



State of Health in the EU Croatia

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

Contents

| 1. HIGHLIGHTS | |
|-------------------------------------|---|
| 2. HEALTH IN CROATIA | |
| 3. RISK FACTORS | |
| 4. THE HEALTH SYSTEM | |
| 5. PERFORMANCE OF THE HEALTH SYSTEM | |
| 5.1 Effectiveness | |
| 5.2 Accessibility | |
| 5.3 Resilience | 1 |
| 6. KEY FINDINGS | 2 |

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 Croatia, 2020

| Demographic factors | Croatia | EU | | | | | |
|--------------------------------------|-----------|-------------|--|--|--|--|--|
| Population size (mid-year estimates) | 4 058 165 | 447 319 916 | | | | | |
| Share of population over age 65 (%) | 21.0 | 20.6 | | | | | |
| Fertility rate ¹ (2019) | 1.5 | 1.5 | | | | | |
| Socioeconomic factors | | | | | | | |
| GDP per capita (EUR PPP²) | 19 103 | 29 801 | | | | | |
| Relative poverty rate³ (%, 2019) | 18.3 | 16.5 | | | | | |
| Unemployment rate (%) | 7.5 | 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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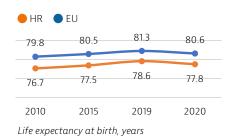
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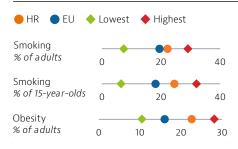
1 Highlights

Life expectancy in Croatia remains below the EU average and temporarily declined in 2020 as a result of deaths that occurred during the COVID-19 pandemic. Although the Croatian health system provides equitable access to a broad range of services, unmet needs are likely to have increased during the pandemic. With a sufficient level of physical infrastructure and number of health workers, Croatia responded quickly to the first wave of the COVID-19 pandemic but was more hesitant to reimpose stringent measures in subsequent waves. Rates of preventable and treatable mortality before the pandemic were comparatively high, suggesting scope for strengthening public health policies and improving health care.



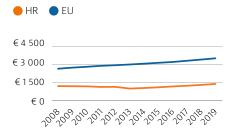
Health Status

Life expectancy in Croatia in 2020 was almost three years below the EU average. One of the reasons for this persistent gap is that Croatia has one of the highest mortality rates from cancer in the EU. In 2020, COVID-19 became the third leading cause of mortality. Life expectancy temporarily fell by just over nine and a half months between 2019 and 2020, reaching 77.8 years, slightly more than the average drop across the EU.



Risk factors

Croatia has much scope to address modifiable health risk factors, including unhealthy diets, tobacco smoking, alcohol consumption and low physical activity. Smoking rates among adults are high, adolescent smoking is among the highest in the EU and the proportion of people who are obese is also high.



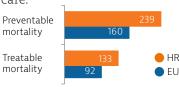
Health system

Health spending per capita is lower in Croatia than in most other EU countries, and has remained fairly constant in recent years. However, public funding as a proportion of total expenditure was 81.9 % in 2019 – higher than in most EU countries with comparative levels of expenditure. The share of public financing was higher than the EU average for all areas of care, with a higher proportion of public coverage in particular for dental care and pharmaceuticals.

Effectiveness

Per capita spendina (EUR PPP)

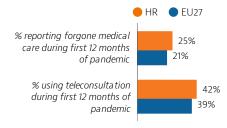
Mortality rates from preventable and treatable causes in Croatia are far above the EU average. This is due in part to weak intersectoral policies to address key determinants of ill health, such as smoking and poor nutrition, as well as to shortcomings in providing timely and effective care.



Age-standardised mortality rate per 100 000 population, 2018

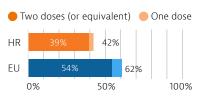
Accessibility

During the first 12 months of the pandemic, a considerable share of people reported unmet needs for medical care. However, a higher proportion than in the EU overall resorted to teleconsultations as a means of accessing services.



Resilience

During the first wave of the pandemic, Croatia quickly implemented containment measures and scaled up resources. It was harder hit by the second wave. By the end of August 2021, 42 % of the population had received at least one dose of a COVID-19 vaccine.



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

2 Health in Croatia

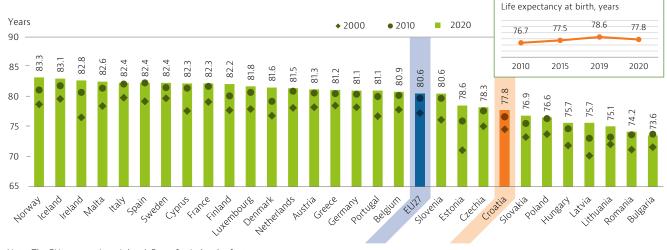
GOVID-19 led to a reduction in life expectancy in 2020

Life expectancy at birth in Croatia increased from 74.6 years in 2000 to 77.8 years in 2020. Most gains in life expectancy occurred between 2000 and 2010, with an increase of 2.1 years, and a marked slowdown in the following decade. Following the outbreak of the COVID-19 pandemic, life expectancy temporarily declined by 9.6 months between 2019 and 2020.

This reduction is slightly larger than the average decline of 8.5 months across the EU as a whole. The gap in life expectancy at birth between Croatia and the EU average remained nearly 3 years (Figure 1).

The gender gap in life expectancy in Croatia is slightly greater than in the EU overall, with women living on average 6.2 years longer than men, compared to an EU average of 5.6 years.

Figure 1. Life expectancy in Croatia remains well below the EU average



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

Ischaemic heart disease and stroke are the main causes of death

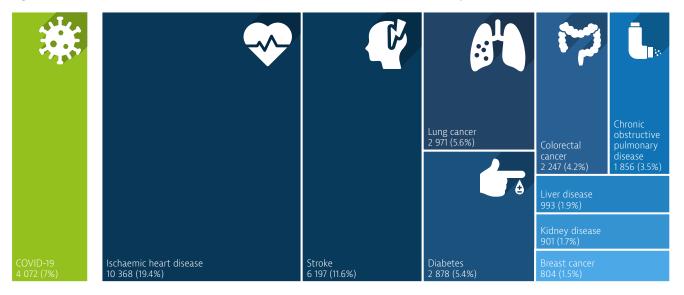
In 2018, ischaemic heart disease represented almost one fifth of all deaths in Croatia (Figure 2). In contrast to most other EU countries (which have seen a declining trend), the mortality rate from this disease remained relatively stable between 2000 and 2018. Stroke is the second leading cause of death in the country, accounting for almost 12 % of total mortality, despite a substantial reduction since 2000. Lung cancer is the most frequent cause of death by cancer, with 67 deaths per 100 000 population in 2018 (compared to an EU average of 53), and mortality from this type of cancer has remained fairly constant in recent decades (with a decline among men but an increase among women). Mortality rates for colorectal cancer (52 deaths per 100 000 population in 2018, compared to an EU average of 31) in Croatia are among the highest in the EU.

Deaths attributed to COVID-19 in 2021 were much higher than the EU average

In 2020, COVID-19 accounted for more than 4 000 deaths in Croatia (7 % of all deaths). An additional 4 331 deaths were registered by the end of August 2021. The cumulative mortality rate from COVID-19 to end August 2021 was almost 30 % higher in Croatia than the average across EU countries, at about 2 050 per million population compared with an EU average of about 1 590.

The broader indicator of excess mortality – defined as deaths from all causes above what would normally be expected based on previous years – suggests that the direct and indirect death toll related to COVID-19 is likely to be higher. The number of excess deaths from March to December 2020 was about one third higher than registered COVID-19 deaths (about 5 451 deaths compared to 4 072), which may indicate underreporting of COVID-19 deaths.

Figure 2. Ischaemic heart disease and stroke are the main causes of mortality



Note: The number and share of COVID-19 deaths refer to 2020, while the number and share of other causes refer to 2018. The size of the COVID-19 box is proportional to the size of the other main causes of death in 2018.

Sources: Eurostat (for causes of death in 2018); ECDC (for COVID-19 deaths in 2020, up to week 53).

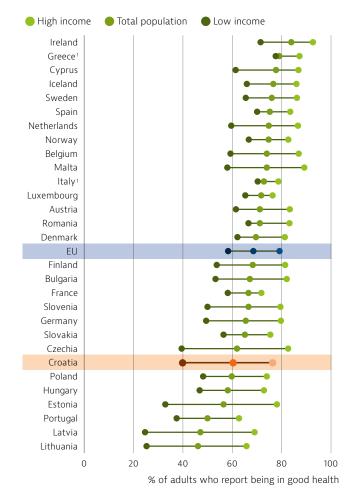
Fewer people report being in good health in Croatia than in most other EU countries

In 2019, three out of five people (60 % of the population) reported being in good health – a proportion lower than the EU average (69 %). Disparities in self-rated health between people in different income groups are the fifth largest across the EU (Figure 3). More than 75 % of those in the highest income quintile considered themselves to be in good health compared to less than 40 % of those in the lowest.

Over one third of adults in Croatia have a chronic condition

Over one third of Croatian adults (37 %) reported having at least one chronic condition in 2019 – a proportion similar to that in the EU as a whole (36 %). Many of these chronic health problems increase the risk of severe complications from COVID-19. As with self-reported health, there is a gap in the prevalence of chronic conditions by income group: more than half (55 %) of adults in the lowest income group report having at least one chronic condition compared with one in four (24 %) among those in the highest.

Figure 3. Inequalities in self-reported health by income level are substantial in Croatia



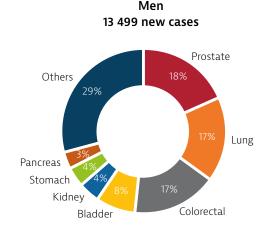
Note: 1. The shares for the total population and the low-income population are roughly the same.
Source: Eurostat Database, based on EU-SILC (data refer to 2019).

Overall mortality from cancer is among the highest in the EU

According to estimates from the Joint Research Centre based on incidence and mortality trends from previous years, around 25 000 new cases of cancer were expected in Croatia in 2020, with about 14 000 deaths from cancer expected during that year. The overall mortality rate from cancer in Croatia is among the highest in the EU: with an age-standardised mortality rate of 324 deaths from cancer per 100 000

population in 2020, Croatia ranks fifth – well above the EU average of 264 deaths per 100 000 population. The main cancer sites among men are prostate (18 %), lung (17 %) and colorectal (17 %), while among women breast cancer is the leading cancer (25 %), followed by colorectal (13 %), lung (8 %) and uterus cancer (7 %) (Figure 4). Croatia's National Plan Against Cancer for 2020-30 was adopted in December 2020 (see Section 5.1).

Figure 4. An estimated 25 000 people in Croatia were expected to be diagnosed with cancer in 2020



Age-standardised rate (all cancer)

HR: 709 per 100 000 population EU: 686 per 100 000 population

Others 34% Breast

Colorectal

Women

Age-standardised rate (all cancer)

Pancreas

Thyroid

HR: 467 per 100 000 population EU: 484 per 100 000 population

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

3 Risk factors

Behavioural and environmental risk factors are major drivers of mortality

Behavioural risk factors, including dietary factors, tobacco smoking, alcohol consumption and low physical activity, were responsible for 44 % of all deaths in Croatia in 2019, which is above the EU average (39 %). More than one fifth (22 %) of all deaths can be attributed to dietary risks (including low fruit and vegetable consumption, and high sugar and salt intake), a share well above the EU average of 17 % (Figure 5). Tobacco consumption (including direct and second-hand smoking) is the second major

behavioural risk factor contributing to mortality, and is responsible for another one fifth of deaths. About 6 % of all deaths can be attributed to alcohol consumption, while about 2 % of deaths are related to low physical activity. Air pollution in the form of fine particulate matter ($PM_{2.5}$) and ozone exposure alone accounted for about 6 % of all deaths in 2019, a higher share than the EU average.

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

Figure 5. Dietary risks and tobacco are major contributors to mortality



Note: The overall number of deaths related to these risk factors is lower than the sum of each one taken individually, because the same death can be attributed to more than one risk factor. Dietary risks include 14 components such as low fruit and vegetable intake, and high sugar-sweetened beverages consumption. Air pollution refers to exposure to PM_{25} and ozone.

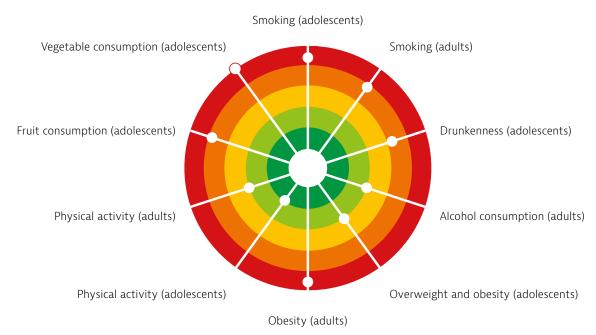
Sources: IHME (2020), Global Health Data Exchange (estimates refer to 2019).

Smoking rates in Croatia are among the highest in the EU

Tobacco consumption represents a serious public health issue in Croatia among both adults and adolescents. Little progress has been made in reducing smoking rates because of generally loose anti-smoking policies (see Section 5.1). More than one fifth (22 %) of Croatian adults reported that they smoked daily in 2019, a proportion higher than the

EU average of 20 %. Smoking prevalence in women is relatively high, with one in five reporting smoking daily in 2019. This is the third highest rate for women smokers in the EU (equal with Greece), although more men (26 %) than women smoke regularly. Regular tobacco consumption among teenagers is also a concern. In 2018, one quarter of 15-year-old boys and girls reported that they had smoked in the previous month – the fourth highest rate in the EU (Figure 6).

Figure 6. Smoking, obesity and unhealthy diets are more common in Croatia than across the EU



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

Sources: OECD calculations based on HBSC survey 2017-18 for adolescent indicators; and EU-SILC 2017 and EHIS 2014 and 2019 for adult indicators.

Overall alcohol consumption has declined, but consumption among adolescents is a concern

The proportion of 15-year-olds who reported that they had been drunk more than once in their life has decreased over the past 15 years, but still amounted to one quarter in 2018, which was slightly above the EU average (22 %). Among adults, 16.6 % reported at least one episode of binge drinking² per month in 2019, which was slightly below the EU average (18.5 %). As with many other risk factors, the difference between men and women is very marked (25 % for men compared to 10 % for women). Overall alcohol consumption per adult in Croatia decreased by about 10 % between 2010 and 2019, and was equal to the EU average in 2019.

Nearly one quarter of adults are obese, and childhood obesity rates are rapidly increasing

In 2019, nearly one in four (23 %) adults in Croatia were obese – a proportion higher than the EU average of 16 %. Obesity is also a growing issue among children and adolescents. Overweight and obesity rates among 15-year-olds reached 18 % in 2018, which is comparable to the EU average.

Nutrition in Croatia could be improved in multiple ways, including by reducing salt and fat (in particular trans-fat) intake, and increasing fruit and vegetable consumption. Some 40 % of adults and more than 70 % of adolescents in 2019 did not eat at least one fruit daily, and vegetable consumption is also very low, with about 39 % of adults and 77 % of adolescents reporting that they did not eat one vegetable every day.

Socioeconomic inequalities in health risks are large

As in many other EU countries, in Croatia there are large socioeconomic disparities in obesity rates, and people with the lowest levels of education or income are most affected. People with only a low level of secondary education are almost twice as likely to be obese as those with a university education (23 % compared to 12 % in 2017). Similarly, smoking prevalence in the lowest income quintile (30 %) in 2014 was much higher than in the highest (22 %). Several national health policy documents have acknowledged health inequalities, but these have been followed up with few targeted measures.

4 The health system

Mandatory health insurance is the main source of public funding

The Ministry of Health holds the stewardship role in the health system and is the main regulatory body, responsible for health policy development, planning and evaluation, public health programmes, regulatory standards and training of health professionals. The response to the COVID-19 pandemic was coordinated by the National Civil Protection Headquarters under the Ministry of the Interior, in co-operation with the Ministry of Health and the Ministry of Foreign Affairs (Box 1).

The Croatian Health Insurance Fund (CHIF) is the sole insurer and main purchaser of health services in the mandatory health insurance system. It plays a key role in contracting health services. Complementary health insurance, mainly to cover co-payments for services in the benefits package, is voluntary and purchased individually from either the CHIF (the main provider) or private insurers; over 60 % of the population has this additional insurance.

Box 1. The National Civil Protection Headquarters coordinated the COVID-19 response

Before the first cases of COVID-19 were reported in Croatia, an Expert Group of the Ministry of Health was set up to start preparing the health system for the pandemic. Initially, the Expert Group had the role of coordinating communication with all stakeholders in the country. Within a month, due to the increasing number of infected people and the need for higher-level supervision and coordination, the National Civil Protection Headquarters was established, together with local civil protection headquarters, and became the main coordinating body for the COVID-19 response from February 2020. The Croatian Institute of Public Health is the main body regulating surveillance, communication and international reporting.

Source: COVID-19 Health Systems Response Monitor

^{2.} Binge drinking is defined as consuming six or more alcoholic drinks on a single occasion for adults.

Croatia has universal health coverage, and the benefits package is generous

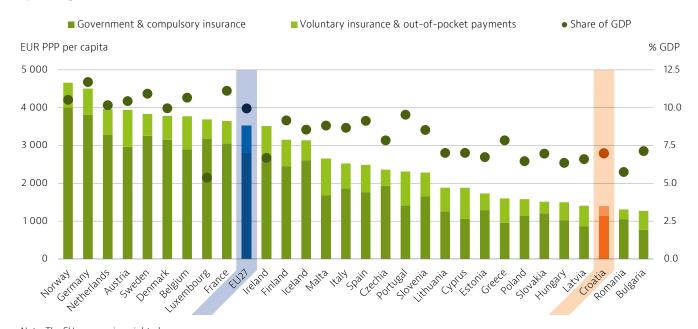
The CHIF provides mandatory health insurance coverage to the whole population. Dependent family members are covered through the contributions made by working family members, while those who are not economically active (such as pensioners and unemployed people) and vulnerable groups (such as people with disabilities and those on low incomes) are exempt from contributions and are covered through state budget transfers. The benefits package is generous, covering most types of preventive and curative health services. Co-payments apply to most services covered by the mandatory health insurance scheme, but exemptions for vulnerable groups and cost-sharing caps ensure a good degree of financial protection (see Section 5.2).

Health spending per capita is very low compared to most other EU countries

Croatia spends less per capita on health than most other EU countries. In 2019, it was the third lowest spender in the EU, reaching EUR 1 392 per capita (adjusted for differences in purchasing power). However, this is partly due to the country's comparatively low GDP per capita. Health expenditure as a percentage of GDP was 7.0 % in 2019 – below the EU average of 9.9 %, but higher than seven other EU countries (Figure 7).

Overall, public funding as a proportion of total health spending was 81.9 % in 2019, which is higher than most countries with comparative levels of expenditure (see Section 5.2). Out-of-pocket (OOP) payments accounted for 11.5 % of health spending, below the EU average of 15.4 %, while the voluntary health insurance (VHI) component of health expenditure (6.6 % in 2019) accounted for a larger share than is usual for EU countries (4.9 % EU average).

Figure 7. The public share of health expenditure is higher than in most countries with comparative levels of spending



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

Health spending is dominated by outpatient care, inpatient care and pharmaceuticals

Over one third (37.9 %) of current health expenditure in Croatia goes on outpatient (or ambulatory) services, consisting of primary care and specialist outpatient care, mostly provided by hospital outpatient departments. Croatia spends a larger share of its health expenditure on pharmaceuticals and medical devices than many other EU countries, although

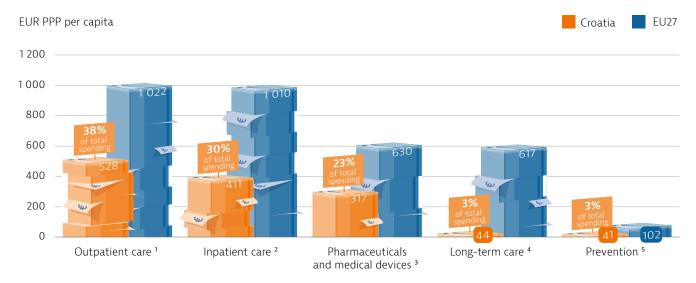
in absolute terms (EUR 317 per person) it is below the EU average (Figure 8; see also Section 5.2). Such spending amounted to 22.8 % of health expenditure in 2019 (compared to an EU average of 18.4 %). In contrast, long-term care only made up 3.1 % of health spending in Croatia (compared to the EU average of 16.3 %), reflecting the fact that formal long-term care is still underdeveloped and is mostly provided in institutional settings. On a per capita basis, spending on prevention is less than half the EU average, but

this translates to 3.0 % of expenditure, which is marginally higher than the EU average of 2.9 %.

In response to the COVID-19 pandemic, additional funds amounting to EUR 53 million were announced

in March 2020 and injected into the health system. These were provided from the state budget to hospitals via the CHIF.

Figure 8. Most health spending goes on outpatient care, inpatient care and pharmaceuticals



Note: The costs of health system administration are not included. 1. Includes home care and ancillary services (e.g. patient transportation); 2. Includes curative-rehabilitative care in hospital and other settings; 3. Includes only the outpatient market; 4. Includes only the health component; 5. Includes only spending for organised prevention programmes. The EU average is weighted.

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

Hospital capacity prior to the COVID-19 pandemic was higher than in the EU overall

The number of hospital beds in Croatia had only recently decreased to 5.7 per 1 000 population in 2019, down from 6.0 in 2000. A larger reduction of hospital beds per population was seen in the EU overall, declining from 6.2 in 2004 to 5.3 in 2019. The higher share in Croatia might indicate further scope for shifting services out of hospitals. In comparison with other EU Member States, Croatia has high numbers of beds in rehabilitative and long-term care hospitals, but there has been little investment in community-based long-term care. During the COVID-19 pandemic, no shortages of equipment, supplies or capacity were reported.

The average length of stay for hospital care prior to the COVID-19 pandemic had declined continuously in recent years (partly driven by changes in hospital payment mechanisms), reaching 8.1 days in 2019, although this was still above the EU average of 7.4 days, and further reductions could be possible. For example, for discharges related to pregnancy, childbirth and recovery, the average length of stay in hospitals exceeds that in all other EU Member States. Hospital discharges per 1 000 population and doctor consultations per person are close to the EU average.

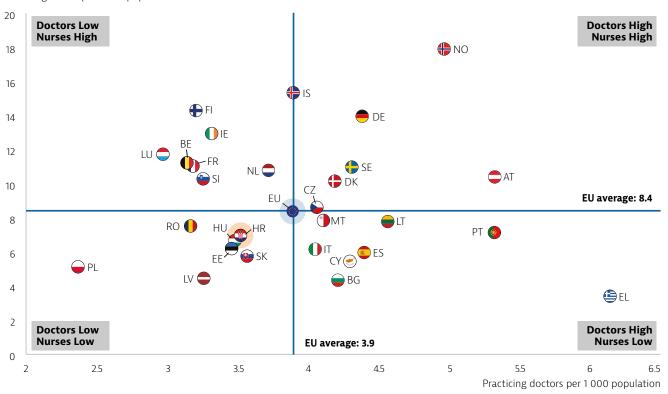
The number of doctors and nurses is low, but has increased steadily

Historically, Croatia has had fewer doctors and nurses than many other EU countries, with only 6.8 nurses per 1 000 population in 2019, compared to an EU average of 8.4, and 3.5 doctors, compared to an EU average of 3.9 (Figure 9). However, the ratios of both doctors and nurses to population increased steadily between 2013 and 2019, despite initial concerns about the effects of Croatia's EU accession in 2013 and potential outmigration of health professionals.



Figure 9. Despite increases, Croatia has fewer doctors and nurses than the EU average

Practicing nurses per 1 000 population



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

Most primary care doctors work in solo practices

Primary care doctors – such as general practitioners (GPs), paediatricians and gynaecologists – are usually patients' first point of contact with the health system, and act as gatekeepers to specialist and hospital care. About one quarter of physicians (23.7 % in 2019) are generalists. Patients must register with a GP (for adults) or a paediatrician (for children), but are free to choose their doctor. Most primary care doctors are self-employed. Their services are contracted by the CHIF, and the payment framework comprises mixed payments, which include performance and quality indicators. Several attempts have been made to reform the primary care sector and overcome fragmentation. However, there is a national upper limit of 25 % of physicians and nurses in primary care (i.e. general practice, paediatrics and gynaecology) who can be employed by publicly run health centres. At least 75 % work independently in group or, mostly, solo practices.

Croatia has placed particular focus on strengthening palliative care

The establishment of palliative care was one of the priorities of the National Health Care Strategy 2012-20. National strategies for 2014-16 and 2017-20 greatly enhanced capacity for palliative care by improving integration and coordination, rather than developing new structures. Guidelines have been adopted and palliative care services established in inpatient and outpatient settings. All counties were expected to adopt county-level palliative care plans by 2020. In 2021, there were 353 palliative beds in secondary care, while in primary care, 22 mobile palliative teams and 29 palliative care coordinators were contracted by the CHIF.

5 Performance of the health system

5.1 Effectiveness

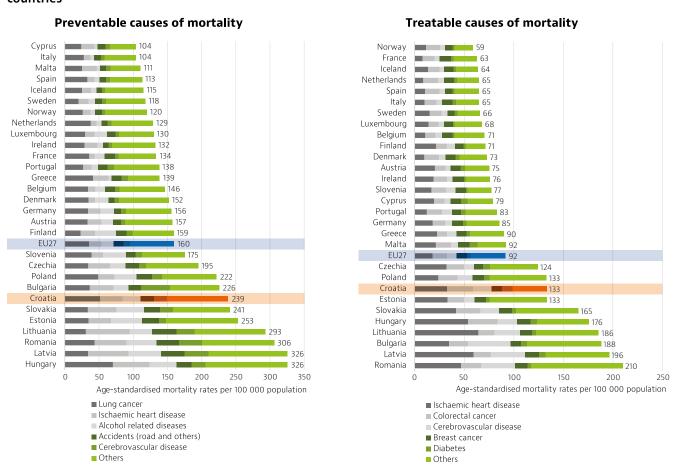
Preventable mortality is much higher than the EU average

Despite declines over the last decade, mortality from preventable causes in Croatia was far above the EU average in 2018 (239 compared to 160 per 100 000; Figure 10). This is partly due to weak intersectoral policies to address key determinants of ill health, such as smoking and poor nutrition (see Section 3). As noted in Section 2, lung cancer is a concern. The mortality rate from lung cancer is the second highest in the EU, at 67 per 100 000 population in 2018, exceeding the EU average of 53 per 100 000 population. This high rate is a result of weak anti-smoking policies in Croatia, with a lack of smoke-free places and underdeveloped media campaigns against tobacco use.

Although declining, mortality from treatable causes is also well above the EU average

Deaths in Croatia that should not have occurred in the presence of timely and effective health care were well above the EU rate in 2018. Mortality rates from treatable causes stood at 133 per 100 000 population, compared to the EU average of 92 per 100 000 population (Figure 10), but they have declined since 2011. As with mortality from preventable causes, cardiovascular diseases play a significant role, accounting for 39 % of deaths that could be avoided through timely and appropriate treatment. Colorectal and breast cancer also contribute substantially, making up a combined further 28 % of deaths from treatable causes.

Figure 10. Croatia records higher mortality from preventable and treatable causes than most other EU countries



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).

Heart disease, alcohol use and accidents are key drivers of preventable mortality

The preventable mortality rates from ischaemic heart disease and stroke are almost double the EU average, which partly reflects the high and growing prevalence of obesity in Croatia. The government of Croatia has taken measures to promote healthy eating: the Centre for Healthy Eating and Physical Activity was opened in 2014; a National Plan for the Reduction of Salt Intake for 2015-19 was adopted in 2014; and the National Health Promotion Programme "Healthy Living" was adopted in 2015. Nevertheless, there is much more scope for stepping up preventive programmes to address obesity more specifically.

Deaths from alcohol-related causes and transport accidents also exceed the EU average. Alcohol control policies have been adopted, including a minimum age of 18 years for sales on or off premises, but there is scope for implementing further restrictions, including those addressing underage consumption. Many of these policies are likely to be renewed following adoption of the National Plan on Health Care Development for 2021-27.

Influenza vaccination rates for older people have increased in recent years

Vaccination coverage rates for influenza among people over 65 years of age increased from a low of 19 % in 2014 to 29 % in 2019, although this was still below the EU average of 42 % in 2019 and even further from the WHO-recommended target of 75 %. In 2020, influenza vaccinations started early, in mid-October, to avoid a possible confluence of a flu epidemic with the COVID-19 pandemic. A total of 483 471 doses were administered covering 56.7 % of those aged 65 and over, although data on influenza vaccinations in the region of Sisak-Moslavina are missing from this figure, owing to the earthquake that occurred there in December 2020.

Key data are missing to assess and improve the quality of care

One of the strategic goals of Croatia's National Health Care Strategy 2012-20 was to improve the efficiency and effectiveness of the health system, and one of its priorities was to improve quality of care, including through monitoring, education, clinical guidelines, accreditation, payment in relation to quality and health technology assessment. However, few of these measures have been implemented, and evidence on the quality of health services remains limited.

Key indicators on the quality of primary care – such as avoidable hospital admissions for chronic conditions including chronic obstructive pulmonary disease, congestive heart failure, diabetes and asthma – that are available for other EU countries are lacking for Croatia. Nevertheless, referral rates for these conditions are available, and indicate a decline from 26.2 % in 2008 to 15.1 % in 2017. While this is an improvement, the rate is much higher than in countries with well-functioning primary care systems and differs substantially across counties, with rates in 2017 ranging from 9.2 % to 23.4 % (World Bank, 2019).

With regard to the quality of hospital care, the standardised 30-day hospital mortality rate for acute myocardial infarction is much higher in Croatia than in most other EU countries, at 11.6 per 100 hospitalisations in 2017. This rate is second after Latvia, at 13.4 per 100 hospitalisations, and much higher than the EU average of 6.8. Furthermore, there is substantial variation across hospitals, with rates in 2016 ranging from 0 % to 34.2 % (World Bank, 2019).

Croatia has several national cancer screening programmes, but their coverage rates vary

Croatia has developed national cancer screening programmes and released a National Plan Against Cancer for 2020-30 (Box 2). In 2019, it achieved a slightly higher screening coverage rate for breast cancer than the EU overall: 60 % of women aged 50-69 reported having been examined in the last 24 months, compared to 59 % in the EU (Figure 11). For cervical cancer, the screening rate was also higher than the EU average: in 2019, 65.4 % of women aged 20-69 reported having had a cervical smear test in the last 24 months, compared to 61.2 % in the EU. Although the national cervical cancer screening programme is on hold owing to a reorganisation, Croatia has a longstanding tradition of opportunistic cervical cancer screening, which explains the high percentage of women being tested.

For colorectal cancer, the screening rate was lower. In 2019, 15.7 % of people aged 50-74 reported having had colorectal cancer screening in the last 12 months, compared to an EU average of 19.5 %. According to data for the third cycle of the colorectal cancer screening programme (starting in April 2016 and ending in October 2018, for people born between 1941 and 1965), a larger proportion (31 %) of the target population was tested.

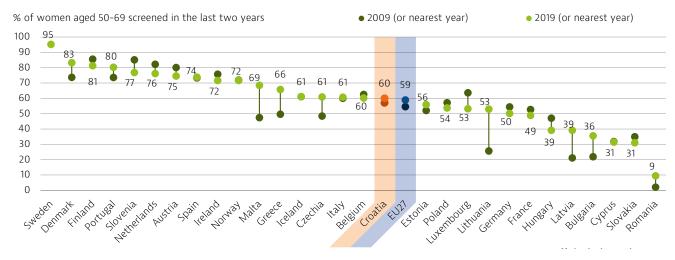
Box 2. Croatia has developed a National Plan Against Cancer for 2020-30

In 2006, Croatia introduced its first cancer screening programme, which focused on breast cancer. Population-based screening programmes were launched for colorectal cancer in 2007 and for cervical cancer in 2012, and screening for lung cancer was introduced at the beginning of 2020.

In December 2020, the National Plan Against Cancer for 2020-30 was adopted, with the goal of improving the health of citizens throughout the life-course. The plan aims to reduce the incidence and mortality of

cancer, and to prolong and increase the quality of life of patients with cancer in Croatia to the level of western European countries. This resonates with Europe's Beating Cancer Plan, presented by the European Commission in February 2021 (European Commission, 2021a). The European Cancer Plan has four key action areas: prevention, early detection, diagnosis and treatment, and improving quality of life.

Figure 11. The breast cancer screening rate in Croatia is slightly above the EU average



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

Cancer survival rates have seen modest improvements

As noted in Section 2, overall mortality from cancer in Croatia is among the highest in the EU. Five-year cancer survival rates are below the EU average for several types of cancer (Figure 12), but there were improvements between 2000-04 and 2010-14: rates increased from 47 % to 51 % for colon cancer, from 74 % to 79 % for breast cancer, and from 66 % to 81 % for prostate cancer. However, they decreased slightly from 11 % to 10 % for lung cancer.

Figure 12. Five-year cancer survival rates in Croatia are generally below the EU average



Prostate cancer Croatia: 81 % EU23: 87 %



Childhood leukaemia Croatia: 85 % EU23: 85 %



Breast cancer Croatia: 79 % EU23: 82 %



Cervical cancer Croatia: 63 % EU23: 63 %



Colon cancer Croatia: 51 % EU23: 60 %



Lung cancer Croatia: 10 % EU23: 15 %

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

5.2 Accessibility

Unmet needs for medical care were comparatively low before the COVID-19 pandemic

Prior to the COVID-19 pandemic, Croatia had a very low rate of self-reported unmet needs for medical care in 2019 (1.4 %). Despite exemptions from co-payments, the unmet needs rate was much higher in low-income (4.0 %) than in high-income groups (0.8 %) (Figure 13). Apart from income level, self-reported unmet needs for medical care also varied by education, age and gender. For example, unmet needs for people aged 65 and over are among the highest in the EU. These variations might indicate problems with access to medical care.

Figure 13. Unmet needs for medical care in 2019 were lower than the EU average, but varied widely across income groups

Unmet needs for medical care High income Total population Low income Estonia Greece Romania Finland Latvia Poland Iceland Slovenia Slovakia Ireland Belgium Denmark Italy Portugal EU 27 Bulgaria (Croatia Lithuania Sweden France Cyprus Hungary Norway Czechia Austria Germany | Luxembourg 🕶 Netherlands ••• Spain 🖢 Malta 🎃 10 15

Note: Data refer to unmet needs for a medical examination or treatment due to costs, distance to travel or waiting times. Caution is required in comparing the data across countries as there are some variations in the survey instrument used.

Source: Eurostat Database, based on EU-SILC (data refer to 2019, except Iceland 2018).

Unmet needs have increased during the COVID-19 pandemic

The effects of the COVID-19 pandemic on access to health services have increased unmet needs for medical care. During the first 12 months of the pandemic, 25 % of respondents in Croatia reported not having received a needed medical examination or treatment, which was above the EU average of 21 % (Eurofound, 2021). Contributing factors include the postponement of non-essential services by providers and the fear of contracting COVID-19 on the part of patients.

Data on the utilisation of primary care suggest that the number of consultations did not decline substantially in 2020. There was a decrease in the number of in-person consultations, but teleconsultations saw a marked increase during the COVID-19 pandemic (CIPH, 2021). Some 61 % of respondents in Croatia reported having received prescriptions online or by telephone (much more than the EU average of 43.2 %), while 42 % reported having received medical consultations online or by telephone (compared to an EU average of 29 %) (Eurofound, 2021).

Waiting lists for specialist care and elective surgery have increased

Long waiting lists for specialist visits and hospital treatment have been a longstanding challenge in Croatia. In 2017, the Ministry of Health introduced a priority waiting list to address this problem. In this new list, patients with suspected serious illnesses (such as cancer) receive accelerated access to specialist care, following a referral from their GP. While the new system ensures that most patients referred to specialist care are indeed suffering from serious illnesses, waiting lists are bound to have increased in 2020-21 as a result of the pandemic and the reorganisation of resources to meet the needs of COVID-19 patients, although no official data on this issue are available. A call centre for patients waiting for cancer treatment was set up to reschedule diagnostic procedures and treatment.

The benefits package covers most types of curative and preventive health services

A generous benefits package is covered through the mandatory health insurance system, with most types of curative and preventive health services included. Excluded services (such as some types of cosmetic surgery) are set out in a negative list, except for pharmaceuticals, where positive lists specify which pharmaceuticals are provided free of charge and

% reporting unmet medical needs

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

those that require patient co-payments. Outpatient pharmaceuticals not included in the positive list have to be paid for fully by patients. All COVID-19-related health services – including necessary testing, treatment and sick leave – are covered by the mandatory health insurance system.

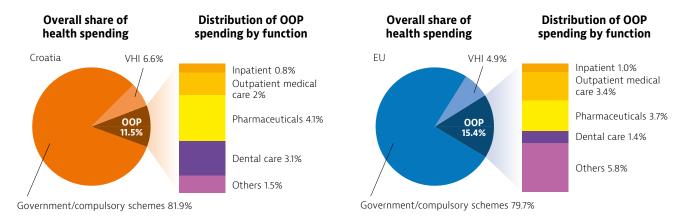
The impact of co-payments is low due to high public coverage for services and exemptions

Co-payments have been in place in Croatia since the 1990s, reducing the depth of the benefits package (see Section 4). They are required for days of hospitalisation, visits to primary care physicians and pharmaceuticals prescribed outside hospitals. However, pharmaceuticals provided in hospitals are free of charge, and cost-sharing is capped at HRK 2 000 (approximately EUR 264) per episode of illness in secondary or tertiary care. About one fifth of the Croatian population are exempt from paying user charges. This includes certain population groups (such

as children, students, people with disabilities and those on low incomes) and people receiving treatment for certain conditions – such as cancer, infectious diseases and chronic psychiatric illness – as well as fertility treatment and antenatal care.

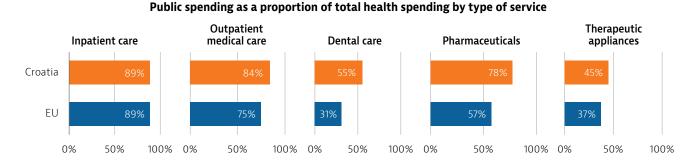
In 2019, OOP expenditure as a share of current health expenditure (11.5 %) was well below the EU average of 15.4 % (Figure 14). Across all areas of care, the public share of expenditure was greater than in the EU (Figure 15). Notably, the overall prevalence of catastrophic health expenditure⁴ in Croatia is comparatively low, amounting to 4.0 % in 2014 (the latest year for which data are available). The combination of financial protection tools – low cost-sharing levels, exemptions and extensive uptake of VHI to cover co-payments – all contribute to lowering catastrophic spending levels (Thomson, Cylus & Evetovits, 2019).

Figure 14. Out-of-pocket spending in Croatia is considerably lower than the EU average



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

Figure 15. Croatia spends a higher share on health from public sources than the EU average in all areas of care



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).

^{4.} Catastrophic expenditure is defined as household OOP spending exceeding 40 % of total household spending net of subsistence needs (i.e. food, housing and utilities)

Policies aim to reduce pharmaceutical expenditure and make medicines more affordable

A comparatively high share of Croatia's spending on health is on pharmaceuticals (see Section 4), although this is partly due to the country's comparatively low expenditure per capita, with spending on pharmaceuticals less than half the EU average per capita. Nevertheless, the high share of pharmaceutical spending in Croatia might still be indicative of inefficiencies. This includes primary care physicians issuing prescriptions based on recommendations from hospital specialists, and hospital medicines councils (rather than independent teams of experts) approving very expensive hospital treatments (World Bank, 2020). Some actions have been taken to tackle pharmaceutical expenditure (Box 3). These include changes to pricing and reimbursement, updating the list of benchmark countries for external price referencing and monitoring, and improving the prescription levels of physicians. Progress has also been made in the centralised procurement of hospital medicines, which was an important measure recommended in the 2014-18 Health System Quality and Efficiency Improvement Project supported by the World Bank (World Bank, 2020).

Box 3. Strategies have been adopted to decrease pharmaceutical expenditure and improve access

In November 2020, the European Commission adopted a pharmaceutical strategy for Europe (European Commission, 2020) to ensure that patients have access to innovative and affordable medicines and to support the competitiveness, innovative capacity and sustainability of the EU's pharmaceutical industry. The strategy is expected to enhance Europe's capacity to cover its through robust supply chains. It sets out enhanced co-operation between national authorities on pricing, payment and procurement policies, with a view to improving the affordability and costeffectiveness of medicines. In line with the aims of this strategy, Croatia is taking part in crossborder co-operation to negotiate jointly with the pharmaceutical industry on drug pricing through the Valletta Declaration (along with Cyprus, Greece, Ireland, Italy, Malta, Portugal, Romania,

More remote areas have a lower density of facilities and health workers

The geographical distribution of health care infrastructure and human resources for health varies considerably. Central Croatia (mainly Zagreb County and the city of Zagreb) has the largest numbers of facilities and health workers, while there are fewer in more remote areas, such as the islands off the Adriatic coast and rural areas in central and eastern Croatia. More people in Croatia (0.7 %) reported unmet medical needs due to distance in 2019 than in any other EU Member State, with an EU average of 0.1 %. At the same time, a number of hospitals in close proximity offer the same types of services. Several reforms have been initiated to address this issue, but they have not been implemented.

Human resources planning is underdeveloped

Human resources planning remains limited. While overall numbers of health workers have been growing steadily in the last two decades (see Section 4), in some parts of the country there is a shortage of physicians and nurses. Croatia has started addressing these issues through attempts to encourage young people to study medicine, and salary increases. In May 2015, the government adopted the Strategic Plan for Human Resources in Health Care for 2015-20, which aimed to establish a human resources management system, although so far implementation has been limited. While the plan has not yet been renewed, during the COVID-19 pandemic, Croatia took a number of measures to improve staff recruitment and retention (see Section 5.3).



5.3 Resilience

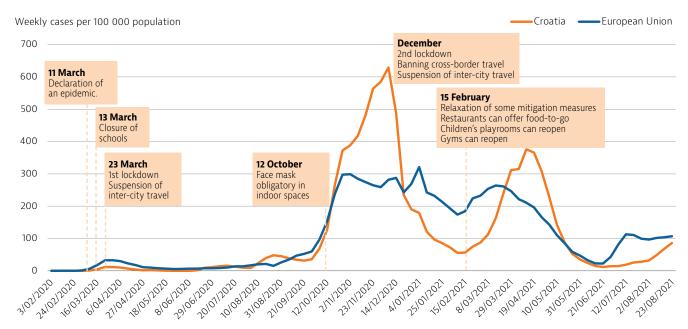
This section on resilience focuses mainly on the impacts of and responses to the COVID-19 pandemic.⁵ As noted in Section 2, the COVID-19 pandemic had a major impact on population health and mortality in Croatia in 2020, with over 8 300 COVID-19 deaths recorded between January 2020 and the end of August 2021 (see Section 2). The measures taken to contain the pandemic also had a large impact on the economy: GDP in Croatia fell by 8.4 % in 2020, compared to an EU average fall of 6.2 %.

Croatia reacted swiftly to the first wave of the pandemic

Croatia was less affected by the first wave of the COVID-19 pandemic than some other European countries, such as Italy or Spain. However, it was more affected than the EU average by the second wave, in terms of both cases and deaths per 100 000 population (see Section 2). The country reacted swiftly

to the first wave, adopting a range of mitigation measures to prevent and contain transmission of the virus (Figure 16). These included closure of educational institutions, imposition of quarantine on certain areas, restrictions on international travel, restrictions on movement at the local level and self-isolation measures. A first full lockdown was imposed on 23 March 2020, and restrictions were gradually lifted in stages in April and May 2020. In contrast, the response to the second wave of COVID-19 (from September 2020) was more hesitant and was characterised, as in some other EU countries, by a reluctance to reimpose the stringent measures taken in the first wave. Some mitigation measures were applied, however, such as the obligation to wear face masks in indoor spaces in October 2020 and the closure of bars and restaurants in November 2020. A second lockdown was introduced in December 2020. The number of cases increased again in April and May 2021, but no third lockdown was imposed.

Figure 16. Mitigation measures helped to bring down the number of COVID-19 cases



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

Croatia was comparatively well prepared to deal with the public health emergency

Croatia had a general epidemic response plan in place before the COVID-19 pandemic, and activated it after the outbreak was officially declared on 11 March 2020. A change to this legal framework was initiated on 17 March 2020, when the government proposed laws that empowered the National Civil Protection Headquarters to regulate the public sector, economy and activities related to everyday life. The National Civil Protection Headquarters has since become the main coordinating body for the COVID-19 response (see Section 4).

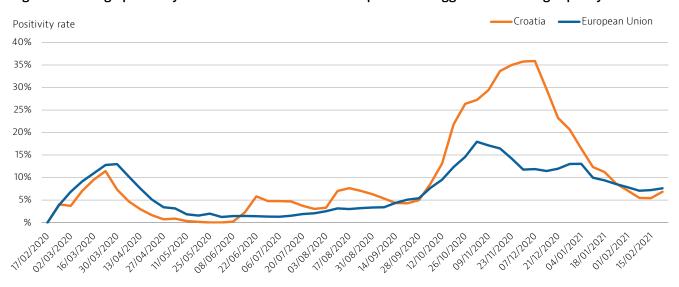
^{5.} In this context, health system resilience has been defined as the ability to prepare for, manage (absorb, adapt and transform) and learn from shocks (EU Expert Group on Health Systems Performance Assessment, 2020).

Testing rates were lower than in the EU overall, and the positivity rate was higher

From the beginning of the pandemic, Croatia consistently performed fewer COVID-19 tests per population than the EU average. Test positivity rates were consistently higher than the EU average during the second and third waves of the pandemic, indicating capacity problems, given a relatively

low number of tests for cases identified (Figure 17). By April 2021, 28 test sites in Croatia performed RT-PCR analysis of collected samples of COVID-19. All processed samples are entered into a national platform at the CHIF, and this information is available to all county public health institutes. A new method of testing using rapid antigen tests has been applied in 2021 in several cities and counties.

Figure 17. The high positivity rate in the second wave of the pandemic suggests low testing capacity



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

Croatia set aside infrastructure to deal with the pandemic

The initial availability and distribution of physical resources in Croatia was good, with adequate numbers of ICU beds. In the first wave of the pandemic, specific hospitals, wards and outpatient facilities were designated as COVID-19 facilities, ready to receive patients as needed. In Zagreb, an entire hospital was devoted to COVID-19 patients. In the four regional centres, hospital capacities were converted to COVID-19 respiratory care centres, complemented by mobile medical facilities (tents, containers and so on). Moreover, each general hospital had to prepare separate care pathways for patients with suspected COVID-19. Efforts were made to continue provision of hospital care to emergency and priority patients, as well as vulnerable groups (such as children, pregnant women, older people and dialysis patients), but many elective procedures were postponed, and waiting times increased.

Primary care services have seen significant shifts to remote consultations

The COVID-19 pandemic changed the way primary care is provided in Croatia. In March 2020, the

Ministry of Health issued guidelines for primary care providers that advised them to communicate with their patients, whenever possible, by telephone, email or videoconference. For referrals to specialised care, electronic referral forms were used, which drastically reduced the number of in-person patient visits. The number of such referrals issued by GPs increased from 28 598 in 2019 to 72 969 in 2020.

Measures were taken to ensure the supply of medical equipment

In order to produce more medical goods locally, including personal protective equipment, ventilators and medicines, the government launched national campaigns for procurement. At the international level, Croatia took part in the joint procurement agreement organised at the European level. It also entered a bilateral agreement with the People's Republic of China to procure more protective equipment and other medical goods. Croatia also accepted international donations, including from China, the United Arab Emirates, Hungary and UNICEF. Overall, Croatia was able to secure sufficient equipment and supplies.

Steps were taken to bolster surge capacity of the health workforce

Croatia put in place a number of measures to increase the number of staff where needed and to ensure the retention of existing health workers. Steps to increase the number of staff included redeployment of doctors and nurses, as well as inclusion of trainee doctors. Measures to support the health workforce involved providing benefits in the form of funding or provision of accommodation for doctors working with COVID-19 patients. Although hospitals provided training to their health care professionals in terms of infection prevention and control, and the treatment of COVID-19 patients, there is currently no evidence of active training measures for specialties outside hospitals. The Teaching Institute of Public Health "Dr Andrija Štampar" set up phone lines to provide psychological assistance and support to health workers during the COVID-19 outbreak, and similar

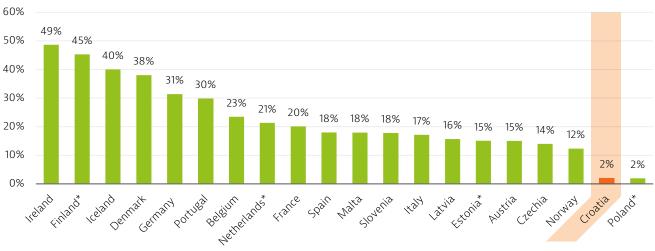
phone lines were also provided by other institutions, including the Croatian Psychological Chamber and the University Psychiatric Hospital Vrapče.

Croatia launched a contact tracing application in mid-2020

Croatia launched a contact tracing application ("Stop COVID-19") on 27 July 2020. The app required the explicit consent of users to collect data and enabled them to select the data they chose to share with the authorities. It also enabled cross-border data exchange other EU Member States, enabling anonymous informing of foreign contacts. However, uptake was very slow, and by February 2021 only 2 % of the population had downloaded the app (Figure 18). Possible reasons for this low uptake might include poor communication from the government and mistrust related to privacy issues and government information technology solutions.

Figure 18. Uptake of Croatia's contact tracing application was very low

% of the population who downloaded the app



Note: Data as of April 2021. * Data to Autumn 2020. Source: National data.

Croatia's COVID-19 vaccinations rollout is carried out by the public sector

Croatia participates in the joint procurement of vaccines against COVID-19 carried out by the European Commission. Vaccinations started at the end of December 2020; they have been conducted solely by the public sector. According to the plan drawn up by the Croatian Institute of Public Health, vaccinations would be offered in the following stages: a) employees and users of homes for older people and other institutions in the social welfare system, as well as health professionals; b) people over 65 years of age and those with chronic conditions; c) the general population. By the end of August 2021, 39 %

of the population had received two vaccine doses (or equivalent) compared to the EU average of 54 % (Figure 19).

Vaccination of health workers took place at their workplace. Vaccination of residents and employees of nursing homes (and other institutions in the social welfare system) took place within homes for older people, carried out primarily by home doctors and nurses/technicians. Vaccination of people over 65 and patients with chronic conditions was organised through family medicine, with physicians vaccinating the patients on their lists. In addition, vaccination points in health centres were organised to accelerate the vaccination procedure.

Croatia-deaths EU-deaths Croatia-vaccination EU-vaccination

Weekly deaths per 1 000 000 population % of the population with two doses (or equivalent)

60

8

7

60

40

30

20

10

Figure 19. Croatia has begun to make steady progress in vaccinating its population

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

Health information systems are organised centrally

The COVID-19 pandemic has shown that data exchange between health care providers and availability of national datasets is essential for a well-functioning and a fast-responding health system. Prior to the COVID-19 pandemic, Croatia had set up a National Health Information System, owned by the Ministry of Health and managed by the CHIF. This covers all family and general medicine practices, paediatric, gynaecological and dental medicine practices, pharmacies, primary care laboratories, specialist consultancy services and hospitals. All participants send real-time data to the central database, which provides regular updates. This initiative is in line with the creation of a European Health Data Space within the EU (European Commission, 2021b). A common European Health Data Space will promote better exchange and access to different types of health data (e.g. electronic health records, genomics data, data from patient registries and so on), to support health care delivery and health research and policy-making. One of the areas that will have to be developed further in Croatia is systems for the collection and use of data on quality of care and the effectiveness of health technologies. An Agency for Quality and Accreditation has been established, but it has been subsumed under the Ministry of Health, and its role in quality assurance and accreditation has been limited.

The COVID-19 pandemic has highlighted the importance of health sector investment

Capital investment accounted for 3.4 % of current health expenditure in 2018. Although this was an increase compared to previous years, in particular when compared to the period 2007-10 when there was no capital investment at all, the level achieved in 2018 fell short of the EU average (5.0 %).

As part of its EUR 6.4 billion National Recovery and Resilience Plan, Croatia is focusing investment around five priorities, one of which is health care. The health component (amounting to EUR 340 million) aims to contribute to the delivery of quality health services, while strengthening governance in the health system. Measures are planned to increase prevention and early detection of diseases and to foster development of telemedicine and medical robotics.



6 Key findings

- Prior to the COVID-19 pandemic, life expectancy in Croatia was increasing, although it remains more than three years below the EU average. In 2020, life expectancy at birth temporarily fell by just over 9 and a half months compared to 2019 a significant decline that reflects the toll of the COVID-19 pandemic. While COVID-19 accounted for a large number of deaths in 2020, ischaemic heart disease and stroke are leading causes of mortality. In addition, mortality rates from lung and colorectal cancer in Croatia are among the highest in the EU.
- Behavioural risk factors are responsible for a large share of deaths in Croatia, and public health interventions remain underdeveloped. Anti-tobacco policies are weak, indoor smoking in public places is still widespread, and rates of teenage smoking are the fourth highest in the EU. Obesity rates are rising – in particular among children. Preventable mortality is well above the EU average.
- Prior to the pandemic, Croatia spent 7.0 % of its GDP on the health sector. While Croatia is among the three lowest spenders in the EU in terms of health spending per capita, when measured as a share of GDP, health expenditure is higher than in seven other EU Member States. Croatia has also maintained a high share of public spending on health, resulting in high levels of financial protection.
- Although the Croatian health system
 provides access to a broad range of services,
 primary care is fragmented and seems to
 be underutilised compared to hospital care
 and care provided by hospital outpatient
 departments. Data on quality of care and
 the effectiveness of health technologies
 are lacking. An Agency for Quality and
 Accreditation has been established, but its
 role in quality assurance and accreditation
 has been limited.

- Long waiting lists for secondary and tertiary care remain a challenge, and waiting times have increased as a result of the COVID-19 pandemic. Before the pandemic, there were fewer unmet needs for medical care in Croatia than on average in the EU, but variations across income groups were substantial, pointing to potential problems in accessibility. In particular, unmet needs due to geographical distance were higher than in any other EU Member State, and unmet needs were higher among older people.
- A broad set of measures was implemented to try to contain the spread of COVID-19. Croatia was less affected by the first wave of infections than the EU overall, but more affected by the second wave in terms of both cases and deaths per population. To help maintain access to primary care during the pandemic, many consultations shifted to remote provision. Croatia took a number of steps to increase the number of health care staff where needed and to ensure the retention of existing health workers.
- The availability of health infrastructure prior to the COVID-19 pandemic was good, with an adequate number of intensive care unit beds. Certain hospitals, wards and outpatient facilities were designated as COVID-19 facilities. However, Croatia consistently performed fewer COVID-19 tests per population than the EU average, and test positivity rates were higher, reaching more than 35 % in the second wave of the pandemic, indicating capacity problems. Existing public sector facilities have been marshalled to roll out the vaccination campaign, including establishing vaccination points in health centres, using general practitioners to inoculate older patients on their lists and administering vaccines within nursing homes.

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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 | | |



State of Health in the EUCountry 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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