



Healthcare Readiness Index 2023

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Introduction

The COVID-19 pandemic demonstrated that the efficiency and quality of Member States (MS's) health systems is a matter of national security and a key component to the critical infrastructure of the European Union.

A shortfall in health services provisions and capacity overloads caused by a surge in demand contributed to hundreds of thousands of excess deaths throughout the 2020 – 2022 period and triggered a decline in the economic output of all MS's. The COVID-19 pandemic also proved the saying “a chain is as strong as its weakest link” holds true in the healthcare sector. Unfortunately, “the strength of the chain” proved to be very different across EU countries. Out of the 10 countries at the bottom of the EU's healthcare performance during the pandemic, 8 came from the CEE region¹.

Though the last major wave of the pandemic receded still only relatively recently, the EU is already facing another set of significant healthcare challenges. Most of these are not as acute as COVID-19 and are likely to ebb and flow with time. As such, these issues are not likely to cause as much media and policy attention even as they afflict populations, some potentially more than the pandemic. This is a potentially great threat. Although most countries have initiated reform steps during and after the pandemic, increased spending

and tried to improve the quality and flexibility of health systems, most member states are still miles away from ensuring sustainable and efficient healthcare environments.

At GLOBSEC, we set out to remind all countries that although the pandemic is over, other major public health issues will eventually emerge and we cannot afford to “slip-up”. We need to continue building resilient healthcare systems, based on evidence, sharing best practices and cooperation across member states.

For this reason, we created in 2022 The Healthcare Readiness Index (HRI) that aims to provide a holistic overview of the preparedness of MS's healthcare systems as a simple composite index, presented as a ranking. By creating a composite index, the HRI serves as a crucial tool for stakeholders. It facilitates straightforward country comparisons, identifies best practices, and tracks progress over specific periods. By leveraging such a data-driven approach, policymakers, health professionals, and administrators can obtain actionable insights, refine strategies, and ensure that their respective healthcare systems are robustly equipped to address future challenges. It is, in other words a simple, yet powerful, tool for policymakers, healthcare providers, and stakeholders to understand the strengths and weaknesses of their national healthcare infrastructure.

This paper presents a detailed analysis of a third published index, called The Healthcare Readiness Index 2023.

¹ Organisation for Economic Co-operation and Development, 2022. COVID 19 mortality and excess mortality. In: Health at a Glance: Europe 2022. Available at: <https://www.oecd.org/health/health-at-a-glance-europe/jiif>

What is the Healthcare Readiness Index?

To assess the readiness of any country to face healthcare challenges, such as the Covid-19 pandemic or the increasing rate of ageing, it is important to consider two perspectives.

Firstly, it is vital to take into consideration the current, i.e. starting position of a country. How many doctors and nurses does it have? What is the average life expectancy of its population? What is the prevalence rate of certain diseases? We call this perspective **“Readiness Today”**.

Readiness Today evaluates the current state of healthcare systems as it has been up to today, focusing on indicators such as healthcare financing, availability of medical staff, diagnostic infrastructure, and health outcomes. Readiness Today investigates current inputs (resources) into systems and provided outputs (health state) but offers only a limited outlook into the future. For example, avoidable mortality is one of the key indicators of the quality of healthcare systems even though this rate may bear no relevance to outcomes three, five, or ten years into the future. As a balance sheet snapshot value that is vital, but of limited value for countries preparing to face future challenges.

Similarly, some indicators of capacity (e.g., figures on the number of doctors and nurses) are vital since they define the overall capacity of respective national healthcare systems and can be seen as a sign of readiness to deal with future challenges.

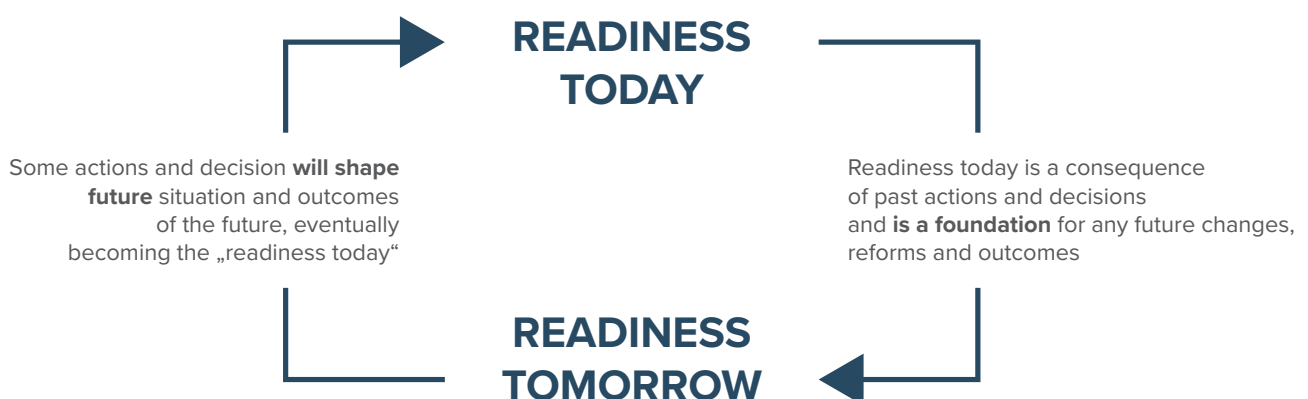
Its impact on the future is however in most cases subject to other resources or reforms and is hence evaluated in the “readiness today” part.

Secondly, it is vital to consider factors that will drive demand for care in the future and to be able to assess the ability of countries to react. This perspective is called **“Readiness Tomorrow”**.

Future demand for healthcare services is a function of a variety of factors, e.g. prevalence of diseases, risk factors, the implementation of preventive measures in place and many others. These are the factors that have a dominant impact on quantity of care demanded in the future. Readiness Tomorrow is not only about future demand for services - it is also about flexibility of countries to adapt to change and stability of the political leadership that drives the process of these changes and reforms. This component, therefore, also scrutinizes factors that serve as a proxy for access to innovation, resources, and/or the stability of governance in the sector.

Together, these two perspectives and groups of indicators provide a complex picture of readiness of any country to face upcoming challenges, offering a holistic view of each country’s healthcare readiness.

The healthcare readiness index is therefore split into two interlinked parts, Readiness Today and Readiness Tomorrow, as illustrated in the following figure.



Readiness Today: what is the starting point of a country?

Readiness Today gives a snapshot of the present healthcare landscape, capturing essential details about the current system while focusing primarily on immediate health outcomes and the existing

state of healthcare services. In the HRI 2023, 18 indicators grouped in two sections were used for Readiness Today part of the index, as captured in the table below.

Readiness Today indicators	Measure	Year of data	Source	Weight
Capacity of the system				
Availability of finances (average of 3 years of spending)	Purchasing power standard (PPS) per inhabitant	2022	OECD	0,12
Computed Tomography scanners*	Per million inhabitants	2019 - 2023	EUROSTAT	0,02
Gamma cameras	Per million inhabitants	2019 - 2023	EUROSTAT	0,02
Magnetic Resonance Imaging units	Per million inhabitants	2019 - 2023	EUROSTAT	0,02
Mammographs	Per million inhabitants	2019 - 2023	EUROSTAT	0,02
Positron Emission Tomography scanners	Per million inhabitants	2019 - 2023	EUROSTAT	0,02
Radiation therapy equipment	Per hundred thousand inhabitants	2019 - 2023	EUROSTAT	0,02
Practising nurses	Density per 1 000 population (head counts)	2019 - 2023	OECD	0,06
Practising physicians	Density per 1 000 population (head counts)	2019 - 2023	OECD	0,06
Rate of availability of medicines	Percentage from # of EMA approvals	2024	EFPIA	0,12
Universal health coverage index	UHC service coverage index	2021	World Bank	0,12
Does supply of care meet demand?				
Avoidable mortality	Deaths per 100 000 population (standardised rates)	2021	EUROSTAT	0,08
Disease burden (DALY)	DALYs per 100,000	2021	IHME	0,08
Prevalence of all types of cancers	Age-standardized rates per 100 000	2022	WHO	0,08
Infant mortality	Deaths per 1 000 live births	2022	OECD	0,08
Life expectancy females at age 65	Years	2023	OECD	0,03
Life expectancy males at age 65	Years	2023	OECD	0,03
Life expectancy total population at birth	Years	2023	OECD	0,03

*UK has the latest data available for 2014

Readiness Tomorrow: what factors are likely to shape future health readiness?

Readiness Tomorrow, meanwhile, takes a forward-looking approach by analyzing factors that will likely influence healthcare systems in the future. This

section is split into three sections, comprising 18 indicators, as outlined in the following table.

Readiness Tomorrow indicators	Measure	Year of data	Source	Weight
Ability to predict and adopt to changes				
Average tenure of a minister of health	Years	2024	Multiple webpages	0,03
Average time to availability of medicines	Days	2024	EFPIA	0,02
Does a country have an HTA agency with clear and transparent rules?	Composite index	2024	Multiple webpages	0,02
Does a country have an investment strategy in the health sector?	Composite index	2024	National Library of Medicine	0,03
Does a country have any type of innovation fund / scheme?	Yes/No	2024	Multiple webpages	0,01
Does a country have early access scheme?	Yes/No	2024	Multiple webpages	0,01
Ability to sustain future challenges				
Proportion of OOP spending on all expenditure types, past 3 years	Share of current expenditure on health	2022	OECD	0,10
Self-reported unmet needs for medical examination	No unmet needs to declare, Total %	2023	EUROSTAT	0,10
Future demand for healthcare				
Alcohol consumption	Litres per capita (15+)	2019 - 2023	OECD	0,06
Demographic dependency ratios	Population 65 years or over to 15 to 64	2023	EUROSTAT	0,05
Estimated relative change of cancer incidence from 2020 to 2040	% change in total cases (2020 - 2040)	2022	WHO	0,09
Expenditure on preventive measures	Per capita, current prices, current PPPs	2022	OECD	0,09
Fruits consumption	Kilos per capita per year	2021	OECD	0,06
HPV vaccination rate	Rate, women; 16 years as a %	2020-2021	UNICEF	0,09
Obesity	% of total population	2019 - 2022	OECD	0,06
Pollution index	PM2,5 [ug/m3]	2021	AQLI	0,06
Smoking	Proportion of smokers of cigarettes	2019	EUROSTAT	0,06
Vegetables consumption	Kilos per capita per year	2021	European Commission	0,06

Healthcare Readiness Index: combining Readiness Today and Readiness Tomorrow

The two indicator sets comprise the composite Healthcare Readiness Index, which provides a nuanced picture of the readiness of different countries to face both imminent and future health challenges.

Even though each of the indicators has its own weight, the overall HRI score is further weighted to reflect the more critical focus on future readiness. Indicators of readiness today are assigned a weight of 20% while a more substantial 80% weight is placed on the readiness tomorrow indicators.

$$\begin{array}{ccccc}
 \text{READINESS} & & \text{READINESS} & & \\
 \text{TODAY} & + & \text{TOMORROW} & = & \text{HRI 2023} \\
 (20\% \text{ of weight}) & & (80\% \text{ of weight}) & & (100\% \text{ of index})
 \end{array}$$

Results are presented as a value and a ranking, since the methodology assigns a relative score to each country, with the top scorer receiving a value of 100. Given a scale of 0 to 100, where 0 represents a country that is least likely to face impending challenges and 100 a country that is most prepared to do so, it is essential to understand that these metrics are relative.

In this context, a score of 100 does not equate to a “perfect” country but merely suggests that, in comparison to its peers, that nation is better equipped in certain public health metrics that

determine future readiness. Conversely, a score close to 0 does not brand a country as wholly ill-prepared but puts a spotlight on areas in need of significant improvement.

For policymakers and stakeholders, these scores serve as an analytical tool, guiding their attention to issues requiring intervention and highlighting systems or policies that might be emulated for better outcomes. However, it is critical to delve deeper into what these indicators entail and the specifics of what they measure as relative measurements.

Methodological adjustments

In the Health Readiness Index 2023, several adjustments and considerations were made to ensure the accuracy and relevance of the data used to assess each country’s healthcare readiness. These adjustments were necessary to reflect the most current information, methodological consistency, and the evolving landscape of global health challenges.

- **Reflecting pandemic impact on mortality** - the COVID-19 pandemic has significantly altered the demographic structure of many countries, particularly through increased mortality rates. As a result, the influence of the mortality indicator, once a dominant component of the HRI model, was reduced to 30% of its original value. This reduction reflects the understanding that while pandemic-related mortality is significant, it should not disproportionately skew the overall readiness assessment.
- **Obesity data adjustments** - one of the key adjustments involved the data on obesity. Although measured data was available in some cases, the decision was made to use self-

reported data instead. This choice was driven by the availability of newer information (e.g. in case of Czechia 2019 data for self-reporting obesity rates, compared to 2010 measured data) and the desire to avoid methodological discrepancies between different data sources. Self-reported data, while sometimes less precise than measured data, offered a more consistent and up-to-date perspective on obesity rates across the countries analyzed. This approach allowed for a more uniform comparison, which is critical when assessing health readiness on a global scale.

- **Smoking rates:** for the smoking rates indicator, there was no update in the current year of HRI because Eurostat, the primary data source, had not released new figures. As a result, the HRI 2023 relied on the same smoking rate values used in the previous publication. Maintaining these consistent values was crucial to avoid introducing inaccuracies or fluctuations that could distort the year-on-year comparison and overall trend analysis.

- **Investment strategy:** when assessing each country's investment strategy, particularly in the context of the COVID-19 pandemic, the HRI 2023 faced some uncertainties. The indicator was set to a default value of yes (i.e. 1) acknowledging the ongoing preparations within the COVID-19 resilience framework. However, there was recognition that the true impact of these strategies remains uncertain. The pandemic prompted many countries to develop and implement resilience strategies, but it was observed that several countries are struggling to meet the milestones set within these frameworks. As a result, the HRI 2023 temporarily accepted every strategy provided under the Resilience and Recovery Fund (RRF) framework as valid, pending further evaluation of their effectiveness.
- **HPV vaccination rate:** like the smoking rates indicator, the HPV vaccination rate did not receive an update in the HRI 2023. The same values from the previous year were used, as no new data was available. This consistency ensures that the assessment of this important preventive health measure remains reliable, even in the absence of updated information.
- **Compassionate use programs:** the methodology for assessing compassionate use programs was also updated. In this context, a score of 1 was awarded to countries with either a Compassionate Use Program (CUP) or an Early Access Program (EAP). Since many countries define CUP as a subgroup of EAP, no separate weights were assigned to these programs. This adjustment ensures that the assessment accurately reflects the availability of early access to treatments, which is crucial for managing serious or life-threatening conditions.
- **Cancer incidence estimates:** the calculation of cancer incidence estimates was refined to focus more on future resilience. The indicator now consists of two parts: the country's ranking based on the current standardized incidence rate of oncological diseases in 2022, and the ranking based on the future standardized incidence rate projected for 2040. Given the HRI's emphasis on future readiness, the weights for these components were set at a ratio of 0.2:0.8, favoring future projections. This adjustment aligns the indicator more closely with the overarching goal of the HRI to assess how well countries are preparing for future health challenges.
- **Tertiary education:** the role of tertiary education in the HRI model was temporarily erased, after it was found that this indicator did not significantly impact the overall outcomes, even with larger adjustments. However, it remains an important factor to monitor in the future. If the influence of tertiary education on health readiness becomes more pronounced, it may be re-integrated into the model with greater weight.
- **Health determinants:** the weights of individual health determinants were adjusted to better reflect their potential impact on the population's ability to face future health risks in better health (an increase from 0,013 to 0,06, i.e. 5-fold increase of the weight). Several studies have highlighted the significant role that factors such as lifestyle, environment, and socio-economic conditions play in overall health outcomes. By adjusting the weights of these determinants, the HRI 2023 ensures that the model accurately reflects the importance of maintaining and improving these factors as part of a country's strategy to enhance future healthcare readiness.

Other limitations and caveats

The Healthcare Readiness Index for 2023 faced several challenges in data collection and interpretation, emphasizing the inherent complexities of creating comprehensive indices. These include:

- **Temporal data gaps:** although the aim was to gather data up to July of 2024, some of the quantitative information was sourced from 2019-2021. This lag arises because of a gap between year-end and the time it takes to compile, validate, and publish comprehensive data sets.
- **Use of historical data:** for some indicators, particularly those for which recent data is unavailable, older datasets were utilized. For instance, Slovakia's most recent oncological data dates to 2014. While some sources used might be dated as of 2022, extrapolation methods applied to age-old data might not capture the current reality accurately.
- **Subjectivity in data collection:** not all indicators are purely quantitative. Some, like 'unmet needs', rely on questionnaire responses, introducing a degree of subjectivity. People's perceptions and interpretations can vary, and their responses can be influenced by personal experiences, biases, or misunderstandings. As such, these indicators might not always offer a fully objective picture. This is especially challenges when assessing qualitative criteria that come with designated cut-off points and implicit subjectivity. The determination of these thresholds can be subjective and different experts might set these differently based on their own assessments or criteria.
- **Weightage dilemma:** one of the perennial challenges of composite indicators is the weighting system. The HRI has aimed to remain neutral in assigning weights to various indicators. However, these weights might not always resonate with the actual impact each

factor has on a country's readiness. Balancing neutrality while ensuring representational accuracy is challenging.

In summary, while the HRI serves as a valuable tool for comparing healthcare readiness across countries, these caveats underline the importance of using it judiciously. Policymakers and stakeholders should always consider these nuances when interpreting results and drawing conclusions.

Results of the Healthcare Readiness Index 2023

The results of the HRI 2023 will be presented in three stages. First, we will cover the current readiness of each country, showcasing their starting positions, Readiness Today. Next, we will explain

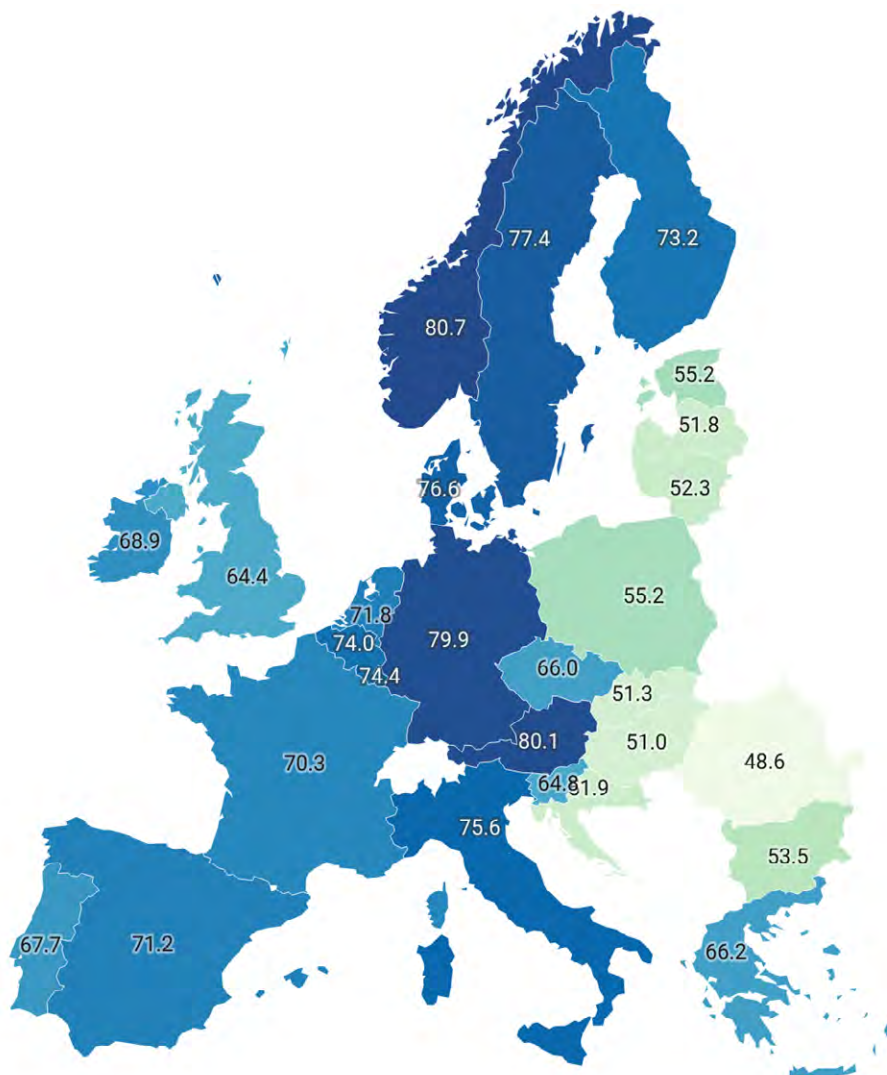
and display the projections for future readiness, Readiness Tomorrow. Finally, we will reveal the overall scores and rankings for each country in the HRI 2023.

Readiness Today: Nordic countries and Austria-Germany continue to set the pace

“Readiness Today” reflects a country’s current ability to meet healthcare needs and deliver effective services. It provides a snapshot of

how well a country can address its population’s healthcare demands at this moment.

Healthcare Readiness Index 2023: results of Readiness Today



As it can be seen, **among the top performers** in “Readiness Today” are Norway (80.7 points), Austria (80.1 points) and Germany (79.9 points). These countries have established themselves as leaders due to their robust healthcare infrastructures, well-funded systems, and a high availability of healthcare professionals and medical equipment.

The average score of Readiness Today index is 65.7 points, but CEE countries averaged only 54.7 points. In fact, out of the 10 worst performers, 9 countries were from the CEE region, the other being the UK².

Norway stands out with the highest score in “Readiness Today,” largely due to its strong financial commitment to healthcare. Norway’s per capita healthcare spending is one of the highest in the world, enabling it to maintain a well-equipped healthcare system with ample resources. This financial stability is reflected in the country’s low rates of avoidable mortality and high life expectancy, both key indicators of a well-functioning healthcare system. Norway’s healthcare system is further bolstered by a comprehensive network of healthcare providers and a focus on preventive care, which helps to keep the population healthier and reduce the burden on healthcare services.

Austria, the second-best performer, excels in providing comprehensive healthcare services to its population. The country has a well-distributed network of healthcare facilities, ensuring that even those in remote areas have access to necessary care. Austria’s emphasis on public health and social welfare is a significant factor in its high readiness

score. The country’s healthcare system is also supported by a strong public health infrastructure, which plays a crucial role in managing and preventing diseases.

Germany also ranks highly in “Readiness Today,” supported by its extensive healthcare infrastructure and a large, well-trained workforce of healthcare professionals. Germany’s healthcare system is known for its accessibility and quality, with a high number of hospital beds, advanced medical equipment, and a strong emphasis on medical research and innovation. The country’s investment in healthcare infrastructure ensures that patients have access to timely and effective care. Additionally, Germany’s efficient health insurance system covers most of the population, further contributing to the overall readiness of its healthcare services.

These three countries exemplify the characteristics of healthcare systems that are not only well-funded but also well-organized, with a clear focus on accessibility, quality, and preventive care. In contrast, countries with lower “Readiness Today” scores often struggle with underfunded healthcare systems, insufficient medical infrastructure, and a shortage of healthcare professionals. These challenges can lead to higher rates of avoidable mortality and lower life expectancy, highlighting the importance of strong healthcare systems in achieving better health outcomes. **The worst three performers are** Romania (48.6 points), Hungary (51 points) and Slovakia (51.1 points), i.e. **achieving only 62% of the results of Norway**.

Key challenges in Readiness Today

While “Readiness Today” captures the current strengths of a country’s healthcare system, it also highlights several key challenges that can undermine the effectiveness of healthcare delivery and the ability to meet the population’s needs. Even

among top-performing countries, these challenges can vary widely, but they generally revolve around issues related to funding, infrastructure, workforce capacity, and healthcare accessibility.

² The only non-CEE country is United Kingdom. However, it has had some outdated figures that might have slightly negatively skewed results on this part of the HRI 2023, as explained in the methodology section of the paper

- 1. Insufficient healthcare funding:** one of the most pressing challenges in “Readiness Today” is the adequacy of healthcare funding:

Four out of the five best performers in “Readiness Today” were countries with the highest level of overall spending on healthcare services (i.e. all but Netherlands). The reason for this is that these countries tend to **see healthcare expenditure as an investment that will deliver future results, rather than a short-term cost.**

Countries with lower scores often struggle with underfunded healthcare systems (as illustrated in the following diagram, **three out of the five worst performers** in Readiness Today were among the 5 lowest spenders on health), which can lead to a range of problems, including insufficient medical supplies, outdated equipment, and inadequate facilities. Despite the increase in CEE countries’ budgets during the pandemic, these countries are still lagging the other countries in the study in average spending by about 50% and up to 60%, if we analyze the top five countries.

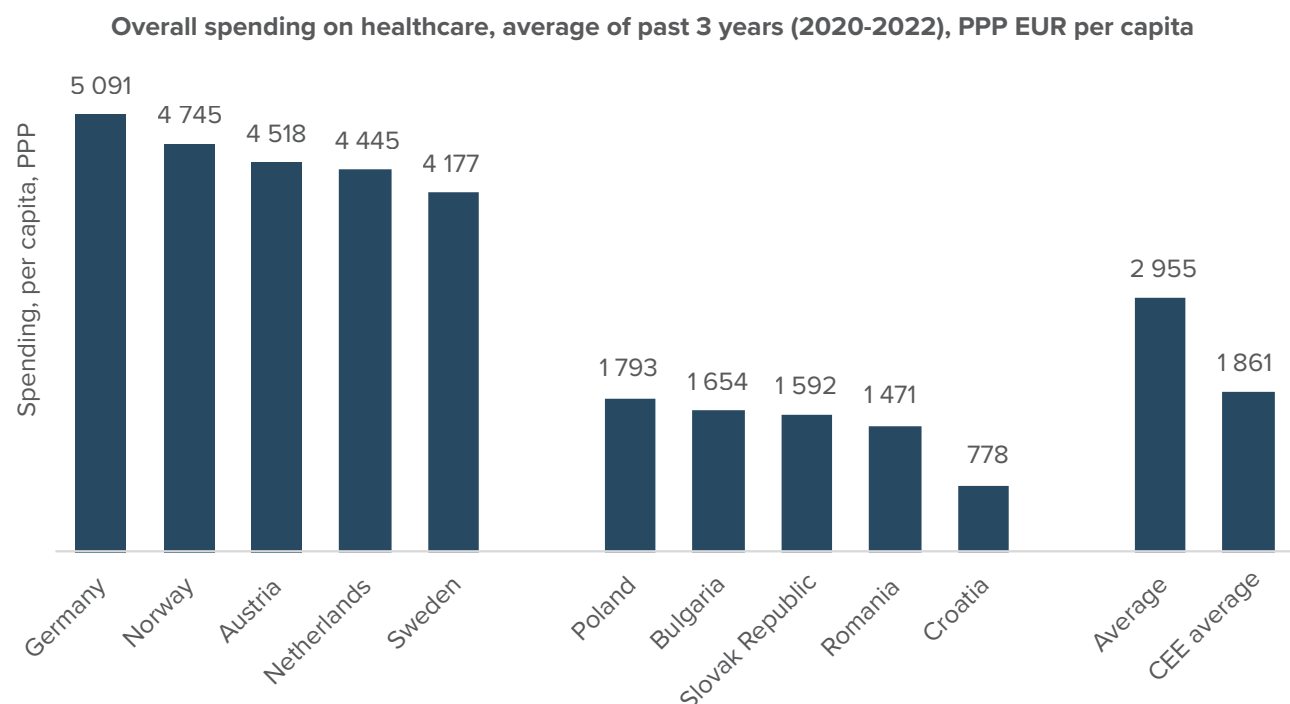
However, even in wealthier nations, **the allocation of healthcare resources can be uneven, leading to disparities in service quality between urban and**

rural areas. The economic strain from the COVID-19 pandemic has exacerbated these issues in many countries, putting additional pressure on already stretched healthcare budgets.

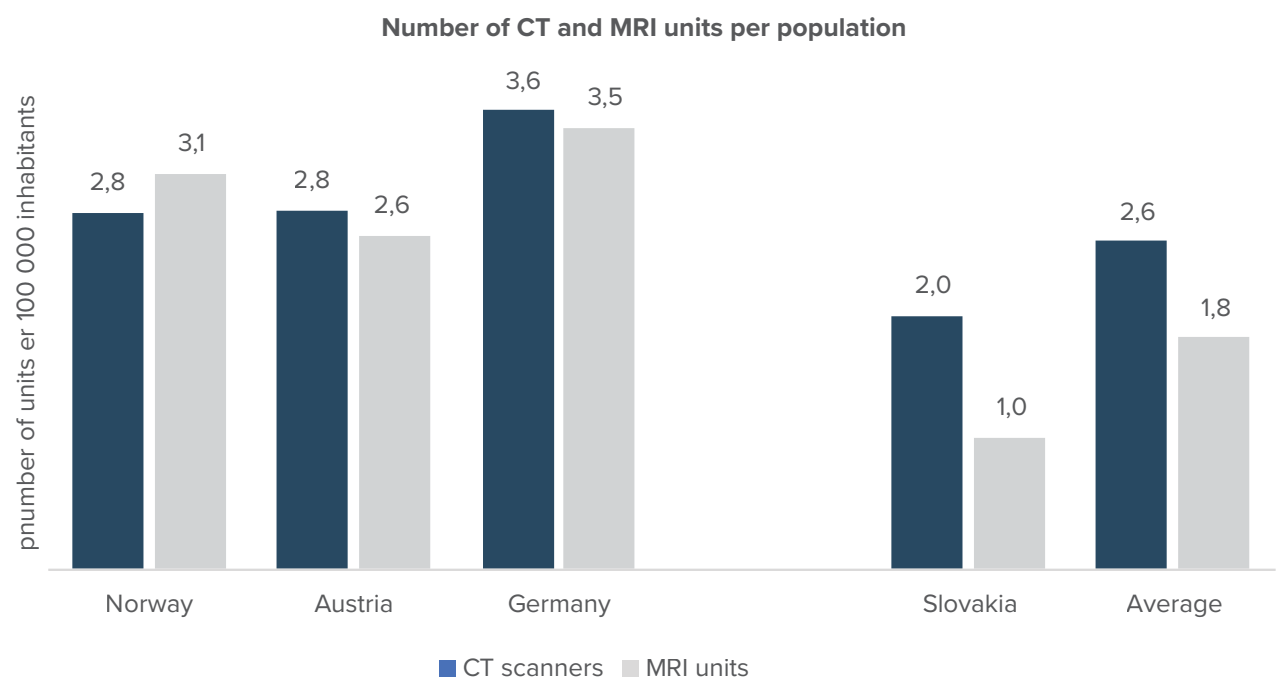
- 2. Healthcare infrastructure and accessibility:** in most of below-average performers, healthcare infrastructure remains a significant challenge.

This includes the availability and distribution of hospitals, clinics, and specialized care facilities. Inadequate infrastructure can lead to long waiting times for treatment, overcrowded hospitals, and a lack of access to critical care services, particularly in rural or underserved regions. For instance, countries with lower “Readiness Today” scores have below-average numbers of essential diagnostic equipment like MRI machines and CT scanners, which are crucial for timely and accurate diagnosis, as can be seen in the following figure.

Please, be aware that the countries that perform best in Readiness Today and **have above-average diagnostic technology also tended to have a higher incidence of cancer and/or neurodegenerative diseases, but this is related to the fact that this diagnostic capacity allows them**



Source: OECD health database



Source: EUROSTAT database; data is, depending on a country, as of 2023

to catch diseases earlier and better treat, as we describe in the GLOBSEC NeuroMap 2024 study.

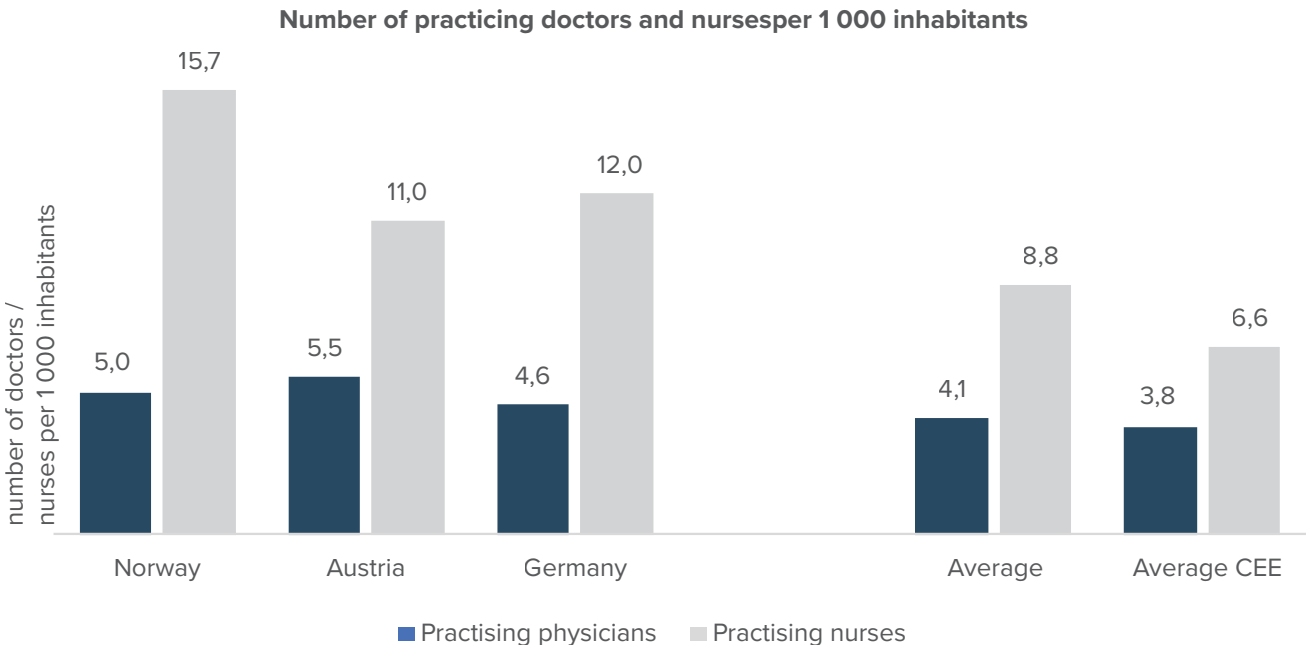
3. Shortage of healthcare professionals: a shortage of healthcare professionals, including doctors, nurses, and allied health workers, is another major challenge impacting “Readiness Today.”

Many countries face difficulties in recruiting and retaining healthcare workers, leading to high

workload, burnout, and reduced quality of care.

This shortage is often exacerbated in rural areas, where healthcare providers are even more scarce. Countries with ageing populations are particularly vulnerable, as the demand for healthcare services increases while the healthcare workforce itself is ageing and retiring.

Top performers in the Readiness Today index have all significantly higher ratios of both doctors and



Source: OECD health database; data is, depending on a country, as of 2023

nurses in practice, **but nurses are especially in abundance**. For example, Norway has 2,4 times as many nurses per 1 000 inhabitants than is the average of CEE countries, i.e. the worst performers. Norway is utilizing nurses to undertake a greater range of clinical of activities related to public health, home-care services and other activities that improves access to care and health results consequently.

4. Disparities in healthcare access and quality:

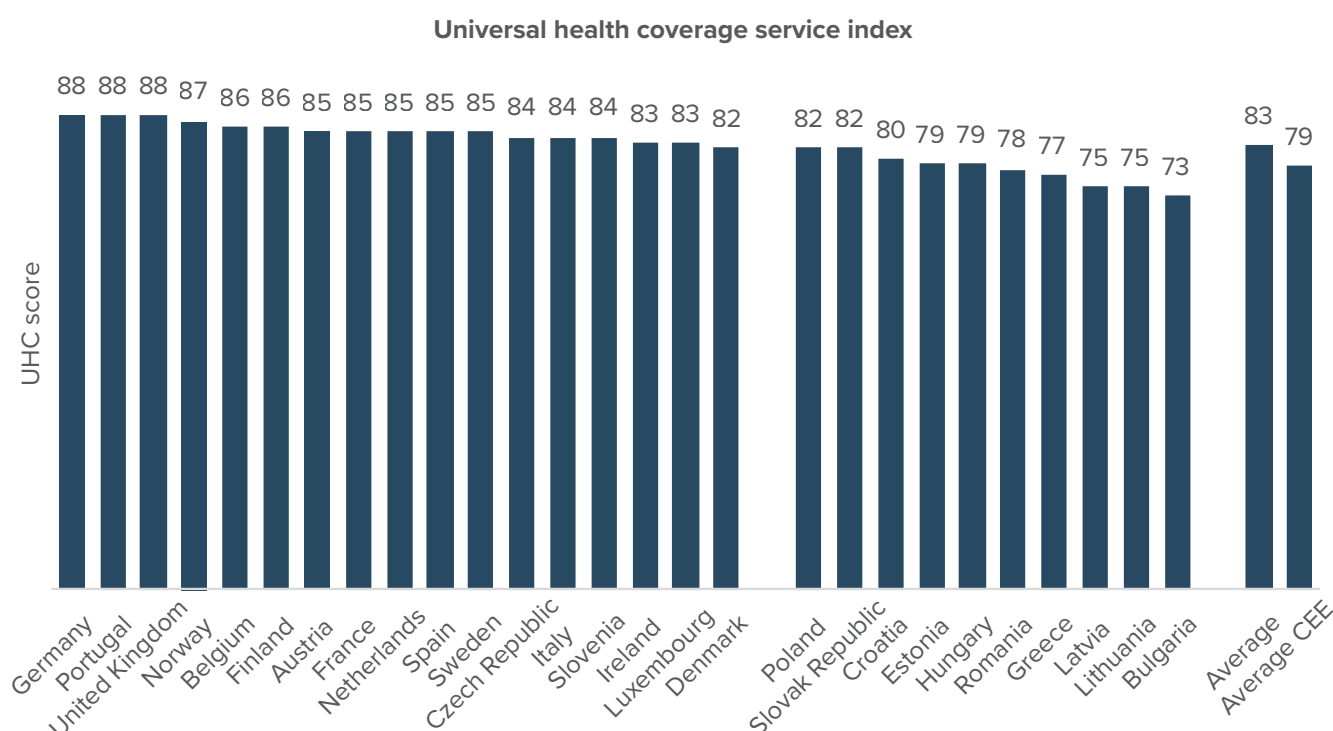
even in countries with strong healthcare systems, there are often significant disparities in access to care.

This factor has two perspectives. Firstly, there are significant differences in access to services among analyzed countries. As it can be seen in the following figure, **out of the 10 lowest performing countries in the Universal health coverage (UHC) index, nine are CEE countries**. The only exception is Greece that is still recovering from its financial crisis and measures implemented. Once again, the best performing countries are the ones that scored highly in the “Readiness Today” index, such as Germany or Norway.

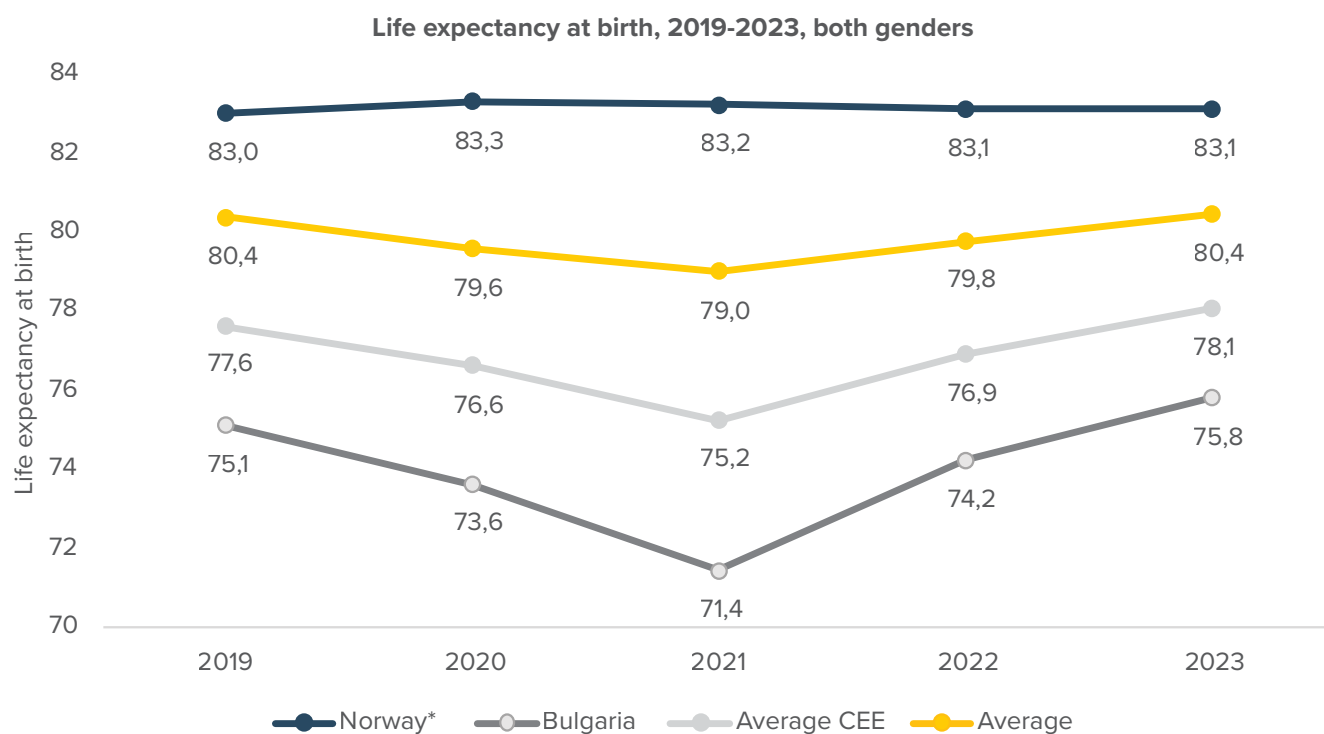
Secondly, socioeconomic status, geographic location, and ethnicity can all influence an individual’s ability to access high-quality healthcare services. In some cases, vulnerable populations, such as the elderly, immigrants, or those living in poverty, may face significant barriers to receiving the care they need. These disparities can lead to worse health outcomes and higher rates of avoidable mortality in disadvantaged groups.

5. Public health emergency preparedness: the COVID-19 pandemic has underscored the importance of being prepared for public health emergencies.

Many countries found their healthcare systems ill-prepared to handle the surge in demand for medical services, including ICU beds, ventilators, and personal protective equipment (PPE). The difference in preparedness of countries can be observed in the change of life expectancy during the pandemic. Countries that are the best performers in “Readiness Today” had the lowest, if any, deterioration in the average life span. For example, Norway life expectancy even increased, in comparison to 2019. In contrast, the CEE countries,



Source: World Bank DataBank, data is as of 2021



Source: OECD, data for Norway (2022/2023) provided from Norwegian national statistical office

i.e. the least “ready” countries experienced the sharpest declines during 2021-2022, with Bulgaria experiencing the worst decline among all analyzed countries (i.e. by 3,7 years).

The challenge now is to build resilient systems that can withstand future health crises, which includes stockpiling essential supplies, training healthcare workers for emergency response, and establishing clear communication channels between government agencies and healthcare providers.

In summary, while “Readiness Today” highlights the strengths of healthcare systems, it also

reveals critical challenges that need to be addressed to ensure that healthcare services are effective, equitable, and accessible. Countries must focus on increasing healthcare funding, improving infrastructure, addressing workforce shortages, reducing disparities in care, adopting new technologies, enhancing preventive care, streamlining healthcare delivery, and bolstering emergency preparedness to improve their overall readiness and ensure the health and well-being of their populations.

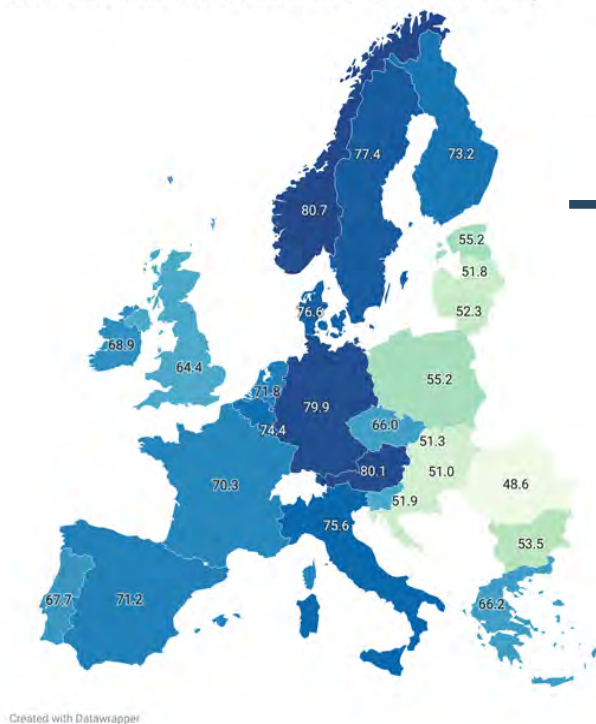
Results of readiness today correlate with excess mortality per capita during 2020-2022

Readiness Today scores provide a snapshot of healthcare readiness across different regions in Europe. They distinctly correlate with COVID-19 excess mortality rates, mirroring outcomes observed during the pandemic. Countries that boasted high readiness were demonstrably more resilient in the face of the health crisis, showcasing the effectiveness of their healthcare systems. On

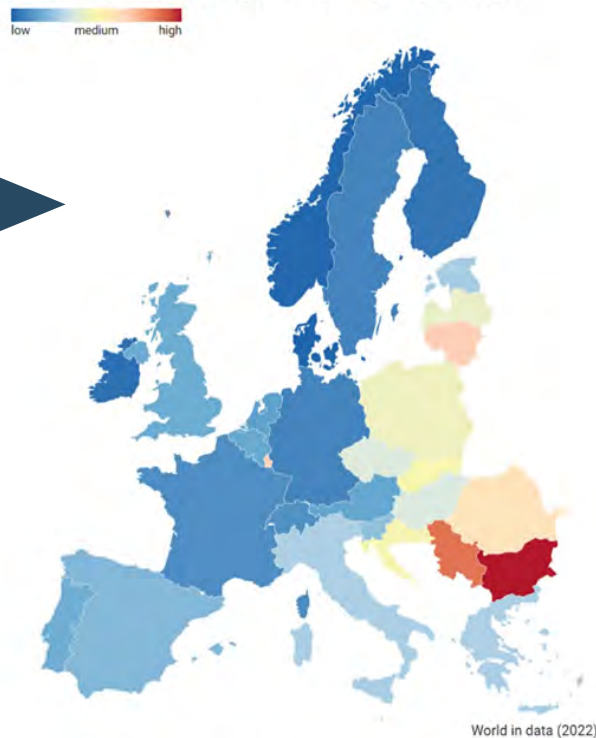
the other side, those with lower preparedness scores grappled with elevated excess deaths.

The correlation between our findings and the real-world pandemic responses reaffirms the validity of the HRI methodology. It underscores that our results are not just theoretical or speculative; they were, in fact, manifested in real-time during

Healthcare Readiness Index 2023 - Readiness Today



Excess mortality per capita since covid-19 outbreak



the global health emergency, making them less of a surprise for those who closely followed the trajectory of the pandemic. It also demonstrates the

importance of continued investments and policy revisions in the ever-evolving domain of healthcare.

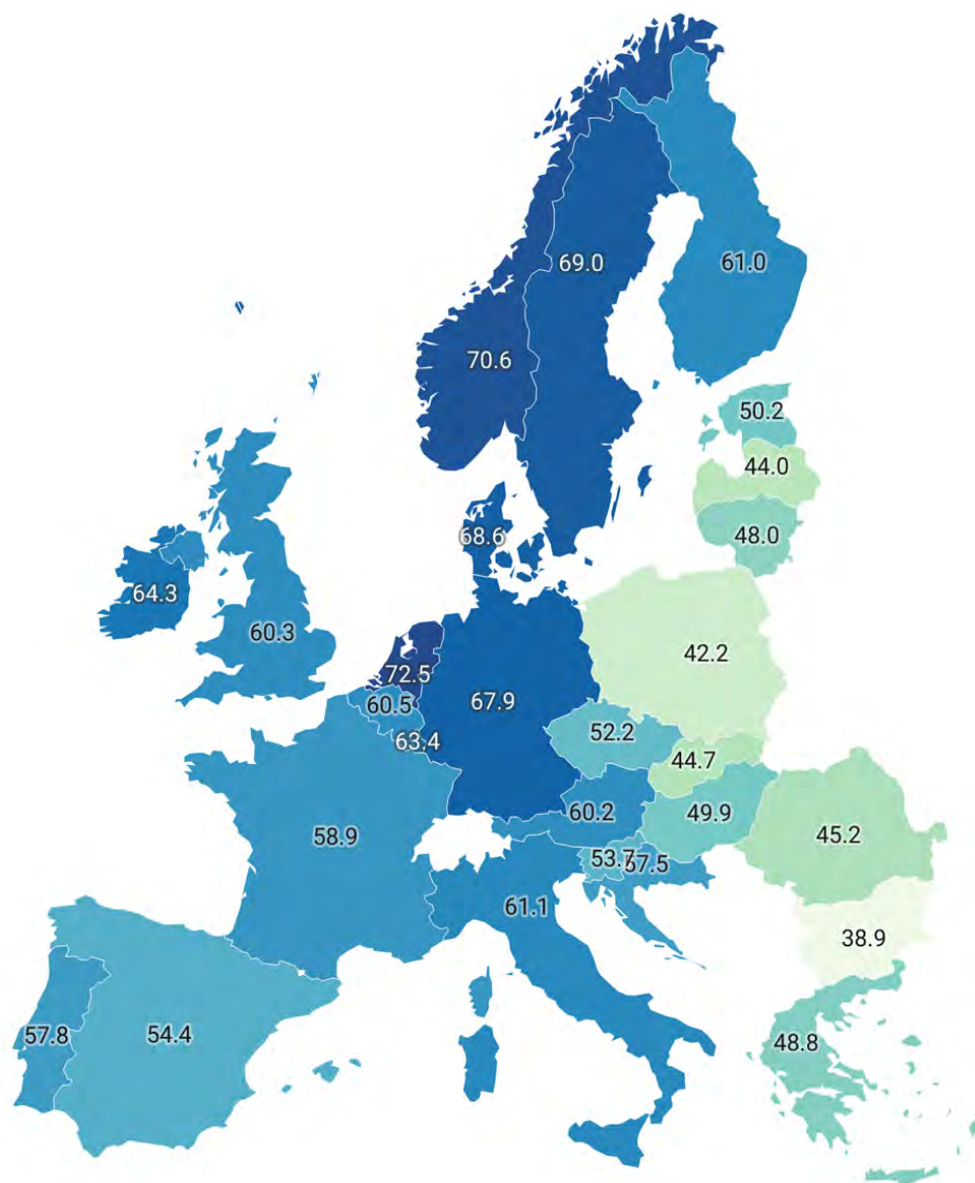
Readiness Tomorrow: Netherlands and Norway lead the way

“Readiness Tomorrow” represents a nation’s preparedness to meet future healthcare challenges, focusing on its ability to adapt to emerging trends, manage anticipated healthcare demands, and invest in the long-term sustainability of its healthcare system.

The three best performers in “Readiness Tomorrow” are the Netherlands (72.4 points), Norway (70.6), and Sweden (69.0), closely followed by Denmark (68.6) and Germany (67.9). **The average score among analyzed countries was 56.5 points.** The average of CEE countries was 47.8 points.

Out of 10 worst performing countries in Readiness Tomorrow index, nine were CEE members. The lowest score had Bulgaria, earning only 38.9 points, i.e. 45% less points than the best-in-class Netherlands.

Healthcare Readiness Index 2023: results of Readiness Tomorrow



Common traits of best-in-class countries of “Readiness Tomorrow”

Best performers in this segment of the index have demonstrated a forward-thinking approach to healthcare, characterized by significant investments in innovation, a strong focus on preventive care, and policies that promote long-term health and well-being.⁷

The Netherlands leads in “Readiness Tomorrow,” reflecting its exceptional commitment to health innovation and preparedness for future challenges. The Netherlands has a well-established and respected HTA system (supported by the Dutch

Health Care Institute, Zorginstituut Nederland) that plays a crucial role in its healthcare decision-making processes, ensuring that new technologies and treatments are evaluated for their efficacy, cost-effectiveness, and overall impact on public health. This proactive approach allows the country to quickly adopt and implement cutting-edge medical advancements, keeping its healthcare system at the forefront of global standards. Additionally, the Netherlands excels in preventive care, spending 258 EUR per capita on annual basis on public health topics (i.e. the third highest amount in

2022), such as public health campaigns. These initiatives help mitigate future healthcare burdens by reducing the incidence of preventable diseases and promoting healthy lifestyles.

Norway also ranks highly in “Readiness Tomorrow,” bolstered by its comprehensive long-term health strategies and significant investment in public health. Norway’s focus on environmental sustainability, as reflected in its low pollution levels, plays a crucial role in ensuring a healthy population in the years to come. The country has also prioritized mental health and well-being, recognizing that these are critical components of overall health that will require increased attention in the future. Moreover, Norway’s strong performance in innovation is supported by its investment in research and development, which drives continuous improvements in healthcare delivery and outcomes.

Sweden is another top performer in “Readiness Tomorrow,” with its strategic focus on determinants of health. Sweden’s high levels of preventive care combined with comprehensive public health policies, supports long-term health outcomes. Sweden has only 6,4% of its population as daily smokers of cigarettes, which is the lowest among analyzed countries. Additionally, Sweden is known for its environmental consciousness, which is critical for future health as the effects of climate change become increasingly apparent.

As it can be observed, these top performers share several key characteristics that contribute to their high scores in “Readiness Tomorrow.” Three key characteristics are as follows.

- 1. The best-in-class countries place a significant emphasis on preventive care:** understanding that preventing disease is more effective and less costly than treating it after it has developed.

Public health campaigns in these countries are widespread and focused on key determinants of health outcomes, i.e. smoking, diet, alcohol consumption, quality of environment and other

factors. Best-in-class countries tend to implement long-term policies focused on behavior of individuals, since “motivation is stronger than regulation”.

This is one of the the primary reasons why most of the countries that dominate the “Readiness Tomorrow” index score above average on key determinants of health.

Overview of determinants of health

Alcohol consumption

Average: 9,9 litres per capita
 CEE average: 10,8 litres
 Best in class (Greece): 6,3 litres
 2nd best (Norway): 6,6 litres
 3rd best (Sweden): 7,5 litres
 Worst in class (Latvia): 11,9 litres

Obesity rate

Average: 18 % of population
 CEE average: 19,1%
 Best in class (Romania): 10,5%
 2nd best (Italy): 12%
 3rd best (Bulgaria): 13,6%
 Worst in class (UK): 25,9 %

Fruits consumption

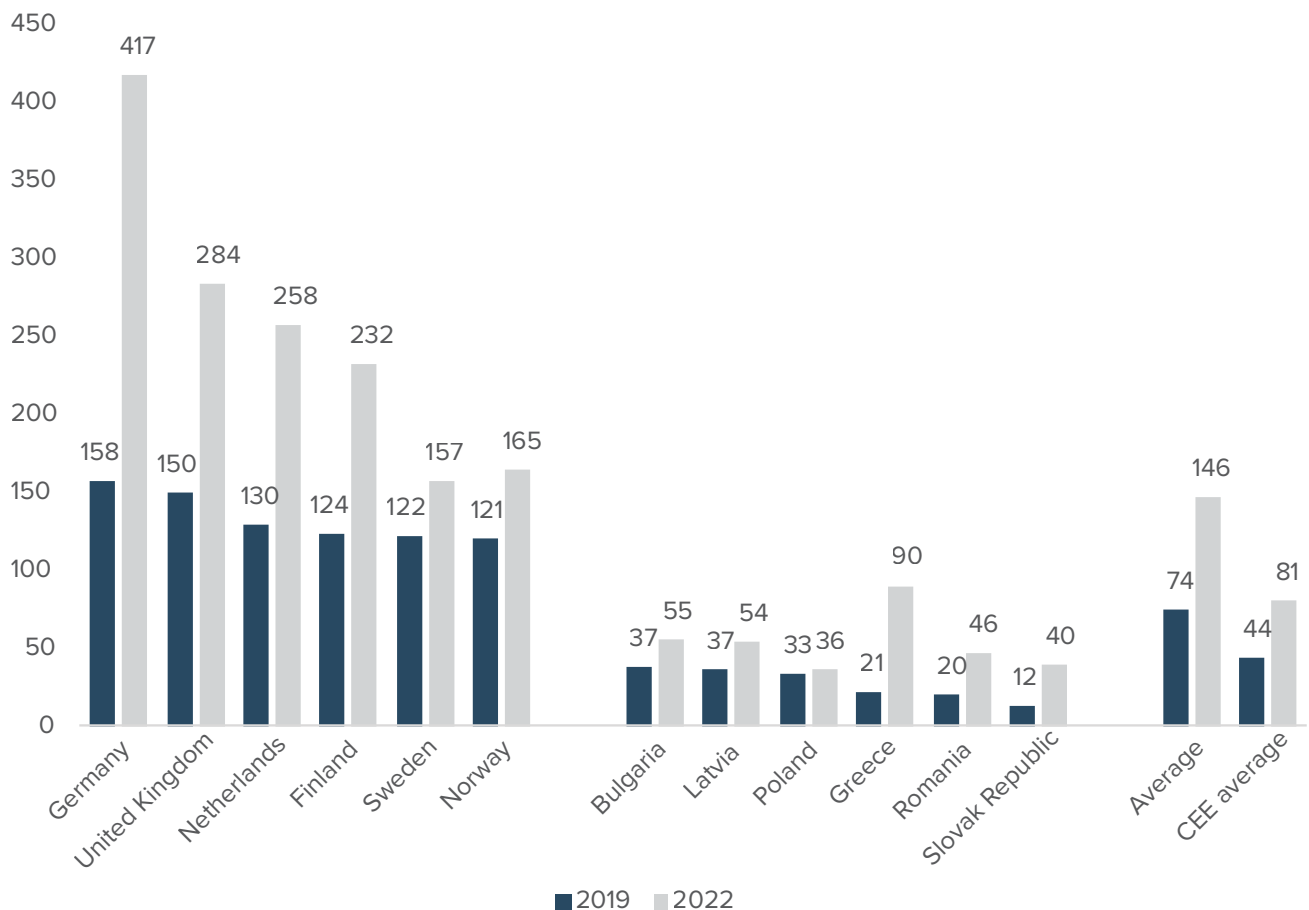
Average: 109 kg per capita
 CEE average: 84,3 kg
 Best in class (Nether): 168,4 kg
 2nd best (Portugal): 161,5 kg
 3rd best (Luxemburg): 154,3 kg
 Worst in class (Poland): 63,2 kg

Smoking rate

Average: 17,1% regular smokers
 CEE average: 20,2%
 Best in class (Sweden): 6,4%
 2nd best (Finland): 9,9%
 3rd best (Norway): 10.2%
 Worst in class (Bulgaria): 28,7%

Source: OECD health database; EUROSTAT database; data as of 2019 – 2023, depending on a country

Spending on prevention, per capita, PPP in EUR, 2019 and 2022



Source: OECD health database

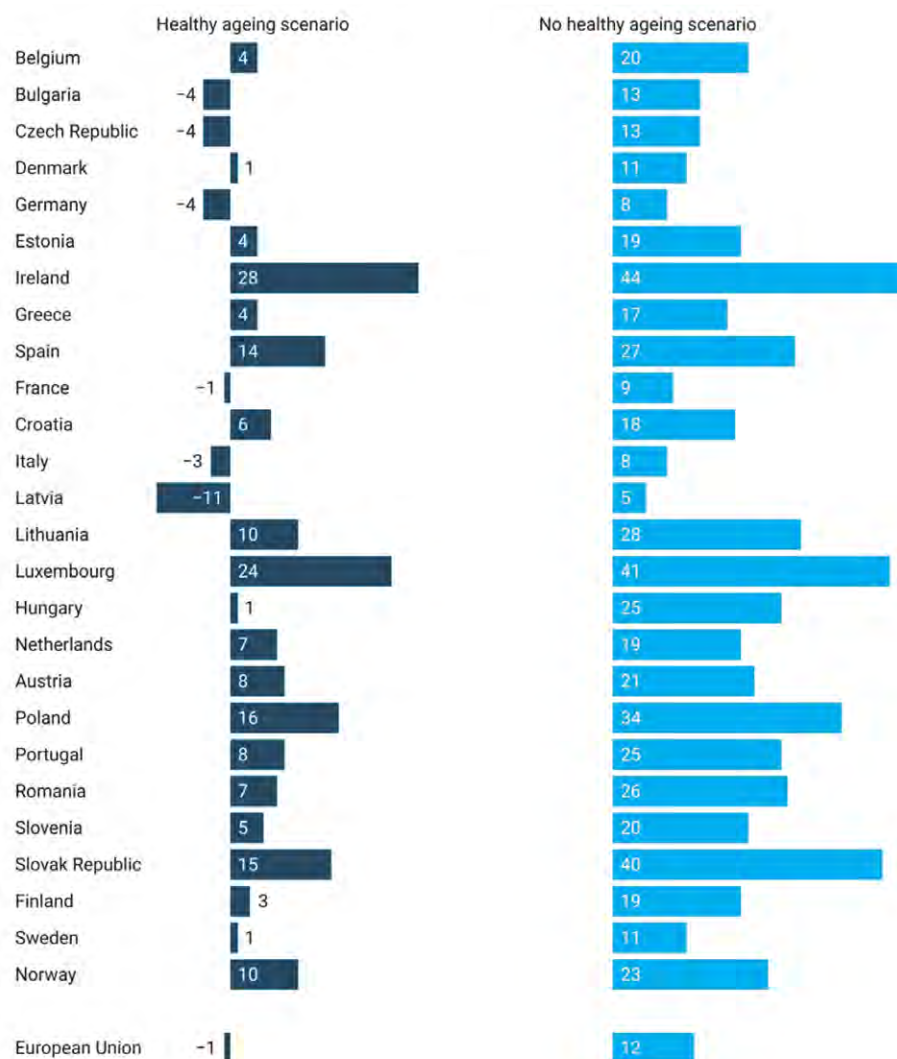
Of course, these policies require financial resources and hence it is not surprising that best in class countries have the highest rates of spending on preventive activities. Although 2022 prevention spending cannot be adjusted for pandemic-related spending (e.g. PCR testing), if we look at 2022 per capita PPP spending and compare it to the pre-pandemic year 2019, it is obvious that the countries that finished in the top ranks in Readiness Tomorrow 2023 also had the highest spending on preventive care services **even before the pandemic**.

These include e.g. Germany 185 - 417 EUR per capita in 2019 and 2022), UK (150 - 284 EUR), Netherlands (130 - 258 EUR) and other as can be

seen in the following figure. The worst performer was in 2019 as well as in 2022 Slovakia (with mere 12 and 40 EUR spending per person), followed by Romania and Greece.

The importance of managing the determinants of health can be seen in the predictions of the EU Commission's 2024 Ageing Report. This report prepared a comparison of how health spending will grow (as a proportion of a country's GDP) if the health status of the population improves (i.e. health ageing scenario) compared to a scenario, where countries do not manage risk factors significantly better (i.e. no healthy ageing scenario). The differences can be seen in the following table. Since these values represent changes in share of

Change in share of health expenditure on GDP in percentages, 2022 vs 2070



Source: 2024 Ageing report (EU Commission, 2024)

countries health expenditures on respective GDP in percentual points, the differences are in practice in most cases in the order of billions of euros that can be “saved” if countries improve their risk factor management.

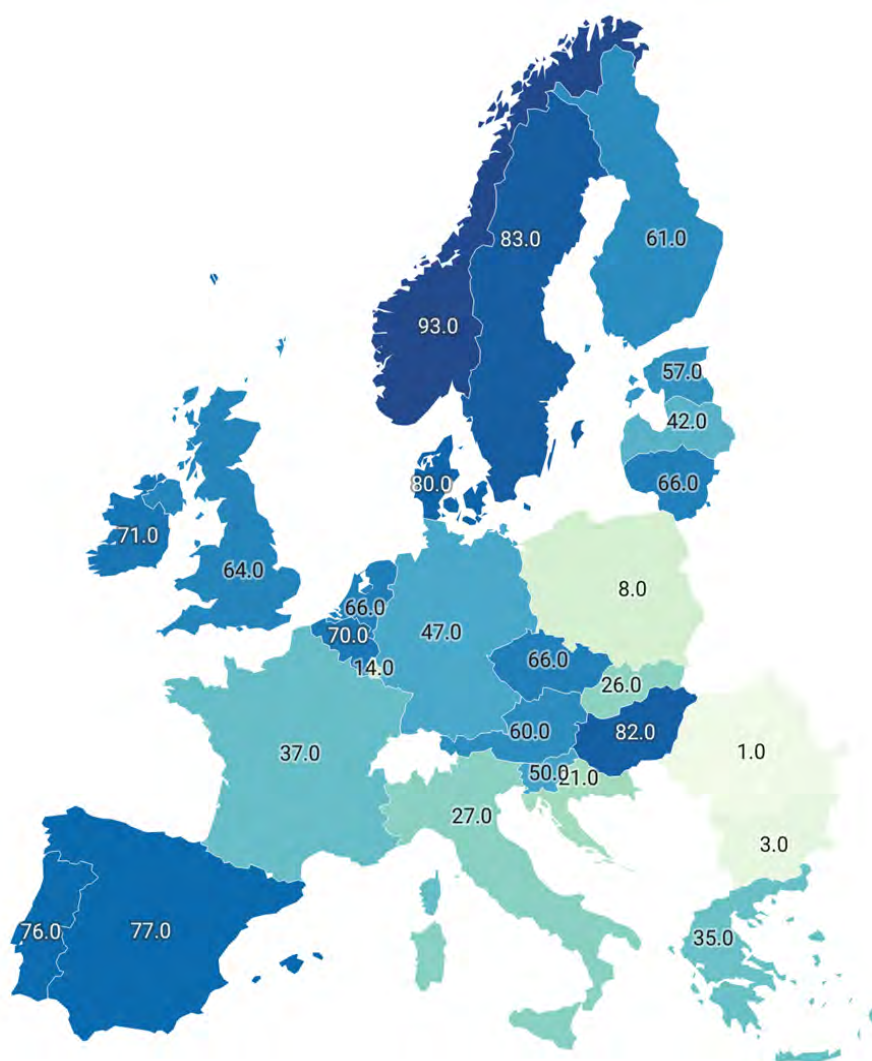
Finally, high vaccination rates of countries with the highest Readiness Tomorrow further demonstrate their approach and dedication to stopping diseases at their onset as it helps to protect the population from several preventable diseases and reduce the potential for future outbreaks.

As with the other indicators, countries that perform best on Readiness Tomorrow index also have above-average vaccination rates, and vice versa,

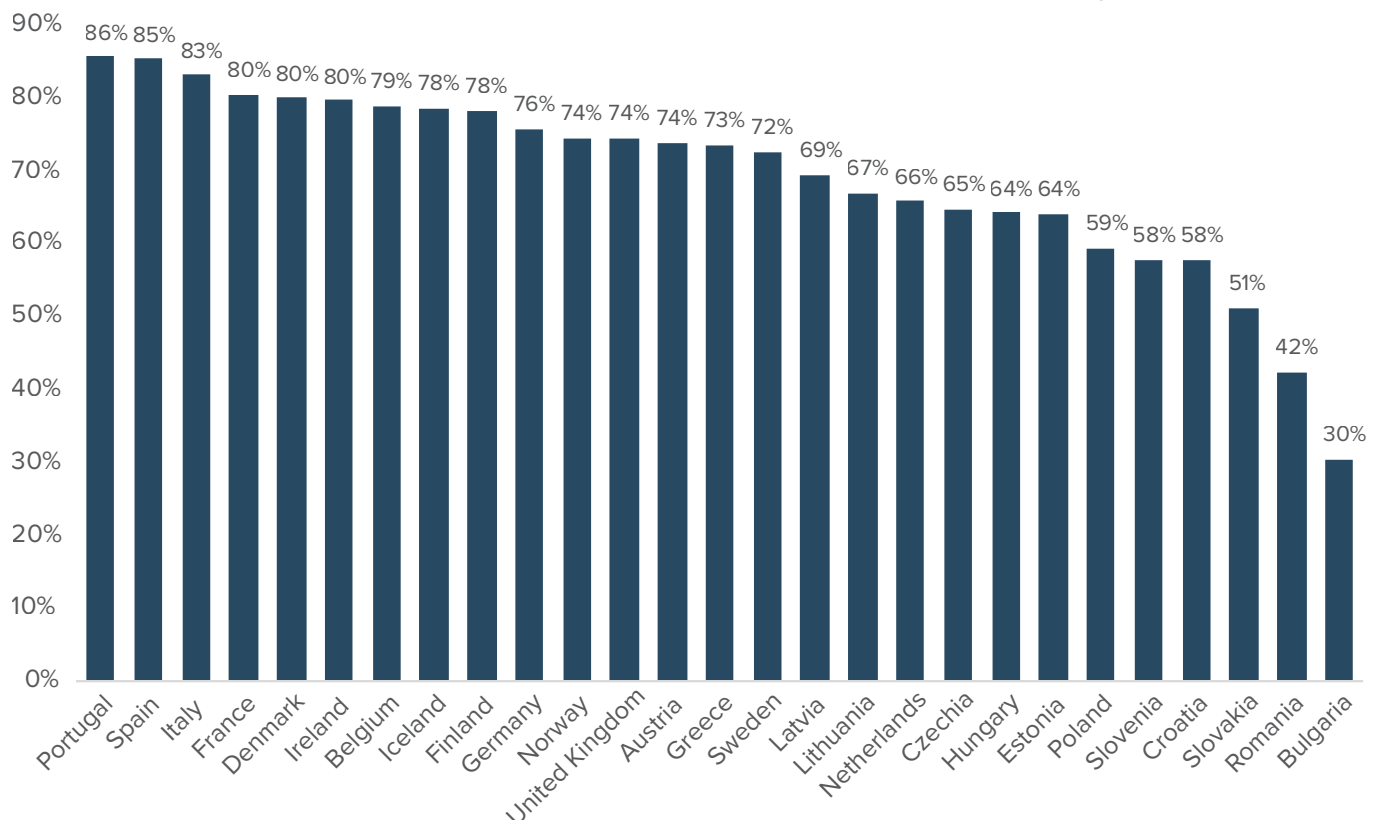
as indicated by the HPV vaccination rate in the following chart. Norway and Sweden, two of the top three countries, have 93% and 83% HPV vaccination rates for women under 16 years of age, respectively, while the least prepared countries, such as Poland, Bulgaria and Romania, have achieved less than 10% vaccination coverage, according to the latest available data.

A similar, albeit slightly different, picture can be observed for COVID-19 vaccination rates. Countries at the very bottom of the Readiness Tomorrow index were also the countries with the lowest vaccination rates, such as Bulgaria (30%), Romania (42%) and Slovakia (51%). While the top countries in the index were not at the top of the rankings

HPV vaccination rate, women up to 16 years as a percentage of total eligible population



Source: UNICEF, data is, depending on a country, as of 2023

COVID-19 vaccination rate, as a % of total population of the country

* Total number of people who received all doses prescribed by the initial vaccination protocol, divided by the total population of the country. Source: World in data; data is as of 2024

for vaccination rates, this was also related to what measures each country was implementing and when. However, they are still and average values within the EU.

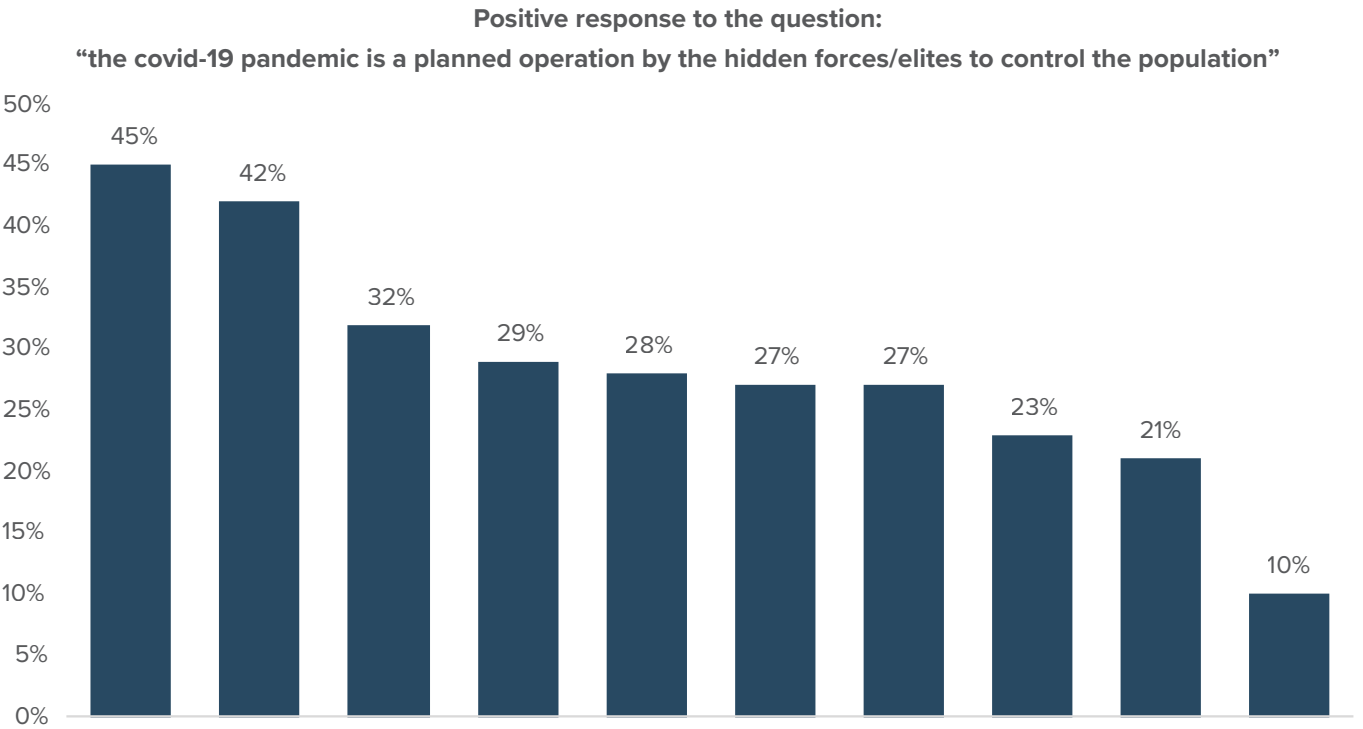
These results are however not surprising. Countries with the worst results in the index (on both Readiness Today and Readiness Tomorrow parts) tend to share a common trait – a predisposition towards conspiracy theories, hoaxes and believing in disinformation that significantly reduced, during the pandemic, willingness to receive vaccination. GLOBSEC, on annual bases, analyses trends in most of CEE countries, called GLOBSEC Trends and in 2021, the publication was focused also on COVID-19 perceptions.

As it can be seen in the following figure, countries with the lowest COVID-19 vaccination rates are the countries that according to the survey, are most prone to believe in disinformation. 45% of surveyed Bulgarians believed in 2021 that COVID-19 pandemic was a planned operation by

elites to control the population, followed by 42% of Romanians and 32% Latvians. In other words, countries with the worst Readiness results are countries that neglect education, don't work with the population and don't fight hoaxes. This in turn contributes significantly negatively to achieved health outcomes.

2. Countries with the highest score on Readiness Tomorrow index **have a strong commitment to health innovations** which allows them to stay ahead of emerging health trends and challenges. On the other hand, poorer access to treatment and innovations can have a negative impact on overall health results.

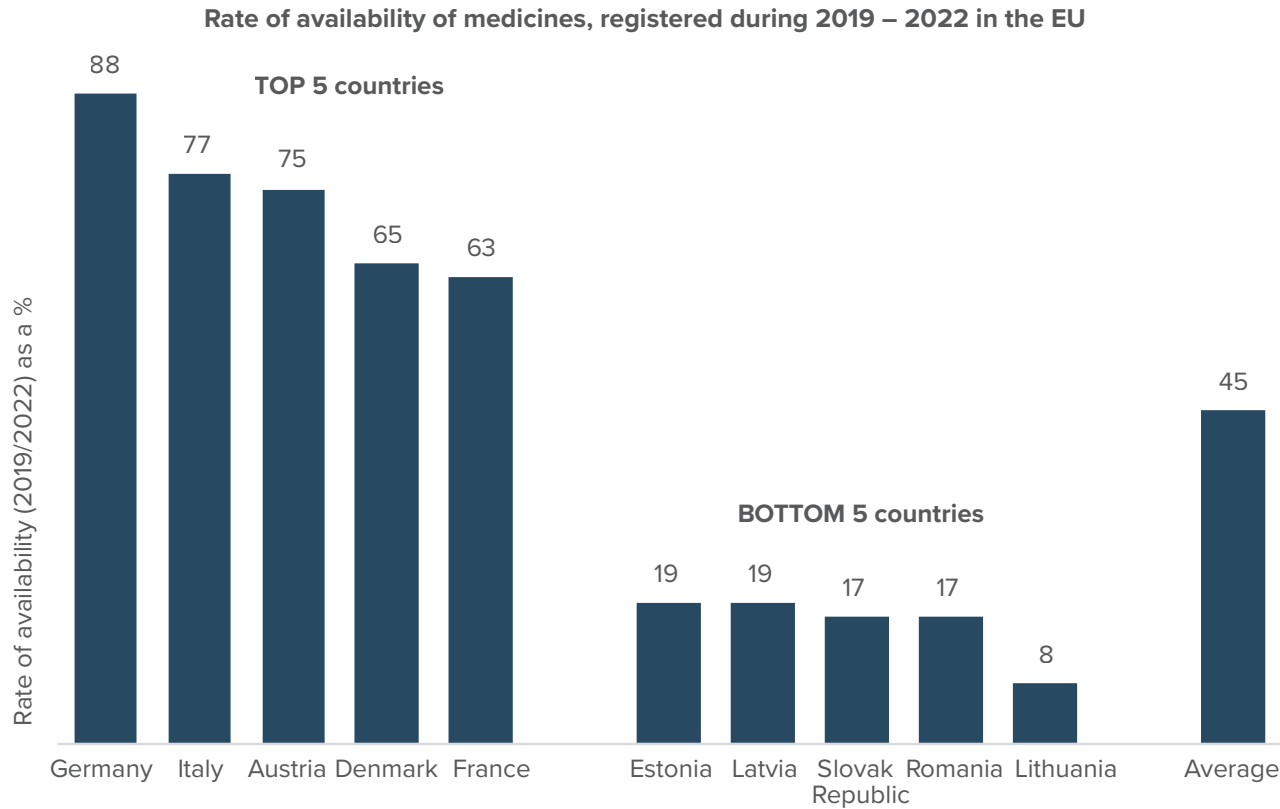
Furthermore, poor access to innovations and modern processes can lead to inefficiencies, such as longer diagnostic times and increased potential for medical errors. In addition, the slow adoption of new technologies, such as electronic health records (EHRs) and telemedicine, can hinder the ability



Source: GLOBSEC Trends (2021), data is as of 2021

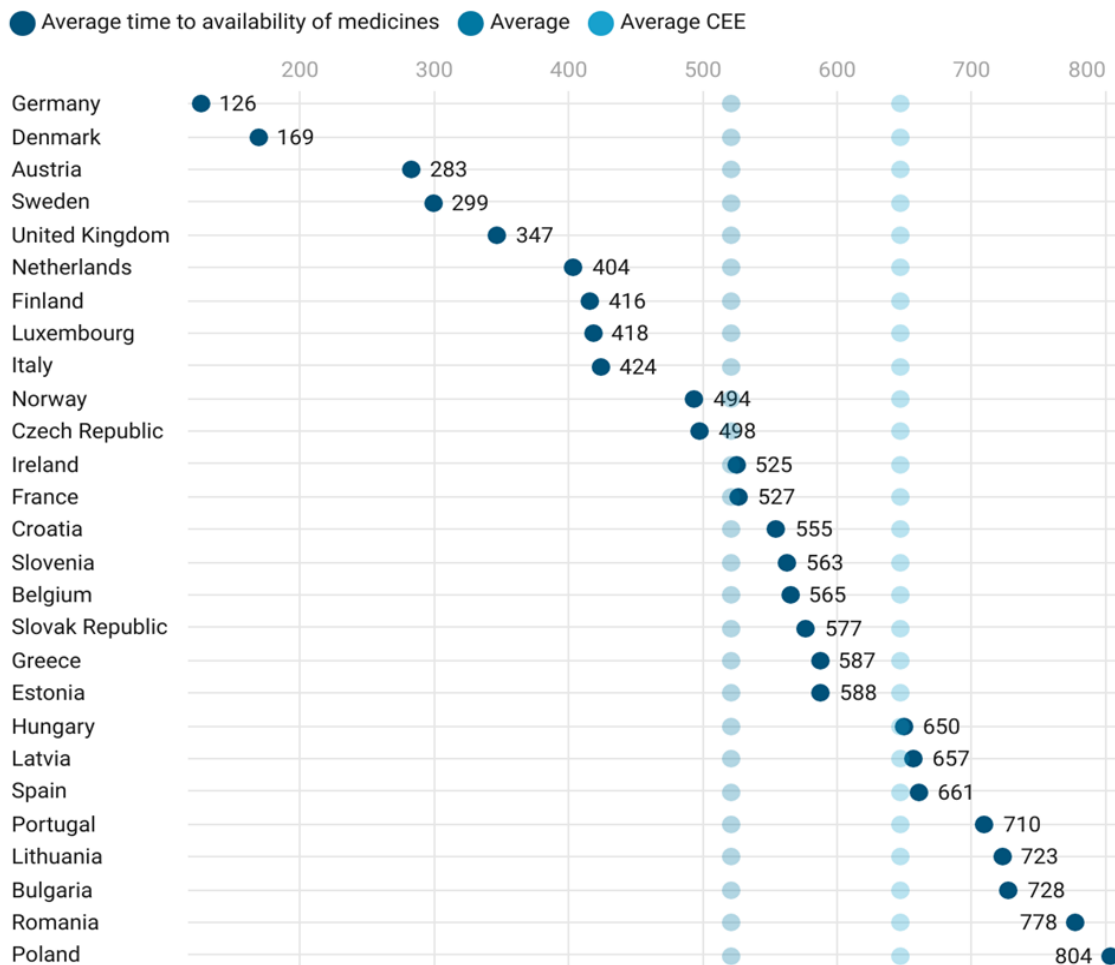
of healthcare systems to operate efficiently and respond quickly to patient needs.

It is quite difficult to measure countries' affinity for innovation. But there are proxy indicators, such as the EFPIA estimates of medicines availability, which



Source: EFPIA; the rate of availability, measured by the number of medicines available to patients in European countries as of 5th January 2024.

Average time to availability of medicines registered during 2019 - 2022



Source: EFPIA, data updated as of 5th January 2024; CEE average is 647 days, EU average is 521 days

measures what percentage of medicines that have been launched on the European market during 2019-2022 are available in EU countries. As can be observed in the following chart, CEE countries tend to have the lowest access to new medicines. The only exception is Czechia that recorded in 2024 an excellent 62% rate of availability (compared to the CEE average of 28%). Countries that rank among the best-in-class in Readiness Tomorrow, such as Germany or Denmark³, are also among the best in rate of availability of medicine.

The countries that score best on Readiness Tomorrow index not only have the greatest range of available innovations but are also the best in terms of the speed with which they adopt them.

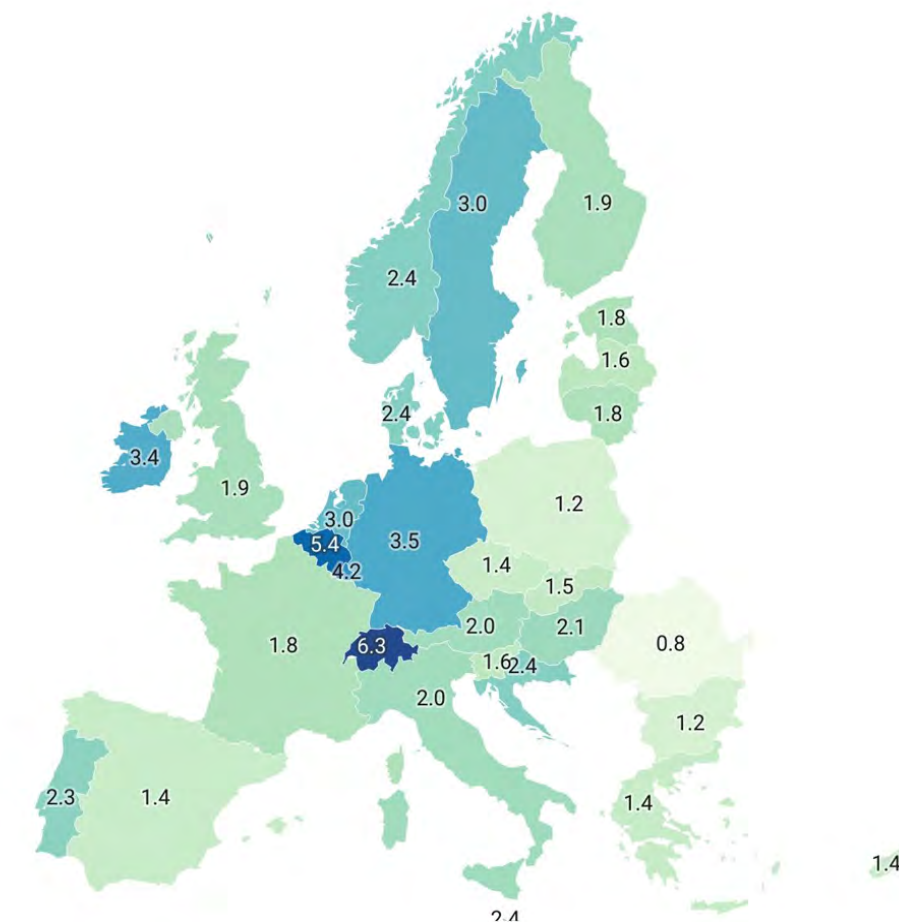
This can be analyzed through another proxy indicator, so called WAIT times, which measures how long it takes on average for a medicine to enter the market after it has already been registered for use within EU countries. The results of this so-called WAIT indicator can be seen below, which shows the differences between best-in-class countries such as Germany (126 days) and Denmark (169 days) and others, such as CEE countries with an average of 647 days to availability.

3. The most resilient countries tend to have more stable leadership of the sector:

Frequent changes in government or health leadership can disrupt long-term healthcare planning and policy implementation. Countries with unstable political

³ Norway and Sweden have specific mechanisms for access of medicines which is not fully captured in this indicator

Average tenure of ministers of health, from 2000 to July 2024



Source: compilation by authors

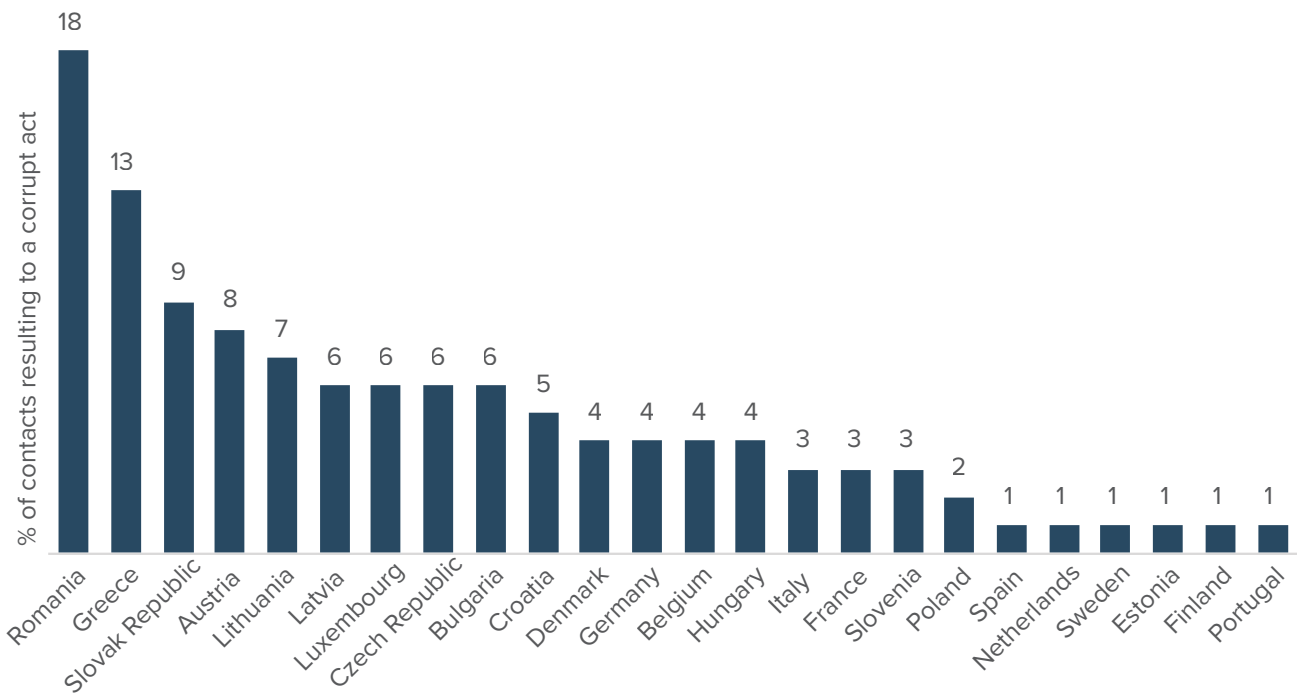
environments may find it challenging to maintain consistent healthcare strategies, leading to lower readiness scores.

The tenure of service of ministers of health can influence countries' future readiness in healthcare. Long-serving ministers can provide policy stability, accumulate valuable institutional memory, and foster strong relationships within the health sector both at the national and international levels. Such consistency can promote more cohesive and informed strategies aimed at addressing health challenges. However, the flip side is potential complacency, stagnation, or reduced innovative approaches if there's no fresh perspective. Moreover, political factors often influence ministerial tenures and thus longevity in office doesn't always correlate with efficacy.

The role of health ministers became more central and visible during the COVID-19 pandemic, as they

were at the forefront of national responses, making critical decisions on lockdowns, testing regimes, and vaccine rollouts. In Europe, the performance of these ministers and by extension the governments they represented came under intense scrutiny. Many health ministers in Europe faced significant public and political pressure due to the pandemic's challenges. Some were replaced or resigned on account of perceived mishandlings of the crisis, disagreements with national strategy, or other related controversies. This turnover likely reduced the average time in office for health ministers during the pandemic.

The average tenure of a minister in various European countries reveals interesting insights into their political stability and possibly the challenges each nation faces. Switzerland leads with the most extended ministerial tenure, clocking in at 6.3 years, followed closely by Belgium at 5.4 years. Northern and Western

Perceived corruption in healthcare (hospital setting)

Source: Eurobarometer, special edition 523 in July 2022; question was “Apart from official fees, did you have to give an extra payment or a valuable gift to a nurse or a doctor, or make a donation to the hospital?”

European countries like the Netherlands, Germany, and Sweden generally see ministers serving terms of more than 3 years. This variation across countries can reflect differences in political systems, governance structures, or even the current socio-political climate. While the tenure of a minister of health can play a role in a country’s readiness for future challenges, it is one of many factors. The broader political context, ministerial competence, countries’ health infrastructure, and other socio-economic determinants will also significantly impact readiness.

On the other spectrum of the tenure, there are Romania, Poland and Bulgaria, with an average tenure being just 0.8, 1.2 and 1.2 years. Most CEE countries underperform in this indicator, although some show improvements, e.g. Romanian minister Rafila, being in office already for more than 1 000 days

Lack of leadership also often leads to inefficiencies in healthcare delivery and poor transparency of policies. Inefficiencies within healthcare systems, such as bureaucratic delays, fragmented services, and lack of coordination between different levels of care, can significantly impact a country’s readiness.

These inefficiencies can result in higher healthcare costs, longer wait times, and reduced patient satisfaction and/or create a space for “grey economy” and corruption. This could be monitored and checked via EU Barometer special survey on corruption that confirms that countries that perform poorly in the “Readiness Today and Tomorrow” index tend to have the highest rate of corruption in healthcare service provision.

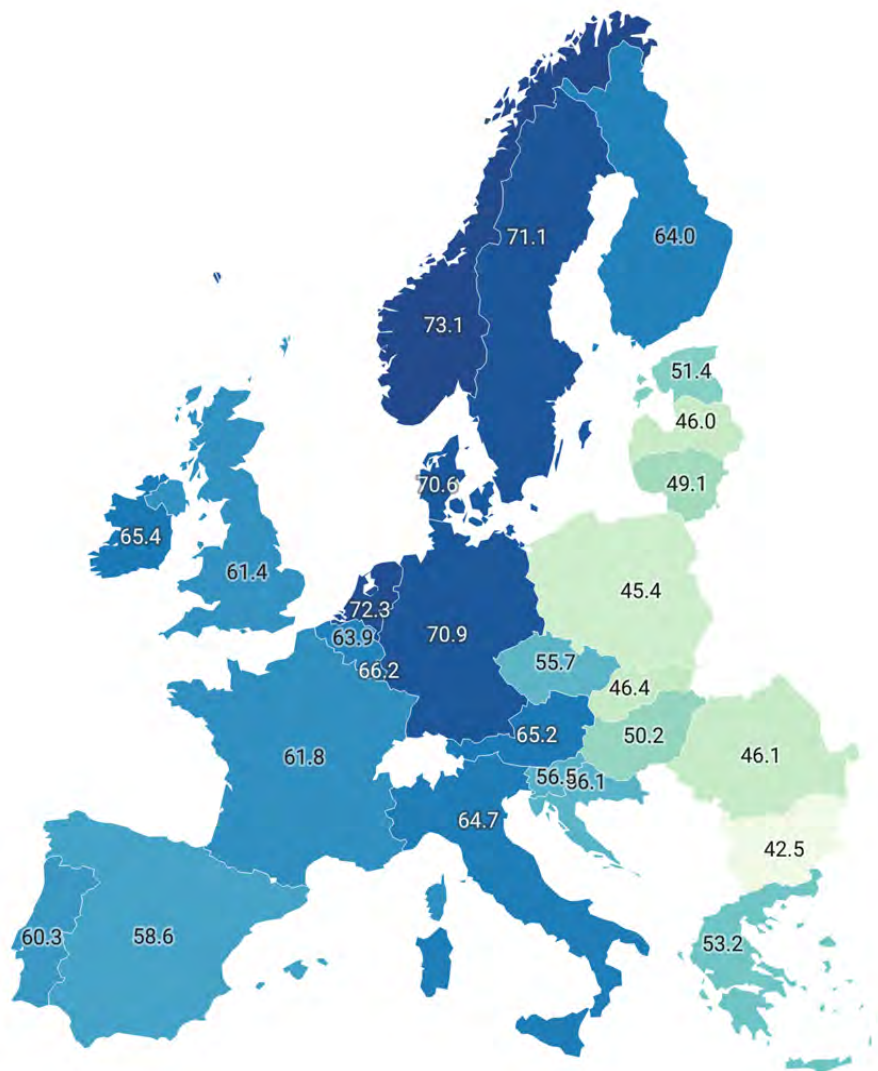
In summary, “Readiness Tomorrow” scores are often a reflection of systemic strengths that, if addressed, could become a strong movement for future health challenges. These include adequate investment in innovation, sufficient preventive care infrastructures, long-term planning, and challenges related to demographic shifts and environmental risks. To improve their future readiness, countries must adopt comprehensive strategies that prioritize health innovation, preventive care, and the management of broader social and environmental determinants of health. By addressing these factors, nations can build more resilient healthcare systems capable of meeting the demands of tomorrow.

Overall results of the Healthcare Readiness Index 2023

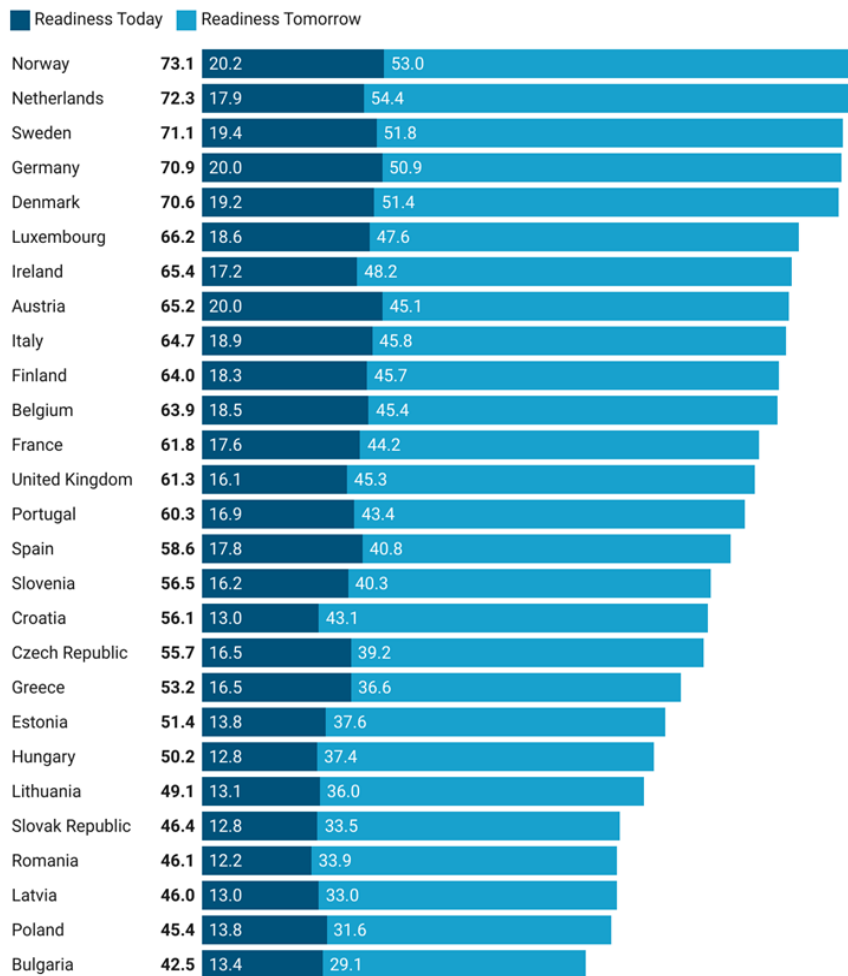
Combination of the two previous parts of the index - Readiness Today and Readiness Tomorrow - produces one, composite final index, the Healthcare Readiness Index 2023, which is shown in the following chart. **This is the final**

index that illuminates the disparities in healthcare preparedness and effectiveness across European countries and as can be observed, there are significant differences among analyzed countries.

Healthcare Readiness Index 2023: overall results



Healthcare Readiness Index 2023: overall results



Changes in the ranking 2022 vs 2023

Norway maintained its position at the front of the pack (score of 73.1 points), for the third time in row, indicating its commitment to futureproofing its healthcare system. Several countries, including **Netherlands, Sweden, Germany and Denmark also have notable results** (all above 70 points), indicating strong preparedness for future challenges.

Out of CEE countries, Slovenia, Croatia and Czechia performed the best, although ranked behind the

EU average of 58 points. Still, these three countries outscored Greece and are just a few points behind Spain (58.6 points) or Portugal (60.2 points). Bottom 10 performers comprise 9 CEE countries, with the only exception being Greece that is still recovering from its financial crisis and consequences it had on its healthcare services. The worst country with the lowest score is Bulgaria (42.5 points), followed by Poland (45.4) and Latvia (45.9).

Changes in the ranking 2022 vs 2023

There were several movements in the HRI 2023, caused partially by updated methodology and data. Please see Annex 1 for more information.

The highest improvements were achieved by countries that were positively affected by improvements in the weights of the determinants of health, i.e. the Netherlands (from 69.5 to 72.3

points), Italy (59.7 to 64.7) or Portugal (from 58.2 to 60.3). However, most countries experienced a drop, primarily due to the use of data that are already fully or partially affected by covariate period (life expectancy) and many other parameters that either relatively or absolutely reduce the final score. The

highest drop-offs were observed in countries such as Bulgaria, Poland, Ireland, but also in the UK, where updated data is missing in several areas. A detailed comparison of the differences, including an explanation, is given in the Annex 1.

Analysis of the results

There are several potential ways to analyze the results. GLOBSEC prepares in-depth individual reports for each country, including a set of tailored recommendations.

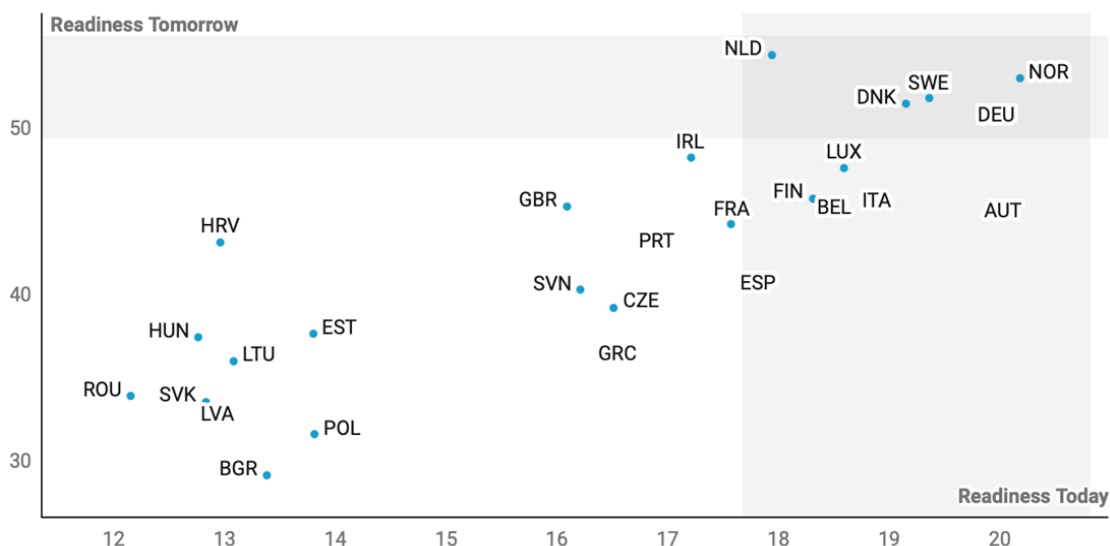
For the purposes of this report, we focused on key factors that made best-in-class countries the best and on contrary, countries with the lowest

readiness, the worst. To identify these countries, we used a simple quadrant analysis that created four groups of countries, based on results on both axes of readiness. The first (best) and fourth (worst) quadrants were compared to spot key lessons to learn and/or to avoid ensuring high level of readiness of healthcare systems.

Quadrant 1: Best-in-class performers

Countries: Norway, Netherlands, Sweden, Germany, Denmark

Distribution of HRI 2023: Readiness Today and Readiness Tomorrow



Countries in this quadrant demonstrate excellence in both current healthcare performance (Readiness Today) and future preparedness (Readiness Tomorrow). These nations have high overall HRI scores, reflecting their well-balanced and robust healthcare systems. They effectively manage current healthcare demands while also being

well-equipped to tackle future challenges through strategic investments in innovation, infrastructure, and preventive care.

Norway (73.1 points):

- Readiness Today: 20.2 / Readiness Tomorrow: 53.0
- Norway leads in both current healthcare effectiveness and future readiness. The country's high scores in availability of finances and low levels of avoidable mortality showcase its strong healthcare system. Norway also excels in preventive measures, as indicated by its low alcohol consumption rates and significant investment in future healthcare infrastructure and technology.

Netherlands (72.3 points):

- Readiness Today: 17.9 / Readiness Tomorrow: 54.4
- The Netherlands stands out for its future preparedness, with the highest "Readiness Tomorrow" score. This reflects the country's focus on innovation, including a strong health technology assessment (HTA) system and robust early access schemes. The Netherlands also scores highly in the availability of medical equipment, contributing to its overall strong healthcare performance.

Sweden (71.1 points):

- Readiness Today: 19.4 / Readiness Tomorrow: 51.8
- Sweden's high performance is driven by its effective healthcare system and proactive future planning. The country has a strong focus on social and risk determinants of health and significant public health campaigns, which contribute to its low rates of smoking and obesity.

Germany (70.9 points):

- Readiness Today: 20.0 / Readiness Tomorrow: 50.9
- Germany is known for its well-established healthcare infrastructure and strong workforce of practicing physicians and nurses. The country also excels in its timely availability of medicines, contributing to its high readiness scores. Germany's investment in future healthcare is evident in its long-term budgeting and clear health investment strategies.

Denmark (70.6 points):

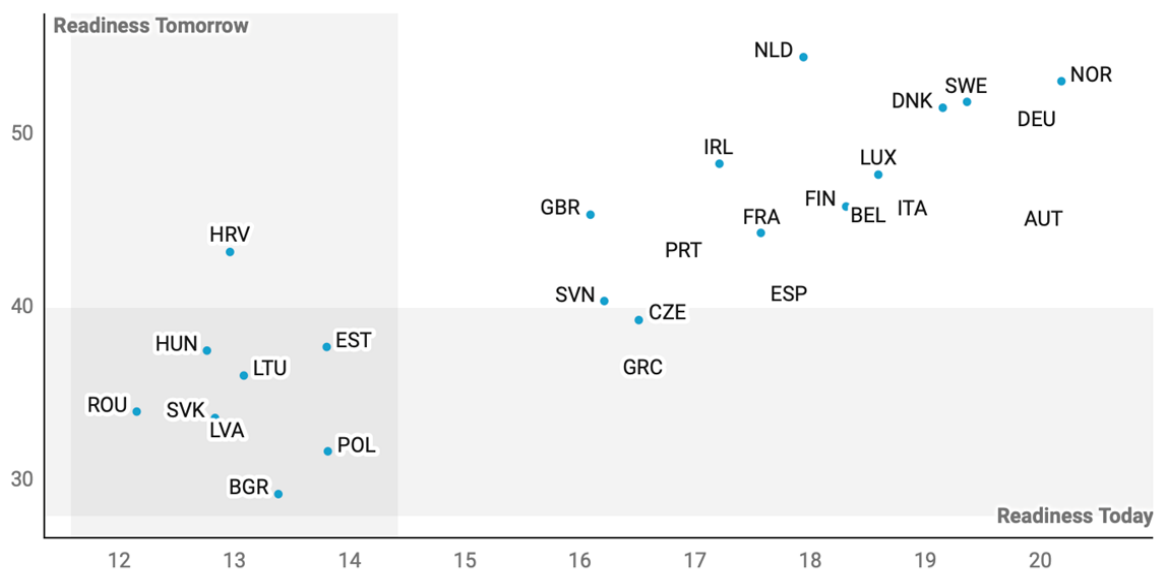
- Readiness Today: 19.2 / Readiness Tomorrow: 51.4
- Denmark's healthcare system is characterized by its effective public health policies and high investment in preventive care. The country's high score in "Readiness Tomorrow" is supported by its commitment to health innovation and strong governmental support for healthcare initiatives.

The countries in this quadrant are leaders in healthcare readiness, balancing strong current performance with a clear vision for the future. Their strategic investments in healthcare infrastructure, innovation, and preventive care position them to effectively manage both present and future healthcare challenges.

Quadrant 4: The least ready countries with the worst starting positions

Countries: Hungary, Lithuania, Slovak Republic, Latvia, Romania, Poland, Bulgaria, Estonia

Distribution of HRI 2023: Readiness Today and Readiness Tomorrow



Countries in this quadrant face significant challenges in both current healthcare effectiveness and future preparedness. These nations have lower HRI scores, reflecting underfunded healthcare systems, inadequate long-term planning, and a lack of investment in healthcare innovation.

Estonia (51.4 points):

- Readiness Today: 13.8 / Readiness Tomorrow: 37.6
- Estonia, despite being slightly more prepared for future healthcare challenges, still falls into this quadrant due to its low scores in current healthcare readiness. The country's healthcare system faces challenges in service delivery and infrastructure, which need to be addressed to improve overall healthcare readiness.

Hungary (50.2 points):

- Readiness Today: 12.8 / Readiness Tomorrow: 37.4
- Hungary faces challenges in both current healthcare service delivery and future readiness. The country has lower scores in the availability of medical equipment and healthcare workforce, and it needs to focus more on preventive care and long-term health strategies to improve its overall readiness.

Lithuania (49.1 points):

- Readiness Today: 13.1 / Readiness Tomorrow: 36.0
- Lithuania struggles with both current healthcare infrastructure and future preparedness. The country's healthcare system requires significant investment in medical resources and innovation to address its low scores in both readiness categories.

Slovak Republic (46.4 points):

- Readiness Today: 12.8 / Readiness Tomorrow: 33.5
- The Slovak Republic has significant gaps in both current and future healthcare readiness. The country needs to invest more in healthcare infrastructure and resources to improve its ability to meet both current healthcare demands and future challenges.

Romania (46.1 points):

- Readiness Today: 12.2 / Readiness Tomorrow: 33.9
- Romania has one of the lowest scores in the HRI, reflecting significant challenges in both current healthcare delivery and future preparedness. The country requires comprehensive reforms in healthcare funding, infrastructure, and policy to improve its overall readiness.

Latvia (46.0 points):

- Readiness Today: 13.0 / Readiness Tomorrow: 33.0
- Latvia is facing challenges in delivering effective healthcare services today and is not well-prepared for future healthcare needs. The country needs to focus on strengthening its healthcare system and increasing investment in innovation and preventive care.

Poland (45.4 points):

- Readiness Today: 13.8 / Readiness Tomorrow: 31.6
- Poland faces considerable challenges in both current healthcare effectiveness and future planning. The country's healthcare system is underfunded, and there is a need for significant investment in medical resources, innovation, and long-term health strategies.

Bulgaria (42.5 points):

- Readiness Today: 13.4 / Readiness Tomorrow: 29.1
- Bulgaria has the lowest overall HRI score, indicating severe deficiencies in both current and future healthcare readiness. The country's healthcare system is underdeveloped, and urgent reforms are needed to address the significant gaps in healthcare service delivery, funding, and future preparedness.

Countries in this quadrant are at risk due to their low scores in both current and future healthcare readiness. These nations face substantial challenges, including underfunded healthcare systems, inadequate infrastructure, and a lack of investment in innovation and preventive care.

What are the key factors determining readiness of healthcare systems?

There are many parameters that distinguish the five countries in the first - best quadrant, and 8 countries in the last quadrant. Of these, five sets of traits can be considered to be the most important, which are discussed and compared in detail in the following section of the report.

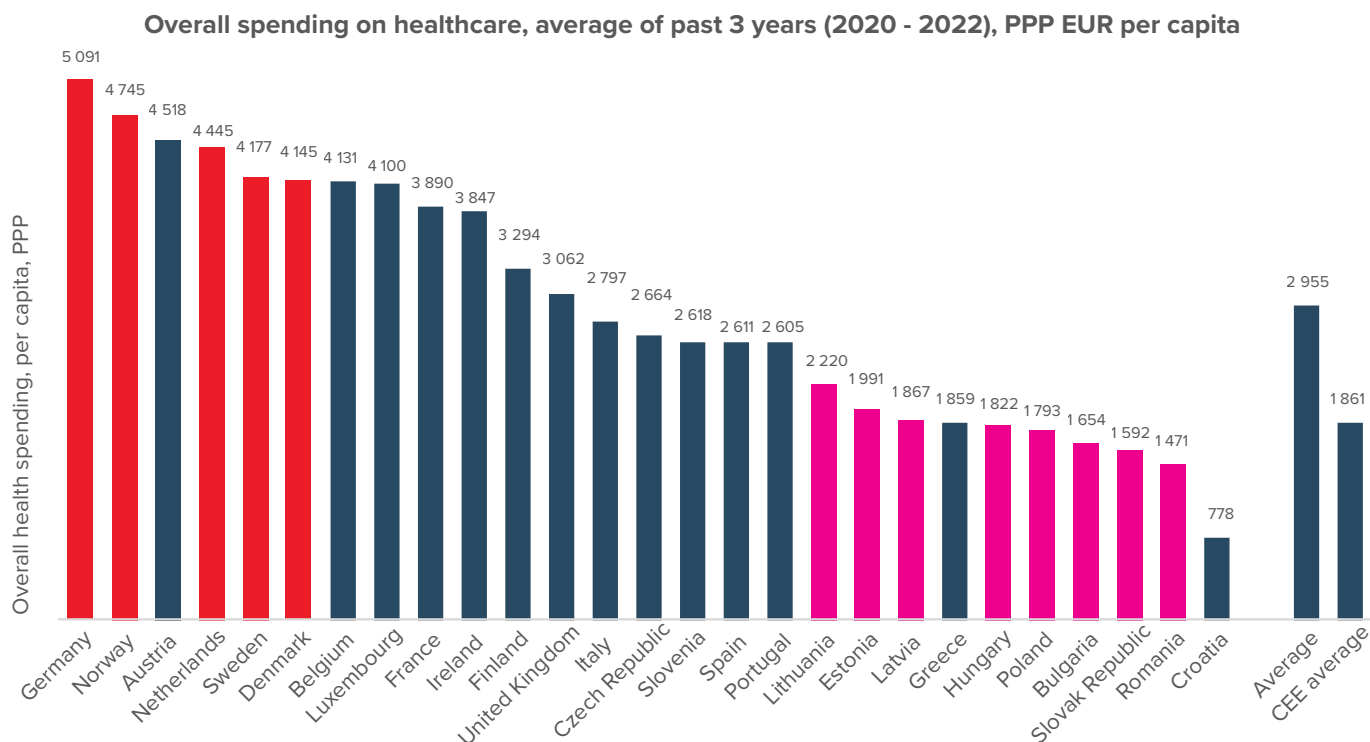
1. Best-in-class countries perceive healthcare expenditure as a long-term investment not as a short-term cost

Out of the five countries that spend the most on health care, per capita, after adjusting for purchasing power parity, four are at the top of the HRI 2023 rankings, as illustrated in the shaded portion of the chart below.

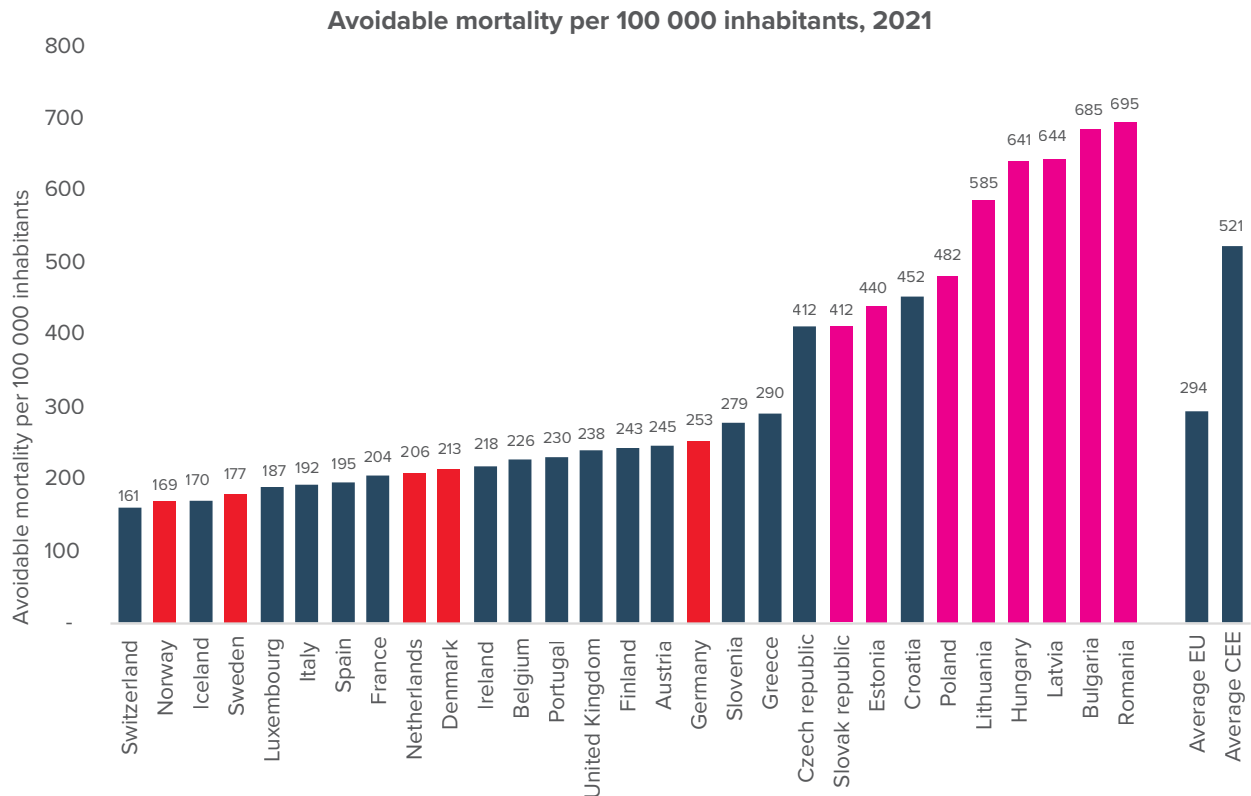
These values confirm these countries' commitment to health investment as a tool for future savings. This is because investment is not seen as a cost, but as a value that will be capitalized and, as an investment, returned with interests. Similarly, these countries dominate in terms of spending on preventive measures, as explained in the section

above (see figure: Spending on prevention, per capita, PPP) that further emphasizes their interest in long-term return on investment into their healthcare systems.

Because the best countries invest in health over the long term, they are already seeing the results of these investments. Not surprisingly, when we look at virtually any health outcome measure, these countries reign supreme in the rankings. On the other hand, as the example of avoidable mortality below captures, countries that rank in the fourth quadrant are, by contrast, at the bottom of the outcomes, which is also since their average spending is at the very tail end of analyzed countries. Out of the 10 countries with the lowest expenditure, 8 are in the fourth quadrant and none of the countries reached the EU average (€2 955 per capita).



Source: OECD health database; red: best in class countries; purple: the least ready countries

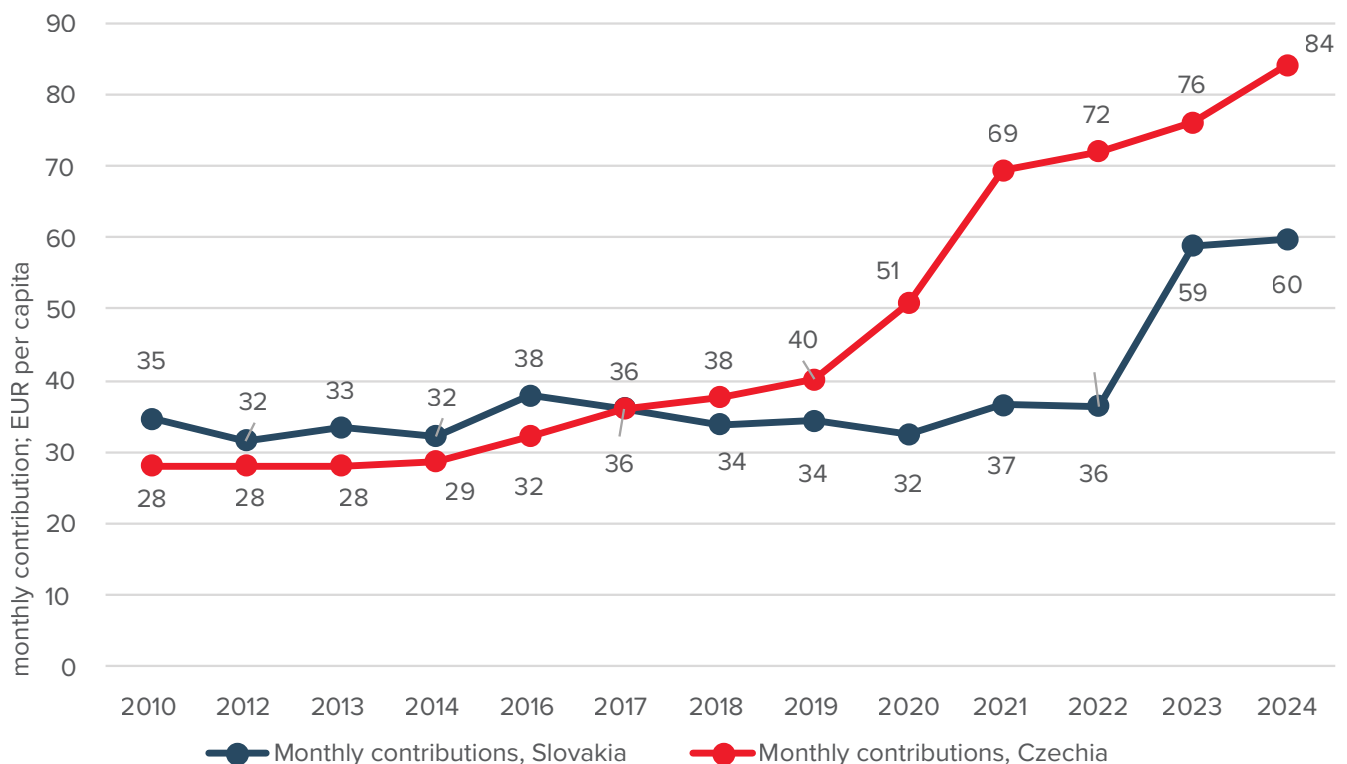


Source: OECD health database, data are as of 2021 or latest available, red: best in class countries; purple: the least ready countries

On the other hand, it must be acknowledged that several least-prepared countries have significantly increased funding in recent years. The primary reason for this has been covid-related expenditure

or, as in the case of Slovakia for example, expenditure related to the doctors' strike and rising wages in the sector. This is a positive development, however:

Example of an increase in public health contributions for insurees of the state, Slovakia and Czechia 2010 – 2024



Source: authors own compilation

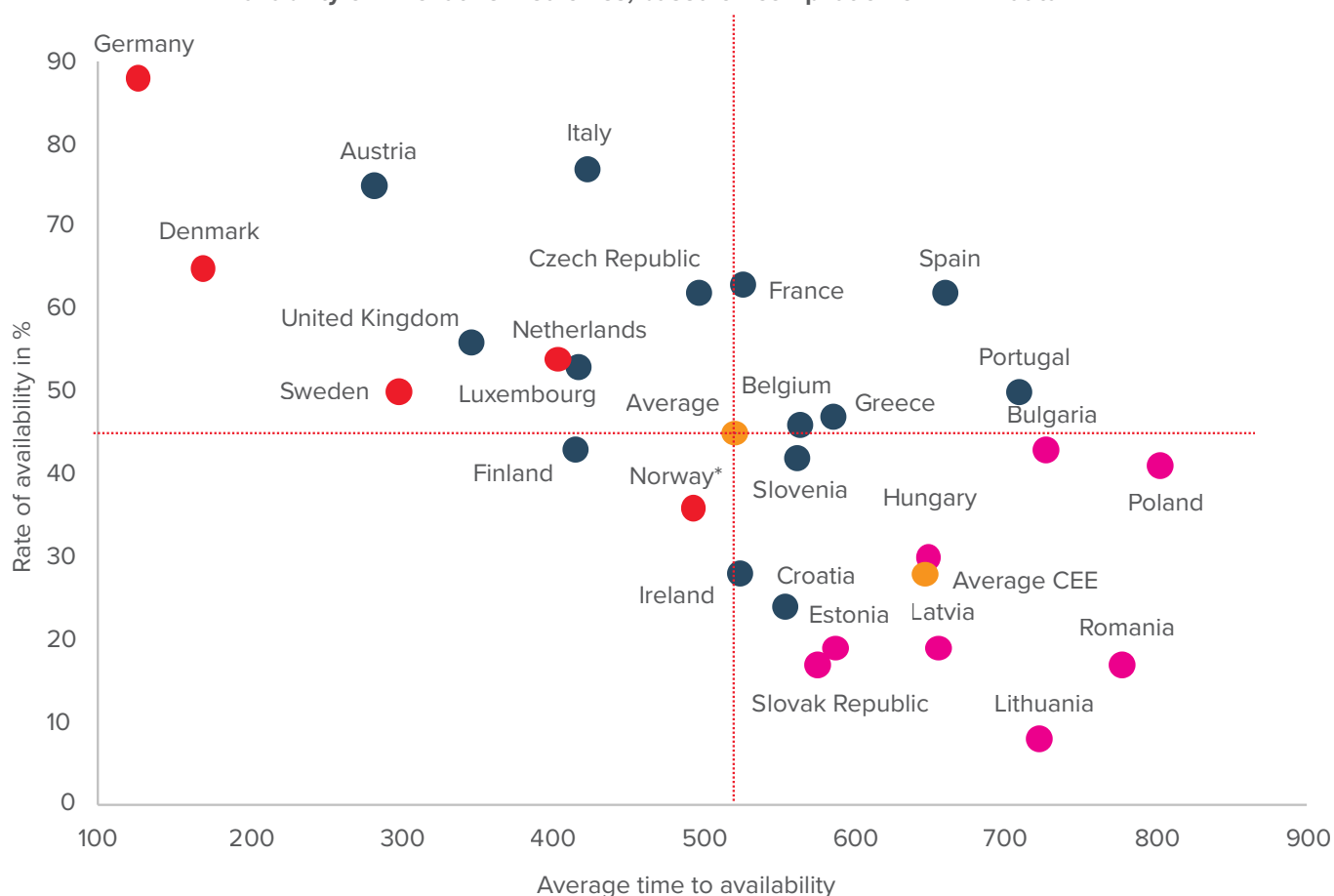
- healthcare spending is not a sprint, it is a marathon. Increased spending over a couple of years will not catch up with the results of countries whose spending has been above average over the last 10, 15 or even 20 years. It is therefore essential, even if there is no longer an immediate threat of COVID-19 pandemic, to continue to invest and build resilient healthcare systems.
- as the diagram below illustrates, the increase in spending has not been confined to countries in the worst quadrant. Virtually all countries increased resources, and often even more, as in the case of Slovakia and the Czech Republic, where both countries increased public resources (payments for the state insured) during the pandemic, but as can be seen, the “scissors” between countries “opened up” even more, further emphasizing the need to continually invest into the healthcare sector.

2. Innovations are seen as a “friend, not a foe”.

Affinity of best-in-class countries towards innovation and fast-tracked access to modern healthcare can be proxy observed by plotting rate of available medicines and average time until market, as collected by EFPIA. As it can be seen in the following figure, out of five TOP performers, four are in the top-left quadrant of countries with the highest availability and fastest processes. The exception is Norway, but it is caused by a methodological issue in reporting data. The fact that these countries have the highest access to new products does not mean that they accept any new treatment without considering its efficiency and impact. Instead, most of these countries have policies in place that evaluate impact of “new signings” and set further budget and pricing conditions, such as Germany.

On the other hand, as it can be observed, countries from the fourth quadrant occupy the bottom right

Availability of innovative medicines, based on compilation of EFPIA data



Source: EFPIA, for medicines registered 2019 – 2022, as of 2024; please note that Norway has specific rules on access to medicines and this indicator does not fully reflect availability in their countries; red: best in class countries; purple: the least ready countries.

area of the diagram, indicating that they have the lowest and longest access to innovative products. This also negatively contributes to their below-average health outcomes. It is hence vital that these countries improve their “attitude” towards innovation, bearing in mind effectiveness of resources, needs of the population and long-term health and social impact.

3. Human resources are irreplaceable and hence are continuously developed.

These capacities allow for the development of the scope and quality of services, either towards home care, community care, or shifting competencies to maximize staff efficiency, as is the case in e.g. Germany or Norway. On the other hand, countries from the 4th quadrant have at their disposal below-average number of doctors (but Bulgaria and Lithuania) and nurses, significantly limiting

supply and quality of services provided in the least-prepared countries.

Increasing the number of staff in the sector is an issue that often takes many years. However, there are many quick-to-medium measures that can be put in place to stabilize the staffing situation and “buy” time to implement long-term measures. This must be an absolute priority for least-ready countries if their readiness for future challenges is to improve. These quick measures include, e.g. the application of AI and digital tools to assist clinicians, greater engagement of citizens via home/remote-telemedical tools and other measures that are being implemented all over the world to unburden medical staff in the sector.

Countries that dominate the HRI 2023 also have above-average staffing levels, as captured in the following comparison of the number of doctors and nurses per 1,000 population.

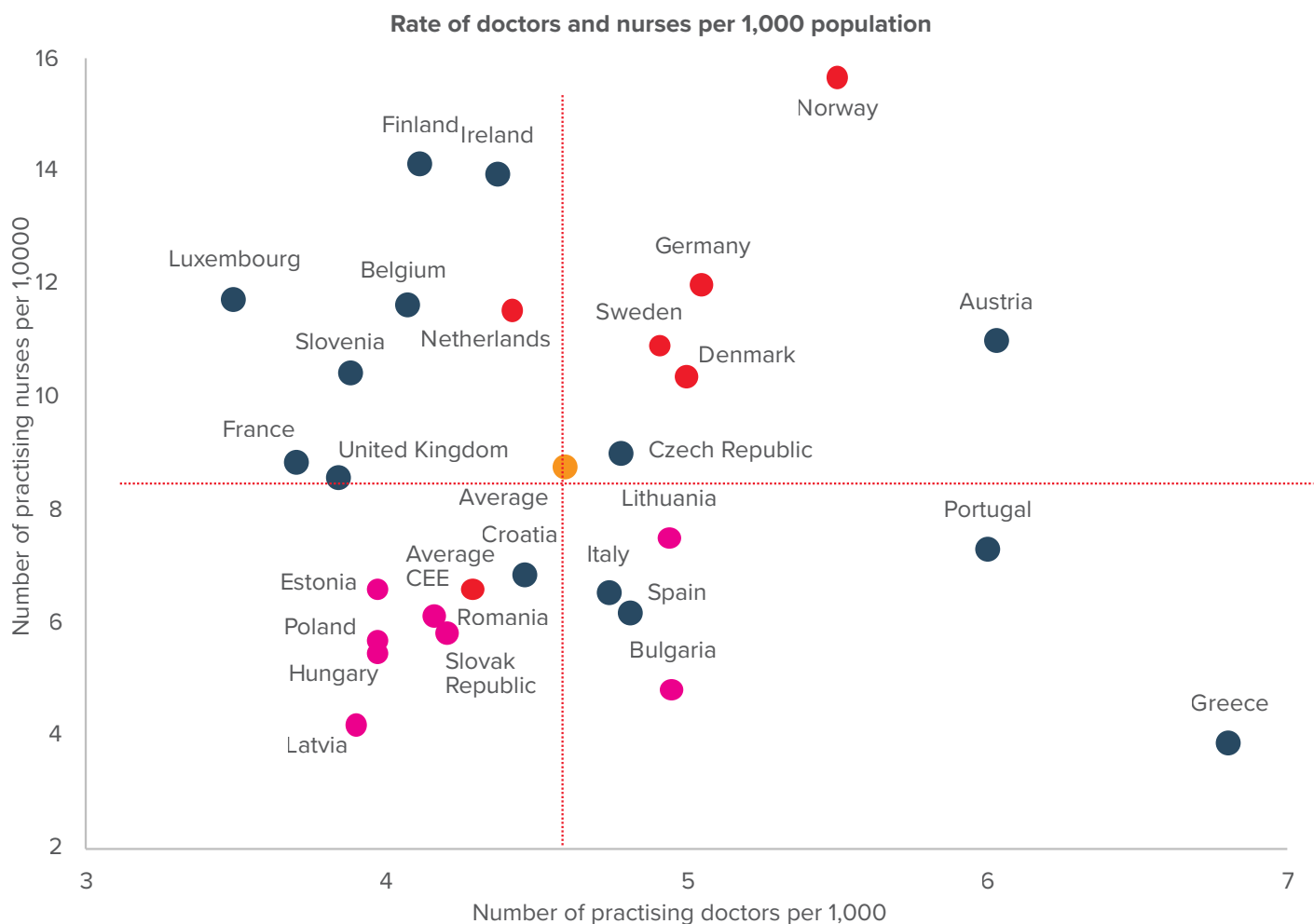


Illustration of number of deaths that can be attributed to a risk factor, Norway



Notes: 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_{2.5} and ozone.

Source: IHME and Global health data exchange, published by OECD (2023; data as of 2019/2020)

4. Best-in-class countries are heavily involved in early interventions and improving key determinants of health outcomes

Countries in the best quadrant tend to apply long-term policies focused on tackling key factors that eventually influence health outcomes, i.e. smoking, diet, alcohol consumption and other factors.

Their primary focus is on achieving lasting behavioral changes aligned with tailored and restrictive measures. This is, as aforementioned, supported by above-average spending on prevention and above-average rate of availability of diagnostic equipment. This “involvement” already

“reaps” the benefits, as can be seen in the following figure.

Norway, the readiest country in the index, has according to OECD, below average number of deaths that can be attributed to risk factors. For example, while the average number of deaths attributable to poor diet in the EU is 17%, Norway had only 13% according to the latest data. While the average number of deaths due to tobacco was 17%, Norway had only 12%. Similar results can be seen across all countries in this top quadrant.

On the other hand, countries from the fourth quadrant tend to have the worst rates of risk

Illustration of number of deaths that can be attributed to a risk factor, Bulgaria



Notes: 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 fine particulate matter (PM_{2.5}) and ozone.

Source: IHME and Global health data exchange, published by OECD (2023; data as of 2019/2020)

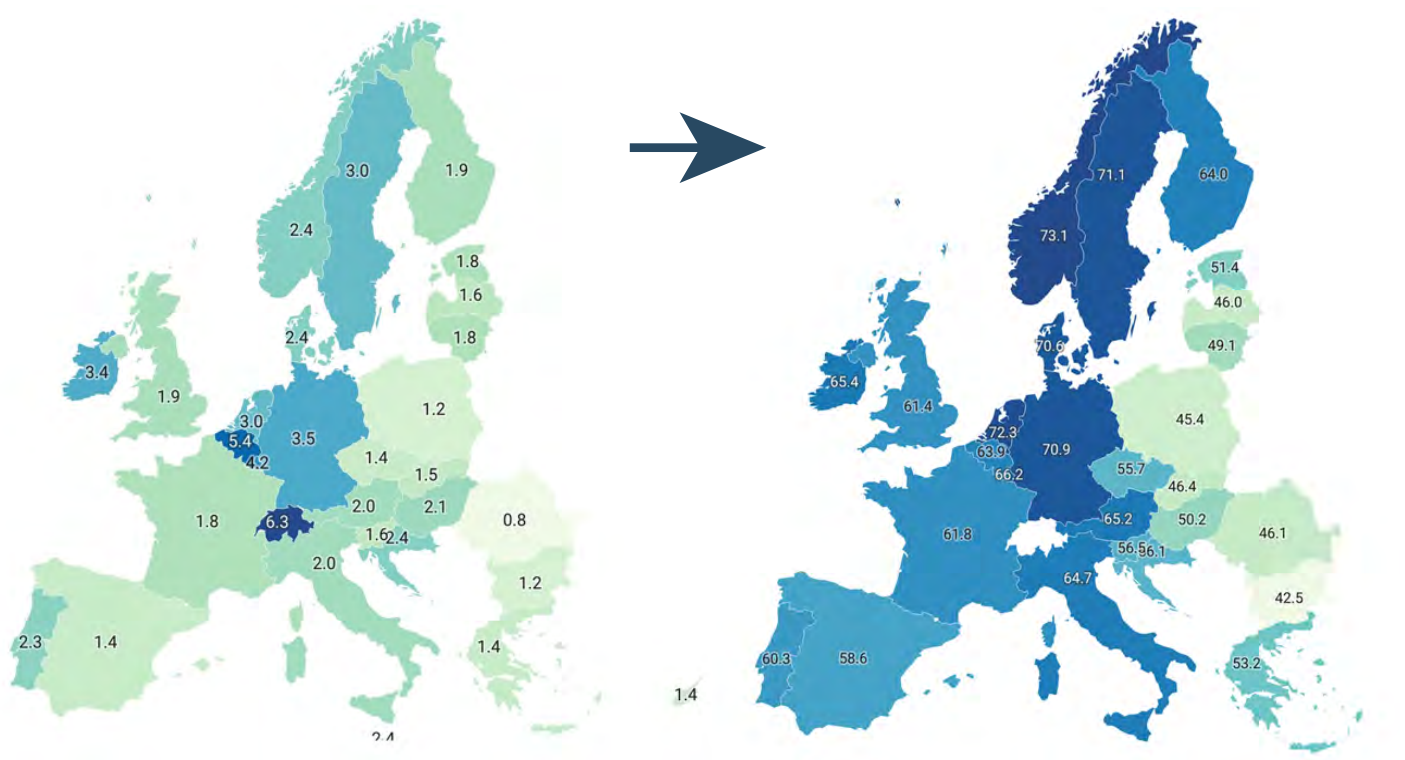
factors, as a result of inefficient and outdated public health policies, lack of long-term approach, insufficient financing and interest in the topic. It is hence not surprising that but a few exemptions, the least prepared countries have above-average rates in all key attributable factors, as captured in the illustration of Bulgaria below.

5. Long-term stable leadership paves the way for strong health outcomes

Countries from the best quadrant have almost twice as long an average tenure of health minister, compared to countries from the fourth, least ready, quadrant. 1,045 days compared to 545 is an abysmal difference that prevents the least prepared countries from the realization of mid-to-long-term goals and often creates a short-termism, transactional atmosphere and approach in the sector. Average tenure is truly one of the key determinants of the overall Readiness Index results, as can be seen in the visual correlation of average tenure and HRI 2023 overall results in the following chart.

There are no easy recommendations to improve political stability and hence, tenure of health ministers. In the case where there are frequent changes in the position of a minister, the best step is to focus on long-term strategic documents and actions plans that are prepared with and fully supported by professional associations. This is the only way to ensure continuity, whatever minister is in his/her position.

Average tenure of a minister (left) and overall results of HRI 2023 (right)



Source: authors' own compilation

Summary

The Health Readiness Index 2023 provides a comprehensive assessment of the healthcare systems across various European countries, evaluating their ability to meet current healthcare demands and their preparedness for future challenges. The 2023 results highlight several key trends, strengths, and areas for improvement that are critical for policymakers, healthcare providers, and stakeholders.

Even though in the healthcare sector there are no one-size-fits-all magical solutions, based on common traits of best and worst in class countries, it is possible to spot key lessons learnt, if a country wants to improve its healthcare readiness. These are:

- **Strategic Health Governance and Policy Stability**

The HRI 2023 underscores the importance of stable and strategic health governance in maintaining high levels of readiness and consensus. Countries with consistent health leadership and long-term policy frameworks, such as Norway and Sweden, are better equipped to implement comprehensive healthcare strategies that enhance both current and future readiness. Conversely, countries with frequent changes in health leadership or inconsistent policies often struggle with maintaining continuity in their healthcare planning and delivery.

- **The Impact of Health Innovation and Technology**

Countries leading the index, such as the Netherlands and Germany, have successfully integrated health innovation and technology into their healthcare systems. Their ability to quickly adopt new medical technologies, supported by strong health technology assessment (HTA) frameworks and early access schemes, ensures that they remain at the cutting edge of healthcare delivery. For other countries, embracing

health innovation is essential to improve their future readiness and keep pace with global advancements.

- **The Critical Role of Preventive Care**

A key takeaway from HRI 2023 is the importance of preventive care in shaping future healthcare readiness. Countries that invest heavily in preventive measures, such as vaccination programs, public health campaigns, and regular screenings, tend to perform better in both current and future readiness. Preventive care reduces the burden of chronic diseases and prepares healthcare systems to handle emerging health threats more effectively. Nations lagging in this area need to prioritize public health initiatives to improve their overall readiness.

Broader social and environmental factors significantly impact a country's health readiness. Nations that address these determinants, including environmental health risks, tend to score higher in future readiness. These factors are increasingly recognized as critical components of a resilient healthcare system that can adapt to and mitigate future health challenges.

- **Health expenditure is an investment, not a cost**

Healthcare sector is probably the best example of: "you need to invest first, to see the results". Improvement of health outcomes is a marathon, not a sprint and the best-in-class countries are a proof of this example. These points are just a few of many best-practices identified across the EU/EEA plus UK and Switzerland region. There is however one "extra" that has not yet been mentioned in the paper.

All the best-in-class countries are connected by another trait. They see healthcare sector as a value generating sector. Value, in this situation,

applies not just to improved health outcomes (e.g. life expectancy), but value that spills over to other sectors and influence overall economic growth of a country, as we could observed during the COVID-19 pandemic.

The problem is that this paper illustrated that the way this “value” is created and lost differs across the region and the gaps are further expected to widen. We, at Globsec, believe that we cannot rest on our laurels and forget about the horrors of a pandemic. We must utilize this time, join forces to close these gaps among countries and continue to build resilient healthcare systems.

Looking ahead

The HRI is a dynamic index that changes and shifts subtly each year to best capture countries' readiness for future challenges. As part of the feedback process, we tentatively plan to incorporate two additional dimensions of health care delivery next year that have proxy predictive value on the quality and preparedness of health systems, namely provision of dental care and mental care services, which are both a mark of advanced health care systems

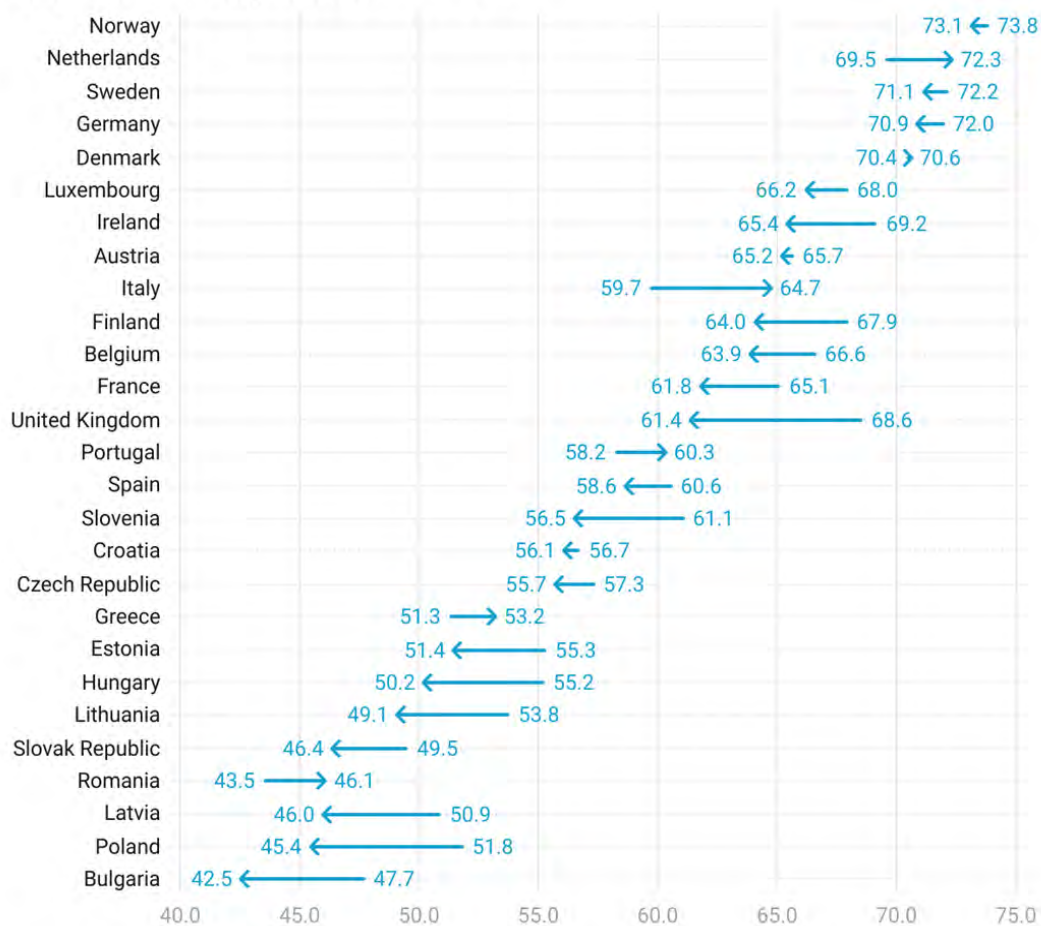
Also, considering alarming rise of tropical diseases in southern Europe, such as Dengue and West Nile fever from mosquitoes due to climate change and migratory movements, this is also an area that we might consider analyzing to ensure the Index is as complex, as data and context enables.

Annex

Annex 1: Comparison of 2023 and 2022 HRI

The performance of countries in the Health Readiness Index (HRI) 2023, compared to HRI 2022, shows both stability and shifts in the rankings, reflecting changes in healthcare policies, investments, and external factors that impacted health systems. Here's a summary of how different groups of countries performed:

HRI 2023 comparison to 2022



Created with Datawrapper

Top Performers: Consistent Excellence

Norway, Germany, and Sweden continued to lead the HRI rankings in 2023, maintaining their strong positions from 2022. These countries demonstrated consistency in healthcare investment, infrastructure, and innovation adoption. Their ability to maintain high standards in both 'Readiness Today' and 'Readiness Tomorrow' ensured that their overall HRI scores remained robust.

Improving Mid-Tier Countries: Notable Progress

Netherlands and Finland showed incremental improvements in their HRI scores from 2022 to 2023. These countries invested in future healthcare readiness, particularly in preventive care and innovation, which boosted their 'Readiness Tomorrow' scores. Their progress reflects effective policy adjustments and a focus on long-term healthcare sustainability.

Stagnant or Slight Decline: Challenges in Adaptation

Poland, Romania, and Hungary exhibited little to no significant progress in their HRI scores. These countries faced ongoing challenges in healthcare financing, infrastructure, and workforce capacity. Despite some efforts to improve, these countries struggled to make substantial gains in 'Readiness Tomorrow,' indicating a need for more strategic investments and reforms to address future health challenges.

Mixed Performance: Stable but with Areas Needing Improvement

Austria, Belgium, and Italy maintained their mid-tier positions with relatively stable HRI scores. While these countries continue to perform well in current

healthcare delivery, they showed only modest improvements in future readiness. This indicates that while their healthcare systems are effective today, there is a need to enhance focus on long-term planning and innovation to ensure resilience against future health crises.

Declining Scores: Emerging Concerns

Spain and Greece saw a slight decline in their HRI scores, primarily due to challenges in healthcare accessibility and public health initiatives. Economic pressures and slower adoption of healthcare innovations may have contributed to these declines, highlighting the need for renewed focus on both current healthcare capabilities and future preparedness.

The comparison between HRI 2022 and 2023 underscores the importance of sustained healthcare investment and proactive planning. While some countries have successfully maintained or improved their positions by focusing on innovation and preventive care, others have struggled to adapt to evolving healthcare challenges. The year-over-year performance indicates that countries with a balanced approach to both present healthcare needs and future preparedness are better positioned to achieve long-term healthcare resilience.

Annex 2: Detailed overview of indicators

1. Readiness Today

1.1 Does supply of care meet demand?

Every high-performance health system is characterized by the ability to ensure all the demand for health care in such time limits that the population is exposed to the least possible health risks. Risks are most often associated with insufficient system capacity, which leads to an increase in demand and, in the worst cases, to system overload.

To be able to estimate the level of demand for health care well enough, we need to look at a few basic factors. The basic parameter monitoring both the performance, and the demand side of the system is primarily the avoidable mortality. The DALY indicator complements life expectancy and the view of premature deaths with a parameter of lost quality years of life (now a necessary part of any measurement of health system performance).

Avoidable mortality

Current ongoing pandemic showed us the importance of vaccination and the obvious benefits such as avoidable mortality. This is reflection of countries previous actions that affect present or future public health. We used EUROSTAT's population standardized avoidable mortality for this composite index where lower values suggest better healthcare quality.

Disease burden (DALYs)

Mortality doesn't show the complete picture of disease borne by individuals, therefore we also included disability-adjusted life year (DALY). This time-based measure that combines number of years lost to premature mortality and years of healthy life lost due disability. World Health Organization (WHO) estimates this index values and

shares them publicly where lower values indicate better score. Final data were obtained from IHME.

Infant mortality

Probability of dying between birth and 1 year of age is an index calculated as a percentage per 1000 live births by OECD. There is no dispute that this measure is a very strong reflection of current state of healthcare with great impact on future of countries

Prevalence of cancer

This indicator is partly a result of present and past governmental regulation on public health. Inclusion of all types of cancer ensures that we took all factors into account. Data that we used are in ownership of WHO and are expressed per 100 000 inhabitants where lower values are more favorable.

Life expectancy at birth and at age 65

This is a commonly used indicator to assess life quality in a country combining multiple variables but mainly population health status. We used OECD as the primary source for the data series. Higher the number of expected life years equals life quality.

1.2 Capacity of the system

For demand to meet supply, the healthcare delivery system must be sufficiently secure. Secured in terms of human resources, therapies, equipment, finances, and processes. In the case of a malnourished system, it is not possible to meet all the requirements of the population, which will have a major impact on the key parameters listed in the previous section.

Availability of HR (physicians and nurses)

Sufficiently sized and qualified healthcare workforce is a key element for high-quality services provided for patients. We included this as in our composite index expressed as number of doctors/

nurses per 1000 inhabitants with hypothesis that the greater number of personnel results in better services provided. Data is available on OECD database.

Availability of equipment (CT, MR, linear accelerators, gamma cameras, mammographs and other radiation therapy equipment)

To provide excellent care for patient availability of equipment is necessary. Timely diagnosis of severe illness may be determining factor which can potentially save patients life. Number of medical equipment per 1 000 000 inhabitants collected by OECD was used.

Availability of medicines (Rate of availability of medicines)

After diagnosing illness or disease comes treatment. Availability of newest and potentially the best medicines improve chances of successful treatment of patient. As a result, the number of approved/categorized medicines was used to determine preparedness of health care system. In this case European Federation of Pharmaceutical Industries and Associations (EFPIA) collected this data and expressed it as number of approved medicines during 2019 – 2022 as of beginning of 2024.

Availability of finances (Overall spending per capita)

Without proper financing of healthcare, government cannot expect to provide high-quality care. This indicator is expressed as 3-year average of overall spending per capita. We obtained this data from OECD where higher amount spent is essential for better care for patients.

The Universal Health Coverage index

The UHC effective coverage index includes four indicator categories, namely reproductive, maternal and newborn and child health, infectious diseases, non-communicable diseases and service capacity/ access. Each category contains several tracers.

The index is constructed from geometric means of the tracer indicators; first, within each of the four categories, and then across the four category-specific means to obtain the final summary index.

2. Readiness Tomorrow

2.1 Future demand for healthcare

We are aiming to analyze factors that are likely to have impact on quantity and type of care demanded in the future since countries that have following factors under control might not need that many resources and therefore could easily be ready for all requirements.

The basic factors that influence the future demand for health care are primarily of behavioral nature, depending mostly on current age or educational structure. The level at which a person takes care of their own health today most fundamentally affects their need for health care in the future. At the same time, however, he must have the conditions and space in place to take care of his health to the maximum. For instance, preventive examinations and vaccination options are an essential tool in the fight against insatiable demands on the health system in the future.

Determinants of future need

- **Incidence and estimation of selected diseases (all cancers)**

As opposed to previous cancer prevalence indicator this one focuses on future prevalence estimated up to 2040 by WHO. The same applies for this indicator as well that it is favorable to keep these rates lower and are expressed as number per 100 000 inhabitants.

- **Risk factors (% consumption of alcohol, % of daily smokers, kg of sugar; obesity, fruits/vegetables consumption and pollution index)**

OECD collect these risk factors with only fruit and vegetable (data from Eurostat) consumption expressed as kilos consumed per capita with

higher values being more desirable. Obesity and smoking are expressed as population proportion, pollution (via AQLI) as ambient particulate matter pollution per cubic meter, followed by average country BMI. Lastly, we used OECD data for alcohol consumption, which is expressed as liters of pure alcohol, projected estimates, 15+ years of age.

- **Expenditure on preventive measures**

Similarly, to availability of finances indicator we used OECD's data but focused on preventive measures such as expenditure on primary care prevention, vaccination etc. Indicator is expressed the latest available data (2022) of overall spending per capita for preventive measures. The rolling average could not be used due to spikes in public health expenditure on COVID-19 measures.

- **Vaccination rate (HPV)**

One of the most common viruses circulating in population is HPV with well documented effect which can result in potentially deadly cervical cancer. UNICEF collects HPV vaccination rates, which can help authorities on better decision making.

Socio-demographic resilience

- **Dependency ratio (old age dependency ratio, 65+/20-64)**

The old-age dependency ratio in the EU has increased noticeably in the last 20 years. In 2001 the dependency ratio was 25.9% and in beginning of 2023 it was 33.4%. As well as in previous indicator we used data from EUROSTAT expressed as proportion of 65 years or over aged population to population aged 15 to 64 years).

2.2 Ability to predict and adopt to changes

For the country to be able to deal with the pitfalls of the future, which are mainly based on insufficient resources and growing demand, it must look for various solutions, especially solutions in innovations

and innovative approaches to treatment, with respect to health care provision as a whole, but also on financing schemes and the ability of the system to financially ensure all needs arising from the health situation of the population.

In this case, however, we must look largely, but not exclusively, at qualitative rather than quantitative parameters. Within this section, we mainly monitor 3 areas. One is the opportunity/possibility to bring innovation, either in the form of innovative approaches and early access schemes, or through agencies to speed up the process of innovation. The second is to ensure stability, which is most often developed based on long-term funding rules and the existence of investment strategies, which in case of many EU countries aren't usually present.

The resources needed to meet all future needs can also be sought outside public finances. However, the basic premise is that these resources are not being overused already. At the same time, it is crucial that, in the event of high usage, the population does not experience a high degree of uncertainty in ensuring their own health security. Hence, the selected indicators are:

“Innovation index”

- **Average time to availability of medicines**

EFPIA with IQVIA conducted a survey focused on availability of medicines. In this indicator they focused on waiting time until final approval and pinpointed fact that more evolved countries take less time to authorize new drugs usage. For example, average wait time in Germany is 126 days compared to Poland's 804 days. We used outcomes of this survey for our composite index where the values were expressed in days between marketing authorization and date to availability.

- **Does a country have an HTA agency with clear and transparent decision rules?**

Independent institutions should always be included in decision making process. We have collected this data from governmental webpages to see

if presence of HTA has positive effect on public healthcare. This indicator is a Boolean variable where 1 represents if there was evidence that this agency exists and 0 where it wasn't.

- **Does a country have flexible conditions for innovative solutions?**
- **Does a country have early access schemes / special conditions for innovative solutions,**
- **Does a country have any type of innovation fund / scheme?**

As we know with innovation population cannot thrive. That's why we also focused on innovations in healthcare to see if country is investing into its own future. We have researched plenty of paper to look for evidence of this visionary approach. This variable as the previous one is Boolean with the same rules.

Stability index

- **Does a country do long-term budgeting (horizontal scanning, ageing analysis, long-term forecasts)**

We have included this indicator to see if there is stability of investments in healthcare which works as a mitigation of risk when government changes. We have collected this data from multiple governmental sources and created this Boolean variable.

- **Does a country have an investment strategy in the health sector?**

As the name of this indicator suggests we were looking for indications if country has an investment strategy in health sector. We wanted to include this because long-term strategy affects mostly future readiness. As previous qualitative indicators this one was thoroughly researched to see if there exists any investment strategy with 1 if there was some evidence present or 0 if there wasn't. Nonetheless, since all EU member states prepared as a part of Recovery and Resilience plan

investment plans, this indicator was by default, for now, set to 1.

Average life span of a minister of health

Without continuity of ministers, we cannot expect that they will deliver their vision. We have included this as a variable that explains stability in health sector. We calculated number of days of minister in office from data available on Wikipedia.

2.3 Ability to sustain future challenges

Proportion of OOP spending

This indicator estimates how much are households in each country spending on health directly out of pocket (OOP). It estimates the share of out-of-pocket payment of total current health expenditures. Data is available on OECD database.

Self-reported unmet needs

Self-reported unmet needs concern a person's own assessment of whether he or she needed medical examination or treatment but did not have it or did not seek it for financial reasons, distance or waiting time. Reason why have included this is because it is a good reflection of what population thinks of their healthcare quality. Due to several alternatives, we have compared population that isn't reporting any unmet needs. EUROSTAT regularly collects this data, and in this case, higher values are more favorable.

Annex 3: Country profiles

AUSTRIA



Readiness Today

0,80

Readiness Tomorrow

0,60

Healthcare Readiness Index 2023

0,65

READINESS TODAY	Year	Value	Best Value	Austria ranking
Alcohol consumption	2022	11,6	6,3	23
Average tenure of minister of health	2024	2,0	5,4	12
Demographic dependency ratios	2023	29,6	21,5	6
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	353,1	417,3	2
Fruits consumption	2021	127,4	168,4	7
HPV vaccination rate	2020	60,0	93,0	14
Average time to availability of medicines	2022	283,0	126,0	3
Obesity	2019	16,6	10,5	13
Pollution index	2021	10,7	5,1	15
Proportion of OOP spending on all expenditure types, past 3 years	2023	16,1	8,7	14
Self-reported unmet needs for medical examination	2023	98,7	99,5	2
Smoking	2019	20,2	6,4	21
Vegetables consumption	2021	165,8	332,9	13
Estimated relative change of incidence from 2020 to 2040	2022	23,8	1,8	24

READINESS TOMORROW	Year	Value	Best Value	Austria ranking
Availability of finances (average of 3 years)	2022	4 518,1	5 090,8	3
Avoidable mortality	2021	244,5	169,5	14
Computed Tomography scanners	2022	2,8	4,9	8
Disease burden (DALY)	2021	19 792,2	17 996,7	8
Gamma cameras	2022	1,0	2,7	7
Infant mortality	2022	2,4	1,8	7
Life expectancy females at age 65	2023	21,4	23,9	13
Life expectancy males at age 65	2023	18,3	19,9	14
Life expectancy total population at birth	2023	81,6	84,0	14
Magnetic Resonance Imaging units	2022	2,6	3,8	6
Mammographs	2022	2,1	7,4	8
Positron Emission Tomography scanners	2022	0,3	0,9	9
Practising nurses	2022	11,0	15,7	8
Practising physicians	2023	5,5	6,3	2
Radiation therapy equipment	2022	0,6	1,8	22
Rate of availability of medicines	2022	75,0	88,0	3
UHC index	2021	85,0	88,0	7
Prevalence of all types of cancers	2022	559,0	479,4	5

BELGIUM



Readiness Today

0,74

Readiness Tomorrow

0,60

Healthcare Readiness Index 2023

0,64

READINESS TODAY	Year	Value	Best Value	Belgium ranking
Alcohol consumption	2019	9,2	6,3	8
Average tenure of minister of health	2024	5,4	5,4	1
Demographic dependency ratios	2023	30,8	21,5	9
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	108,8	417,3	16
Fruits consumption	2021	124,7	168,4	9
HPV vaccination rate	2021	70,0	93,0	8
Average time to availability of medicines	2022	565,0	126,0	16
Obesity	2018	15,9	10,5	7
Pollution index	2021	10,1	5,1	14
Proportion of OOP spending on all expenditure types, past 3 years	2022	20,0	8,7	18
Self-reported unmet needs for medical examination	2023	98,6	99,5	3
Smoking	2019	14,6	6,4	8
Vegetables consumption	2021	237,9	332,9	2
Estimated relative change of incidence from 2020 to 2040	2022	8,8	1,8	9

READINESS TOMORROW	Year	Value	Best Value	Belgium ranking
Availability of finances (average of 3 years)	2022	4 130,6	5 090,8	7
Avoidable mortality	2021	225,7	169,5	10
Computed Tomography scanners	2023	2,6	4,9	10
Disease burden (DALY)	2021	20 381,8	17 996,7	13
Gamma cameras	2020	2,7	2,7	1
Infant mortality	2021	2,9	1,8	13
Life expectancy females at age 65	2023	22,1	23,9	7
Life expectancy males at age 65	2023	19,1	19,9	9
Life expectancy total population at birth	2023	82,5	84,0	8
Magnetic Resonance Imaging units	2023	1,2	3,8	22
Mammographs	2020	3,7	7,4	3
Positron Emission Tomography scanners	2023	0,3	0,9	7
Practising nurses	2021	11,6	15,7	6
Practising physicians	2022	3,6	6,3	19
Radiation therapy equipment	2017	1,8	1,8	1
Rate of availability of medicines	2022	46,0	88,0	14
UHC index	2021	86,0	88,0	5
Prevalence of all types of cancers	2022	695,3	479,4	20

BULGARIA



Readiness Today

0,54

Readiness Tomorrow

0,39

Healthcare Readiness Index 2023

0,43

READINESS TODAY	Year	Value	Best Value	Bulgaria ranking
Alcohol consumption	2020	11,1	6,3	20
Average tenure of minister of health	2024	1,2	5,4	25
Demographic dependency ratios	2023	37,7	21,5	24
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	55,2	417,3	22
Fruits consumption	2021	76,3	168,4	23
HPV vaccination rate	2021	3,0	93,0	26
Average time to availability of medicines	2022	728,0	126,0	25
Obesity	2019	13,6	10,5	3
Pollution index	2021	19,0	5,1	27
Proportion of OOP spending on all expenditure types, past 3 years	2022	35,1	8,7	27
Self-reported unmet needs for medical examination	2023	97,6	99,5	8
Smoking	2019	28,7	6,4	27
Vegetables consumption	2021	98,8	332,9	26
Estimated relative change of incidence from 2020 to 2040	2022	27,0	1,8	27

READINESS TOMORROW	Year	Value	Best Value	Bulgaria ranking
Availability of finances (average of 3 years)	2022	1 654,5	5 090,8	24
Avoidable mortality	2021	685,1	169,5	26
Computed Tomography scanners	2022	4,7	4,9	2
Disease burden (DALY)	2021	37 902,7	17 996,7	27
Gamma cameras	2022	0,3	2,7	22
Infant mortality	2021	5,6	1,8	26
Life expectancy females at age 65	2023	18,6	23,9	27
Life expectancy males at age 65	2023	14,4	19,9	27
Life expectancy total population at birth	2023	75,8	84,0	27
Magnetic Resonance Imaging units	2022	1,2	3,8	20
Mammographs	2022	3,3	7,4	5
Positron Emission Tomography scanners	2022	0,1	0,9	19
Practising nurses	2022	4,3	15,7	25
Practising physicians	2022	4,5	6,3	7
Radiation therapy equipment	2022	1,1	1,8	7
Rate of availability of medicines	2022	43,0	88,0	15
UHC index	2021	73,0	88,0	27
Prevalence of all types of cancers	2022	479,4	479,4	1

CROATIA

Readiness Today

0,52

Readiness Tomorrow

0,57**Healthcare Readiness Index 2023****0,56**

READINESS TODAY	Year	Value	Best Value	Croatia ranking
Alcohol consumption	2020	9,0	6,3	7
Average tenure of minister of health	2024	2,4	5,4	7
Demographic dependency ratios	2023	36,1	21,5	23
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	114,0	417,3	15
Fruits consumption	2021	87,1	168,4	22
HPV vaccination rate	2022	20,8	93,0	23
Average time to availability of medicines	2022	555,0	126,0	14
Obesity	2019	22,6	10,5	24
Pollution index	2021	14,9	5,1	24
Proportion of OOP spending on all expenditure types, past 3 years	2022	9,1	8,7	3
Self-reported unmet needs for medical examination	2023	96,7	99,5	11
Smoking	2019	21,8	6,4	23
Vegetables consumption	2021	332,9	332,9	1
Estimated relative change of incidence from 2020 to 2040	2022	5,4	1,8	5

READINESS TOMORROW	Year	Value	Best Value	Croatia ranking
Availability of finances (average of 3 years)	2022	778,3	5 090,8	27
Avoidable mortality	2021	451,8	169,5	21
Computed Tomography scanners	2022	2,2	4,9	15
Disease burden (DALY)	2021	24 312,2	17 996,7	19
Gamma cameras	2022	0,7	2,7	8
Infant mortality	2021	3,8	1,8	21
Life expectancy females at age 65	2023	19,6	23,9	23
Life expectancy males at age 65	2023	16,0	19,9	20
Life expectancy total population at birth	2023	78,6	84,0	20
Magnetic Resonance Imaging units	2022	1,7	3,8	12
Mammographs	2022	3,1	7,4	6
Positron Emission Tomography scanners	2022	0,1	0,9	20
Practising nurses	2022	7,7	15,7	16
Practising physicians	2022	4,0	6,3	13
Radiation therapy equipment	2022	0,8	1,8	13
Rate of availability of medicines	2022	24,0	88,0	22
UHC index	2021	80,0	88,0	20
Prevalence of all types of cancers	2022	709,7	479,4	21

CZECHIA



Readiness Today

0,66

Readiness Tomorrow

0,52

Healthcare Readiness Index 2023

0,56

READINESS TODAY	Year	Value	Best Value	Czechia ranking
Alcohol consumption	2022	11,6	6,3	23
Average tenure of minister of health	2024	1,4	5,4	24
Demographic dependency ratios	2023	32,1	21,5	15
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	142,4	417,3	12
Fruits consumption	2021	93,3	168,4	19
HPV vaccination rate	2020	65,8	93,0	11
Average time to availability of medicines	2022	498,0	126,0	11
Obesity	2019	19,3	10,5	17
Pollution index	2021	13,2	5,1	19
Proportion of OOP spending on all expenditure types, past 3 years	2023	14,1	8,7	11
Self-reported unmet needs for medical examination	2023	98,6	99,5	3
Smoking	2019	19,3	6,4	18
Vegetables consumption	2021	127,9	332,9	19
Estimated relative change of incidence from 2020 to 2040	2022	23,8	1,8	24

READINESS TOMORROW	Year	Value	Best Value	Czechia ranking
Availability of finances (average of 3 years)	2021	2 664,1	5 090,8	14
Avoidable mortality	2021	411,8	169,5	18
Computed Tomography scanners	2022	1,6	4,9	24
Disease burden (DALY)	2021	24 095,0	17 996,7	18
Gamma cameras	2022	1,0	2,7	6
Infant mortality	2022	2,3	1,8	4
Life expectancy females at age 65	2023	20,5	23,9	19
Life expectancy males at age 65	2023	16,7	19,9	18
Life expectancy total population at birth	2023	80,0	84,0	18
Magnetic Resonance Imaging units	2022	1,2	3,8	21
Mammographs	2022	1,0	7,4	22
Positron Emission Tomography scanners	2022	0,2	0,9	15
Practising nurses	2022	9,0	15,7	12
Practising physicians	2022	4,3	6,3	11
Radiation therapy equipment	2022	0,8	1,8	11
Rate of availability of medicines	2022	62,0	88,0	6
UHC index	2021	84,0	88,0	12
Prevalence of all types of cancers	2022	611,7	479,4	9

DENMARK

Readiness Today

0,77

Readiness Tomorrow

0,69**Healthcare Readiness Index 2023****0,71**

READINESS TODAY	Year	Value	Best Value	Denmark ranking
Alcohol consumption	2022	9,5	6,3	9
Average tenure of minister of health	2024	2,4	5,4	9
Demographic dependency ratios	2023	32,2	21,5	16
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2023	104,8	417,3	19
Fruits consumption	2021	119,2	168,4	10
HPV vaccination rate	2021	80,0	93,0	4
Average time to availability of medicines	2022	169,0	126,0	2
Obesity	2021	18,5	10,5	15
Pollution index	2021	8,1	5,1	8
Proportion of OOP spending on all expenditure types, past 3 years	2023	13,8	8,7	10
Self-reported unmet needs for medical examination	2023	87,8	99,5	25
Smoking	2019	11,7	6,4	6
Vegetables consumption	2021	171,3	332,9	8
Estimated relative change of incidence from 2020 to 2040	2022	1,8	1,8	1

READINESS TOMORROW	Year	Value	Best Value	Denmark ranking
Availability of finances (average of 3 years)	2022	4 145,4	5 090,8	6
Avoidable mortality	2021	213,2	169,5	8
Computed Tomography scanners	2022	4,3	4,9	3
Disease burden (DALY)	2021	19 903,9	17 996,7	10
Gamma cameras	2022	1,3	2,7	3
Infant mortality	2021	2,4	1,8	7
Life expectancy females at age 65	2023	21,2	23,9	15
Life expectancy males at age 65	2023	18,5	19,9	11
Life expectancy total population at birth	2023	81,9	84,0	12
Magnetic Resonance Imaging units	2021	0,9	3,8	25
Mammographs	2022	1,6	7,4	12
Positron Emission Tomography scanners	2022	0,9	0,9	1
Practising nurses	2021	10,4	15,7	11
Practising physicians	2021	4,5	6,3	6
Radiation therapy equipment	2022	1,2	1,8	3
Rate of availability of medicines	2022	65,0	88,0	4
UHC index	2021	82,0	88,0	17
Prevalence of all types of cancers	2022	837,0	479,4	27

ESTONIA



Readiness Today

0,55

Readiness Tomorrow

0,50

Healthcare Readiness Index 2023

0,51

READINESS TODAY	Year	Value	Best Value	Estonia ranking
Alcohol consumption	2022	11,2	6,3	21
Average tenure of minister of health	2024	1,8	5,4	18
Demographic dependency ratios	2023	31,9	21,5	14
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	114,0	417,3	14
Fruits consumption	2021	90,5	168,4	20
HPV vaccination rate	2021	57,0	93,0	15
Average time to availability of medicines	2022	588,0	126,0	19
Obesity	2022	21,0	10,5	21
Pollution index	2021	6,7	5,1	6
Proportion of OOP spending on all expenditure types, past 3 years	2023	22,0	8,7	20
Self-reported unmet needs for medical examination	2023	84,5	99,5	27
Smoking	2019	18,9	6,4	17
Vegetables consumption	2021	150,6	332,9	15
Estimated relative change of incidence from 2020 to 2040	2022	18,4	1,8	18

READINESS TOMORROW	Year	Value	Best Value	Estonia ranking
Availability of finances (average of 3 years)	2022	1 991,1	5 090,8	19
Avoidable mortality	2021	440,3	169,5	20
Computed Tomography scanners	2022	2,1	4,9	17
Disease burden (DALY)	2021	25 489,0	17 996,7	20
Gamma cameras	2022	0,2	2,7	27
Infant mortality	2022	2,3	1,8	4
Life expectancy females at age 65	2023	21,4	23,9	13
Life expectancy males at age 65	2023	15,9	19,9	21
Life expectancy total population at birth	2023	78,8	84,0	19
Magnetic Resonance Imaging units	2022	1,7	3,8	14
Mammographs	2022	1,2	7,4	20
Positron Emission Tomography scanners	2022	0,2	0,9	11
Practising nurses	2022	6,6	15,7	19
Practising physicians	2022	3,5	6,3	20
Radiation therapy equipment	2022	0,5	1,8	24
Rate of availability of medicines	2022	19,0	88,0	23
UHC index	2021	79,0	88,0	21
Prevalence of all types of cancers	2022	609,0	479,4	8

FINLAND

Readiness Today

0,73

Readiness Tomorrow

0,61**Healthcare Readiness Index 2023****0,64**

READINESS TODAY	Year	Value	Best Value	Finland ranking
Alcohol consumption	2022	7,6	6,3	4
Average tenure of minister of health	2024	1,9	5,4	14
Demographic dependency ratios	2023	37,8	21,5	25
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	232,5	417,3	5
Fruits consumption	2021	115,5	168,4	13
HPV vaccination rate	2019	61,0	93,0	13
Average time to availability of medicines	2022	416,0	126,0	7
Obesity	2022	24,0	10,5	26
Pollution index	2021	5,1	5,1	1
Proportion of OOP spending on all expenditure types, past 3 years	2022	16,1	8,7	13
Self-reported unmet needs for medical examination	2023	90,6	99,5	23
Smoking	2019	9,9	6,4	2
Vegetables consumption	2021	109,7	332,9	24
Estimated relative change of incidence from 2020 to 2040	2022	12,8	1,8	13

READINESS TOMORROW	Year	Value	Best Value	Finland ranking
Availability of finances (average of 3 years)	2021	3 293,6	5 090,8	11
Avoidable mortality	2016	242,8	169,5	13
Computed Tomography scanners	2022	1,9	4,9	21
Disease burden (DALY)	2021	19 863,1	17 996,7	9
Gamma cameras	2021	0,7	2,7	10
Infant mortality	2022	2,0	1,8	3
Life expectancy females at age 65	2023	21,8	23,9	9
Life expectancy males at age 65	2023	18,4	19,9	13
Life expectancy total population at birth	2023	81,7	84,0	13
Magnetic Resonance Imaging units	2023	3,3	3,8	3
Mammographs	2022	3,5	7,4	4
Positron Emission Tomography scanners	2022	0,4	0,9	5
Practising nurses	2021	14,1	15,7	2
Practising physicians	2021	3,6	6,3	18
Radiation therapy equipment	2022	1,1	1,8	5
Rate of availability of medicines	2022	43,0	88,0	15
UHC index	2021	86,0	88,0	5
Prevalence of all types of cancers	2022	678,0	479,4	16

FRANCE



Readiness Today

0,70

Readiness Tomorrow

0,59

Healthcare Readiness Index 2023

0,62

READINESS TODAY	Year	Value	Best Value	France ranking
Alcohol consumption	2022	10,8	6,3	17
Average tenure of minister of health	2024	1,8	5,4	17
Demographic dependency ratios	2023	34,5	21,5	20
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	174,0	417,3	7
Fruits consumption	2021	126,3	168,4	8
HPV vaccination rate	2021	37,0	93,0	19
Average time to availability of medicines	2022	527,0	126,0	13
Obesity	2019	14,4	10,5	4
Pollution index	2021	9,2	5,1	11
Proportion of OOP spending on all expenditure types, past 3 years	2022	8,9	8,7	2
Self-reported unmet needs for medical examination	2023	93,7	99,5	19
Smoking	2019	17,8	6,4	13
Vegetables consumption	2021	120,2	332,9	20
Estimated relative change of incidence from 2020 to 2040	2022	6,2	1,8	7

READINESS TOMORROW	Year	Value	Best Value	France ranking
Availability of finances (average of 3 years)	2021	3 890,1	5 090,8	9
Avoidable mortality	2021	204,1	169,5	6
Computed Tomography scanners	2022	2,0	4,9	18
Disease burden (DALY)	2021	19 935,7	17 996,7	11
Gamma cameras	2022	0,7	2,7	11
Infant mortality	2022	3,9	1,8	23
Life expectancy females at age 65	2023	23,7	23,9	2
Life expectancy males at age 65	2023	19,9	19,9	1
Life expectancy total population at birth	2023	83,1	84,0	5
Magnetic Resonance Imaging units	2022	1,8	3,8	9
Mammographs	2018	0,7	7,4	25
Positron Emission Tomography scanners	2022	0,3	0,9	6
Practising nurses	2021	8,8	15,7	13
Practising physicians	2022	3,2	6,3	26
Radiation therapy equipment	2020	0,6	1,8	19
Rate of availability of medicines	2022	63,0	88,0	5
UHC index	2021	85,0	88,0	7
Prevalence of all types of cancers	2022	737,3	479,4	25

GERMANY

Readiness Today

0,80

Readiness Tomorrow

0,68**Healthcare Readiness Index 2023****0,71**

READINESS TODAY	Year	Value	Best Value	Germany ranking
Alcohol consumption	2019	10,6	6,3	15
Average tenure of minister of health	2024	3,5	5,4	3
Demographic dependency ratios	2023	34,7	21,5	21
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	417,3	417,3	1
Fruits consumption	2021	102,3	168,4	18
HPV vaccination rate	2021	47,0	93,0	17
Average time to availability of medicines	2022	126,0	126,0	1
Obesity	2021	16,7	10,5	14
Pollution index	2021	9,3	5,1	12
Proportion of OOP spending on all expenditure types, past 3 years	2023	11,3	8,7	6
Self-reported unmet needs for medical examination	2023	99,5	99,5	1
Smoking	2019	21,9	6,4	24
Vegetables consumption	2021	201,0	332,9	4
Estimated relative change of incidence from 2020 to 2040	2022	4,4	1,8	4

READINESS TOMORROW	Year	Value	Best Value	Germany ranking
Availability of finances (average of 3 years)	2022	5 090,8	5 090,8	1
Avoidable mortality	2021	252,5	169,5	15
Computed Tomography scanners	2022	3,6	4,9	6
Disease burden (DALY)	2021	21 019,5	17 996,7	15
Gamma cameras	2019	0,6	2,7	16
Infant mortality	2022	3,2	1,8	18
Life expectancy females at age 65	2022	20,8	23,9	17
Life expectancy males at age 65	2022	17,6	19,9	17
Life expectancy total population at birth	2022	80,7	84,0	16
Magnetic Resonance Imaging units	2022	3,5	3,8	2
Mammographs	2019	0,5	7,4	26
Positron Emission Tomography scanners	2020	0,2	0,9	12
Practising nurses	2022	12,0	15,7	4
Practising physicians	2022	4,6	6,3	5
Radiation therapy equipment	2018	1,1	1,8	6
Rate of availability of medicines	2022	88,0	88,0	1
UHC index	2021	88,0	88,0	1
Prevalence of all types of cancers	2022	722,2	479,4	22

GREECE



Readiness Today

0,66

Readiness Tomorrow

0,49

Healthcare Readiness Index 2023

0,53

READINESS TODAY	Year	Value	Best Value	Greece ranking
Alcohol consumption	2019	6,3	6,3	1
Average tenure of minister of health	2024	1,4	5,4	22
Demographic dependency ratios	2023	36,0	21,5	22
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	90,2	417,3	21
Fruits consumption	2021	128,5	168,4	5
HPV vaccination rate	2020	35,0	93,0	20
Average time to availability of medicines	2022	587,0	126,0	18
Obesity	2019	16,4	10,5	11
Pollution index	2021	11,8	5,1	16
Proportion of OOP spending on all expenditure types, past 3 years	2022	33,5	8,7	26
Self-reported unmet needs for medical examination	2023	86,9	99,5	26
Smoking	2019	23,6	6,4	26
Vegetables consumption	2021	156,6	332,9	14
Estimated relative change of incidence from 2020 to 2040	2022	15,0	1,8	15

READINESS TOMORROW	Year	Value	Best Value	Greece ranking
Availability of finances (average of 3 years)	2022	1 859,4	5 090,8	21
Avoidable mortality	2021	290,4	169,5	17
Computed Tomography scanners	2022	4,9	4,9	1
Disease burden (DALY)	2021	22 056,3	17 996,7	16
Gamma cameras	2022	1,5	2,7	2
Infant mortality	2022	3,1	1,8	15
Life expectancy females at age 65	2023	21,7	23,9	11
Life expectancy males at age 65	2023	18,5	19,9	11
Life expectancy total population at birth	2023	81,6	84,0	14
Magnetic Resonance Imaging units	2022	3,8	3,8	1
Mammographs	2022	7,4	7,4	1
Positron Emission Tomography scanners	2022	0,1	0,9	18
Practising nurses	2022	3,9	15,7	27
Practising physicians	2019	6,3	6,3	1
Radiation therapy equipment	2022	0,7	1,8	17
Rate of availability of medicines	2022	47,0	88,0	13
UHC index	2021	77,0	88,0	24
Prevalence of all types of cancers	2022	636,9	479,4	13

HUNGARY



Readiness Today

0,51

Readiness Tomorrow

0,50

Healthcare Readiness Index 2023

0,50

READINESS TODAY	Year	Value	Best Value	Austria ranking
Alcohol consumption	2022	10,6	6,3	15
Average tenure of minister of health	2024	2,1	5,4	11
Demographic dependency ratios	2023	31,6	21,5	13
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	54,1	417,3	23
Fruits consumption	2021	88,4	168,4	21
HPV vaccination rate	2021	82,0	93,0	3
Average time to availability of medicines	2022	650,0	126,0	20
Obesity	2019	23,9	10,5	25
Pollution index	2021	14,1	5,1	22
Proportion of OOP spending on all expenditure types, past 3 years	2023	28,5	8,7	22
Self-reported unmet needs for medical examination	2023	97,5	99,5	9
Smoking	2019	19,3	6,4	18
Vegetables consumption	2021	88,7	332,9	27
Estimated relative change of incidence from 2020 to 2040	2022	11,6	1,8	11

READINESS TOMORROW	Year	Value	Best Value	Hungary ranking
Availability of finances (average of 3 years)	2022	1 822,2	5 090,8	22
Avoidable mortality	2021	641,2	169,5	24
Computed Tomography scanners	2022	1,1	4,9	26
Disease burden (DALY)	2021	28 445,7	17 996,7	23
Gamma cameras	2017	1,2	2,7	5
Infant mortality	2023	3,1	1,8	15
Life expectancy females at age 65	2023	18,7	23,9	26
Life expectancy males at age 65	2023	14,7	19,9	25
Life expectancy total population at birth	2023	76,9	84,0	24
Magnetic Resonance Imaging units	2022	0,6	3,8	27
Mammographs	2017	1,5	7,4	14
Positron Emission Tomography scanners	2022	0,1	0,9	22
Practising nurses	2022	5,5	15,7	24
Practising physicians	2022	3,5	6,3	20
Radiation therapy equipment	2017	0,5	1,8	26
Rate of availability of medicines	2022	30,0	88,0	20
UHC index	2021	79,0	88,0	21
Prevalence of all types of cancers	2022	690,6	479,4	18

IRELAND



Readiness Today

0,69

Readiness Tomorrow

0,64

Healthcare Readiness Index 2023

0,65

READINESS TODAY	Year	Value	Best Value	Ireland ranking
Alcohol consumption	2023	9,9	6,3	11
Average tenure of minister of health	2024	3,4	5,4	4
Demographic dependency ratios	2023	23,2	21,5	2
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	-	1,0	2nd group
Expenditure on preventive measures	2023	201,4	417,3	6
Fruits consumption	2021	113,0	168,4	14
HPV vaccination rate	2021	71,0	93,0	7
Average time to availability of medicines	2022	525,0	126,0	12
Obesity	2022	21,0	10,5	21
Pollution index	2021	6,5	5,1	5
Proportion of OOP spending on all expenditure types, past 3 years	2023	10,7	8,7	5
Self-reported unmet needs for medical examination	2023	96,6	99,5	12
Smoking	2019	13,8	6,4	7
Vegetables consumption	2021	185,4	332,9	5
Estimated relative change of incidence from 2020 to 2040	2022	12,0	1,8	12

READINESS TOMORROW	Year	Value	Best Value	Ireland ranking
Availability of finances (average of 3 years)	2022	3 846,9	5 090,8	10
Avoidable mortality	2021	217,6	169,5	9
Computed Tomography scanners	2023	2,0	4,9	20
Disease burden (DALY)	2021	19 521,1	17 996,7	6
Gamma cameras	2023	0,6	2,7	19
Infant mortality	2022	3,3	1,8	19
Life expectancy females at age 65	2022	21,6	23,9	12
Life expectancy males at age 65	2022	19,4	19,9	7
Life expectancy total population at birth	2022	82,6	84,0	6
Magnetic Resonance Imaging units	2023	1,7	3,8	13
Mammographs	2018	1,7	7,4	10
Positron Emission Tomography scanners	2023	0,2	0,9	14
Practising nurses	2023	14,0	15,7	3
Practising physicians	2023	3,9	6,3	15
Radiation therapy equipment	2023	1,0	1,8	8
Rate of availability of medicines	2022	28,0	88,0	21
UHC index	2021	83,0	88,0	15
Prevalence of all types of cancers	2022	622,3	479,4	12

ITALY

Readiness Today

0,76

Readiness Tomorrow

0,61**Healthcare Readiness Index 2023****0,65**

READINESS TODAY	Year	Value	Best Value	Italy ranking
Alcohol consumption	2019	7,7	6,3	5
Average tenure of minister of health	2024	2,0	5,4	13
Demographic dependency ratios	2023	37,8	21,5	25
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2023	159,4	417,3	9
Fruits consumption	2021	128,4	168,4	6
HPV vaccination rate	2020	27,0	93,0	21
Average time to availability of medicines	2022	424,0	126,0	9
Obesity	2021	12,0	10,5	2
Pollution index	2021	13,0	5,1	18
Proportion of OOP spending on all expenditure types, past 3 years	2023	23,1	8,7	21
Self-reported unmet needs for medical examination	2023	98,0	99,5	6
Smoking	2019	16,5	6,4	11
Vegetables consumption	2021	136,3	332,9	18
Estimated relative change of incidence from 2020 to 2040	2022	1,8	1,8	1

READINESS TOMORROW	Year	Value	Best Value	Italy ranking
Availability of finances (average of 3 years)	2022	2 796,6	5 090,8	13
Avoidable mortality	2021	192,4	169,5	4
Computed Tomography scanners	2022	4,0	4,9	4
Disease burden (DALY)	2021	18 913,3	17 996,7	5
Gamma cameras	2022	0,7	2,7	15
Infant mortality	2021	2,3	1,8	4
Life expectancy females at age 65	2023	22,9	23,9	3
Life expectancy males at age 65	2023	19,9	19,9	1
Life expectancy total population at birth	2023	83,8	84,0	2
Magnetic Resonance Imaging units	2022	3,3	3,8	4
Mammographs	2022	3,7	7,4	2
Positron Emission Tomography scanners	2022	0,4	0,9	4
Practising nurses	2022	6,5	15,7	20
Practising physicians	2022	4,2	6,3	12
Radiation therapy equipment	2022	0,7	1,8	14
Rate of availability of medicines	2022	77,0	88,0	2
UHC index	2021	84,0	88,0	12
Prevalence of all types of cancers	2022	723,9	479,4	23

LATVIA



Readiness Today

0,52

Readiness Tomorrow

0,44

Healthcare Readiness Index 2023

0,46

READINESS TODAY	Year	Value	Best Value	Latvia ranking
Alcohol consumption	2022	11,9	6,3	27
Average tenure of minister of health	2024	1,6	5,4	20
Demographic dependency ratios	2023	33,3	21,5	18
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	54,1	417,3	24
Fruits consumption	2021	65,5	168,4	25
HPV vaccination rate	2021	42,0	93,0	18
Average time to availability of medicines	2022	657,0	126,0	21
Obesity	2017	21,6	10,5	23
Pollution index	2021	14,1	5,1	21
Proportion of OOP spending on all expenditure types, past 3 years	2022	30,7	8,7	24
Self-reported unmet needs for medical examination	2023	88,6	99,5	24
Smoking	2019	22,1	6,4	25
Vegetables consumption	2021	147,4	332,9	16
Estimated relative change of incidence from 2020 to 2040	2022	17,0	1,8	16

READINESS TOMORROW	Year	Value	Best Value	Latvia ranking
Availability of finances (average of 3 years)	2022	1 867,2	5 090,8	20
Avoidable mortality	2021	644,0	169,5	25
Computed Tomography scanners	2022	4,0	4,9	5
Disease burden (DALY)	2021	30 935,7	17 996,7	25
Gamma cameras	2022	0,3	2,7	24
Infant mortality	2022	2,4	1,8	7
Life expectancy females at age 65	2023	19,6	23,9	23
Life expectancy males at age 65	2023	14,5	19,9	26
Life expectancy total population at birth	2023	75,9	84,0	26
Magnetic Resonance Imaging units	2022	2,0	3,8	8
Mammographs	2022	2,7	7,4	7
Positron Emission Tomography scanners	2022	0,1	0,9	21
Practising nurses	2022	4,2	15,7	26
Practising physicians	2022	3,4	6,3	23
Radiation therapy equipment	2018	0,6	1,8	23
Rate of availability of medicines	2022	19,0	88,0	23
UHC index	2021	75,0	88,0	25
Prevalence of all types of cancers	2022	619,7	479,4	11

LITHUANIA



Readiness Today

0,52

Readiness Tomorrow

0,48**Healthcare Readiness Index 2023****0,49**

READINESS TODAY	Year	Value	Best Value	Lithuania ranking
Alcohol consumption	2022	11,2	6,3	21
Average tenure of minister of health	2024	1,8	5,4	16
Demographic dependency ratios	2023	30,8	21,5	9
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	108,6	417,3	17
Fruits consumption	2021	65,3	168,4	26
HPV vaccination rate	2021	66,0	93,0	9
Average time to availability of medicines	2022	723,0	126,0	24
Obesity	2022	20,3	10,5	20
Pollution index	2021	12,2	5,1	17
Proportion of OOP spending on all expenditure types, past 3 years	2023	31,8	8,7	25
Self-reported unmet needs for medical examination	2023	95,8	99,5	13
Smoking	2019	18,4	6,4	14
Vegetables consumption	2021	116,7	332,9	22
Estimated relative change of incidence from 2020 to 2040	2022	19,6	1,8	20

READINESS TOMORROW	Year	Value	Best Value	Lithuania ranking
Availability of finances (average of 3 years)	2022	2 219,7	5 090,8	18
Avoidable mortality	2021	585,0	169,5	23
Computed Tomography scanners	2023	3,3	4,9	7
Disease burden (DALY)	2021	29 981,2	17 996,7	24
Gamma cameras	2022	0,3	2,7	25
Infant mortality	2022	3,0	1,8	14
Life expectancy females at age 65	2023	20,3	23,9	21
Life expectancy males at age 65	2023	15,2	19,9	23
Life expectancy total population at birth	2023	77,3	84,0	23
Magnetic Resonance Imaging units	2022	1,7	3,8	16
Mammographs	2023	2,0	7,4	9
Positron Emission Tomography scanners	2023	0,1	0,9	26
Practising nurses	2022	7,5	15,7	17
Practising physicians	2022	4,4	6,3	8
Radiation therapy equipment	2023	0,7	1,8	16
Rate of availability of medicines	2022	8,0	88,0	27
UHC index	2021	75,0	88,0	25
Prevalence of all types of cancers	2022	616,6	479,4	10

LUXEMBOURG



Readiness Today

0,74

Readiness Tomorrow

0,63

Healthcare Readiness Index 2023

0,66

READINESS TODAY	Year	Value	Best Value	Luxembourg ranking	READINESS TOMORROW	Year	Value	Best Value	Luxembourg ranking
Alcohol consumption	2019	11,0	6,3	18	Availability of finances (average of 3 years)	2022	4 099,5	5 090,8	8
Average tenure of minister of health	2024	4,2	5,4	2	Avoidable mortality	2021	187,3	169,5	3
Demographic dependency ratios	2023	21,5	21,5	1	Computed Tomography scanners	2023	2,5	4,9	11
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)	Disease burden (DALY)	2021	18 908,2	17 996,7	4
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group	Gamma cameras	2023	1,2	2,7	4
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group	Infant mortality	2021	3,1	1,8	15
Does a country have early access scheme?	2024	1,0	1,0	1st group	Life expectancy females at age 65	2023	22,5	23,9	5
Expenditure on preventive measures	2023	156,0	417,3	11	Life expectancy males at age 65	2023	19,9	19,9	1
Fruits consumption	2021	154,3	168,4	3	Life expectancy total population at birth	2023	83,4	84,0	3
HPV vaccination rate	2019	14,0	93,0	24	Magnetic Resonance Imaging units	2023	1,8	3,8	9
Average time to availability of medicines	2022	418,0	126,0	8	Mammographs	2023	1,3	7,4	16
Obesity	2019	16,5	10,5	12	Positron Emission Tomography scanners	2023	0,1	0,9	16
Pollution index	2021	8,6	5,1	9	Practising nurses	2017	11,7	15,7	5
Proportion of OOP spending on all expenditure types, past 3 years	2023	8,7	8,7	1	Practising physicians	2017	3,0	6,3	27
Self-reported unmet needs for medical examination	2023	97,7	99,5	7	Radiation therapy equipment	2023	0,9	1,8	9
Smoking	2019	10,5	6,4	4	Rate of availability of medicines	2022	53,0	88,0	10
Vegetables consumption	2021	225,1	332,9	3	UHC index	2021	83,0	88,0	15
Estimated relative change of incidence from 2020 to 2040	2022	22,8	1,8	22	Prevalence of all types of cancers	2022	535,5	479,4	2

NETHERLANDS



Readiness Today

0,72

Readiness Tomorrow

0,72**Healthcare Readiness Index 2023****0,72**

READINESS TODAY	Year	Value	Best Value	Netherlands ranking	READINESS TOMORROW	Year	Value	Best Value	Netherlands ranking
Alcohol consumption	2022	8,5	6,3	6	Availability of finances (average of 3 years)	2022	4 444,6	5 090,8	4
Average tenure of minister of health	2024	3,0	5,4	5	Avoidable mortality	2021	206,3	169,5	7
Demographic dependency ratios	2023	31,4	21,5	12	Computed Tomography scanners	2022	1,6	4,9	25
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)	Disease burden (DALY)	2021	19 775,0	17 996,7	7
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group	Gamma cameras	2022	0,7	2,7	11
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group	Infant mortality	2021	3,3	1,8	19
Does a country have early access scheme?	2024	1,0	1,0	1st group	Life expectancy females at age 65	2023	21,0	23,9	16
Expenditure on preventive measures	2022	258,0	417,3	4	Life expectancy males at age 65	2023	18,9	19,9	10
Fruits consumption	2021	168,4	168,4	1	Life expectancy total population at birth	2023	82,0	84,0	10
HPV vaccination rate	2021	66,0	93,0	9	Magnetic Resonance Imaging units	2022	1,5	3,8	17
Average time to availability of medicines	2022	404,0	126,0	6	Mammographs	0	0,0	7,4	27
Obesity	2022	14,6	10,5	5	Positron Emission Tomography scanners	2022	0,5	0,9	2
Pollution index	2021	9,7	5,1	13	Practising nurses	2022	11,5	15,7	7
Proportion of OOP spending on all expenditure types, past 3 years	2022	10,0	8,7	4	Practising physicians	2022	3,9	6,3	14
Self-reported unmet needs for medical examination	2023	98,6	99,5	3	Radiation therapy equipment	2019	0,5	1,8	27
Smoking	2019	14,6	6,4	8	Rate of availability of medicines	2022	54,0	88,0	9
Vegetables consumption	2021	169,8	332,9	10	UHC index	2021	85,0	88,0	7
Estimated relative change of incidence from 2020 to 2040	2022	2,8	1,8	3	Prevalence of all types of cancers	2022	768,8	479,4	26

NORWAY



Readiness Today

0,81

Readiness Tomorrow

0,71

Healthcare Readiness Index 2023

0,73

READINESS TODAY	Year	Value	Best Value	Norway ranking
Alcohol consumption	2022	6,6	6,3	2
Average tenure of minister of health	2024	2,4	5,4	8
Demographic dependency ratios	2023	28,4	21,5	4
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	164,9	417,3	8
Fruits consumption	2021	140,5	168,4	4
HPV vaccination rate	2021	93,0	93,0	1
Average time to availability of medicines	2022	494,0	126,0	10
Obesity	2022	16,0	10,5	9
Pollution index	2021	5,6	5,1	3
Proportion of OOP spending on all expenditure types, past 3 years	2022	14,1	8,7	12
Self-reported unmet needs for medical examination	2023	92,2	99,5	21
Smoking	2019	10,2	6,4	3
Vegetables consumption	2021	166,8	332,9	12
Estimated relative change of incidence from 2020 to 2040	2022	5,6	1,8	6

READINESS TOMORROW	Year	Value	Best Value	Norway ranking
Availability of finances (average of 3 years)	2021	4 744,6	5 090,8	2
Avoidable mortality	2021	169,5	169,5	1
Computed Tomography scanners	2023	2,8	4,9	9
Disease burden (DALY)	2021	18 239,9	17 996,7	2
Gamma cameras	2023	0,6	2,7	18
Infant mortality	2022	1,9	1,8	2
Life expectancy females at age 65	2021	21,8	23,9	9
Life expectancy males at age 65	2021	19,8	19,9	4
Life expectancy total population at birth	2022	82,6	84,0	6
Magnetic Resonance Imaging units	2023	3,1	3,8	5
Mammographs	2023	1,3	7,4	17
Positron Emission Tomography scanners	2023	0,4	0,9	3
Practising nurses	2023	15,7	15,7	1
Practising physicians	2023	5,0	6,3	4
Radiation therapy equipment	2023	1,1	1,8	4
Rate of availability of medicines	2022	36,0	88,0	19
UHC index	2021	87,0	88,0	4
Prevalence of all types of cancers	2022	731,3	479,4	24

POLAND

Readiness Today

0,55

Readiness Tomorrow

0,42**Healthcare Readiness Index 2023****0,45**

READINESS TODAY	Year	Value	Best Value	Poland ranking
Alcohol consumption	2021	11,0	6,3	18
Average tenure of minister of health	2024	1,2	5,4	26
Demographic dependency ratios	2023	30,8	21,5	9
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	-	1,0	2nd group
Expenditure on preventive measures	2022	36,3	417,3	27
Fruits consumption	2021	63,2	168,4	27
HPV vaccination rate	2014	7,5	93,0	25
Average time to availability of medicines	2022	804,0	126,0	27
Obesity	2019	18,5	10,5	15
Pollution index	2021	18,0	5,1	26
Proportion of OOP spending on all expenditure types, past 3 years	2022	18,8	8,7	16
Self-reported unmet needs for medical examination	2023	94,2	99,5	17
Smoking	2019	18,4	6,4	14
Vegetables consumption	2021	140,5	332,9	17
Estimated relative change of incidence from 2020 to 2040	2022	23,2	1,8	23

READINESS TOMORROW	Year	Value	Best Value	Poland ranking
Availability of finances (average of 3 years)	2022	1 792,6	5 090,8	23
Avoidable mortality	2021	481,7	169,5	22
Computed Tomography scanners	2022	2,3	4,9	14
Disease burden (DALY)	2021	26 825,1	17 996,7	21
Gamma cameras	2022	0,4	2,7	21
Infant mortality	2022	3,8	1,8	21
Life expectancy females at age 65	2023	20,5	23,9	19
Life expectancy males at age 65	2023	16,3	19,9	19
Life expectancy total population at birth	2023	78,6	84,0	20
Magnetic Resonance Imaging units	2022	1,3	3,8	19
Mammographs	2022	1,0	7,4	23
Positron Emission Tomography scanners	2022	0,1	0,9	23
Practising nurses	2022	5,7	15,7	23
Practising physicians	2022	3,5	6,3	20
Radiation therapy equipment	2022	0,6	1,8	21
Rate of availability of medicines	2022	41,0	88,0	18
UHC index	2021	82,0	88,0	17
Prevalence of all types of cancers	2022	553,5	479,4	4

PORTUGAL



Readiness Today

0,68

Readiness Tomorrow

0,58**Healthcare Readiness Index 2023****0,60**

READINESS TODAY	Year	Value	Best Value	Portugal ranking
Alcohol consumption	2019	10,4	6,3	14
Average tenure of minister of health	2024	2,3	5,4	10
Demographic dependency ratios	2023	37,8	21,5	25
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	91,1	417,3	20
Fruits consumption	2021	161,5	168,4	2
HPV vaccination rate	2021	76,0	93,0	6
Average time to availability of medicines	2022	710,0	126,0	23
Obesity	2022	15,9	10,5	7
Pollution index	2021	6,4	5,1	4
Proportion of OOP spending on all expenditure types, past 3 years	2023	29,8	8,7	23
Self-reported unmet needs for medical examination	2023	95,8	99,5	13
Smoking	2019	11,5	6,4	5
Vegetables consumption	2021	117,0	332,9	21
Estimated relative change of incidence from 2020 to 2040	2022	10,2	1,8	10

READINESS TOMORROW	Year	Value	Best Value	Portugal ranking
Availability of finances (average of 3 years)	2022	2 604,7	5 090,8	17
Avoidable mortality	2021	230,4	169,5	11
Computed Tomography scanners	2019	1,8	4,9	22
Disease burden (DALY)	2021	20 692,0	17 996,7	14
Gamma cameras	2019	0,3	2,7	23
Infant mortality	2023	2,5	1,8	10
Life expectancy females at age 65	2023	22,7	23,9	4
Life expectancy males at age 65	2023	19,2	19,9	8
Life expectancy total population at birth	2023	82,4	84,0	9
Magnetic Resonance Imaging units	2019	1,1	3,8	23
Mammographs	2019	1,3	7,4	19
Positron Emission Tomography scanners	2019	0,1	0,9	24
Practising nurses	2020	7,3	15,7	18
Practising physicians	2019	5,5	6,3	3
Radiation therapy equipment	2014	0,8	1,8	12
Rate of availability of medicines	2022	50,0	88,0	11
UHC index	2021	88,0	88,0	1
Prevalence of all types of cancers	2022	686,0	479,4	17

ROMANIA



Readiness Today

0,49

Readiness Tomorrow

0,45

Healthcare Readiness Index 2023

0,46

READINESS TODAY	Year	Value	Best Value	Romania ranking
Alcohol consumption	2022	11,6	6,3	23
Average tenure of minister of health	2024	0,8	5,4	27
Demographic dependency ratios	2023	30,7	21,5	8
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	46,3	417,3	25
Fruits consumption	2021	108,0	168,4	15
HPV vaccination rate	2020	1,0	93,0	27
Average time to availability of medicines	2022	778,0	126,0	26
Obesity	2019	10,5	10,5	1
Pollution index	2021	15,0	5,1	25
Proportion of OOP spending on all expenditure types, past 3 years	2022	21,4	8,7	19
Self-reported unmet needs for medical examination	2023	93,0	99,5	20
Smoking	2019	18,7	6,4	16
Vegetables consumption	2021	168,6	332,9	11
Estimated relative change of incidence from 2020 to 2040	2022	25,8	1,8	26

READINESS TOMORROW	Year	Value	Best Value	Romania ranking
Availability of finances (average of 3 years)	2021	1 471,2	5 090,8	26
Avoidable mortality	2021	694,8	169,5	27
Computed Tomography scanners	2022	2,4	4,9	12
Disease burden (DALY)	2021	31 042,9	17 996,7	26
Gamma cameras	2022	0,3	2,7	26
Infant mortality	2022	5,7	1,8	27
Life expectancy females at age 65	2023	19,2	23,9	25
Life expectancy males at age 65	2023	15,1	19,9	24
Life expectancy total population at birth	2023	76,6	84,0	25
Magnetic Resonance Imaging units	2022	1,5	3,8	18
Mammographs	2022	1,1	7,4	21
Positron Emission Tomography scanners	2022	0,1	0,9	25
Practising nurses	2022	8,2	15,7	15
Practising physicians	2022	3,7	6,3	17
Radiation therapy equipment	2022	0,5	1,8	25
Rate of availability of medicines	2022	17,0	88,0	25
UHC index	2021	78,0	88,0	23
Prevalence of all types of cancers	2022	549,9	479,4	3

SLOVAKIA



Readiness Today

0,51

Readiness Tomorrow

0,45

Healthcare Readiness Index 2023

0,46

READINESS TODAY	Year	Value	Best Value	Slovakia ranking
Alcohol consumption	2022	9,5	6,3	9
Average tenure of minister of health	2024	1,5	5,4	21
Demographic dependency ratios	2023	27,0	21,5	3
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	-	1,0	2nd group
Expenditure on preventive measures	2022	39,8	417,3	26
Fruits consumption	2021	73,6	168,4	24
HPV vaccination rate	2020	26,0	93,0	22
Average time to availability of medicines	2022	577,0	126,0	17
Obesity	2019	19,4	10,5	18
Pollution index	2021	14,5	5,1	23
Proportion of OOP spending on all expenditure types, past 3 years	2022	18,0	8,7	15
Self-reported unmet needs for medical examination	2023	94,0	99,5	18
Smoking	2019	20,4	6,4	22
Vegetables consumption	2021	114,9	332,9	23
Estimated relative change of incidence from 2020 to 2040	2022	19,6	1,8	20

READINESS TOMORROW	Year	Value	Best Value	Slovakia ranking
Availability of finances (average of 3 years)	2021	1 591,8	5 090,8	25
Avoidable mortality	2016	412,2	169,5	19
Computed Tomography scanners	2022	2,0	4,9	19
Disease burden (DALY)	2021	28 066,8	17 996,7	22
Gamma cameras	2022	0,6	2,7	17
Infant mortality	2022	5,4	1,8	25
Life expectancy females at age 65	2023	19,7	23,9	22
Life expectancy males at age 65	2023	15,9	19,9	21
Life expectancy total population at birth	2023	78,1	84,0	22
Magnetic Resonance Imaging units	2022	1,0	3,8	24
Mammographs	2022	1,5	7,4	13
Positron Emission Tomography scanners	2022	0,1	0,9	17
Practising nurses	2020	5,8	15,7	22
Practising physicians	2021	3,7	6,3	16
Radiation therapy equipment	2022	1,2	1,8	2
Rate of availability of medicines	2022	17,0	88,0	25
UHC index	2021	82,0	88,0	17
Prevalence of all types of cancers	2022	566,2	479,4	6

SLOVENIA



Readiness Today

0,65

Readiness Tomorrow

0,54

Healthcare Readiness Index 2023

0,56

READINESS TODAY	Year	Value	Best Value	Slovenia ranking
Alcohol consumption	2022	10,0	6,3	13
Average tenure of minister of health	2024	1,6	5,4	19
Demographic dependency ratios	2023	33,7	21,5	19
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	-	1,0	2nd group
Expenditure on preventive measures	2022	123,8	417,3	13
Fruits consumption	2021	116,0	168,4	12
HPV vaccination rate	2021	50,0	93,0	16
Average time to availability of medicines	2022	563,0	126,0	15
Obesity	2019	19,4	10,5	18
Pollution index	2021	13,4	5,1	20
Proportion of OOP spending on all expenditure types, past 3 years	2022	12,7	8,7	7
Self-reported unmet needs for medical examination	2023	95,3	99,5	15
Smoking	2019	16,6	6,4	12
Vegetables consumption	2021	175,3	332,9	6
Estimated relative change of incidence from 2020 to 2040	2022	8,2	1,8	8

READINESS TOMORROW	Year	Value	Best Value	Slovenia ranking
Availability of finances (average of 3 years)	2022	2 618,2	5 090,8	15
Avoidable mortality	2021	278,8	169,5	16
Computed Tomography scanners	2023	1,7	4,9	23
Disease burden (DALY)	2021	20 262,8	17 996,7	12
Gamma cameras	2023	0,7	2,7	9
Infant mortality	2022	2,5	1,8	10
Life expectancy females at age 65	2023	22,1	23,9	7
Life expectancy males at age 65	2023	18,3	19,9	14
Life expectancy total population at birth	2023	82,0	84,0	10
Magnetic Resonance Imaging units	2023	1,7	3,8	15
Mammographs	2023	1,5	7,4	15
Positron Emission Tomography scanners	2023	0,2	0,9	13
Practising nurses	2022	10,4	15,7	10
Practising physicians	2022	3,4	6,3	24
Radiation therapy equipment	2023	0,7	1,8	18
Rate of availability of medicines	2022	42,0	88,0	17
UHC index	2021	84,0	88,0	12
Prevalence of all types of cancers	2022	693,1	479,4	19

SPAIN



Readiness Today

0,71

Readiness Tomorrow

0,54

Healthcare Readiness Index 2023

0,59

READINESS TODAY	Year	Value	Best Value	Spain ranking
Alcohol consumption	2022	11,8	6,3	26
Average tenure of minister of health	2024	1,4	5,4	23
Demographic dependency ratios	2023	30,4	21,5	7
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	0,5	1,0	2nd group
Does a country have any type of innovation fund / scheme?	2024	-	1,0	2nd group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	107,1	417,3	18
Fruits consumption	2021	116,8	168,4	11
HPV vaccination rate	2021	77,0	93,0	5
Average time to availability of medicines	2022	661,0	126,0	22
Obesity	2020	14,9	10,5	6
Pollution index	2021	7,5	5,1	7
Proportion of OOP spending on all expenditure types, past 3 years	2022	19,2	8,7	17
Self-reported unmet needs for medical examination	2023	96,9	99,5	10
Smoking	2019	19,7	6,4	20
Vegetables consumption	2021	107,8	332,9	25
Estimated relative change of incidence from 2020 to 2040	2022	17,0	1,8	16

READINESS TOMORROW	Year	Value	Best Value	Spain ranking
Availability of finances (average of 3 years)	2022	11,8	6,3	26
Avoidable mortality	2024	1,4	5,4	23
Computed Tomography scanners	2023	30,4	21,5	7
Disease burden (DALY)	2024	1,0	1,0	1
Gamma cameras	2024	0,5	1,0	12
Infant mortality	2024	-	1,0	17
Life expectancy females at age 65	2024	1,0	1,0	1
Life expectancy males at age 65	2022	107,1	417,3	18
Life expectancy total population at birth	2021	116,8	168,4	11
Magnetic Resonance Imaging units	2021	77,0	93,0	5
Mammographs	2022	661,0	126,0	22
Positron Emission Tomography scanners	2020	14,9	10,5	6
Practising nurses	2021	7,5	5,1	7
Practising physicians	2022	19,2	8,7	17
Radiation therapy equipment	2023	96,9	99,5	10
Rate of availability of medicines	2019	19,7	6,4	20
UHC index	2021	107,8	332,9	25
Prevalence of all types of cancers	2022	17,0	1,8	16

SWEDEN

Readiness Today

0,77

Readiness Tomorrow

0,69**Healthcare Readiness Index 2023****0,71**

READINESS TODAY	Year	Value	Best Value	Sweden ranking
Alcohol consumption	2022	7,5	6,3	3
Average tenure of minister of health	2024	3,0	5,4	6
Demographic dependency ratios	2023	32,8	21,5	17
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	157,3	417,3	10
Fruits consumption	2021	105,5	168,4	17
HPV vaccination rate	2021	83,0	93,0	2
Average time to availability of medicines	2022	299,0	126,0	4
Obesity	2022	16,1	10,5	10
Pollution index	2021	5,5	5,1	2
Proportion of OOP spending on all expenditure types, past 3 years	2023	12,7	8,7	8
Self-reported unmet needs for medical examination	2023	94,6	99,5	16
Smoking	2019	6,4	6,4	1
Vegetables consumption	2021	175,2	332,9	7
Estimated relative change of incidence from 2020 to 2040	2022	19,4	1,8	19

READINESS TOMORROW	Year	Value	Best Value	Sweden ranking
Availability of finances (average of 3 years)	2022	4 176,6	5 090,8	5
Avoidable mortality	2021	177,5	169,5	2
Computed Tomography scanners	2023	2,4	4,9	13
Disease burden (DALY)	2021	17 996,7	17 996,7	1
Gamma cameras	2023	0,7	2,7	14
Infant mortality	2021	1,8	1,8	1
Life expectancy females at age 65	2023	22,2	23,9	6
Life expectancy males at age 65	2023	19,8	19,9	4
Life expectancy total population at birth	2023	83,4	84,0	3
Magnetic Resonance Imaging units	2023	1,7	3,8	11
Mammographs	2023	1,3	7,4	18
Positron Emission Tomography scanners	2023	0,3	0,9	8
Practising nurses	2021	10,9	15,7	9
Practising physicians	2021	4,4	6,3	9
Radiation therapy equipment	2023	0,6	1,8	20
Rate of availability of medicines	2022	50,0	88,0	11
UHC index	2021	85,0	88,0	7
Prevalence of all types of cancers	2022	677,8	479,4	15

UNITED KINGDOM



Readiness Today

0,64

Readiness Tomorrow

0,60

Healthcare Readiness Index 2023

0,61

READINESS TODAY	Year	Value	Best Value	United Kingdom ranking
Alcohol consumption	2022	9,9	6,3	11
Average tenure of minister of health	2024	1,9	5,4	15
Demographic dependency ratios	2019	28,9	21,5	5
Does a country have an investment strategy in the health sector?	2024	1,0	1,0	(all have 1)
Does a country have an HTA agency with clear and transparent decision rules?	2024	1,0	1,0	1st group
Does a country have any type of innovation fund / scheme?	2024	1,0	1,0	1st group
Does a country have early access scheme?	2024	1,0	1,0	1st group
Expenditure on preventive measures	2022	284,2	417,3	3
Fruits consumption	2021	107,8	168,4	16
HPV vaccination rate	2020	64,0	93,0	12
Average time to availability of medicines	2022	347,0	126,0	5
Obesity	2021	25,9	10,5	27
Pollution index	2021	8,7	5,1	10
Proportion of OOP spending on all expenditure types, past 3 years	2023	13,8	8,7	9
Self-reported unmet needs for medical examination	2018	91,7	99,5	22
Smoking	2019	15,4	6,4	10
Vegetables consumption	2021	170,1	332,9	9
Estimated relative change of incidence from 2020 to 2040	2022	14,0	1,8	14

READINESS TOMORROW	Year	Value	Best Value	United Kingdom ranking
Availability of finances (average of 3 years)	2022	3 062,0	5 090,8	12
Avoidable mortality	2018	238,0	169,5	12
Computed Tomography scanners	2014	1,0	4,9	27
Disease burden (DALY)	2021	22 068,2	17 996,7	17
Gamma cameras	2019	0,5	2,7	20
Infant mortality	2021	4,0	1,8	24
Life expectancy females at age 65	2020	20,6	23,9	18
Life expectancy males at age 65	2020	18,0	19,9	16
Life expectancy total population at birth	2020	80,4	84,0	17
Magnetic Resonance Imaging units	2014	0,7	3,8	26
Mammographs	2019	0,8	7,4	24
Positron Emission Tomography scanners	2020	0,0	0,9	27
Practising nurses	2023	8,6	15,7	14
Practising physicians	2023	3,3	6,3	25
Radiation therapy equipment	2018	0,8	1,8	10
Rate of availability of medicines	2022	56,0	88,0	8
UHC index	2021	88,0	88,0	1
Prevalence of all types of cancers	2022	664,2	479,4	14



