for expensive cases. From 2018, the redistribution of funds should better account for patients with chronic diseases by adding 25 Pharmaceutical Cost Groups as risk-adjusters and strengthening the ex-post compensation of expensive cases. The hope is that better remuneration for these patients will stimulate the development of disease management programmes and patient-centred care arrangements. By the end of 2018, all health insurance funds accumulated reserves under the new arrangements, particularly the VZP (EUR 960 million) (Ministry of Health, 2019; Bryndová et al., 2019).

The share of public funding is the highest among the newer EU Member States

In 2017, Czechia spent EUR 2 096 per inhabitant (adjusted for differences in purchasing power) on health, which was EUR 788 below the EU average. Health spending as a share of GDP (7.2 %) is well below the EU average of 9.8 % (Figure 8). The high share of public financing (82 %), which is a traditional feature of the system, is the highest among the newer EU Member States and above the EU average (79 %).

Public revenues for health are raised through earmarked, wage-related contributions, income-related contributions from the self-employed as well as state contributions (funded from general taxation) on behalf of various economically inactive groups. The broad legal definitions of these groups guarantee full population coverage (Section 5.2). Private health spending stood at 18 % of total health spending in 2017, which is below the EU average of 21 %, and mainly consists of cost-sharing, for example co-payments for prescribed pharmaceuticals, direct payments for over-the-counter medicines, as well as co-payments for items such as medical devices and spa treatments. Private spending is likely to reduce further as a result of lowered ceilings on co-payments, which were introduced in 2018 (Section 5.2).

Figure 8. Czechia spends much less on health than the EU average but the share of public financing for health is high

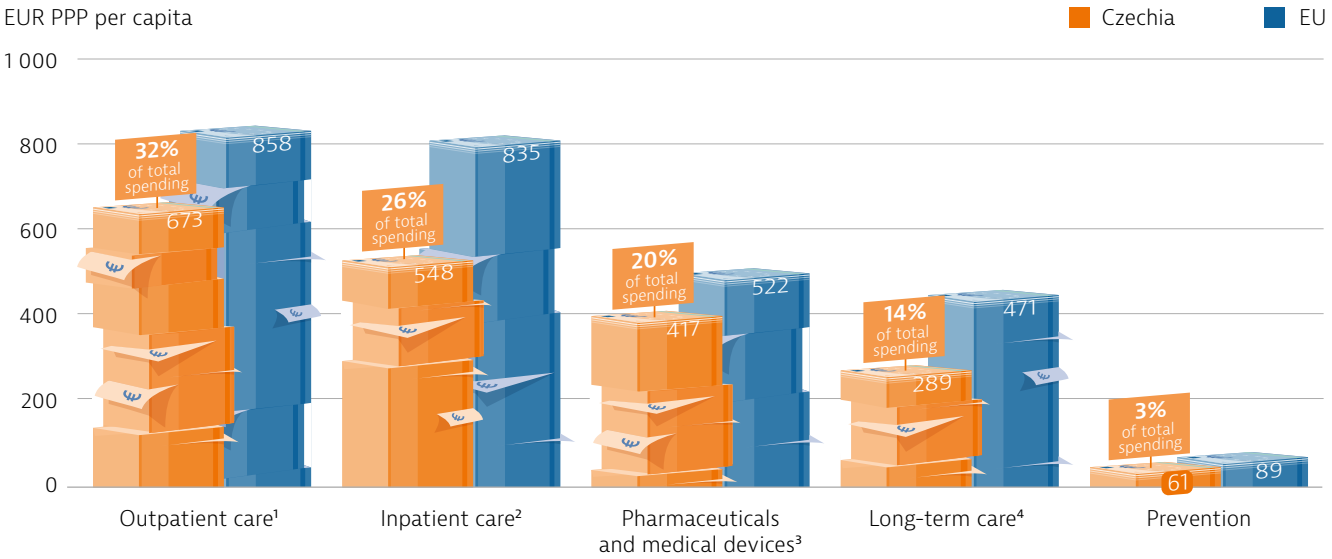


Source: OECD Health Statistics 2019 (data refer to 2017).

Most spending goes to outpatient care, while spending on pharmaceuticals and medical devices has fallen

Per person, Czechia spends well below the EU average in all broad categories of health spending (Figure 9). As a proportion of current health expenditure, roughly one third went to outpatient care in 2017, a higher share than the EU average (29.7 %). In contrast, spending on inpatient care stood at about one quarter of health expenditure, below the EU average of 28.9 %. Around 20 % of health expenditure went to pharmaceuticals, which is above the EU average of 18 %. The higher level of pharmaceutical expenditure in Czechia can be explained by the fact that pharmaceutical prices are rather inelastic across European countries, and therefore absorb a higher share of the budget in countries with lower overall health spending. National data show that pharmaceuticals' share in health expenditure has been falling, which is noteworthy against a background of steadily rising consumption (ÚZIS, 2018a). Long-term care spending is much higher than in most newer EU Member States and its steady increase in recent years reflects the demands of an ageing population and increasing availability of services. Similarly, Czechia spends a higher share of its total health spending on prevention (3 %) than many other Member States and is equal to the EU average.

Figure 9. Czechia spends less per person across all areas of care compared to the EU



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

The number of health professionals is on a par with EU averages, but disparities persist across regions

Czechia reports a density of doctors similar to the EU average (3.7 doctors per 1 000 population compared to 3.6) and a slightly lower nurse density (8.1 nurses per 1 000 population compared to 8.5). The number of doctors has increased over the past decade, and an average 8 % increase in salaries for all health professionals in 2017 should further this trend. Nevertheless, a growing inpatient sector seems to attract more doctors than the (specialised) outpatient sector and existing regional disparities in the distribution of doctors have deepened further (ÚZIS, 2018b). The capital region has 2.4 times more doctors than rural regions. While this reflects to some extent the concentration of specialised services in some hospitals in the capital region that also serve other regions, it may pose a challenge to equity of access (Section 5.2).

Overcoming these disparities has been challenging. Since 2013, the health insurance funds have been legally obliged to contract sufficient capacity in each specialty and region in order to guarantee accessibility of care. However, they only have limited instruments to attract providers to underserved areas, such as special contractual conditions and bonuses, which may not be sufficient to entice health professionals to work outside the more desirable urban areas. Moreover, the Ministry of Health has not developed an instrument to monitor compliance with the contracting obligation.

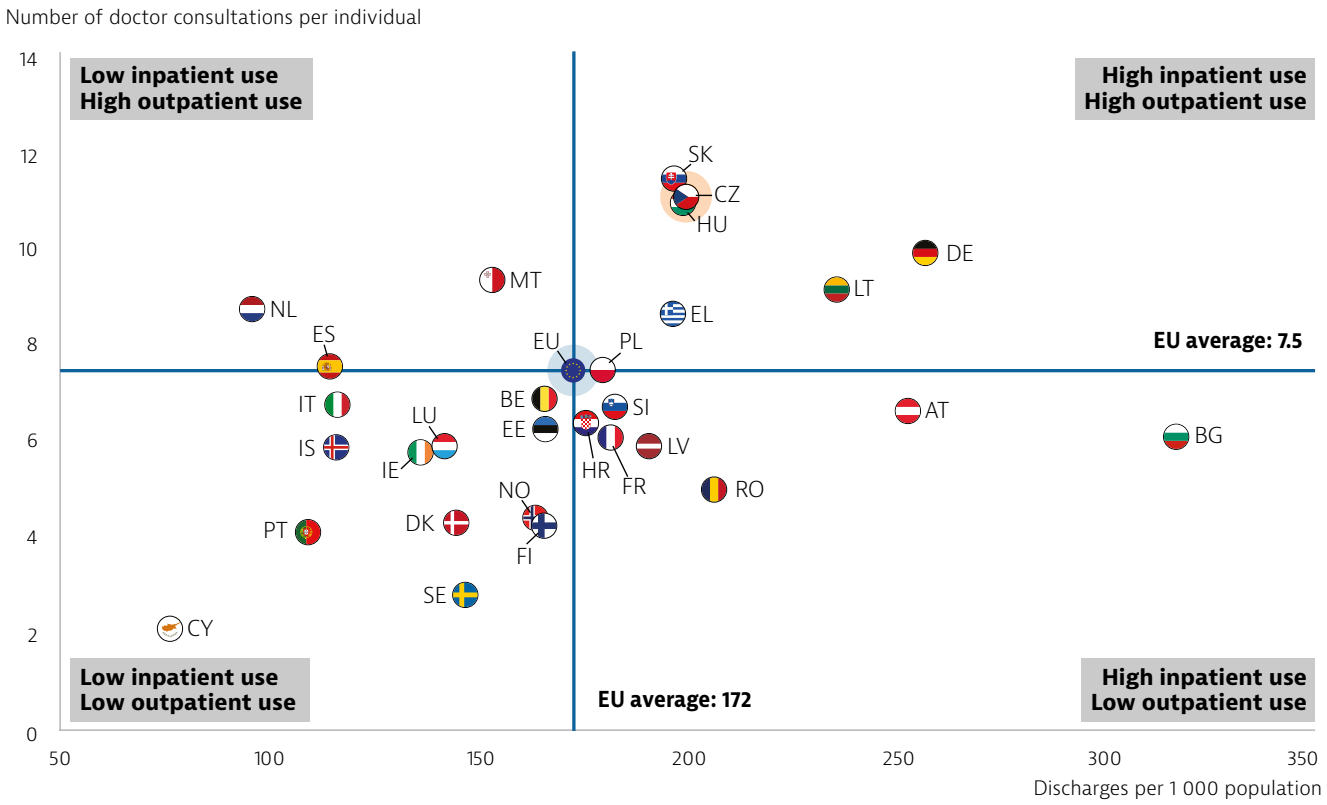
Patients use a high level of hospital and outpatient care

Primary care doctors do not play a gatekeeping role. Patients may consult specialists directly and generally face few barriers (e.g. no user fees in outpatient settings), which explains the comparatively high number of outpatient consultations (11 contacts per person compared to 7.5 for the EU) (Figure 10).

When it comes to hospitals, Czechia has a dense network of inpatient facilities, which results in one of the highest hospital bed ratios in the EU (6.6 compared to 5 per 1 000 population in 2017)[3]. The inpatient sector is diverse, with many specialised inpatient facilities spread across the country. Incremental reforms over the last 10 years have aimed to concentrate highly specialised care in designated centres (e.g. stroke and oncological centres) (Section 5.1). In addition, the implementation of the national strategy to deinstitutionalise psychiatric care (Strategic Reform of Psychiatric Care 2014–2023) is picking up speed and has received support from the European Structural and Investment Funds in the ongoing and the last programming period. These combined efforts are visible in the modest decrease in the number of hospitalisations, which fell from 216 to 200 per 1 000 population in the 10-year period between 2006 and 2016. However, it is still among the highest in the EU (Figure 10).

3: This figure includes acute beds and beds used for long term care.

Figure 10. The number of outpatient contacts and hospital discharges is well above the EU average



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

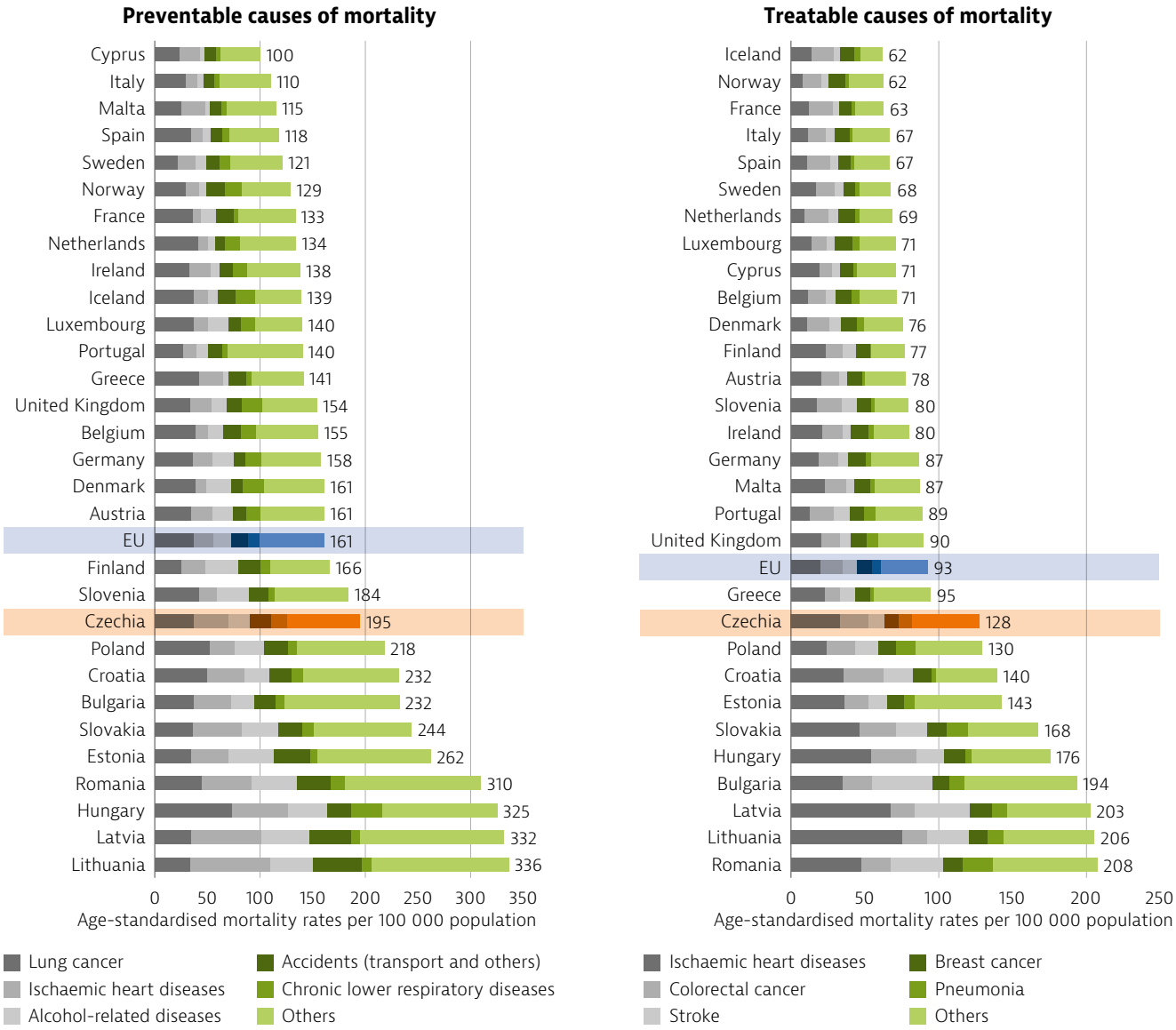
5 Performance of the health system

5.1. Effectiveness

High preventable mortality is mainly driven by non-communicable diseases

The number of deaths that could have been avoided through preventive or public health interventions has declined steadily in Czechia, and while the preventable mortality rate is better than in most other newer EU Member States, it is still above the EU average (Figure 11). Lung cancer is the main cause of preventable mortality, closely followed by ischaemic heart disease. Behavioural risk factors need to be addressed, particularly bad diet and smoking, which lead to many preventable deaths (Section 3).

Figure 11. Mortality from both preventable and treatable causes are above the EU average



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

The traditionally strong public health network, which is led by the National Institute of Public Health (SZÚ), targets diseases that can be prevented through immunisation (Box 2) and other communicable diseases. Containing communicable diseases is one issue that has received attention on the political agenda. For example, the steady rise of HIV notifications prompted the development of a new national programme to contain HIV/AIDS (2018–22) and reverse this trend.

Box 2. Mandatory vaccination for children has led to better than average immunisation rates

Immunisation of children is mandatory for diseases listed in the national vaccination programme. These include diphtheria, tetanus, pertussis, poliomyelitis, hepatitis B, Haemophilus influenzae type B, measles, mumps and rubella (MMR). Parents who refuse to vaccinate their children can be fined up to EUR 400 and have their children excluded from preschool (Rechel, Richardson & McKee, 2018). In 2018, Czechia reported immunisation coverage rates for diphtheria, tetanus, pertussis, measles and hepatitis B that were above the EU average, and except for hepatitis B, were also higher than the 95 % target recommended by WHO for herd immunity. Nevertheless, Czechia has seen outbreaks of measles in recent years, with some of the highest numbers so far recorded in 2019.

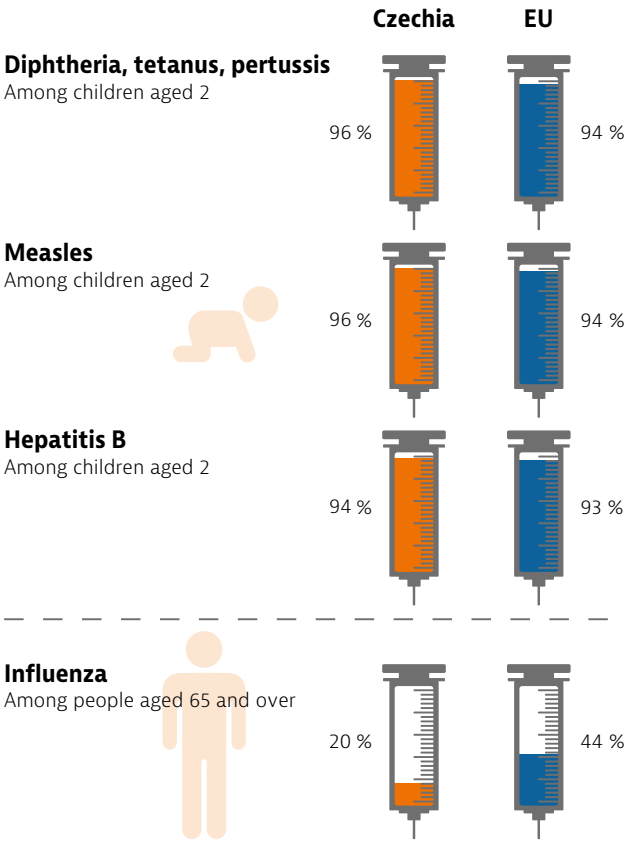
For adults, SHI covers the cost of influenza immunisation in certain groups (namely those over 65 years and patients with immunity disorders) and health insurance funds may choose to cover additional immunisations to attract more clients. Despite this, in 2017, only 20 % of adults over 65 were vaccinated against influenza, well below the EU average of 44 % and even further from the WHO target of 75 % (Figure 12).

Deaths from stroke and heart attack have fallen due to improvements in specialised care

The health system could be more effective in avoiding deaths through timely and effective health care interventions. In 2016, mortality from treatable causes was nearly 40 % higher than the EU average. Despite notable reductions, diseases of the circulatory system, such as ischaemic heart disease and stroke, still accounted for the largest number of deaths from treatable causes.

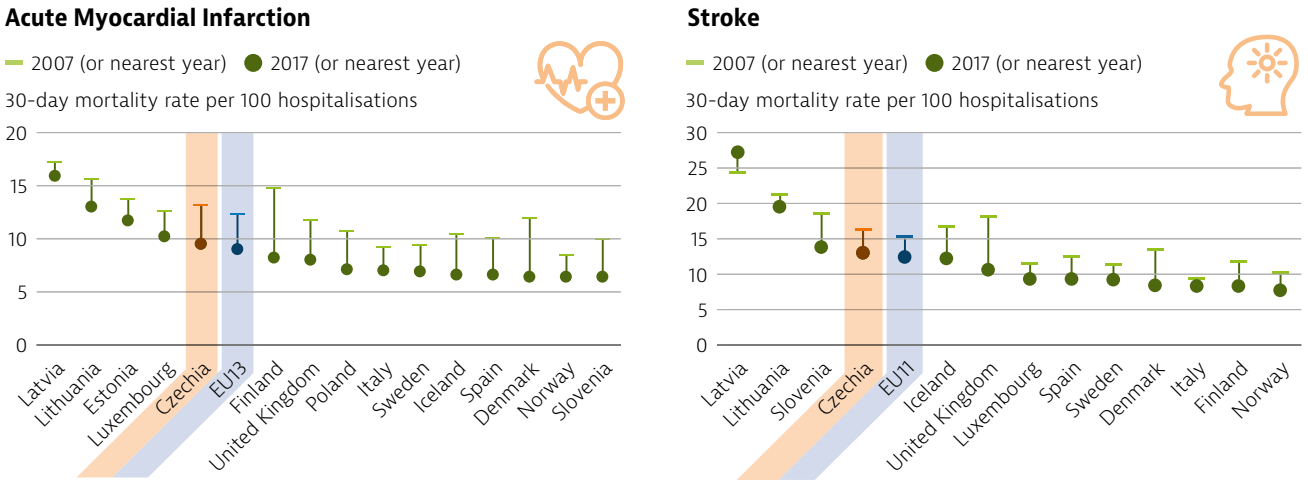
That said, deaths from acute myocardial infarction (AMI) and stroke have been reduced substantially (Figure 13) through the concentration of such care in cardiovascular diseases centres and in specialised stroke centres. The reductions in stroke mortality were achieved by a tight-knit network of emergency services that perform patient triage, as well as by the concentration of stroke care into specialised centres, which started in 2011 after the introduction of a new accreditation scheme for highly specialised stroke care centres. These centres are committed to a strict quality-monitoring scheme and treated over 90 % of stroke patients in 2015 (Tomek et al, 2017). The reform and the ongoing workflow optimisation resulted in a reduction of 30-day stroke mortality to the lowest level among the newer EU Member States (others not shown in Figure 13), although a gap persists with the best performing countries. Simultaneously, 30-day mortality from AMI has recorded a steep decrease since 2005 and fell to 10.1 in 2017, which is only slightly higher than the EU average.

Figure 12. Immunisation rates for children are high but few adults take up the influenza vaccination



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

Figure 13. Reorganisation of care for stroke and acute myocardial infarction patients has dramatically reduced 30-day mortality after hospitalisation



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

Cancer survival rates have improved and are likely to benefit from further care concentration

Cancer survival rates from breast, lung, prostate and colorectal cancer increased steadily in the period 2000-14 and have reached levels slightly below the EU averages (Figure 14). This also suggests that the concentration of care in designated oncological centres since 2008 has had a similar effect on treatment quality as it did for AMI and stroke. In addition, the SHI system covers several screening programmes for predefined age groups and all data are centrally stored in the National Cancer Registry, which is operated by the Institute of Health Information and Statistics (ÚZIS). EHIS survey data from 2014 shows that the participation rates over the past two years for breast cancer screening (77 %) and cervical cancer screening (87 %) were well above EU averages.

Chronic diseases management strategies, particularly for diabetes, could be strengthened

Progress has been made in care coordination, as evidenced by improved avoidable hospitalisation rates for selected chronic conditions. Patients suffering from asthma and COPD are less likely to be hospitalised in Czechia when compared to the EU average. However, avoidable hospitalisations for diabetes and congestive heart failure, although decreasing in recent years, were above the EU average in 2017 (Figure 15). The high death rates for diabetes (almost double the EU average) points to weaknesses in disease prevention and management. The prevention of non-communicable diseases features prominently in Czechia's long-term Health 2020 strategy and is the responsibility of the Ministry of Health and its subordinate bodies such as the SZÚ. While there is a broad recognition of the level of diabetes mortality, there has been little progress in reducing risk factors and setting up targeted public health programmes.

Figure 14. Cancer survival rates are below but close to the EU average

Prostate cancer
Czechia: 85 %
EU26: 87 %

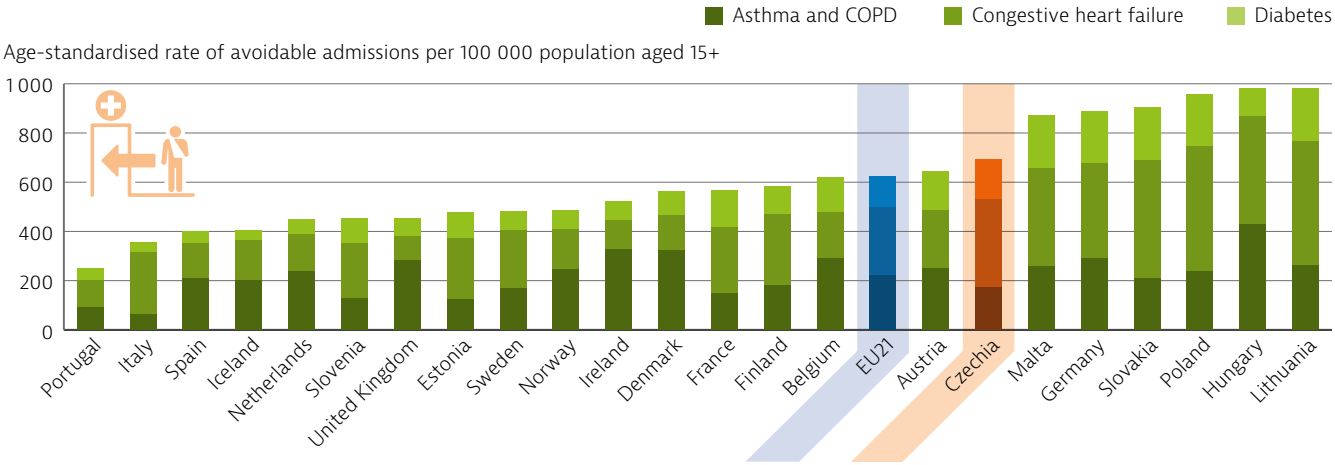
Breast cancer
Czechia: 81 %
EU26: 83 %

Colon cancer
Czechia: 56 %
EU26: 60 %

Lung cancer
Czechia: 11 %
EU26: 15 %

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

Figure 15. Avoidable hospitalisations are higher than in several other EU countries



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

5.2. Accessibility

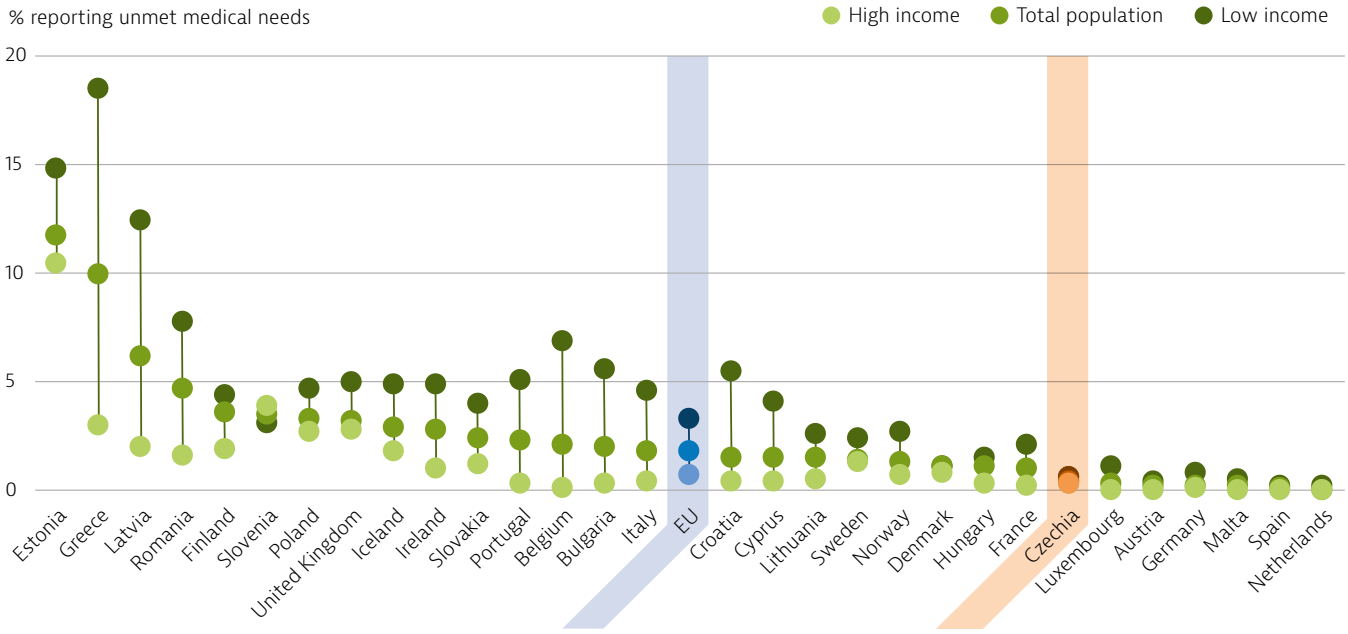
Unmet needs for medical care are low

Due to universal population coverage, a broad benefits basket, low cost-sharing and a high density of providers, there are only marginal unmet needs for medical care. EU-SILC data show that only 0.5 % of the surveyed population reported unmet needs for medical care due to cost, distance or waiting times in 2017, with little variation between income groups (Figure 16). Regarding dental care, only 1 % of the population reported an unmet need for the above-mentioned reasons[4].

Universal coverage is guaranteed

Coverage by SHI is linked to permanent residence: everybody who lives in Czechia is automatically insured. Working Czech nationals and resident EU nationals who are employed or self-employed pay contributions to SHI. All remaining Czech nationals are either 'state-insured' beneficiaries (Box 3) or have

Figure 16. Self-reported unmet needs for medical care are far below the EU average



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

4: A separate survey (the European Health Interview) targeting people in need of care (as opposed to the population at large) suggests greater levels of unmet needs for medical and dental care, with about 4 % of the population reporting some unmet medical needs for financial reasons. Here, unmet needs are much greater among those on low incomes (9 %) when compared to those on high incomes (only 2 %).

to pay a minimal monthly contribution. However, SHI coverage does not depend on contributions being actually paid – even if outstanding contributions are not settled, people continue to be fully covered. Non-EU citizens, who are not employed or self-employed in Czechia, must purchase private health insurance from one of the Czech-licensed private health insurers in order to be allowed to stay in the country.

Only a few medical services are not covered by SHI

The benefit basket is broad and defined in Czech law as any medical treatment delivered with the aim of maintaining or improving health status. This includes inpatient and outpatient care, prescription pharmaceuticals, rehabilitation, some dental procedures, spa treatments and over-the-counter pharmaceuticals (if prescribed by a doctor) as well as some medical aids. There are, however, several mechanisms in place to rationalise benefits either by listing certain treatments as non-essential, or including them in a positive list, which ensures reimbursement by SHI. Recent developments have tended to broaden the positive list; for example, the breast cancer screening programme has been expanded. However, some medical aids such as prescription glasses have been recently excluded.

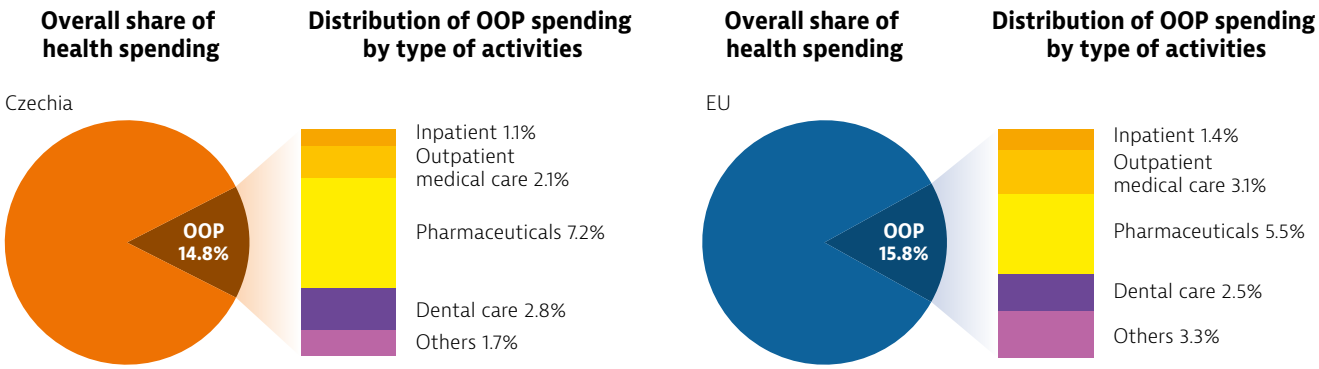
Health services are generally affordable and protective legislation is in place

Overall, the health care system secures accessible and affordable care, which is also reflected in the low level of reported unmet needs due to financial reasons (which are only slightly higher for dental care). Out-of-pocket (OOP) payments, which stood at 14.8 % in 2017, are slightly below the EU average (15.8 %) (Figure 17). OOP spending consists of direct payments for over-the-counter pharmaceuticals, co-payments for prescription medicines and medical aids, direct payment for dental care beyond the standard package, user fees (EUR 3.60) for outpatient care that is delivered outside standard office hours, and direct payments for care excluded from SHI coverage (e.g. plastic surgery for non-medical reasons). There are annual ceilings on co-payments for prescribed medicines (CZK 5 000 or EUR 200), with significantly lower ceilings for those aged under 18 and over 65 (EUR 40), and those aged over 70 (EUR 20) as well as a full exemption from user fees for vulnerable groups. There are no ceilings for dental care. Voluntary health insurance plays only a marginal role and is mainly purchased for travelling purposes.

Box 3. The state covers large groups of economically inactive individuals

In 2016, the majority of Czechs (almost 6 million individuals) benefited from SHI contributions that are paid on their behalf by the state (Ministry of Finance, 2017). These groups are colloquially referred to as 'state-insured', and include 17 categories, including: a) children in the compulsory school system and people up to the age of 26, studying (or obtaining their PhD) or not able to earn a living due to disability; b) pensioners; c) people receiving maternal or parental allowances; and d) the unemployed. Additionally, informal caregivers, prisoners and asylum seekers are also state-insured. The SHI contribution for a state-insured individual is legally defined and fixed at CZK 1 018 (EUR 40) per month in 2018, up from CZK 677 (EUR 26) per month in 2009 (VZP, 2019). However, this is substantially lower than an average contribution from salary, meaning that it may not be sufficient to offset losses in revenues in case of large rises in unemployment (Section 5.3).

Figure 17. Out-of-pocket spending is below the EU average and mainly consists of payments for pharmaceuticals



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

Czechia is a member of the Fair And Affordable Pricing initiative to boost access to affordable medicines

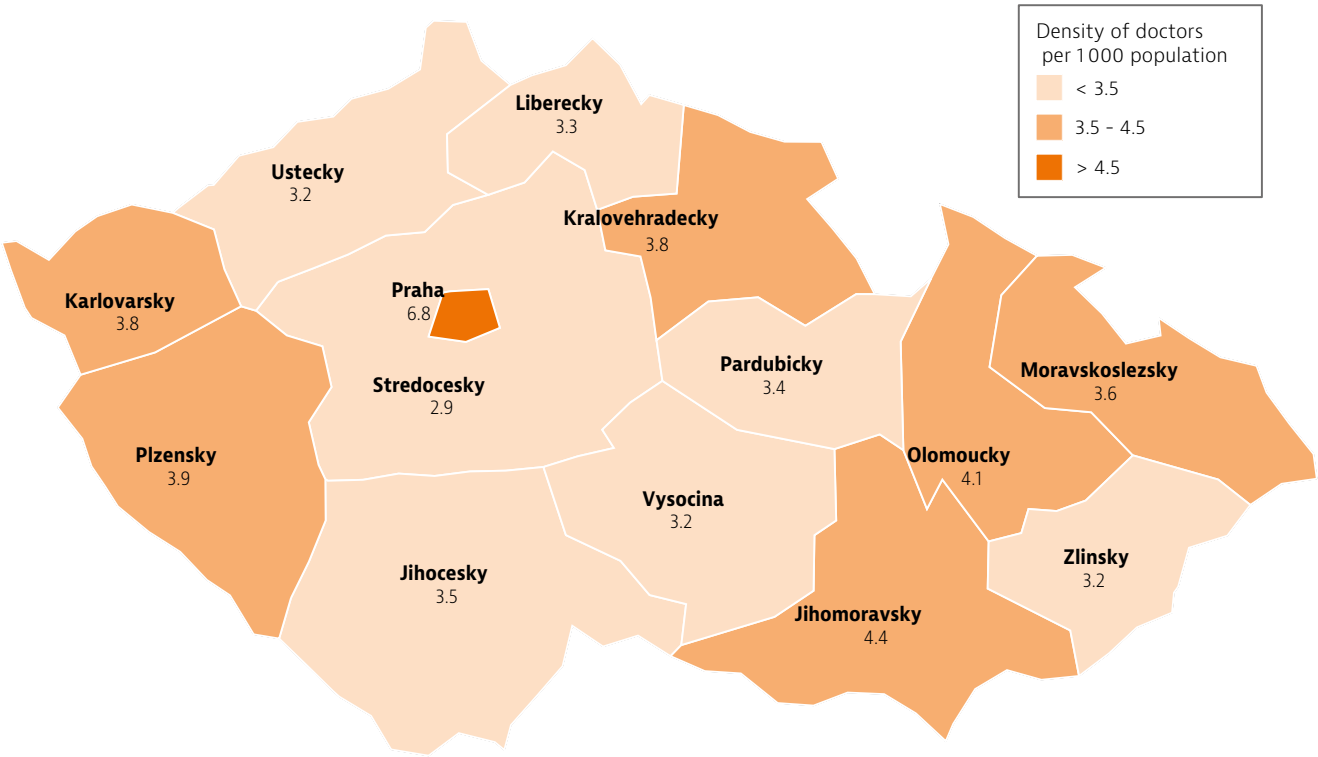
The Fair And Affordable Pricing (FAAP) initiative, established in March 2017, is an inter-country regional collaboration platform to improve access to medicines for the citizens of member countries. This project was established among the Visegrad Group (Czechia, Hungary, Poland and Slovakia), and Czechia joined the initiative in May 2019. Several regional meetings and technical consultations have been organised. The project is being shaped as a complementary platform allowing better, proactive preparation of national reimbursement and pricing decisions. A pilot joint negotiation is under way to define possible mechanisms for future regional negotiation strategies.

Addressing shortages of primary care doctors and regional disparities is a key challenge

Primary care is delivered by general practitioners (GPs) and paediatricians. Together they play a vital role in health promotion and prevention (e.g. providing counselling and immunisations) and are often the first contact point in the health system, although there is no formal gatekeeping. In 2017, roughly one out of five doctors were working in primary care, which translates into a density of 0.7 primary care providers per 1 000 population (ÚZIS, 2018b), but with vast regional disparities, which is characteristic for the overall distribution of doctors across the country (Figure 18).

According to Czech law, primary care providers should be available within 35 minutes' travel and health insurance funds should contract enough providers to reach this target. However, an ageing health workforce, particularly GPs, may compromise the future availability of primary care. In 2019, approximately half of the country's regions are listed by the Ministry of Health as having vacancies for primary care doctors, with the most affected located in the regions of Liberecký, Ústecký, Zlínský and Středočeský. To tackle this problem in selected regions, the Ministry of Health has advertised vacancies for GPs and paediatricians more prominently and provides subsidies to equip practices.

Figure 18. Regions with the highest density of doctors have more than double the rate of regions with the lowest density



Note: Data refer to 2016.
Source: ÚZIS 2017.

5.3. Resilience[5]

SHI revenue is highly vulnerable to changes in employment as well as to ageing

The health system relies heavily on public sources (82 % in 2017) but is highly susceptible to fluctuations in employment. Although most SHI resources are raised through contributions (above 70 %), only a minority of the Czech population pay earmarked SHI contributions from their payroll. In fact, over 60 % of the Czech population is covered by contributions from the state budget (Box 3). Higher unemployment, for example during economic downturns, and also population ageing will lead to a higher number of state-insured citizens and place a higher burden on general tax revenue. It will also lead to falling revenues for SHI because the contribution for a state-insured individual is lower than the average contribution of an employed person. The 2008 financial crisis highlighted this vulnerability, when losses had to be compensated for with loans and higher contributions for state-insured beneficiaries.

It has been difficult to diversify the health system's revenue base

Although the need to broaden the health system's revenue base (to guarantee its long-term financial sustainability) is recognised, there is no political agreement on how to achieve this goal. That said, the assessment base for per capita contributions of the state-insured has been boosted in recent years (in line with the national minimum wage, and the minimum contribution for self-employed people), which resulted in a 5.5 % increase in government expenses between 2016 and 2017. Nonetheless, this may not be sufficient to offset increasing age-related public spending on health. Between 2008 and 2015, user fees were in place to generate (some) private resources, but mostly to contain costs and to raise awareness about the inappropriate use of health care services. These user fees were in place for all services (e.g. inpatient stay, prescribed medicine), were set at a comparably low level (between EUR 1.20 and EUR 4.00) and were combined with various exemptions. However, they were opposed by a broad coalition of stakeholders and were gradually dismantled.

Ageing will drive up health expenditure and poses a challenge for workforce distribution

Public expenditure on health care in Czechia is projected to increase by 1.1 percentage points of GDP between 2016 and 2070, which is above the EU average increase of 0.9 percentage points and poses a long-term fiscal sustainability risk (European Commission, 2019). In addition, population ageing affects the health workforce as many doctors are nearing retirement. Ageing will likely also exacerbate existing regional disparities and therefore pose a further challenge to equity of access (European Commission-EPC, 2018). Although workforce planning has been a demanding task (Section 4), a joint plan has now been agreed between the Ministry of Health and the Ministry of Education, and the medical schools to increase the number of domestic graduates and interns to replace the doctors who will retire.

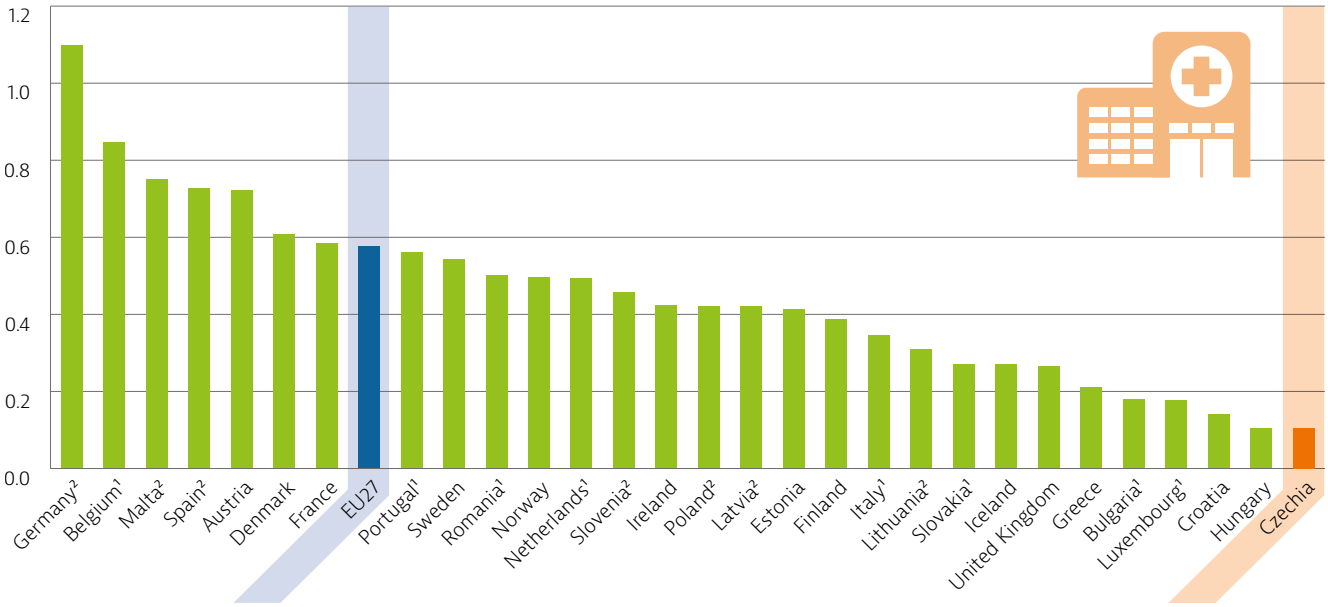
Capital investments are too low to sustain effective infrastructure

There is a great need for capital investments in the health sector, as partly reflected in Czechia having the lowest gross fixed capital formation (in terms of GDP) in the EU (Figure 19). This need is particularly urgent in the inpatient sector, where the network is dense and hospitals usually operate several buildings. Providers are responsible for raising capital investments but often have limited expertise and experience. Furthermore, hospitals that are owned by self-governing regions and municipalities have accumulated significant debts (ÚZIS, 2018c), which makes acquiring fresh capital harder.

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

Figure 19. Capital investment in the health sector is the lowest in the EU

Gross fixed capital formation in the health sector as a share of GDP

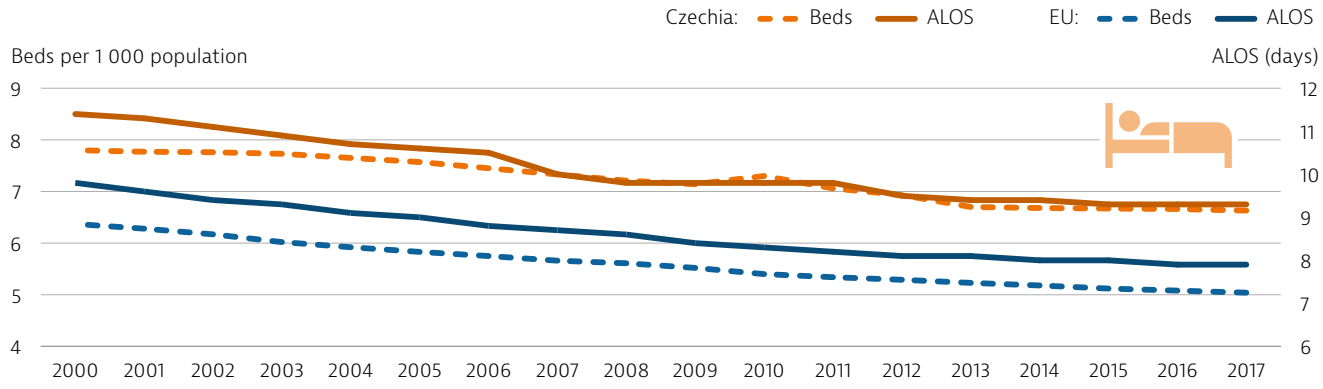


Notes: 1. Refers to gross fixed capital formation in ISIC Section Q, Division 86: Human health activities (ISIC Rev. 4); 2. Refers to gross fixed capital formation in ISIC Section Q: Human health and social work activities (ISIC Rev. 4); ISIC: International Standard Industrial Classification of All Economic Activities.
Sources: OECD Health Statistics 2018; OECD National Accounts; Eurostat Database (data refer to 2016).

Gains can be made in terms of hospital system efficiency

Several indicators suggest ample room to increase efficiency in the inpatient sector. Although bed density and average length of stay (ALOS) have been falling, they have stagnated in recent years and remain well above the EU average (Figure 20). The occupancy rate stood at 70 % in 2017, which is well below the EU average of 77 %. Together with the comparatively high number of discharges (200 per 1 000 population) compared to the EU average (172), this suggests overcapacity in the hospital sector. Day surgery is being promoted to improve efficiency. A case in point is cataract surgery, of which 97 % are performed as day surgery or outpatient cases in 2016, up from only 56 % in 2007.

Figure 20. The Czech inpatient sector features more beds and a longer length of stay than the EU average



Source: Eurostat Database (data refer to 2017 or nearest year).

Long-term care spending has seen moderate growth

Spending on long-term care increased from 11.1 % of current health expenditure in 2013 to 13.8 % in 2017.[6] However, there is currently no strategy to expand the limited capacity in long-term care, partly because the delivery of such care is still fragmented between the social and the health care sectors. The growing demand for long-term care (Section 2) means that there is a need to plan capacity more strategically and invest in long-term care infrastructure. Although information on individual patient needs is available at the lower administrative levels, it has not been used for national-level planning.

The need for better strategic planning underscores the need for a national information system

There has been only incremental progress in developing information infrastructure for the health system, such as the implementation of the National eHealth Strategy (2016–2020), which should eventually include a shared information platform for providers and health insurance funds. In 2018, the successful introduction of ePrescription highlighted the potential of the planned National Health Information System (Box 4).

Box 4. The new ePrescription system will enhance patient care

Since January 2018, doctors in Czechia are required to issue all prescriptions in electronic format. The implementation period (originally planned for in 2015) had to overcome many challenges, including establishing data standards and an information exchange platform. The current system builds on expertise from (preceding) national and EU-level strategies. ePrescription aims to provide higher levels of safety when dispensing medicines in pharmacies. The unique identifier of the prescription can be handed to a patient in several formats, including paper, e-mail, text message (SMS) or through a mobile phone or website application. For routine prescription refills, patients do not have to visit the prescribing doctor (if approved by the doctor), saving time and resources. The system is soon expected to also aid in the prevention of polypharmacy and pharmaceutical interdependencies for patients and can be used as a tool to further stimulate the use of generic medicines.

Health governance could be more proactive and involve stakeholders to a greater extent

Some of the challenges facing the health system are well known, such as the potential impact of an ageing population with greater medical needs, the vulnerable revenue base and the need to develop a long-term strategic vision for future planning health services. Although the Ministry of Health retains a strong role in policy coordination and formulation, reforms have only succeeded when key stakeholders (such as the insurance funds, regions, providers and professional associations) were involved in planning and given ownership. Several top-down reforms over the last decade were met with strong opposition, while other reforms were postponed because the responsibilities of relevant health system stakeholders were unclear. Therefore, strengthening and promoting stakeholder involvement is a crucial element to finding successful policy solutions to pressing problems. A positive example is the re-establishment of the Patient Council as an advisory body to the Minister of Health in 2019.

6: *It is not possible to use a longer time interval due to a break in the data series between 2012 and 2013.*

6 Key findings

- Although life expectancy in Czechia remains almost two years below the EU average, great progress has been achieved in reducing mortality from ischaemic heart disease, stroke and several types of cancer. This decrease can be attributed to reductions in the prevalence of risk factors and especially to the concentration of care in specialised centres and new available treatments. Success in containing communicable diseases through close surveillance is also noteworthy. However, more could be done to reduce risk factors by organising targeted public health programmes. In addition, the rapid rise in chronic diseases, such as diabetes, challenge the system to find more integrated solutions to the delivery of care for these patients.

- The population's health status is characterised by substantial inequalities by education and income. Higher health needs in some Czech regions are not properly accounted for in the planning of health care services, which is aggravated by fragmented responsibilities in planning between several stakeholders, including health insurance funds, self-governing regions, the Ministry of Health, and the Ministry of Social Affairs (for long-term care). Disparities in the distribution of health personnel, for example, are likely to deepen, as fewer doctors are willing to settle in rural and deprived regions.

- The Czech health system offers universal health coverage, a high level of financial protection and low out-of-pocket spending. The benefit package includes a broad range of services and legislation protects vulnerable groups with co-payment ceilings. However, co-payments for prescription medicines and direct payment for over-the-counter pharmaceuticals account for the highest share of out-of-pocket payments.

- Although health spending per capita and as a share of GDP is below the EU average (7.2 % of GDP compared with 9.8 % for the EU average), a higher demand for health care and long-term care is likely to put pressure on budgets. A dense inpatient sector with comparatively high numbers of beds and hospital discharges as well as comparatively long average length of stay and low hospital bed occupancy rates signal room for efficiency gains in the hospital sector.

- Bolstering the resilience of the health system presents a considerable challenge. The current public financing framework is heavily reliant on payroll contributions from economically active individuals, even though the majority of Czech people are covered by state contributions that are funded from general tax revenue. Such a system is vulnerable to economic shocks and population ageing, yet there is currently no political agreement on how to diversify the sources of revenue. Attempts to raise more private revenues through user fees in the period 2008–15 were not successful due to opposition from a wide range of stakeholders.

- The ageing of the workforce is likely to aggravate existing regional disparities and challenge equity of care access. There are several policy measures aiming to increase the influx of young health professionals into the health system, but progress needs careful monitoring. Moreover, capital investments are too low relative to the need to modernise and refurbish infrastructure, and providers struggle to raise sufficient funds.

- The governance of the health system could be strengthened not only by proactively involving various stakeholders, such as providers, insurers and professional associations, in important reforms, but also by having an effective national information system in place.

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Country abbreviations

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

European Commission

State of Health in the EU
Country Health Profile 2019

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

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

Each country profile provides a short synthesis of:

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

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

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