



Country profile: **Croatia**



# At a turning point: Healthcare systems in Central and Eastern Europe

## About this supplement

This country profile is a supplement to *At a turning point: Healthcare systems in Central and Eastern Europe*, a report produced by Economist Impact and supported by the American Chamber of Commerce to the EU. It features detailed data and analysis on the dynamics at play in Croatia.

The main report presents a broad view of health system and funding dynamics in 13 European countries, including eight countries in central and eastern Europe (CEE)—Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia—and five countries in western Europe—Austria, Germany, France, Portugal and the UK. This report aims to highlight key differences and commonalities in healthcare financing and policy approaches as governments rise to the challenge of managing the interlinked dynamics of population health and economic uncertainty following the covid-19 pandemic.

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## Key priorities for Croatia



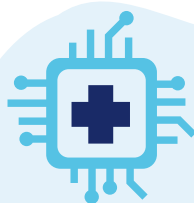
### Accelerate the implementation of **digital health**

Covid-19 has renewed momentum of the importance and potential of digital health in closing infrastructure and workforce gaps. Developments in the policy environment and data security are required, as well as ongoing training and development of healthcare staff.



### Direct resources to **primary, community, and long-term care**

The increased health needs related to ageing societies and epidemiological patterns towards chronic conditions in Croatia highlight the importance of primary care. Elevating the role of primary and community care and accentuating the coordination of services is necessary, as well as developing long-term and home care.



### Develop existing **HTA infrastructure**

A business-as-usual approach to cost containment is no longer sustainable. A move toward value-based care and the adoption of a health technology assessment (HTA) framework could improve patient outcomes in the country. For the successful implementation of HTA in Croatia, the country needs to involve stakeholders (manufacturers and patient organisations) at every level of assessment, as current stakeholder involvement is limited. The HTA framework or body must also be supported with dedicated human and financial resources.

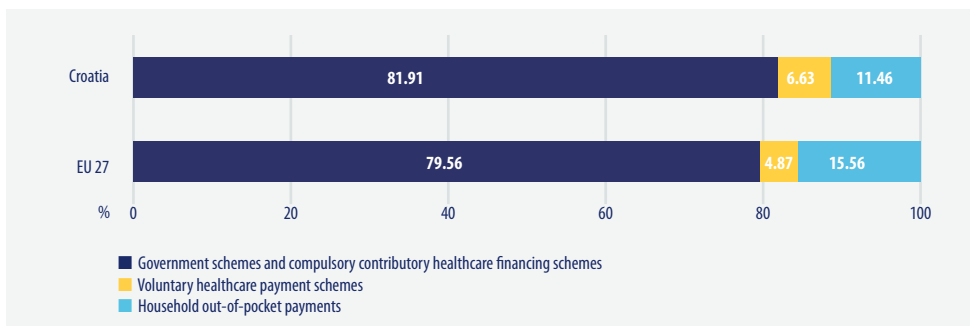
# 1. Healthcare financing

Healthcare spending increased from 6.81% of GDP in 2019 to 7.77% of GDP in 2020 in response to the covid-19 pandemic. Healthcare spending per head in 2020 at €962 (or €1,497 in PPS terms) is well below the EU27 average of over €3,000 per head.<sup>1</sup>

**FIGURE 1: HEALTH SYSTEM AND FUNDING SOURCES**

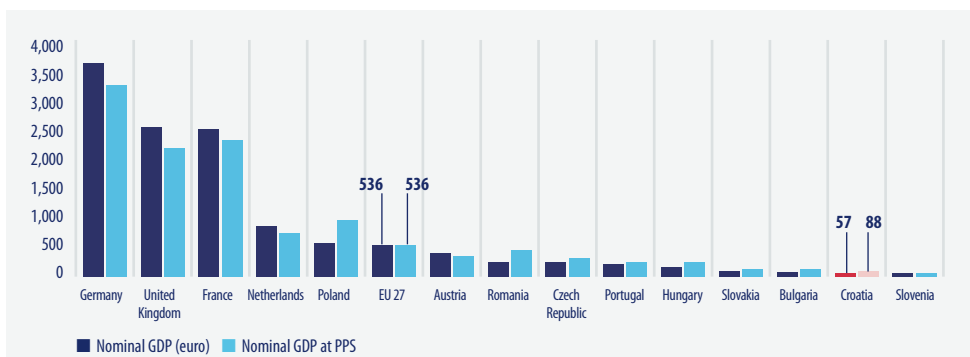
<b>Healthcare system</b>	<b>Mixed system that combines elements of the Bismarck and Beveridge model with salary contributions for compulsory health insurance and funds collected by general taxation.</b>
Coverage and enrolment	The Croatian Health Insurance Fund (CHIF) is the sole insurance provider in the national mandatory health insurance system. Health insurance accounts for 16.5% of social security benefits or gross salaries. Complementary health insurance, mainly to cover co-payments for services in the benefits package, is voluntary and purchased individually from either the CHIF or a private insurer: over 60% of the population have supplementary insurance. <sup>2</sup>
Core services covered	The benefits package is broad, covering most types of health services however cost-sharing was introduced in 2003, reducing the depth of the benefit package. <sup>2</sup>
Co-payment and user charges	Co-payments are required for days of hospitalisation, visits to primary care doctors and pharmaceuticals prescribed outside of hospitals. <sup>2</sup> Cost-sharing is capped at HRK 2,000 (approximately €264) per episode of illness in secondary or tertiary care. Around 20% of the Croatian population is exempt from paying user charges. <sup>3</sup>

**FIGURE 2: FINANCING SOURCES (% OF CURRENT HEALTH EXPENDITURE)**



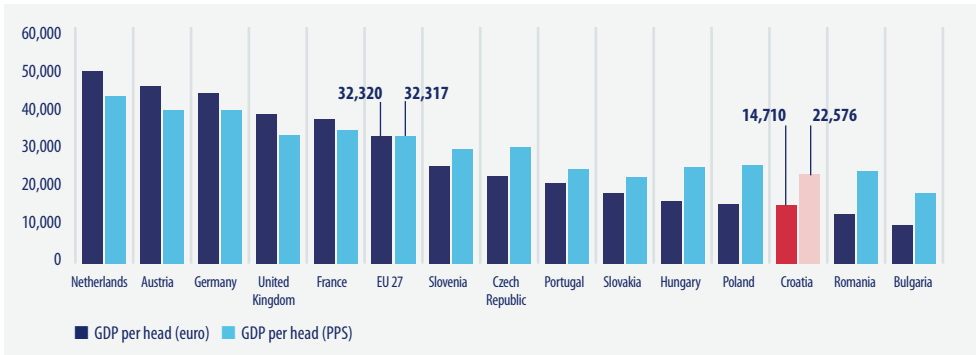
Source: Eurostat. Health care expenditure by financing scheme, 2019. EU 27 data from 2018 (latest available year)

**FIGURE 3: NOMINAL GDP, 2021**



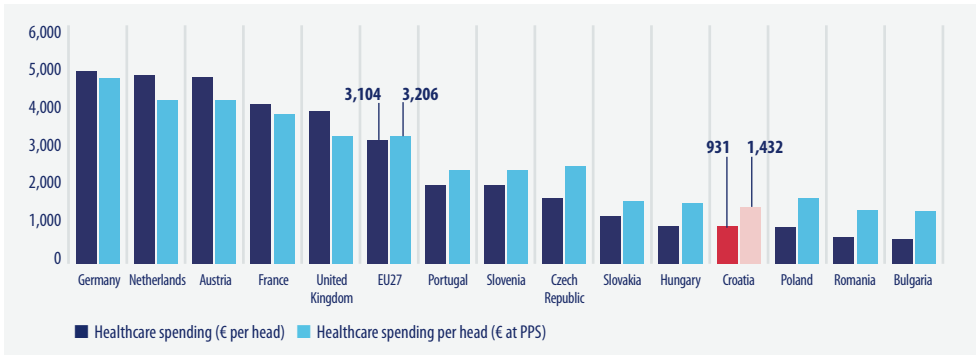
Source: Eurostat. Gross domestic product (GDP) at current market prices in € bn and Purchasing Power Standard (PPS), 2021

**FIGURE 4: GDP PER HEAD, 2021**



Source: Eurostat. Gross domestic product (GDP) at current market prices per head in € and Purchasing Power Standard (PPS, EU 27 from 2020). 2021

**FIGURE 5: HEALTHCARE SPENDING PER HEAD, 2019**



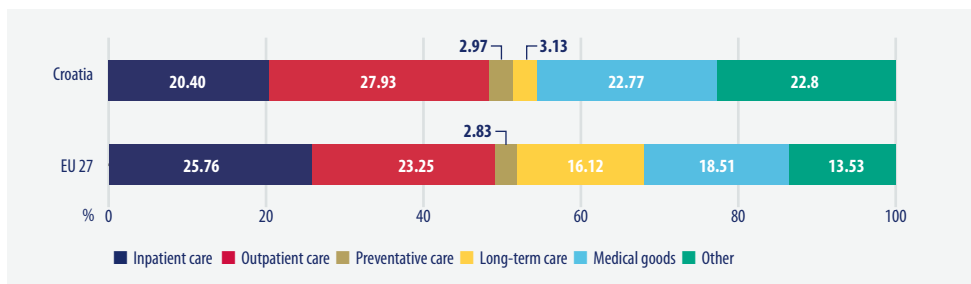
Source Eurostat. Healthcare spending per head in € and PPS. Healthcare spending as a % of GDP, 2019

## 2. Healthcare resources

### 2.1. Healthcare expenditure by function

Croatia spends more on outpatient care than on in-patient care as a percentage of current healthcare expenditure (CHE). This consists of primary care and specialist outpatient care provided by hospital outpatient departments. Spending on outpatient care and preventative care is also higher than the EU 27 average.<sup>4</sup>

**FIGURE 6:** HEALTHCARE EXPENDITURE BY FUNCTION (% OF CURRENT HEALTH EXPENDITURE)



Source: Eurostat. Healthcare expenditure by function, 2019. EU 27 data from 2018.

### 2.2. Human capital

The ratio of doctors to population increased between 2013-2021 despite concerns about outmigration and the effects of Croatia's EU accession. In 2021 there were 3.6 doctors per 1,000 population, just below the EU 27 average of 3.8.<sup>5</sup>

In 2015, the government adopted the Strategic Plan for Human Resources in Health Care for 2015-2020, which aims to establish a human-resources management system, although reported success has been limited. While salaries for healthcare workers have increased, like in many CEE countries this is expected to only temporarily slow the "brain drain"<sup>6</sup>

### 2.3. Healthcare infrastructure

The number of hospital beds to population has increased slightly from 5.49 beds per 1,000 people in 2016 to 5.66 beds per 1,000 people in 2019.<sup>7</sup>

Croatia's reform attempts guided by the National Health Care Strategy 2012-2020 was intended to develop and implement a hospital master plan to rationalise and modernise hospital services, but implementation has lagged behind and health reform initiatives have been poorly coordinated.<sup>8</sup>



## 3. Access to medicines

Croatia's expenditure on medical goods (22% of CHE) is the lowest among all countries in the study in euro terms at €862m in 2019.<sup>9</sup>

The Agency for Medical Products and Medical Devices (HALMED) is responsible for pricing in Croatia. By using an external reference pricing model, the agency sets a maximum wholesale price through comparison with countries such as Slovenia, Czech Republic, and Italy.<sup>10</sup>

### 3.1. Access to innovative therapies

According to the EFPIA Patients W.A.I.T Indicator 2021, the rate of availability of access to innovative new therapies approved in the EU is lower in Croatia than the EU average across all categories. The average time to availability is shorter in Croatia at 479 days compared to the EU average of 511 days. It is important to note that Croatia did not complete a full dataset and therefore the data in the EFPIA report may be unrepresentative.<sup>11</sup>

The CHIF continues to commit to expanding access to innovative therapies by growing the number of new innovative medicines on its reimbursement list.<sup>10</sup> The Croatian Ministry of Health has been an affiliated member of the European Network for HTA (EUnetHTA) since 2013. HTA in the country is still not mandatory or covered by a legal framework. The creation of an HTA agency was considered in 2017, and there is an HTA department/unit at the ministry of health level.<sup>12</sup> The future development of HTA capabilities could be an important method of improving technical efficiency.

### 3.2. Digital health

Digital Health or eHealth was identified as a key priority under Croatia's National Health Care Strategy 2012-2020 and has been supported by the European Commission and their priority for an eHealth Union.<sup>13</sup> The new eHealth Strategy is integrated into the Croatian national health development plan 2021-2027 and includes a strategic framework for developing e-health in Croatia.<sup>14</sup>

A Health Portal is among the e-services offered through Croatia's e-Citizen portal. It provides access to the central e-health records data and is fully integrated into the National Central Health Information System (CEZIH). The adoption of Artificial intelligence (AI) is also a key focus of the e-health strategy. With the support of the Croatian Science Foundation (HRZZ), AI is being tested in current projects to support cardiac and breast cancer imaging.<sup>14</sup>

Croatia ranks 21 out of 27 EU countries on the latest Digital Economy and Society Index (DESI), up two places from the previous year, partly due to progress on e-health initiatives. Croatia performs above the EU average on measures of human capital and below average on measures of connectivity and digital public services.<sup>14</sup>

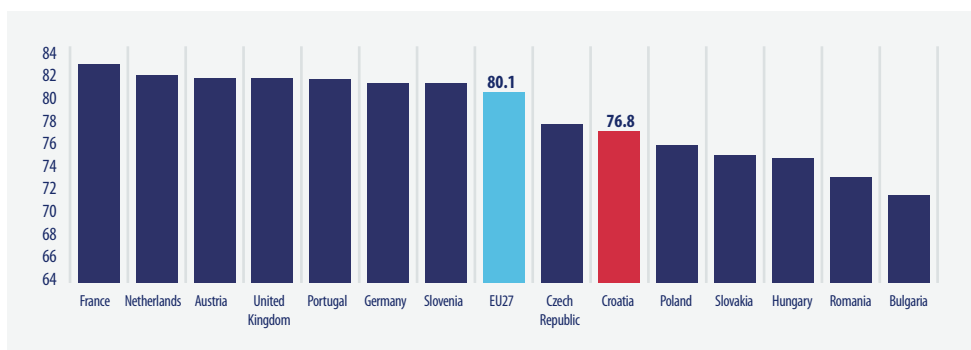
## 4. Health system assessment

### 4.1. Population health

Average life expectancy in Croatia declined from 78.6 years in 2019 to 76.6 years in 2021. The decline over the past two years can be partly attributed to covid-19 related deaths.<sup>15</sup> Croatia's infant mortality rate fell from 5 to 4 deaths per 1,000 live births, between 2014 and 2019.<sup>16</sup>

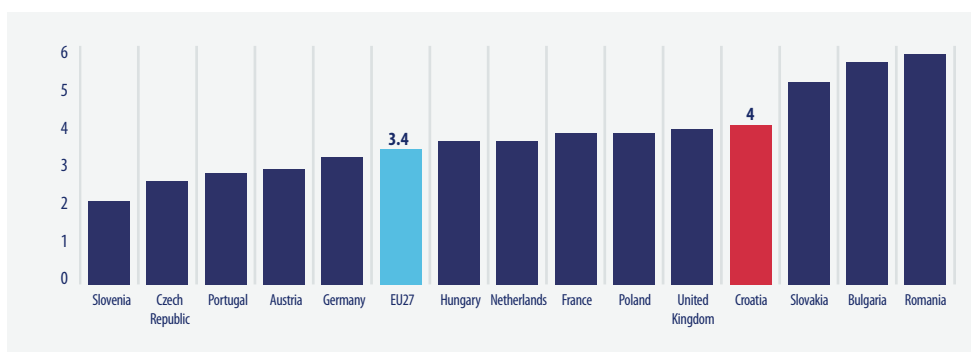
Croatia has a higher proportion of people aged over 65 years than the EU27 average and this proportion will continue to grow to 25% of the population by 2025.<sup>17</sup> The ageing population, falling birth rate, accelerating migration and decreasing working-age population place Croatia among the ten most rapidly shrinking countries in the world in terms of population size (UN), resulting in increased pressure for expenditure on public health.

**FIGURE 8:** LIFE EXPECTANCY, AVERAGE (YEARS), MALE AND FEMALE, 2021



Source: Eurostat. Life expectancy. 2021. Available from [https://ec.europa.eu/eurostat/databrowser/view/demo\\_mlexpec/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/demo_mlexpec/default/table?lang=en)

**FIGURE 9:** INFANT MORTALITY RATE (PER 1,000 LIVE BIRTHS), MALE AND FEMALE, 2019



Source: Eurostat. Infant mortality rates. 2019. Available from [https://ec.europa.eu/eurostat/databrowser/view/demo\\_minfind/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/demo_minfind/default/table?lang=en)

## 4.2. Disease burden and risk factors

Ischaemic heart disease accounted for almost 1 in 5 deaths in Croatia in 2018.<sup>18</sup> The mortality rate of 283 deaths related to ischaemic heart disease per 100,000 population is also nearly double the EU average.<sup>19</sup>

Croatia has a higher prevalence of smoking and a higher obesity rate than the EU average, while the prevalence of diabetes at 4.8% is below the EU average of 7%.<sup>20</sup> The prevalence and severity of non-communicable diseases (NCDs), including cancer and diabetes, may be exasperated in the immediate future as many patients avoided hospitals and clinics during the pandemic for fear of infection or placing an additional burden on healthcare professionals and the healthcare system.

Croatia has more comprehensive population screening programmes than many CEE counterparts and recently became the first country in the EU to introduce nationwide screening for early lung cancer detection.<sup>21</sup>

FIGURE 10: LEADING CAUSES OF MORTALITY

Cause of mortality	Total number of deaths in 2018	As a % of total deaths for 2018
<b>Ischaemic heart disease</b>	10,368	19.4
<b>Stroke</b>	6,197	11.6
<b>Lung cancer</b>	2,971	5.6
<b>Diabetes</b>	2,878	5.4
<b>Colorectal Cancer</b>	2,247	4.2
<b>COPD</b>	1,856	3.5
<b>Liver disease</b>	993	1.9
<b>Kidney disease</b>	901	1.7
<b>Breast cancer</b>	804	1.5

Source: Eurostat, 2018. Extracted from OECD/European Observatory on Health Systems and Policies (2021), Croatia: Country Health Profile 2021, State of Health in the EU, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels.

## 4.3. Quality of care

According to data from the OECD, self-reported access to healthcare in Croatia is good, with low unmet needs for medical care. However, there is considerable variation between income groups, and unmet needs are high among older people and rural populations.<sup>6</sup>

Mortality from preventable causes is high in Croatia and well above the EU average (232 compared to 160 per 100,000 population). Cardiovascular diseases are a significant burden, accounting for 40% of deaths that could be avoided through timely and appropriate treatment. Colorectal and breast cancer also contribute substantially – accounting for 28% of deaths from treatable causes.<sup>6,22</sup>

## 5. Future outlooks

Covid-19, the December 2020 earthquake, the ongoing war in Ukraine, and the economic downturn are all compounding factors placing additional strain on government finances.

A higher number of covid-19 related deaths at 3.8 per 1,000 confirmed cases and lower vaccination rates exposed vulnerabilities related to the quality of healthcare infrastructure, workforce shortages, political strength, and lack of public trust in the healthcare system.<sup>23</sup>

The European Commission approved a €6.3bn Recovery and Resilience Facility for Croatia's Covid recovery plan, which is expected to boost GDP by 2.9%. €340m has been allocated to healthcare.<sup>24</sup>



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