



State of Health in the EU Slovakia

Country Health Profile 2021

The Country Health Profile series

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

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

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Data and information sources

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

(HBSC) surveys and the World Health Organization (WHO), as well as other national sources.

The calculated EU averages are weighted averages of the 27 Member States unless otherwise noted. These EU averages do not include Iceland and Norway.

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

Demographic and socioeconomic context in Slovakia, 2020

Demographic factors	Slovakia	EU
Population size (mid-year estimates)	5 457 873	447 319 916
Share of population over age 65 (%)	16.6	20.6
Fertility rate ¹ (2019)	1.6	1.5
Socioeconomic factors		
GDP per capita (EUR PPP ²)	21 260	29 801
Relative poverty rate ³ (% , 2019)	11.9	16.5
Unemployment rate (%)	6.7	7.1

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

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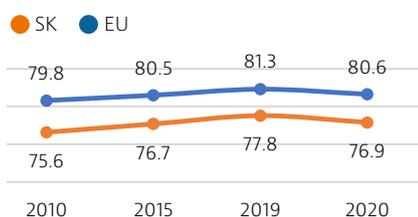
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1 Highlights

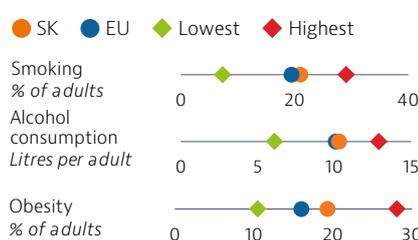
Life expectancy in Slovakia is among the lowest in Europe, and temporarily fell by almost one year in 2020 due to the impact of COVID-19. Behavioural and environmental risk factors contribute to nearly half of all deaths. The Slovak population enjoys a broad benefits package, which includes recently introduced telemedicine. However, low levels of health spending and health workforce shortages remain persistent issues that were exacerbated by the pandemic.



Life expectancy at birth, years

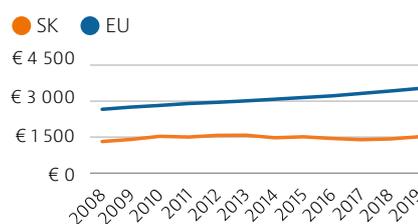
Health Status

Life expectancy in Slovakia increased by more than two years between 2010 and 2019, only to fall by almost one year in 2020 due to COVID-19 deaths. It remains nearly four years below the EU average. Disparities in life expectancy by socioeconomic status remain among the largest in the EU. Slovakia also has one of the highest cancer mortality rates in the EU.



Risk factors

While adult tobacco consumption declined in most countries over the past decade, in Slovakia it remained stable and is currently above the EU average. Alcohol consumption is comparable to the EU average. Obesity rates among adults and adolescents are on the rise and higher than the EU average, due in part to poor nutritional habits and limited levels of physical activity.



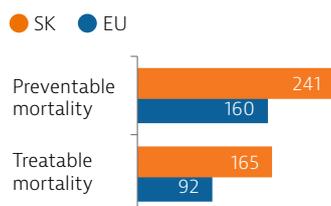
Per capita spending (EUR PPP)

Health system

Slovakia spends less than half the EU average on health, at EUR 1 513 compared to EUR 3 521 per person in 2019, adjusted for differences in purchasing power. Around 80 % of health spending is publicly financed, and out-of-pocket payments accounted for almost 20 % of health expenditure in 2019 compared to 15.4 % in the EU.

Effectiveness

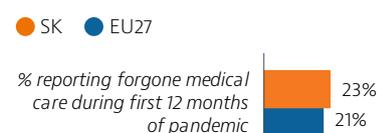
Slovakia has among the highest mortality rates from preventable and treatable causes in the EU. Despite improvements, cardiovascular disease remains the leading cause of death. Substantial room for improvement remains for effective public health policies to reduce premature deaths.



Age-standardised mortality rate per 100 000 population, 2018

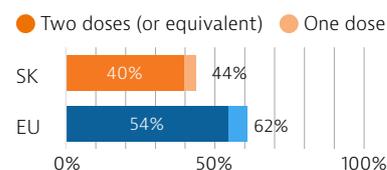
Accessibility

Access to health care is generally good in Slovakia, with only 2.7 % of the population reporting unmet medical care needs before the pandemic. However, during the first 12 months of the pandemic, 23 % of people reported forgone medical care. The introduction of telemedicine helped to maintain access to care during the second wave of the pandemic.



Resilience

Slovakia had low COVID-19 case numbers during the first wave of the pandemic, due in part to quick implementation of containment measures. However, numbers rose significantly during the second wave; three quarters of all COVID-19 deaths occurred in the first half of 2021. As of August 2021, 40 % of the population had received two vaccine doses (or equivalent) – a proportion lower than the EU average.



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

2 Health in Slovakia

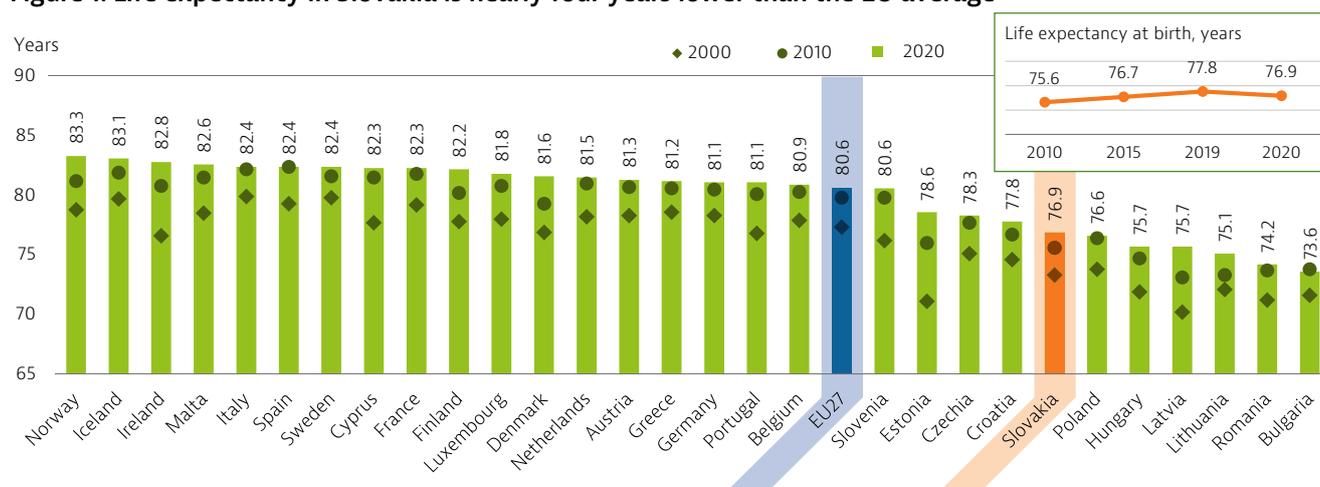
Life expectancy increased between 2000 and 2020, but remains among the EU's lowest

Life expectancy at birth in Slovakia increased by 3.6 years between 2000 and 2020, from 73.3 years to 76.9 years, but remained 3.7 years below the EU average and 1.4 years lower than in neighbouring Czechia (Figure 1). Between 2019 and 2020, life expectancy temporarily declined by almost one year – the most significant reduction in the preceding

20 years. Such declines were also seen in most EU countries, and in some cases were even more pronounced.

On average, women live almost seven years longer than men: 80.4 years compared to 73.5 years. This gender gap is more pronounced than the EU average (5.6 years) and largely reflects differences in exposure to risk factors (see Section 3).

Figure 1. Life expectancy in Slovakia is nearly four years lower than the EU average



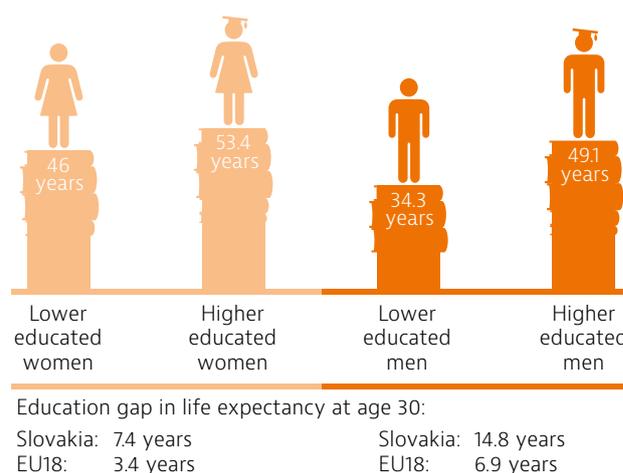
Note: The EU average is weighted. Data for Ireland refer to 2019.
Source: Eurostat Database.

Inequalities in life expectancy by education level are substantial

Disparities in life expectancy exist by both gender and socioeconomic status. At age 30, Slovak men with high levels of education live on average almost 15 years longer than the least educated – one of the largest gaps in the EU (Figure 2). While the education gap among women is only half as large (more than seven years), it remains much greater than in most EU countries. These differences can be at least partly explained by differences in lifestyles and exposure to risk factors, including higher smoking rates and poorer nutrition among men and women with low levels of education (see Section 3). They may also be attributed to differences in income levels and standards of living.

Disparities in life expectancy also exist by region, given large differences in social and labour market indicators. Eastern regions of Slovakia report comparatively poorer results across indicators such as unemployment levels, numbers at risk of poverty and levels of social exclusion, as well as educational outcomes of secondary students (European Commission, 2020a).

Figure 2. The education gap in life expectancy at age 30 is almost 15 years for men and 7 years for women



Note: Data refer to life expectancy at age 30. High education is defined as people who have completed tertiary education (ISCED 5-8) whereas low education is defined as people who have not completed secondary education (ISCED 0-2).

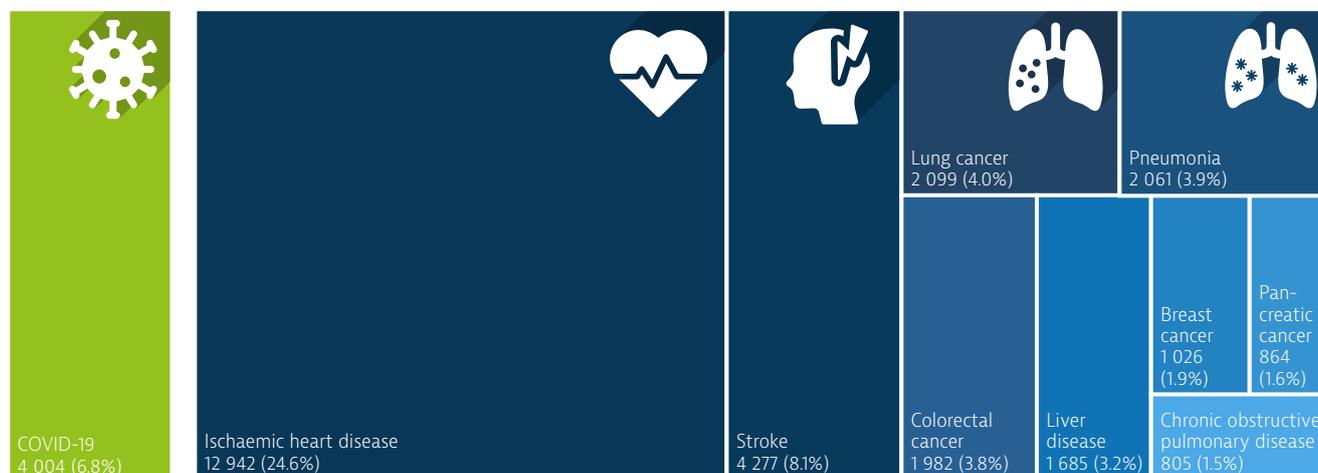
Source: Eurostat Database (data refer to 2017).

Cardiovascular disease remains the leading cause of death

The increase in life expectancy between 2000 and 2020 was driven mainly by declining mortality from cardiovascular diseases – particularly ischaemic heart

disease. Nonetheless, this remained the leading cause of death in 2019, accounting for nearly one in four deaths. The mortality rate from stroke also fell from 2000, but it remained the second leading cause of death in 2019 (Figure 3).

Figure 3. Ischaemic heart disease accounts for a quarter of all deaths



Note: The number and share of COVID-19 deaths refer to 2020, while the number and share of other causes refer to 2019. The size of the COVID-19 box is proportional to the size of the other main causes of death in 2019.

Sources: Eurostat (for causes of death in 2019); National Statistics Office (for COVID-19 deaths and overall mortality in 2020).

Mortality from cancer is very high. Lung and colorectal cancer are the most frequent causes of cancer death among Slovaks, despite slight reductions in mortality since 2000. In 2020, COVID-19 accounted for 4 004 deaths (6.8 % of all deaths). An additional 11 197 deaths were registered by the end of June 2021, accounting for almost three quarters of deaths attributed to COVID-19 since the beginning of the pandemic.

The COVID-19 mortality rate to the end of June 2021 (around 2 785 per million population) was around 80 % higher in Slovakia than the EU average (around 1 560 per million). However, the broader indicator of excess mortality suggests a substantially higher direct and indirect death toll related to COVID-19 in 2020 (Box 1).

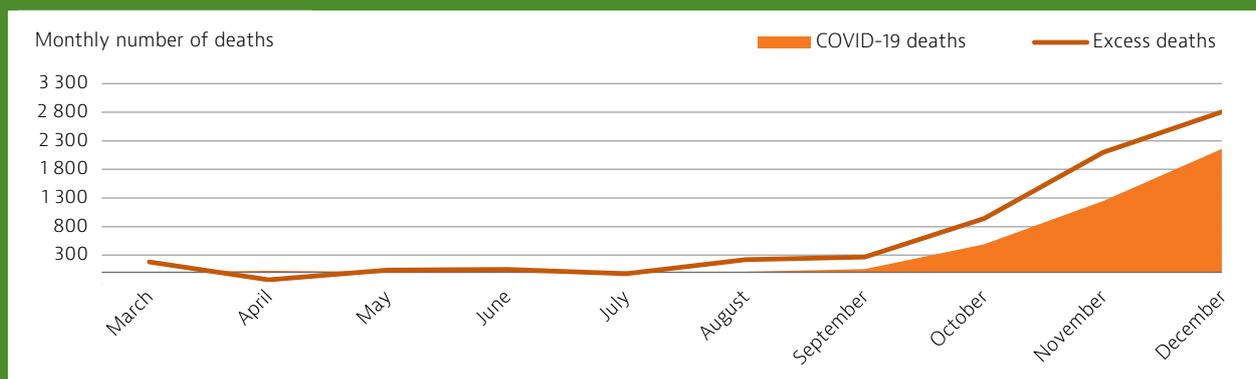
Box 1. Mortality from COVID-19 might be higher than that recorded in 2020

As in many other countries, the actual number of Slovak deaths from COVID-19 is likely to be higher than the number of reported deaths because of limited testing and issues related to cause-of-death attribution. The number of COVID-19 deaths also does not take into account possible increases in deaths from other causes that may arise during or after the pandemic – for example, as a result of reduced access to health services for non-COVID-19 patients or fewer people seeking treatment because of fear of catching the virus (indirect deaths). The indicator of excess mortality (defined as the number of deaths from all causes over what would have been expected based on the baseline from previous years)

can provide a broader measure of the direct and indirect deaths due to COVID-19 that is less affected by issues related to testing and cause-of-death registration.

More than 97% of COVID-19-attributed deaths in Slovakia in 2020 occurred in the last quarter (Figure 4). Throughout the second half of the year, the number of excess deaths was consistently higher than reported COVID-19 deaths. Overall, the number of excess deaths registered between early March and the end of December 2020 (6 438) was more than 50 % higher than the number of reported COVID-19 deaths (4 004).

Figure 4. COVID-19 and excess deaths rose in autumn 2020



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

Most of the population rate their health positively, but nearly one third have a chronic condition

Almost two thirds (65 %) of Slovak adults reported being in good health in 2019, a rate similar to the EU average. However, as in other countries, people with higher incomes were more likely to report being in good health: 75 % in the highest income quintile compared to 57 % in the lowest.

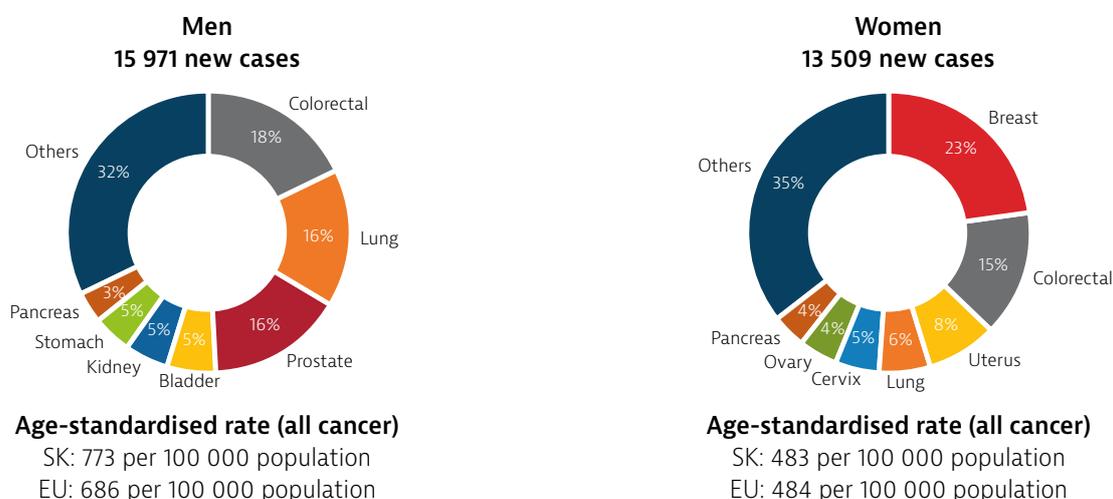
Nearly one third of adults (32 %) reported having at least one chronic condition in 2019, which is slightly below the EU average, according to EU-SILC. This proportion increased with age: over 70 % of Slovaks aged over 65 reported one or more chronic conditions, many of which increase the risk of severe COVID-19 complications. As with self-reported health status, large gaps in the prevalence of chronic conditions exist by income group: 36 % of Slovak adults in the lowest income group reported at least one chronic condition compared with 23 % in the highest.

The burden of cancer in Slovakia is among the highest in the EU

According to the latest estimates from the Joint Research Centre based on incidence trends from previous years, nearly 30 000 new cases of cancer were anticipated in Slovakia in 2020¹. The age-standardised incidence rates for all cancer types were expected to be higher than EU averages for men, but similar for women. Figure 5 shows that the main cancer types among men are colorectal (18 %), followed by lung and prostate (16 % each). Among women, breast cancer is the leading cancer (23 %), followed by colorectal (15 %) and uterine cancer (8 %).

Around 13 700 people died of cancer in 2019 – the second highest mortality rate in the EU after Hungary. Slovakia introduced a national cancer plan in 2018, aimed at reducing both incidence of and mortality from oncological diseases and improving patients' quality of life (see Section 5.1).

Figure 5. Nearly 30 000 people in Slovakia were expected to be diagnosed with cancer in 2020



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

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

3 Risk factors

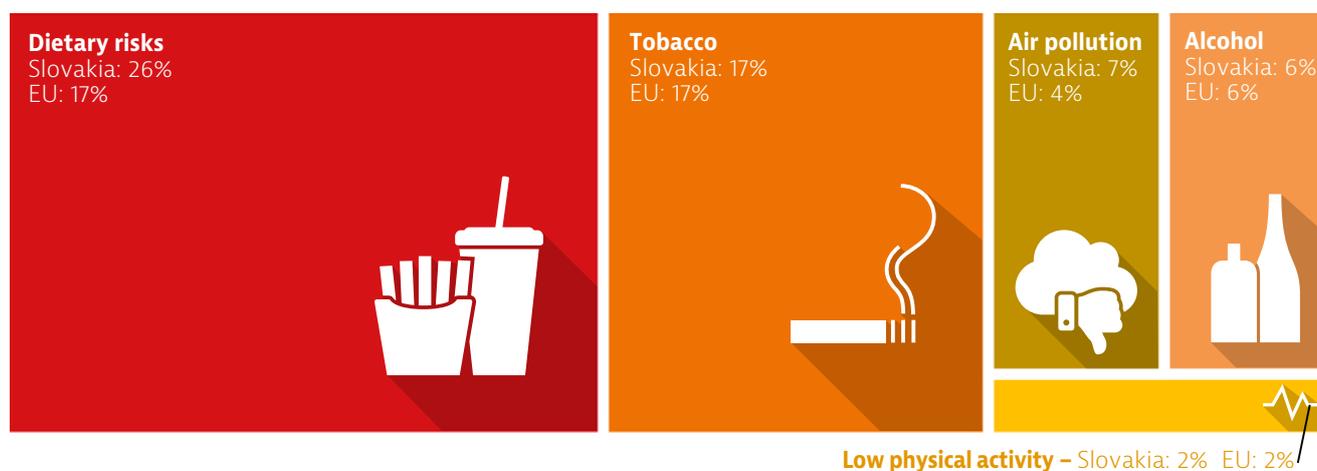
Behavioural and environmental risk factors are implicated in nearly half of all deaths

About half of all Slovak deaths in 2019 can be associated with behavioural risk factors, including dietary risks, tobacco smoking, alcohol consumption and low levels of physical activity, which is higher than the EU average of around two in five deaths (Figure 6). Environmental factors such as air pollution contribute to a considerable number of deaths, with about 7 % of all deaths attributable to exposure to

fine particulate matter (PM_{2.5}) and ozone alone. Deaths from air pollution are mainly linked to circulatory diseases, respiratory diseases and some cancers.

Dietary risks, including low fruit and vegetable intake and high salt consumption, contributed to 26 % of all Slovak deaths in 2019 – well above the 17 % EU average. The proportions related to tobacco consumption (17 %), alcohol consumption (6 %) and lack of physical activity (2 %) equalled the EU averages.

Figure 6. Poor diet, smoking and air pollution drive mortality rates



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

Tobacco consumption remains high

The high prevalence of smoking among adults and adolescents remains a major public health issue in Slovakia. In 2018, over one fifth of 15-year-olds reported smoking cigarettes in the preceding month, (Figure 7), and in 2019, more than one fifth of adults reported daily smoking – both higher than in most EU countries. While adult tobacco consumption in most countries declined in the last decade, it remained stable in Slovakia, which has lagged behind many countries in investing in prevention, including taking concrete actions to reduce tobacco consumption or switching to less harmful alternatives (see Section 5.1). A large gender gap exists in smoking: more than a quarter of Slovak men reported daily smoking in 2019 compared to one in six women. Socioeconomic differences are also marked: in 2014, 22 % of adults who had not completed secondary education smoked daily, compared with only 14 % of those with tertiary education – a gap slightly above the EU average.

Alcohol consumption remains high among adults and adolescents, but close to EU averages

Alcohol consumption among adults has been fairly stable over the past decade and close to the EU average. The percentage of 15-year-olds who reported being drunk more than once was the same as in most EU countries in 2018, although it declined between 2014 and 2018 (from 28 % to 22 %).



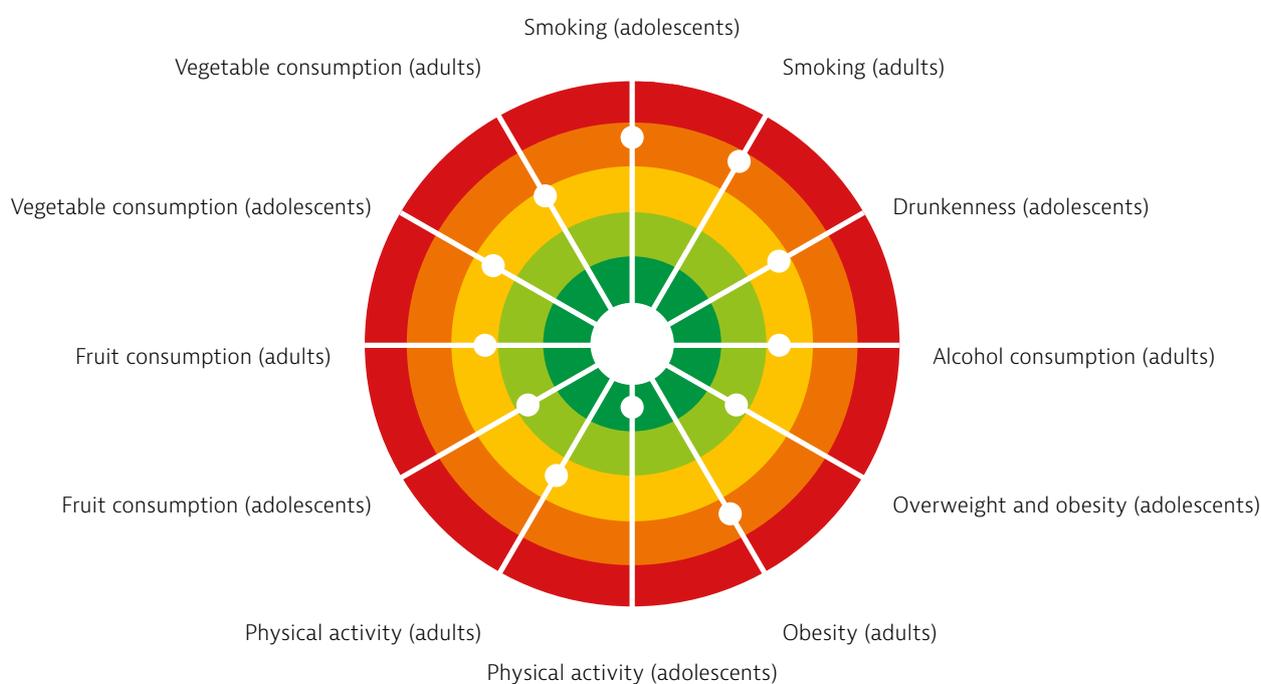
Overweight and obesity rates are of growing concern

Nutrition in Slovakia could be improved by reducing consumption of salt and fat – particularly trans-fats – and increasing fruit and vegetable intake. Almost half the adult population (47 %) reported eating less than one piece of fruit per day, and a similar proportion (53 %) did not consume vegetables daily – higher rates than in most EU countries. Only two in three adults met the WHO recommendation of at least 2.5 hours of moderate physical activity weekly, which is similar to the EU average.

The adult obesity rate in Slovakia was higher than in most EU countries in 2019 (19 % compared with an EU average of 16 %), an increase of 3 % since 2014.

Obesity disproportionately affects those with less education or income: 22 % of adults without secondary education were obese in 2019, compared to 12 % among the most educated. Overweight and obesity are also increasing among adolescents: 18 % of 15-year-olds were overweight or obese in 2018 (15 % in 2014) – similar to the EU average. Some policy measures – such as controlling marketing of unhealthy food and drinks to children – were introduced in 2016 and 2018, but their impact has not yet been evaluated.

Figure 7. Tobacco consumption and obesity are major public health issues in Slovakia



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

Sources: OECD calculations based on HBSC survey 2018 for adolescents indicators; OECD Health Statistics, EHIS 2014 and 2019 for adults indicators.



4 The health system

Slovakia's health system is based on compulsory insurance, with a strong role for government

Slovakia operates a compulsory social health insurance (SHI) system, with three competing health insurance companies (one public and two private) that negotiate contracts with health providers based on quality, prices and volumes. The Health Care Surveillance Authority serves as an independent monitoring body for the health provision, insurance and purchasing markets. The Ministry of Health plays a key regulatory role in defining the benefits package, regulating maximum waiting times, setting minimum numbers of outpatient and inpatient networks that insurance companies need to contract and regulating pharmaceutical prices and (since 2015) user fees.

During the COVID-19 pandemic, it was the principal authority leading the country's response (Box 2 and Section 5.3).

The Ministry of Health is also the sole shareholder in the public (and largest) health insurance company, VŠZP, which at the end of 2019 covered 60 % of the population (UDZS, 2020). A risk equalisation scheme adjusts for socioeconomic, demographic and general health status differences among the insured population.

In theory, SHI coverage is universal (see Section 5.2). A small proportion of the population (5 % in 2019) does not contribute and is not covered, but most are people with legal residence in Slovakia but living and working abroad, and may thus be covered in their host country.

Box 2. The government adopted several new laws to improve pandemic governance measures

In 2020, Slovakia established the Central Crisis Management Group, which included representatives from all relevant ministries and public authorities, to coordinate the country's response to the pandemic. It was chaired by the Interior Minister and advised by the Chief Public Health Officer. All communication related to COVID-19 (e.g. on containment measures, numbers and epidemiology) was released by the

Public Health Authority, Ministry of Health, National Health Information Centre and Prime Minister's Office. The legislature also adopted three new laws to provide a legal basis for new regulations, expand the range of entitlements for insurance, delay or adjust administrative and judicial procedures, and temporarily change data protection laws to enable the Public Health Authority to streamline operations.

Source: COVID-19 Health Systems Response Monitor.

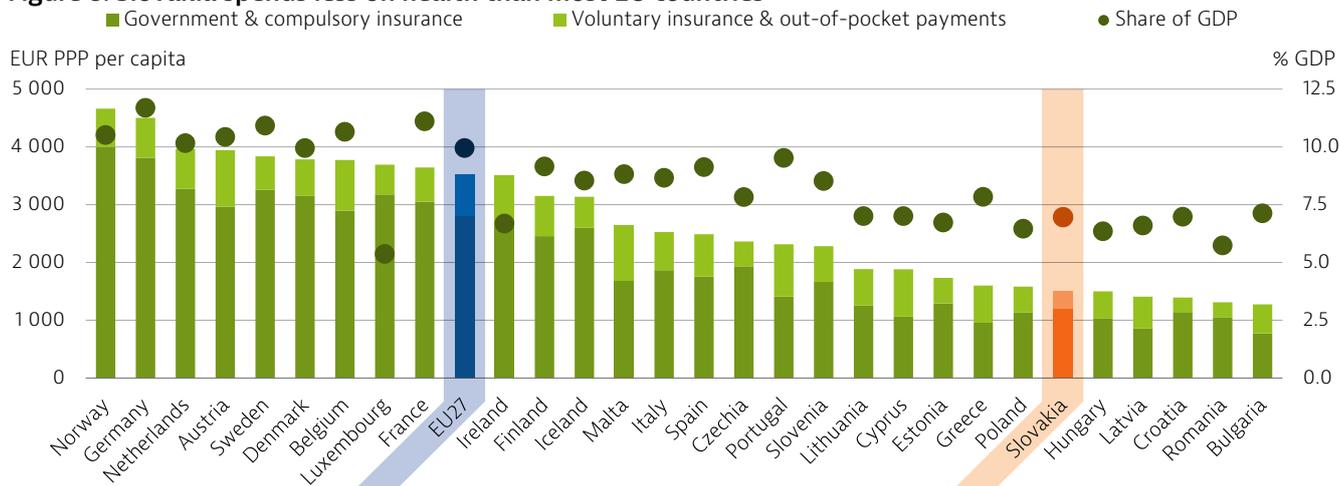
Spending on health remains well below the EU average

In 2019, Slovakia spent EUR 1 513 per person on health (adjusted for differences in purchasing power) – less than half the EU average (Figure 8). Total health expenditure has remained relatively stable in the last 10 years and stood at 7.0 % of GDP in 2019 – a much lower share than the EU average of 9.9 %.

Like most EU countries, the bulk of health spending is publicly financed (80 % in 2019). Sources of revenue are mainly wage-related contributions paid by employers and employees, which account for about two thirds of total public spending on health. The remaining third comes from general tax revenues, which are used to pay contributions for certain population groups, such as dependent family members, students and pensioners.

Out-of-pocket (OOP) payments in Slovakia consist mainly of co-payments for outpatient prescription medicines and user fees for health services, as well as direct payments for services not covered by health insurance. Despite attempts to limit user fees in 2015, OOP spending has been relatively stable since 2014 and accounted for 19.2 % of health expenditure in 2019, which is higher than the average for the EU (15.4 %; see Section 5.2).



Figure 8. Slovakia spends less on health than most EU countries

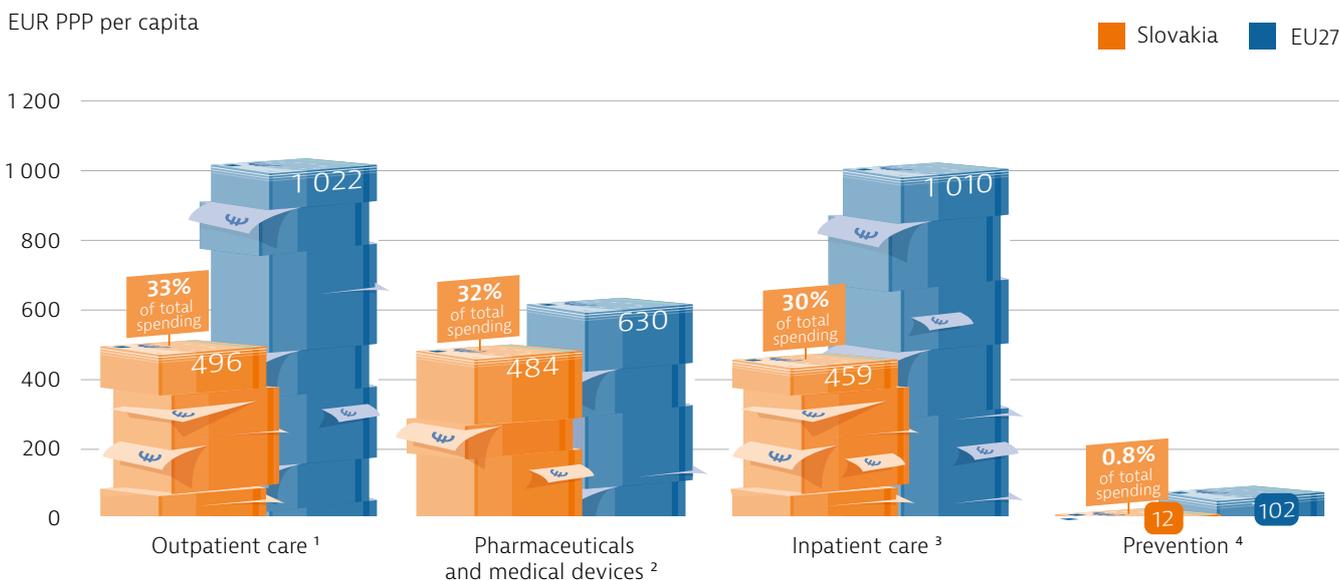
Note: The EU average is weighted.

Source: OECD Health Statistics 2021 (data refer to 2019, except for Malta 2018).

Pharmaceuticals absorb a higher share of health expenditure than in most EU countries

In per person terms, Slovakia spends well below the EU average in all main categories of health spending (Figure 9). Outpatient (ambulatory) care, pharmaceuticals and inpatient care each absorbed almost a third of current health expenditure in 2019. While shares of spending on outpatient and inpatient care were close to the EU averages, spending on pharmaceuticals and medical devices constituted a larger share at 32 %, compared with 18.4 % across the

EU and a rate second only to Bulgaria. This may reflect Slovakia's relatively small overall health budget, as per person spending remains lower than the EU average. Nevertheless, the high share of expenditure on pharmaceuticals has been a longstanding concern in Slovakia (see Section 5.2). Spending on preventive care is the lowest in the EU, accounting for less than 1 % of all health spending in 2019, compared with an EU average of 2.9 %. Significant health gains could be achieved if priority were given to preventive care (see Section 5.1).

Figure 9. Pharmaceuticals, outpatient and inpatient care each account for almost a third of health spending

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

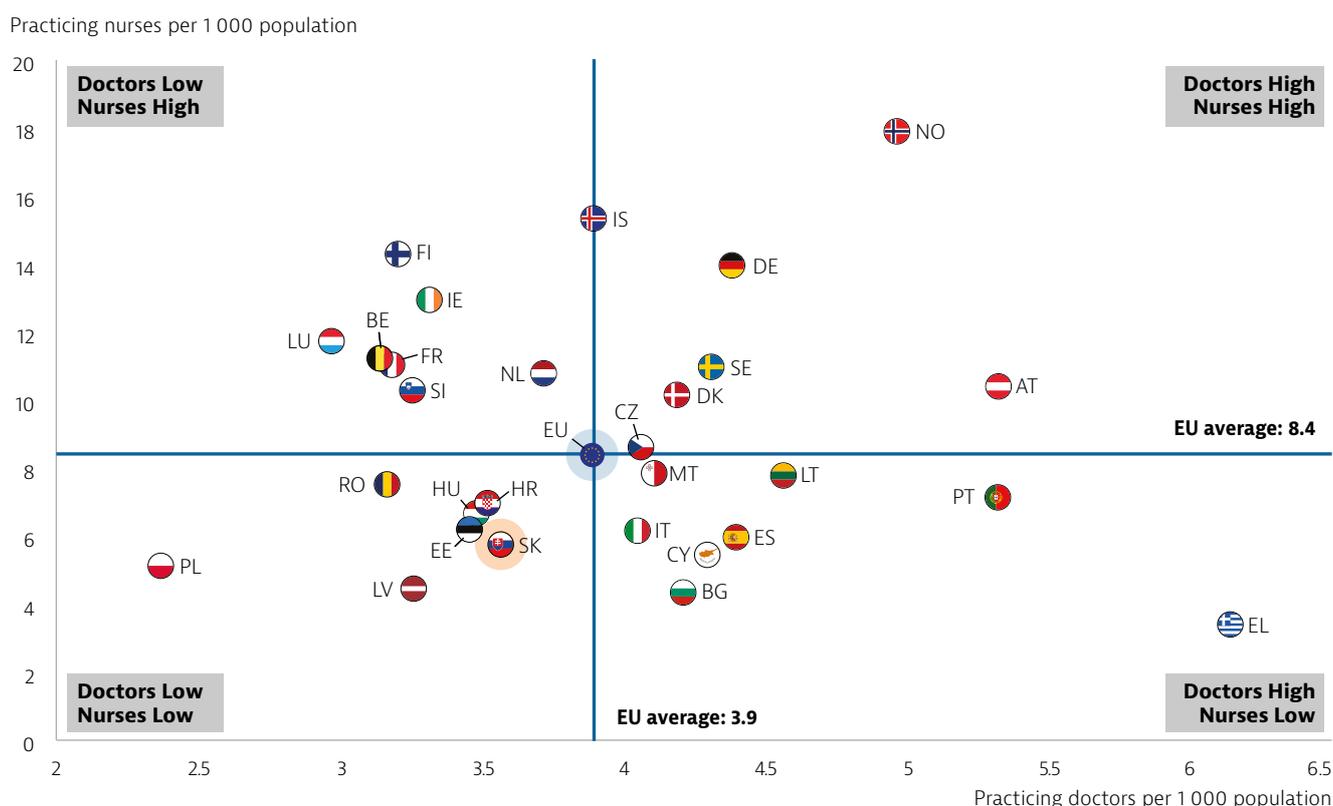
Sources: OECD Health Statistics 2021, Eurostat Database (data refer to 2019).

Low numbers of graduates have led to fewer nurses

Although Slovakia had a physician density slightly below the EU average in 2019, the nurse density was much lower (5.7 nurses per 1 000 population compared with 8.4; Figure 10). It is one of few EU countries where nurse-to-population ratios have continuously declined since 2000, and the number of nursing graduates more than halved between 2009 and 2019. This decline is reportedly due to an ageing workforce, relatively low wages compared to neighbouring countries, poor working conditions over time and low status of the profession.

Wide variations in the density of doctors and nurses also exist across regions. For example, in 2019, the capital region of Bratislava had the highest density of doctors, with 6.4 per 1 000 population, while the density in other regions ranged from 2.7 to 3.9 per 1 000 population (NCZI, 2021). While the Ministry of Health has taken measures to augment the health workforce in recent years (see Section 5.2), it is likely that many positions will remain unfilled in the foreseeable future. Limited health workforce capacity may have adversely affected Slovakia's ability to deal with increases in COVID-19 hospitalisations (see Section 5.3).

Figure 10. Slovakia has low numbers of nurses and doctors



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

Weak gatekeeping contributes to the highest number of doctor consultations in the EU

Service provision is decentralised and delivered by a mix of public and private providers, with general practitioners (GPs) acting as gatekeepers of the health care system. However, this role is not strictly enforced, and patients often see specialists directly without incurring a penalty. This may partly explain why Slovakia had the highest number of outpatient consultations per person (11) in the EU in 2019.

Similarly, the Slovak health care system reported a higher number of hospital beds (5.8 per 1 000 population) than the EU average (5.3) in 2019. Measures implemented over the past decade to increase overall efficiency have led to reductions in bed numbers, and Slovakia's pre-pandemic bed occupancy rate in 2018 was among the lowest in the EU, at 66.9 % compared to a 73.5 % EU average. This meant that bed capacity was less of an issue than health workforce in Slovakia's COVID-19 response (see Section 5.3).

5 Performance of the health system

5.1 Effectiveness

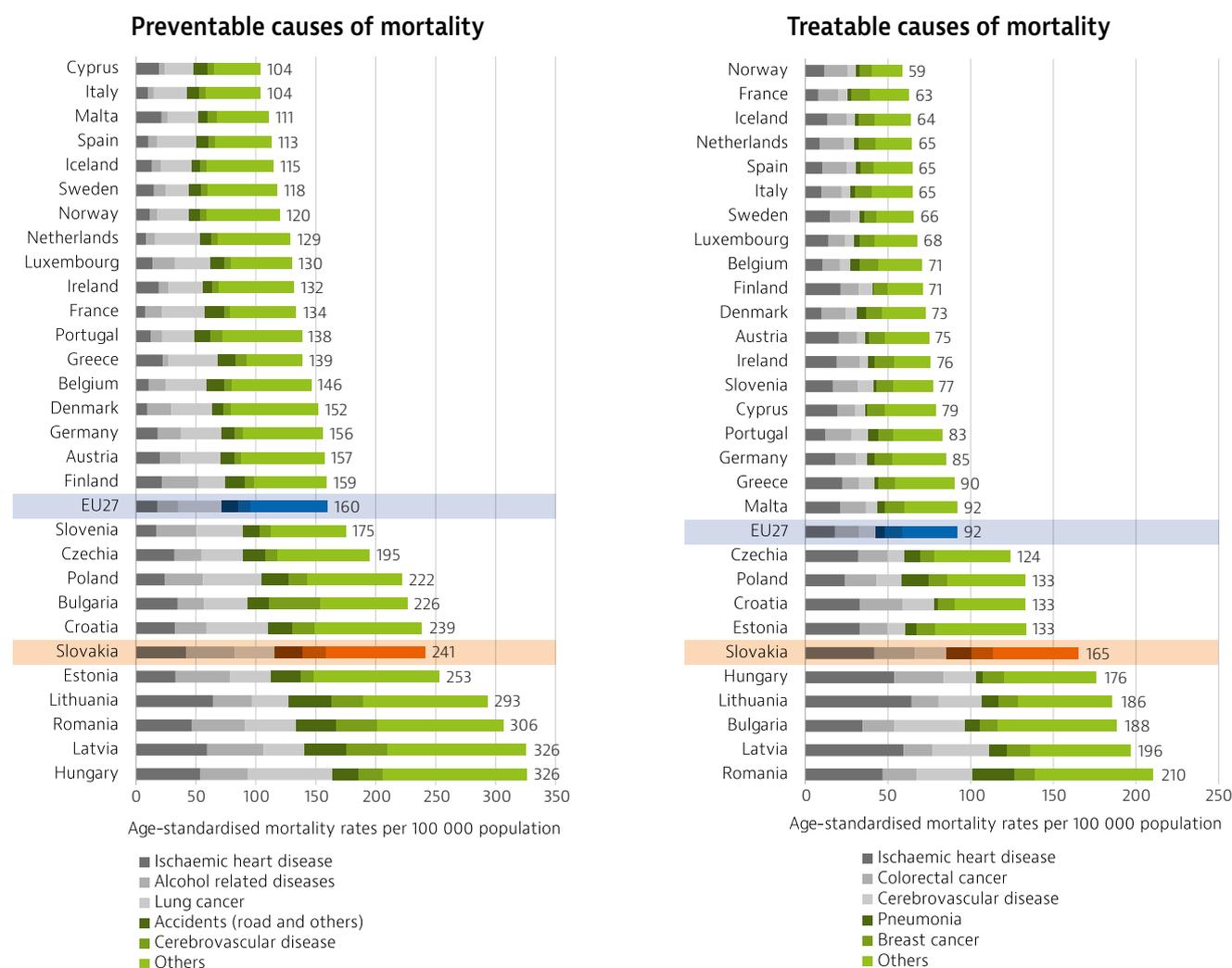
A substantial number of deaths could be avoided through better prevention and care

In 2018, Slovakia's mortality rate from preventable causes was among the highest across EU countries – well above the EU average, and higher than in neighbouring Czechia and Poland (Figure 11), indicating substantial room for effective public health policies to reduce premature deaths.

That said, since 2011 the rate in Slovakia has declined more rapidly (by around 14 %) than the average across the EU (around 10 %).

Mortality from treatable causes in Slovakia was also among the highest in the EU in 2018, and since 2011 has declined less than the average across the EU (9 % compared to 12 %). In 2018, the rate was 165 deaths per 100 000 population, with ischaemic heart disease accounting for a quarter of these. Slovakia was among the five worst performing countries for ischaemic heart disease, and among the worst three for colorectal and breast cancer and pneumonia.

Figure 11. Mortality rates from preventable and treatable causes are well above the EU averages



Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Treatable mortality is defined as death that can be mainly avoided through health care interventions, including screening and treatment. Half of all deaths for some diseases (e.g. ischaemic heart disease and cerebrovascular disease) are attributed to preventable mortality; the other half are attributed to treatable causes. Both indicators refer to premature mortality (under age 75). The data are based on the revised OECD/Eurostat lists.

Source: Eurostat Database (data refer to 2018, except for France 2016).

Little priority has been given to prevention

Historically, Slovakia has lagged behind other EU countries in investing in health promotion and disease prevention (see Section 4). Despite adoption of a national health promotion programme in 2014, concrete actions to address risk factors such as tobacco and alcohol consumption and to prevent obesity remain limited. In 2018, the government began discussing the possibility of introducing new taxes on sugary beverages and e-cigarettes, but this was abandoned in 2019. Taxes on tobacco products increased in February 2021, with further increases expected in 2022 and 2023.

Influenza vaccination coverage is low among older people

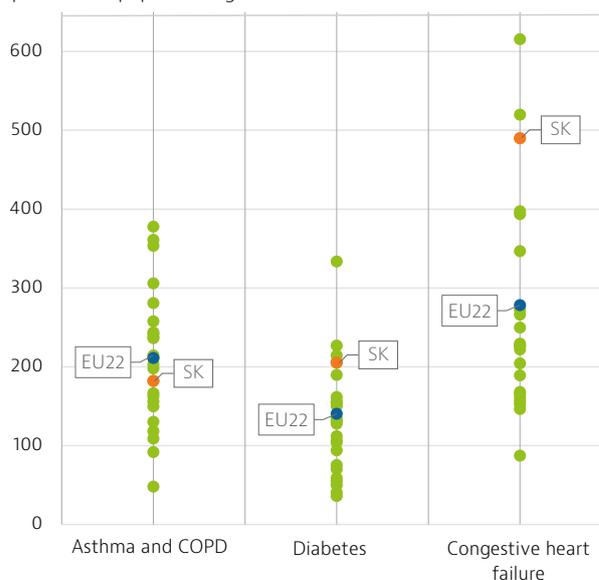
While childhood vaccination coverage is very good, Slovakia has one of the lowest influenza vaccination rates among people over 65 within the EU, despite national insurance coverage of both the vaccine and its administration to older populations. This may in part reflect the fact that influenza vaccination is recommended but optional, whereas it is mandatory for other diseases. Only 11.5 % of people over 65 were vaccinated against influenza in 2019, less than a third of the EU average (42.4 %) and far below the WHO recommendation of 75 %.

High numbers of hospital admissions could be avoided by strengthening primary care

While avoidable hospital admissions for asthma and chronic obstructive pulmonary disease (COPD) in Slovakia were slightly below the EU average in 2019, admission rates for diabetes and congestive heart failure were both over 40 % higher (Figure 12). This may in part reflect low GP numbers and variations in access to primary care across regions, as well as the weak gatekeeping function of GPs. Various measures have been taken to strengthen primary care in recent years. At the beginning of October 2020, the Ministry of Health announced the allocation of EUR 20 million from the European Regional Development Fund to further develop integrated care services, which provide co-located primary and specialist care and improve access to affordable care in the less developed regions.

Figure 12. Hospital admission rates for diabetes and congestive heart failure are above the EU average

Age-standardised rate of avoidable admissions per 100 000 population aged 15+



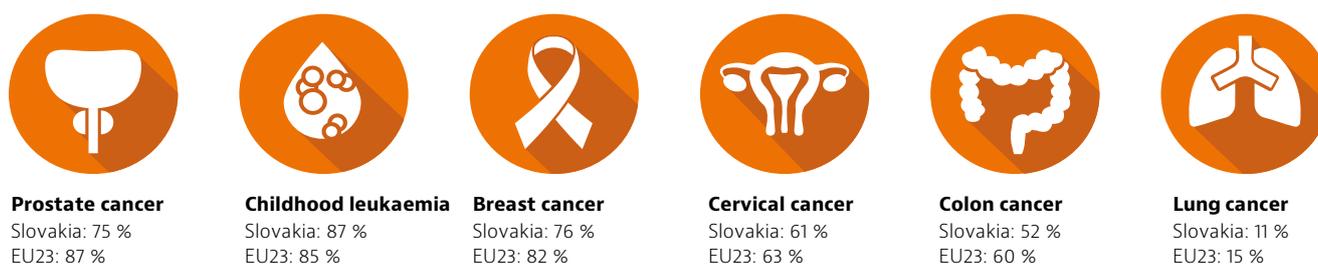
Source: OECD Health Statistics 2021 (data refer to 2019 or nearest year).

Slovakia's first national cancer plan was adopted in 2018

Slovakia's cancer burden is considerable (see Section 2), with the second highest mortality rate in the EU in 2019. Five-year cancer survival rates after diagnosis are generally lower than EU averages (Figure 13). These poor results are associated with low screening rates and difficulties in accessing cancer treatments.

Cancer screening rates are among the lowest in the EU. Breast cancer screening rates have remained fairly stable since 2006, with only 31 % of women aged 50-69 participating in breast cancer screening in the two years prior to 2019 – around half the EU average. Only 46 % of women aged 20-69 had been screened for cervical cancer in that period, compared to 58 % in the EU.

Figure 13. Five-year survival rates are below the EU average



Note: Data refer to people diagnosed between 2010 and 2014. Childhood leukaemia refers to acute lymphoblastic cancer.
Source: CONCORD Programme, London School of Hygiene and Tropical Medicine.

Established in August 2018, Slovakia's first national cancer plan covered 2019-20. Its objectives were to reduce cancer incidence and mortality and improve patient quality of life, focusing on four key areas: prevention and screening; diagnostics and treatment; post-treatment monitoring, follow-up and long-term care; and research and development. Among the first measures it introduced were planned launches of three nationwide screening programmes, but the COVID-19 crisis negatively affected their uptake. The second phase of colorectal cancer screening was delayed until the end of 2020; there was a three-month break in breast cancer screening from April-June 2020; and cervical cancer screening was delayed until June 2021. However, for the most part, opportunistic screening was able to continue.

The plan was updated in 2021, in line with the Europe's Beating Cancer Plan (European Commission, 2021a). The National Oncology Institute, founded in 2018 as part of implementation of the national cancer plan, will focus its 2021-25 activities on epidemiology; screening, diagnosis and treatment; research; and a platform for education.

5.2 Accessibility

Unmet needs for medical and dental care are relatively low

Self-reported unmet needs for medical and dental care due to financial reasons, geographical access or long waiting times are relatively low in Slovakia, at only 2.7 % for medical care in 2019 – only 1 % higher than the EU average. Long waiting lists were the main reason reported in almost two thirds of cases. The proportion of the population reporting unmet medical needs for dental care was lower than the EU average (2.1 % compared to 2.8 %). Both care types show only modest differences across income groups.

However, demand for COVID-19-related health care and the introduction of containment measures during the pandemic limited access to services and increased unmet needs across all EU countries. According to results from the Eurofound survey in early 2021, 23 % of the Slovak population reported having forgone a needed medical examination or treatment during the first 12 months of the pandemic. This proportion was lower than the average of the Visegrád Four countries² (25 %), but higher than the EU average (21 %) (Eurofound, 2021)³. In addition, analysis by the Association for the Protection of Patients' Rights (AOPP) compared health insurance data from Q4 2020, when the epidemic situation deteriorated

significantly, with Q4 2019. It found reductions of around two fifths in the number of surgical procedures, up to a quarter in hospitalisations and almost a third in the number of preventive examinations by GPs (AOPP, 2021).

Health care coverage is universal, but certain populations face access difficulties

Although marginalised communities are largely state-insured⁴, they still face barriers accessing care. Roma communities account for about 8 % of people in Slovakia, and their health status is recognised to be worse than that of the general population. Prior to the pandemic, low levels of health care utilisation were reported. Contributing factors included information barriers, discrimination, cultural barriers and affordability issues (Bednarik, Hidas & Machlica, 2019). To reduce this gap, the state-subsidised organisation Healthy Regions – part of the Ministry of Health – has been delivering services to Roma communities through the National Healthy Communities Project since 2017.

Slovakia provides a comprehensive benefits package through SHI

Under the Slovak Constitution, SHI provides a broad benefits package. Individual health insurance companies may also offer additional services for fees, but seldom do so in practice. The share of expenditure covered by SHI is similar to or above the EU average and higher than in the other Visegrád Four countries for most service types (Figure 14). In addition, however, there is substantial cost-sharing through a system of user fees for certain health services, as well as co-payments for outpatient medicines.

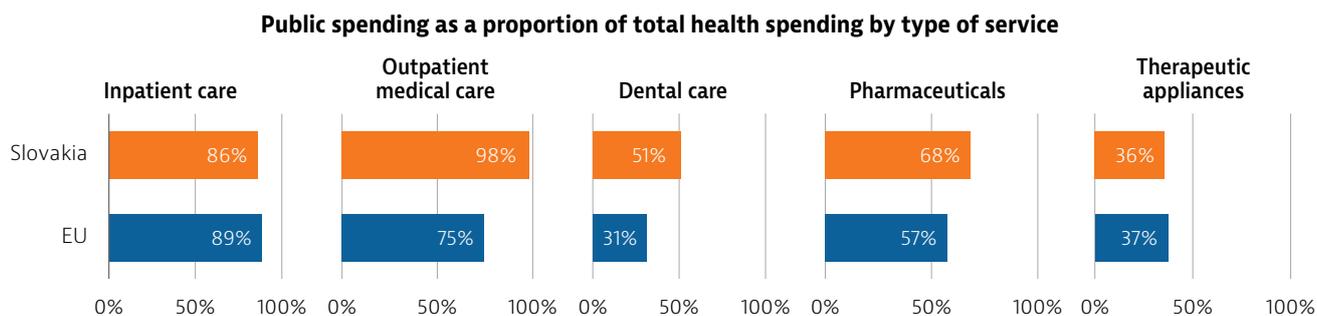
COVID-19 testing was free of charge for all Slovaks in 2020, provided a list of conditions was met. Throughout 2020, antigen tests were provided free of charge and without requiring a specific reason. In 2021, the government set a limit of two free PCR tests per month, with no limit on antigen tests. A payment of EUR 5 per antigen test was introduced in August 2021.

2. Czechia, Hungary, Poland and Slovakia.

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

4. The group of mostly economically inactive people for whom the state pays social contributions via transfers of general tax revenue to the SHI system. In 2019, the state paid roughly EUR 1 000 per state-insured person for roughly 2.9 million people in this category.

Figure 14. Public spending by type of service is higher than the EU average



Note: Outpatient medical services mainly refer to services provided by generalists and specialists in the outpatient sector. Pharmaceuticals include prescribed and over-the-counter medicines as well as medical non-durables. Therapeutic appliances refer to vision products, hearing aids, wheelchairs and other medical devices.

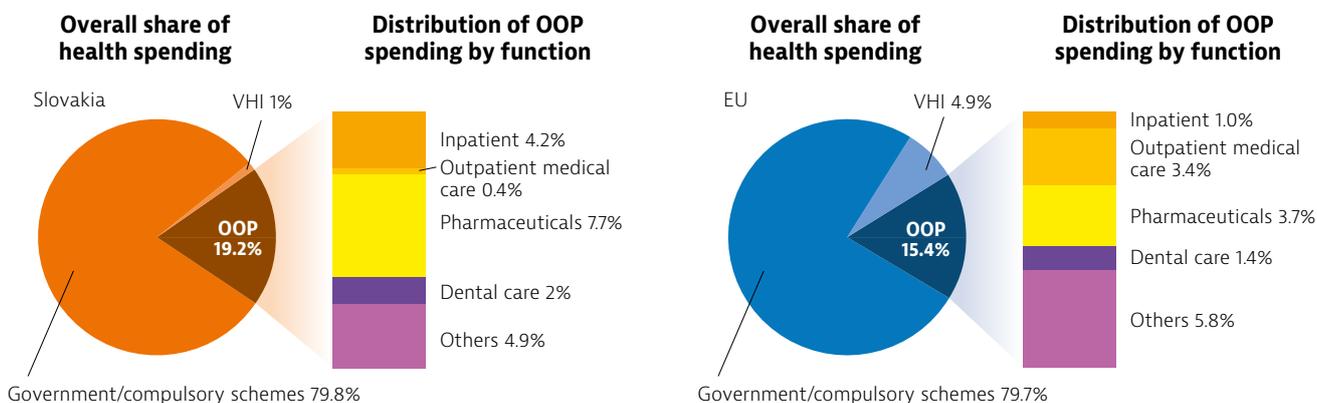
Source: OECD Health Statistics 2021 (data refer to 2019 or nearest year).

Outpatient pharmaceuticals drive more than 40 % of total out-of-pocket spending

OOP payments accounted for 19.2 % of health spending in Slovakia in 2019 (Figure 15), a 30 % decrease from a peak in 2007, but higher than the EU average (15.4 %). Only around one fifth of self-reported unmet needs for medical care were due to financial reasons, suggesting that the impact of OOP expenditure on affordability may be less than anticipated, although the issue may be more prominent among people in lower income groups.

More than 40 % of OOP spending is accounted for by outpatient medicines, but co-payments have not increased markedly, and legislation protects access for the most vulnerable. Pharmaceutical products are provided free of charge or are partly reimbursed for all insured people, according to the list of reimbursable medicines. Almost one third of all reimbursed medicines have no associated co-payment. To enhance financial protection, quarterly cap amounts were changed in 2018, and eligibility criteria for zero co-payments were modified in 2021, with further changes expected in 2022 (Ministry of Finance & Ministry of Health, 2019).

Figure 15. Out-of-pocket payments are above the EU average



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

New legislative reforms will aim to improve access to medicines

The high share of expenditure on pharmaceuticals has been a longstanding concern in Slovakia (see Section 4), despite relatively high utilisation of generics. In line with the pharmaceutical strategy for Europe (European Commission, 2020b), legislative reforms to ensure affordable access to new medicines are in development and are expected to be approved by the end of 2021. Access will also need to be monitored in view of rising trends in medicine shortages. Slovakia has a publicly available national register for online reporting of medicine shortages, but unlike other countries, it uses this list to identify medicines for which export (parallel) is temporarily forbidden. Pharmaceutical companies face financial sanctions if supply is not resumed within a certain period.

Reforms are in development to address workforce shortages and access limitations

The Slovak government has introduced measures in response to concerns around health workforce capacity. Physician – and more notably nurse – densities are below the EU averages (see Section 4), with concerns raised about ageing workforces and expected retirements, emigration of substantial numbers of doctors and low nursing graduate numbers. Although the eight self-governing regions are required to ensure minimum GP-to-population ratios, access to primary care varies and is reported as problematic in several regions. The government has taken a variety of measures to fill vacant positions in both workforces, including increasing training capacity and introducing financial incentives (Ministry of Health, 2018). For example, in 2018 the government introduced a scholarship for nursing students of EUR 6 000 during training, on the condition that recipients remain in the country for at least five years after graduation. Average remuneration for salaried doctors – including GPs and specialists – increased by over 50 % between 2011 and 2017, while remuneration for nurses rose by about 40 %.

Plans to restructure the inpatient sector to improve patient accessibility and reduce geographical barriers have been under consideration for some time, but are consistently put on hold. Slovakia's pandemic Recovery and Resilience Plan includes a reform to optimise the hospital network during 2021-25 (see Section 5.3).

Telemedicine helped maintain access to care during the pandemic

No national policies were introduced to increase access to care during COVID-19, but a temporary measure in spring 2020 enabled GPs and outpatient providers to use telemedicine services with reimbursement by the health insurance companies. This was the first time legislation permitted telemedicine; while beginning as a temporary measure, is likely to continue beyond the pandemic. Payment for such services is not regulated centrally and differs based on type of specialist. According to the Eurofound survey, 64.8 % of the Slovak population received prescriptions online or by telephone (higher than the EU average of 52.7 %), and 40 % had a medical consultation online or by telephone during the first 12 months of the pandemic (Eurofound, 2021).

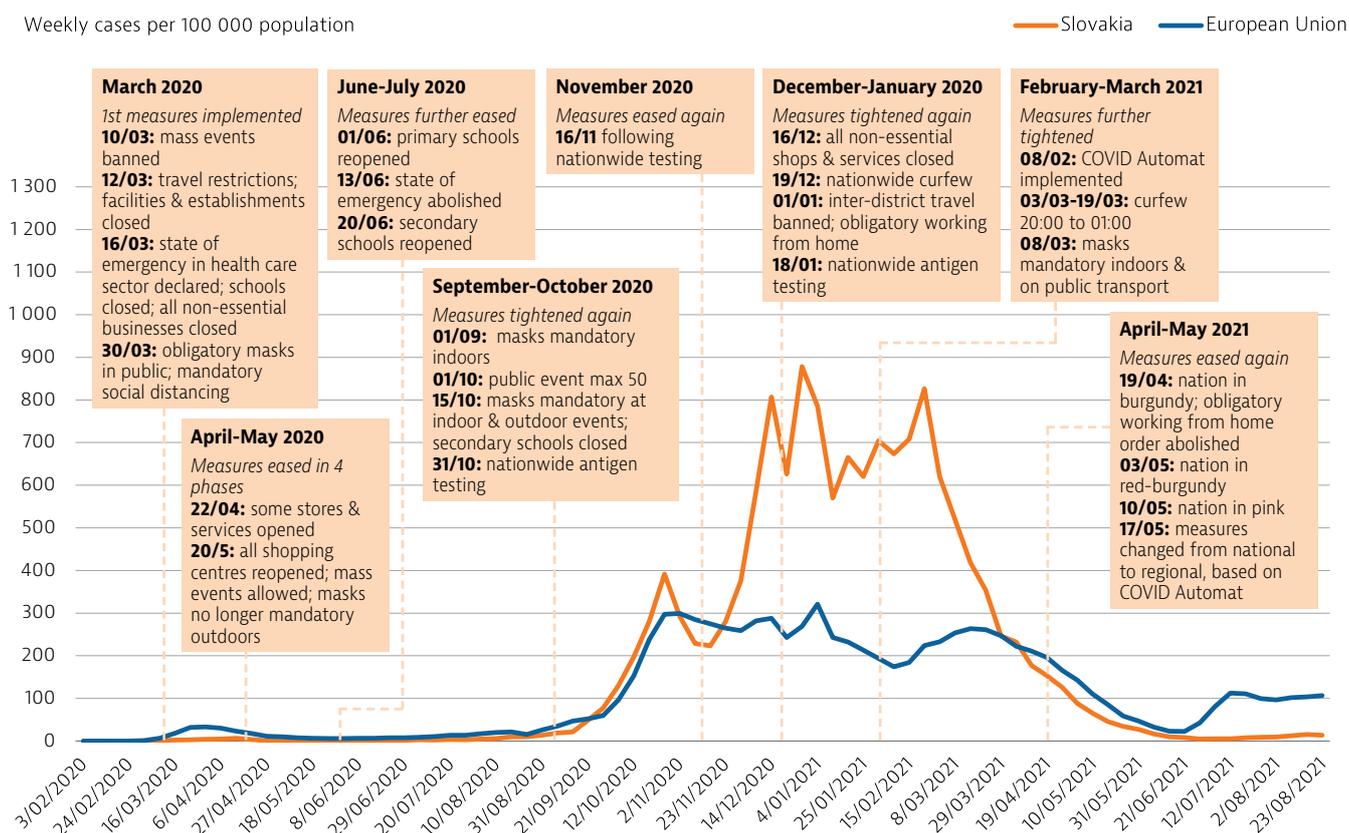
5.3 Resilience

This section on resilience focuses mainly on the impacts of and responses to the COVID-19 pandemic⁵. The pandemic had a major impact on population health in Slovakia: the COVID-19 mortality rate was approximately 80 % higher than the EU average by the end of June 2021 (see Section 2). Containment measures also had a major impact on the economy, with GDP falling by 5.2 % between 2019 and 2020. During the same period, unemployment rose from 5.8 % to 6.7 % – the first increase in seven years and the most significant in the preceding decade.

COVID-19 case numbers were low in the first wave, but well above the EU average in the second

Relatively low COVID-19 case numbers during the first wave of the pandemic may be attributed in part to rapid implementation of containment measures (Figure 16). Soon after the first cases were identified in Slovakia in early March 2020, hospital visits, mass public events and travel were banned, and various establishments were closed. On 16 March, the government declared a state of emergency, closing schools and all non-essential businesses, although by late March, some smaller shops and services were allowed to reopen with strict hygiene measures, including obligatory mask-wearing, social distancing rules and limitations on customer numbers. Measures were extended to the social care sector on 28 March. In April and May, measures were gradually eased in four phases; schools reopened in June, and the state of emergency was terminated on 13 June 2020. By July, most measures had been eased.

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

Figure 16. Frequent changes to containment measures were implemented over the course of the pandemic

Note: The EU average is unweighted (the number of countries used for the average varies depending on the week).

Sources: ECDC for COVID-19 cases and authors for containment measures.

COVID-19 case numbers rapidly increased later in 2020, and frequent changes to measures and an unstable political situation further complicated the situation. Various measures were re-introduced in early September, but case numbers continued to rise into October. That month saw the closure of secondary schools and the initiation of unprecedented nationwide antigen testing. Case numbers fell during November⁶, but rose again in December, and all non-essential shops and services were closed. On 19 December 2020 a curfew was introduced but with several exemptions, which were tightened from 1 January 2021. Measures were further tightened over January and February 2021, with a traffic light alert system introduced to monitor the development of the pandemic across regions and aid subsequent decisions on containment measures. A curfew was re-instituted in March, with mandatory mask-wearing. Measures were eased through April and May 2021 as the situation improved. Measures were further tightened over January and February 2021, with a traffic light alert system - COVID Automat - introduced to monitor the development of the pandemic across regions and aid subsequent decisions on containment measures.

Prior to COVID-19, Slovakia's 2005 pandemic preparedness plan only covered influenza

Before the COVID-19 crisis, Slovakia's pandemic plan, adopted in 2005, only covered a potential influenza outbreak. According to information submitted to WHO before the pandemic, Slovakia also reported mixed capacity to detect and manage health risks in 2019. Despite this, a Central Crisis Management Group was established early on to tackle COVID-19 (see Box 2), and it appears that the quick response meant that Slovakia did not experience some of the early negative effects seen in other European countries during the first wave. Following the first wave, the Ministry of Health published an updated pandemic plan on 11 August 2020 to serve as a guideline for any future infectious respiratory disease pandemics (Ministry of Health, 2020). The plan codified the use of traffic light alert systems at the regional level to assess the varying epidemiological situation across the country, and provided guidance on when the Public Health Authority should declare a national emergency and what measures to implement at the national level (such as when borders should be closed). Despite this, the situation in Slovakia deteriorated in the late 2020 and early 2021.

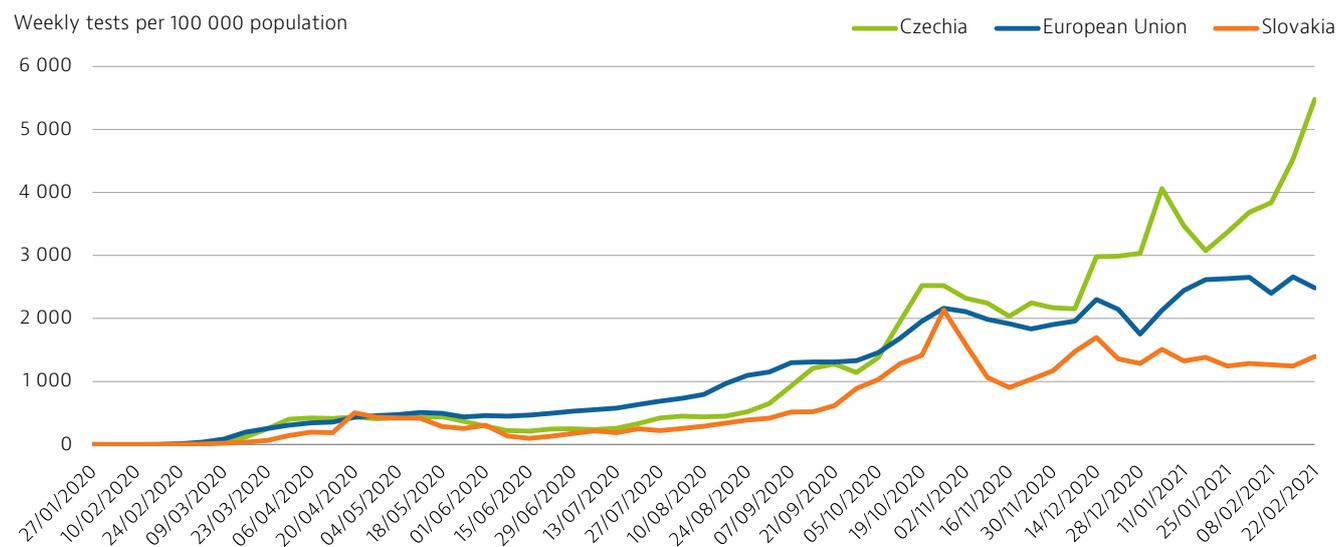
6. It is not possible to determine whether this drop was an actual steep reduction in COVID-19 case numbers or whether it reflects a reduction in PCR-confirmed cases as a result of the mass antigen testing campaign, which was not captured by the data.

Slovakia scaled up testing capacity early in 2020 but it remained below the EU average

Prior to the pandemic, Slovakia self-assessed its diagnostic laboratory capacity as relatively lower than other EU countries. This is reflected in weekly testing rates consistently lower than the EU as a whole and neighbouring Czechia (Figure 17). However, capacity was scaled up in early 2020, increasing from fewer than 1 000 PCR tests per day in March to 4 000-5 000 per day at the end of April. Slovakia initially had one state-run laboratory analysing all

samples from suspected COVID-19 patients; this was increased to a total of four throughout the regions. In addition, private laboratories offered testing from March 2020. Testing capacity was also increased with the introduction of external mobile sample collection points outside hospitals, and ambulances for suspected COVID-19 cases in the home (e.g. for immobile patients). Furthermore, a network of more than 700 sampling points for antigen tests was built in 2021.

Figure 17. COVID-19 testing capacity improved but remained lower than in other EU countries



Source: ECDC.

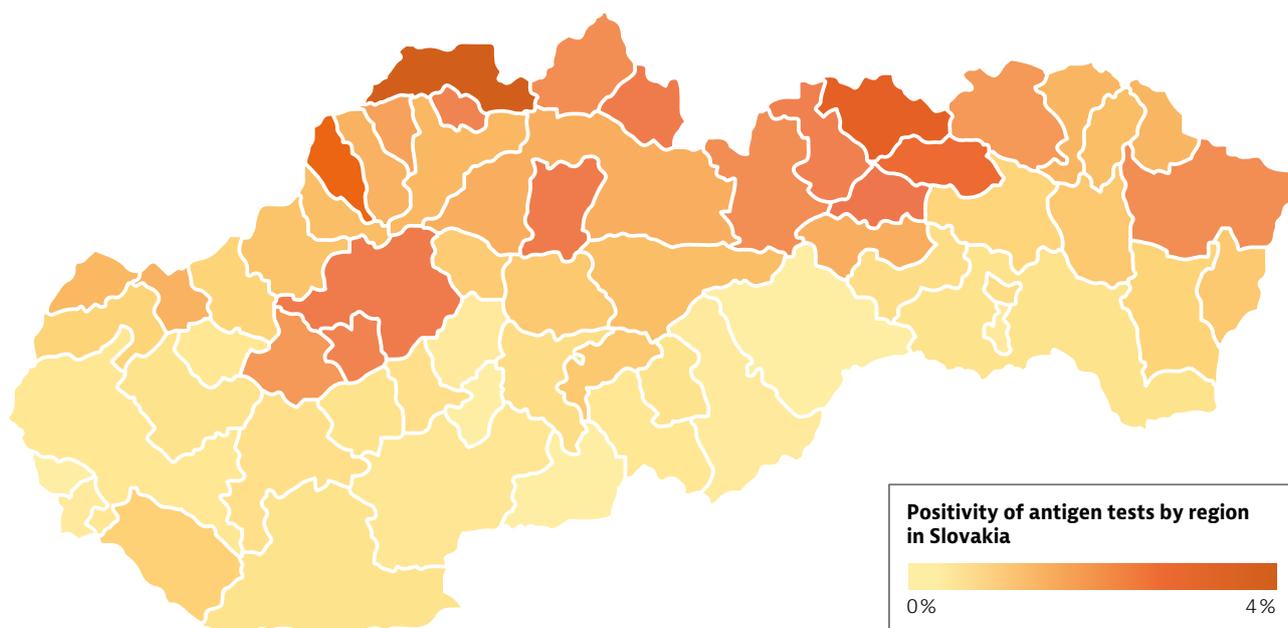
Mass antigen testing did not work as expected

Unlike other European countries, in efforts to reduce transmission the Slovak government opted for mass antigen testing of the entire population. This novel idea was hampered by a lack of capacity to collect, analyse and interpret data appropriately. Pilot testing began for everyone aged 10-65 in the four most affected regions in late October 2020. Mass testing was then expanded to the entire population, with a first round run by the municipalities. Of more than 3.5 million tests, 1.06 % were positive (ranging from 0.27 % to 3.22 % across regions), with national divisions into north and south for positivity rates (Figure 18) and into east and west for testing attendance. Two further rounds of testing were then conducted in regions with positivity rates greater than 0.7 % and then 1 %, followed by further nationwide mass testing for all regions in January 2021.

Without test validation – for example, through onsite validation of antigen tests or follow-up PCR tests for positive cases – clear methodology and data exchange for tracking and tracing, the impact of mass antigen testing cannot be easily differentiated from other mitigation measures. However, positivity rates in the worst-hit regions significantly decreased between rounds one and two of testing. The third round in November 2020 was purely voluntary, but according to experts the Slovak population was exhausted and the attendance rate was only 19 %. The situation did not improve after the mass testing campaign, leading the government to implement the traffic light alert system for regions from 8 February 2021.

With so much emphasis placed on testing, Slovakia understandably experienced difficulties with contact tracing. This was run by the regional public health authorities and was limited by the number of professional contact tracers. No additional digital application tools were used. Although no data are available to measure the effectiveness of contact tracing, it was probably inadequate.

Figure 18. During the first round of mass antigen testing, positivity rates varied across regions



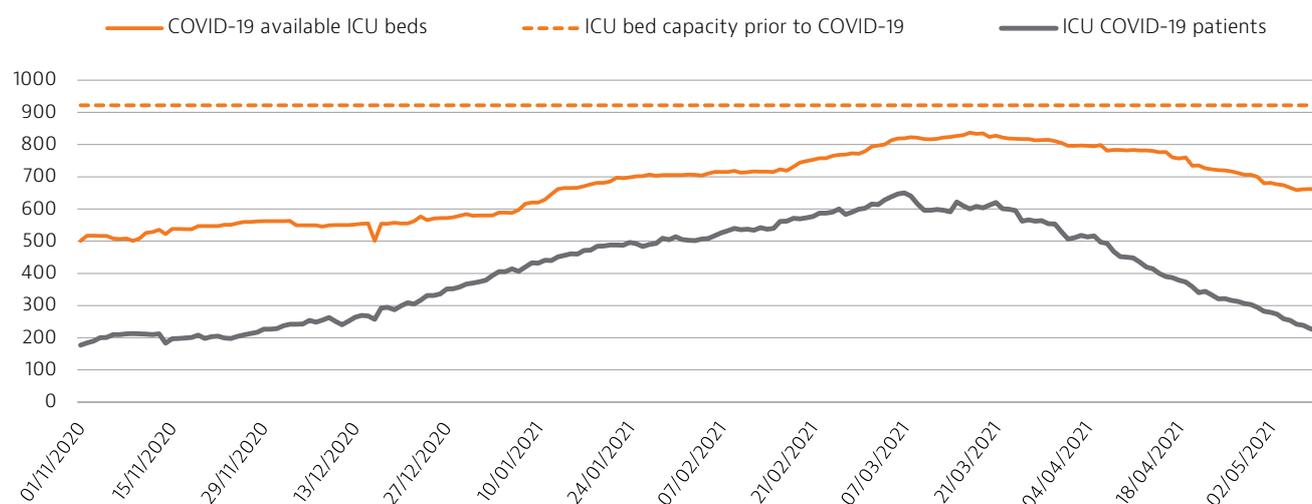
Source: Kerekes & Foltentová, 2020.

Measures were implemented to boost physical and human resources

Slovakia's comparatively high hospital bed numbers and low occupancy before the pandemic may have enhanced its capacity to respond (see Section 4). Nevertheless, measures were taken to ensure availability of hospital beds for COVID-19 patients in spring and autumn 2020.

An initial plan to reserve some hospitals and/or hospital buildings for COVID-19 patients did not materialise, and as the situation deteriorated, other hospitals began accepting COVID-19 patients. Planned surgeries and other interventions were either limited or stopped to create space for COVID-19 patients during spring 2020 and again later that year when case numbers again began to rise. Prior to the pandemic there were 922 intensive care unit (ICU) beds in Slovakia, and ICU bed capacity dedicated to COVID-19 patients increased along with the numbers hospitalised (Figure 19).

Figure 19. Numbers of intensive care unit beds available for COVID-19 patients increased with numbers hospitalised



Note: COVID-19 available ICU beds refers to the maximum number of ICU beds allocated to COVID-19 patients at any time. The number of available (i.e. free) ICU beds for COVID-19 patients at any time is calculated by deducting ICU COVID-19 patients from COVID-19 available ICU beds. ICU bed capacity prior to COVID-19 refers to ICUs in all medical specialities – paediatric and adult – and is not limited to infectious and pulmonary diseases.

Source: NCZI, 2021

Health workforce capacity was probably the major bottleneck in Slovakia's pandemic response (see Section 4), but few policies were introduced to boost availability of human resources. To strengthen capacity, the Ministry of Health approved an act amendment in September 2020 to broaden the definition of "health care professional" to include students enrolled in full-time study of general medicine, nursing or emergency health care (including paramedics). This allowed them to collect PCR samples and provide health care in accordance with their previous experience. In February 2021, the government approved early commencement of internships for these students, enabling faster entry to the workforce through earlier graduation. Payment of an extra EUR 7 per hour was implemented in February 2021 for health workers directly in contact with COVID-19 patients in hospitals.

Like other EU countries, Slovakia faced shortages of personal protective equipment (PPE) and other medical equipment early in the pandemic. In response, in spring 2020 the government enacted (parallel) export restrictions on human health products, including medicines and medical devices. Slovakia received donations of PPE and other medical equipment from other countries, but manufactured ventilators nationally. The response also included centralised purchasing and faster approval processes for licensing of medicines used for COVID-19 patients.

Vulnerable populations received particular attention during the pandemic

The elderly population is at significantly higher risk of serious complications from COVID-19. Like many other EU countries, Slovakia implemented policies to protect long-term care residents and workers from COVID-19 and to maintain continuity of elderly care. These included prioritised testing of care home residents and staff, expanded telehealth services and restrictions within facilities such as restricted visiting and isolation.

Another at-risk population was people living in marginalised Roma communities (see Section 5.2). During the first wave of the pandemic, these were deemed a high-risk group, and in some cases quarantine of entire settlements was enforced in place of personal isolation measures (Public Health Office, 2020). The roles of health promotion assistants involved in the National Health Communities Project were expanded to assist the Ministry of Health in these communities, including by recording information on returning travellers, providing assistance with testing and tracing, liaising with health care workers and promoting appropriate hygiene measures.

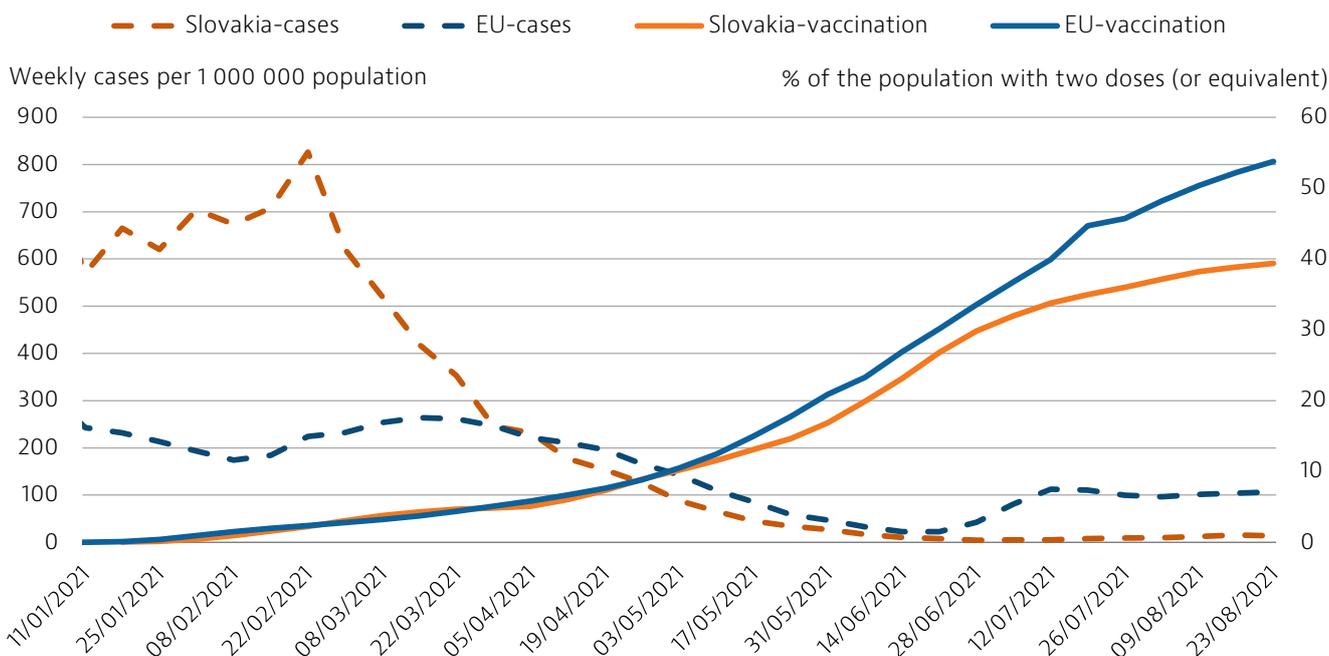
COVID-19 vaccination began on 26 December 2020, but the rollout faced challenges

Slovakia adopted its COVID-19 vaccination plan on 11 December 2020, and the first dose was administered on 26 December. COVID-19 cases declined significantly as vaccination was ramped up (Figure 20). By the end of August 2021, almost 2.4 million people had received at least one dose of vaccine, and 40 % of the population had received two doses or equivalent. This proportion lagged behind the EU average (54 %) and the rates in Czechia (53 %) and Poland (50 %).

As in other countries, Slovakia's vaccination strategy focused on priority groups, and efforts were made to scale up delivery by opening large-capacity vaccination centres and using mobile vaccination teams (Ministry of Health, 2021). The distribution channel was further expanded via co-operation with GP outpatient clinics, and mass vaccination on company sites. Vaccines could be administered by doctors, or by nurses under the supervision of a doctor. Eligible patients could request a vaccine through an online platform, but several mass vaccination centres accepted patients without prior registration. In early 2021, a dedicated website was set up for the vaccination campaign, providing information and publicly listing Slovak personalities in support of vaccination.

Despite these measures, Slovakia's vaccination campaign has not been without challenges. Slow uptake was reportedly due to unclear rules. Since the adoption of the initial vaccination strategy on 11 December 2020, at least four changes were made to priority groups – the latest on 8 March 2021. In addition, controversy has surrounded administration of the vaccine outside the priority list and procurement of vaccines not yet approved in Europe.



Figure 20. COVID-19 cases have declined as vaccination increased

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

Slovakia's health information system could be improved through better data linkage

The COVID-19 pandemic has shown the importance of robust health data infrastructure to deliver real-time data suitable for policy- and decision-making. Prior to the pandemic, Slovakia was one of the few EU countries with high technical and operational readiness to generate a range of health data from electronic health records in real time (OECD/EU, 2020). Despite this, e-health records were not used to generate data. Instead, a new COVID-19 information system was built from scratch, bypassing the e-health system in place. Data linkage issues were the main reasons for this, as e-health record data are spread across four sources with different systems, and lack unique patient identifiers. The National Centre for Health Information plans to strengthen the systems through various upcoming projects, which will in turn support the creation of the European Health Data Space (European Commission, 2021b).

Investment in the Slovak health care system has largely come from EU funding sources

Before the pandemic, Slovakia allocated around 0.3 % of its GDP to capital investment in the health sector, compared to the EU average of 0.4 %. In August 2020, the Ministry of Health re-allocated EUR 48 million from the European Regional Development Fund to cover hospital expenses in the fight against COVID-19. Hospitals were invited to apply for non-refundable financial contributions to buy new equipment, devices or materials until the end of 2021. In addition, Slovakia will receive EUR 1.533 billion from the EU Recovery Fund for its Recovery and Resilience Plan to strengthen its health care system (European Commission, 2021c). These resources will be split into three parts: EUR 1.163 billion for hospital, emergency and primary care (including optimisation of the hospital network); EUR 105 million for mental health care; and EUR 265 million for long-term social and health care.

6 Key findings

- Life expectancy in Slovakia steadily increased from 73.3 to 76.9 years between 2000 and 2020 but remains among the lowest in the EU, at almost four years below the EU average. As a result of COVID-19, the life expectancy declined by almost a year between 2019 and 2020, slightly more than the EU average. Disparities in life expectancy by socioeconomic status remain among the largest in the EU; on average, the most educated men live 15 years longer than the least educated.
- Nearly half of all deaths in Slovakia are attributable to potentially preventable behavioural and environmental causes. Dietary risks alone contributed to 26 % of all deaths in 2019 – well above the 17 % EU average. Adult and adolescent obesity rates are on the rise. The high prevalence of smoking among both adults and adolescents remains a public health concern.
- In 2019, health spending in Slovakia accounted for 7.0 % of GDP – much lower than the EU average (9.9 %). Despite this relatively low level, Slovakia provides a comprehensive benefits package to nearly the entire population. The share of public spending by service type is higher than the EU average, but out-of-pocket spending accounts for nearly 20 % of health spending, driven to a large extent by the purchase of outpatient pharmaceuticals.
- Slovakia has one of the highest mortality rates from preventable and treatable causes, yet spends the least on prevention in the EU. Substantial scope remains for improvement in effective public health policies to reduce avoidable hospitalisations and premature deaths.
- While Slovakia's cancer mortality rate is among the highest in the EU, the country is increasing efforts to reduce this burden. For the first time, a national cancer plan was adopted in 2018 to achieve progress in cancer prevention and care, with initial measures focusing on nationwide screening for selected cancers. Unfortunately, these screening programmes were temporarily suspended or delayed in 2020 due to COVID-19.
- Access to care is generally good for most of the Slovak population, and very few reported unmet needs for medical care before the pandemic. The COVID-19 crisis and related containment measures limited access to services in 2020 and 2021. In early 2021, 23 % of people reported forgoing care during the first 12 months of the pandemic, slightly more than the EU average of 21 %. The introduction of telemedicine helped to maintain access to care during the second wave of the pandemic.
- While numbers of COVID-19 cases and deaths during the first wave of the pandemic were relatively low, in part attributed to Slovakia's rapid implementation of containment measures, they increased exponentially from September 2020. By the end of June 2021, the COVID-19 mortality rate was around 80 % higher than the EU average. Slovakia faced several challenges during the second wave, including frequent changes to measures, a mass antigen testing campaign that did not go as expected and an unstable political situation.
- Measures were implemented to boost the availability of physical and human resources during the pandemic, such as reallocation of hospital beds to COVID-19 patients and additional financial contributions to hospitals to purchase medical equipment. However, with a comparatively low pre-pandemic density of doctors and nurses, health workforce capacity was a major bottleneck in Slovakia's pandemic response. Measures to strengthen health workforce capacity included mobilisation of additional staff and extra remuneration, but came quite late in the course of the pandemic.

Key sources

OECD/EU (2020), *Health at a Glance: Europe 2020 – State of Health in the EU Cycle*. Paris, <https://doi.org/10.1787/82129230-en>

WHO Regional Office for Europe, European Commission, *European Observatory on Health Systems and Policies (2021), COVID-19 Health Systems Response Monitor – Slovakia*: <https://www.covid19healthsystem.org/countries/slovakia/countrypage.aspx>

References

AOPP (2021), *Svoju daň si vyžiada nielen COVID, AOPP vidí zásadný problém v odloženej zdravotnej starostlivosti* [Not only will COVID demand its tax, AOPP sees a fundamental problem in deferred health care].

Bednarik M, Hidas S, Machlica G (2019), *Enhancing the social integration of Roma in Slovak Republic*, OECD Economics Department Working Papers, No. 1551, Paris, OECD Publishing, Paris.

EU Expert Group on Health Systems Performance Assessment (HSPA) (2020), *Assessing the resilience of health systems in Europe: an overview of the theory, current practice and strategies for improvement*.

Eurofound (2021), *Living, working and COVID-19 survey, third round (February-March 2021)*.

European Commission (2020a), *Country Report Slovakia 2020. 2020 European Semester*.

European Commission (2020b), *A pharmaceutical strategy for Europe*.

European Commission (2021a), *Europe's Beating Cancer Plan*.

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

European Commission (2021c), *European Commission endorses Slovakia's recovery and resilience plan*.

Kerekes D, Folentová V (2020), *Najvyššiu účasť na testovaní hlási západné Slovensko. V Galante sa na odberových miestach zapotili najviac, pretestovali 76 percent obyvateľov* [Western Slovakia reports the highest participation in testing. In Galanta, the sampling sites worked the hardest, testing 76 percent of the population].

Ministry of Finance, Ministry of Health (2019), *Healthcare spending review II*.

Ministry of Health (2018), *Informácia o stave zdravotníckeho personálu v Slovenskej republike – nové znenie* [Information on the state of medical personnel in the Slovak Republic, new version].

Ministry of Health (2020), *Pandemický plán pre prípad pandémie v slovenskej republike* [Pandemic plan in the event of pandemics in the Slovak Republic].

Ministry of Health (2021), *Vyhľadávka, ktorou sa ustanovujú kritériá určovania poradia očkovania osôb protiochoreniu COVID-19* [Decree laying down criteria for determining the order of vaccination of persons against COVID-19 disease].

NCZI (2021), *2019 Zdravotnícka ročenka Slovenskej republiky* [2019 Medical Yearbook of the Slovak Republic].

Public Health Office (2020), *Plán riešenia ochorenia COVID-19 v marginalizovaných rómskych komunitách* [Plan for addressing COVID-19 in marginalised Roma communities].

UDZS (2020), *Správa o stave vykonávania verejného zdravotného poistenia* [Report on the state of implementation of public health insurance].

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		

State of Health in the EU

Country Health Profile 2021

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

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

Each country profile provides a short synthesis of:

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

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

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