2024 Edition

Health Systems in Action

Montenegro

World Health Organization
European Region

European Observatory on Health Systems and Policies
a partnership hosted by WHO

Keywords

DELIVERY OF HEALTH CARE

EVALUATION STUDIES

FINANCING, HEALTH

HEALTH CARE REFORM

HEALTH SYSTEM PLANS – organization and administration

MONTENEGRO

Health Systems in Action (HSiA) Insights

Montenegro

Authors:

Ilaria Mosca and Florian Tille

World Health Organization
European Region

European Observatory on Health Systems and Policies
a partnership hosted by WHO

Editorial Team

This edition of the Health Systems in Action Insight for Montenegro was written by Ilaria Mosca and Florian Tille.

The Health Systems in Action series

The Health Systems in Action Insights series supports Member States in the WHO European Region that are not in the European Union. The Insights for each country are intended to:

- provide core information and data on health systems succinctly and accessibly;
- outline the country health system context in which WHO Europe's Programme of Work is set;
- flag key concerns, progress and challenges; and
- build a baseline for comparisons, so that Member States can see how their health systems develop over time and in relation to other countries.

The series is co-produced by the WHO Regional Office for Europe and the European Observatory on Health Systems and Policies. It draws on the knowledge and understanding of the WHO Country Offices and of the Division of Country Health Policies and Systems (CPS), the WHO Barcelona Office for Health Systems Financing and other WHO/Europe technical programmes; as well as the Health Systems in Transition series and the work of the European Observatory on Health Systems and Policies.

The Insights follow a common template that provides detailed guidance and allows comparison across countries. The series is publicly available on the websites of the WHO Regional Office for Europe and the European Observatory on Health Systems and Policies (eurohealthobservatory.who.int).

Suggested citation. Mosca I, Tille F (2025). Health Systems in Action (HSiA) Insights – Montenegro, 2024. Copenhagen: European Observatory on Health Systems and Policies, WHO Regional Office for Europe. Licence: CC BY-NC-SA 3.0 IGO.

Please address requests about the publication to contact@obs.who.int

ISBN: 978 92 890 5979 4

Contents page

Acknowledgements

This Health Systems in Action Insight was written at the behest of the WHO Regional Office for Europe and in the context of the European Programme of Work. It captures for Member States outside the EU core information on their health systems, flags key issues and allows comparison across countries and over time.

This document could not have been written without the support and insights of the WHO Country Office in Montenegro and the editorial team are grateful to Mina Brajovic for her valuable comments and inputs.

Thanks are also due to the WHO Barcelona Office for Health Systems Financing, particularly Jonathan Cylus, Marcos Gallardo Martinez, Triin Habicht and Sarah Thomson.

We would like to express our gratitude to Jasna Sekulić from the Ministry of Health for her constructive comments on an earlier draft of this document.

Keyrellous Adib, Emma Ghazaryan, Pauline Münchenberg, David Novillo Ortiz, Graham John Willis and Tomas Zapata were key in preparing the data and graphs underlying this report and Marina Karanikolos, Jonathan Cylus, Ewout van Ginneken, Anna Maresso, Suszy Lessof and Bernd Rechel were all central to the development of the approach used for the series.

This edition of the Health Systems in Action Insight for Montenegro was written by Ilaria Mosca and Florian Tille.

HEALTH SYSTEMS IN ACTION INSIGHTS: MONTENEGRO

Key points

- The country's Economic Reform Programme 2022–2024 introduced major health insurance reforms, shifting from a contributions-based system to a fully tax-funded system.
- Residency is the primary requirement for health benefits, ensuring nearly universal coverage under the Law on Compulsory Health Insurance.
- Around 38% of health spending in 2021 came from out-of-pocket (OOP) payments, particularly for outpatient medicines and dental services, surpassing the European Union (EU) and upper middle-income country (UMIC) averages.
- Rates of unmet medical needs have declined in recent years, indicating improved access to health services.
- Montenegro's life expectancy had improved prior to the COVID-19 pandemic but has been severely impacted and has still to recover to pre-pandemic levels.
- Noncommunicable diseases (NCDs), notably cardiovascular diseases and cancer, were the leading causes of death in 2019, emphasizing the need for investments in risk reduction and chronic disease management.
- The COVID-19 pandemic exacerbated mortality rates, increased health disparities and caused access disruptions, with Montenegro's excess mortality in 2021 being twice that of the WHO European Region.
- Unhealthy behaviours and environmental factors pose significant health threats in Montenegro, with high systolic blood pressure and tobacco consumption estimated to contribute to 34% and 28% of deaths in 2019, respectively, while rising alcohol intake and poor diets also fuel NCDs.
- Montenegro's health workforce faces challenges, with comparatively low densities of doctors and nurses, an ageing workforce and migration abroad, although reliable data on the number of health workers migrating are lacking.

1 ORGANIZING THE HEALTH SYSTEM

Montenegro's health system is centralized

The Ministry of Health oversees administration, regulation and governance, along with various functions such as policy development and emergency services. The Health Insurance Fund (HIF) acts as the sole public purchaser of health services. In contrast, local government has limited involvement in health care provision and regulation, focusing primarily on strengthening primary care and coordinating health institutions (European Commission, 2022; Mosca, Terzic & Tille, 2022).

Legislation, including the Health Care Law (2021) and the Health Insurance Law (2021), stipulates equal access to health care and grants statutory health insurance rights to all. The Law on Patient Rights (2013) outlines patient rights and responsibilities, while the National Strategy for Sustainable Development of Montenegro by 2030 integrates global goals into national frameworks, emphasizing environmental and health risk mitigation. The Health Care Strategy 2022–2026, adopted in 2023, aims to achieve universal health coverage (UHC).

In 2022, through the Montenegro Economic Reform Programme 2022–2024, as part of the 'Europe Now' initiative stimulating economic growth, the social health insurance system underwent a major reform from a contributions-based system to a fully tax-funded system (Montenegro Government, 2022). This reform aimed to make the labour market more competitive and to decrease the informal part of the economy.

Residency is the basis for accessing health benefits

The revision to the Law on Compulsory Health Insurance in 2017 resulted in nearly universal population coverage by establishing residency as the primary eligibility criterion for accessing health benefits. The HIF covers insured Montenegrin citizens, asylum seekers and foreigners with subsidiary protection. Undocumented migrants can access emergency medical care and specific non-emergency treatments as required by law. In 2024, the HIF had 689 129 registered policy-holders (HIF, personal communication), a number which is likely to include Montenegrins living abroad. Precise figures on the percentage of the population covered by health insurance are currently unavailable.

The three benefits packages cover primary, secondary and tertiary health care

Basic benefits packages for primary (adopted in 2005) and secondary and tertiary health care (both adopted in 2013) delineate entitlements and positive lists of medicines. Publicly funded health services are provided through the network of contracted public and private facilities. The benefits prioritize early disease detection and comprehensive care for specific groups, including children, pregnant and postpartum women, older people, military and disabled veterans, and people with developmental and mental health disorders. They also cover various diseases and conditions and offer specialized measures at secondary and tertiary levels. Access to medicines is ensured by the Law on Medicines, with insured individuals entitled to listed medicines from the growing number of medicines on the basic list (covering 628 international nonproprietary names, INNs) and supplementary list (covering 50 INNs) through the HIF. However, the country faces the challenge of overall high pharmaceutical prices and limited capacity to negotiate lower prices with the pharmaceutical industry.

Outpatient medicines and dental services often require OOP payments

Covered medicines are provided by public pharmacies and contracted private pharmacies, but there are many private pharmacies that do not have contracts with the HIF and charge full prices for medicines. For prescribed outpatient medicines, patients, unless exempt (such as children, people older than 67 years or those with chronic conditions), incur a fixed co-payment of €0.36 for each prescription and are required to pay any amount above the reference price. The supplementary list of medicines, introduced in 2018, offers therapeutic alternatives to those in the basic list, expanding patient treatment options. Medicines on the supplemental list can have prices up to 48% higher than medicines on the basic list, even when they share the same INN, pharmaceutical form and strength. Alternatively, the price gap between basic and supplemental list medications is limited to €5 under certain conditions. This difference in cost is paid by patients. Co-payments for outpatient visits vary, with primary care visits requiring a 20% co-payment and secondary and tertiary care visits a 40% co-payment. Patients also pay percentage co-payments of between 20% and 60% of the price of medical products, while diagnostic tests and inpatient care typically involve fixed co-payments averaging around €1.50 per test. Primary dental care is generally not covered for most adults.

2 FINANCING AND ENSURING FINANCIAL PROTECTION

Public spending on health in Montenegro exceeds the south-eastern European average

Public spending on health accounted for 6.5% of the country's gross domestic product (GDP) in 2021, the last year before the revenue source for the social health insurance system changed to taxation. While

this figure fell below the EU average of 7.1% in 2021, it surpassed the average for South-Eastern Europe Health Network (SEEHN) countries at 5.3%, as well as the average for UMICs in the WHO European Region at 4.2% in the same year. Montenegro's public spending on health surged to 7.1% of GDP in 2020 in response to the COVID-19 pandemic's impact. Although public spending on health decreased in 2021, it remains higher than pre-pandemic levels **(Fig. 1)**. Public spending on health as a share of overall government spending stood at 14.4% in 2021, which was higher than the average in the WHO European Region (13.9%), and indicates high priority given to health.

OOP spending on health is substantial

In 2021, per capita public spending on health in Montenegro was higher than the SEEHN average, standing at US$ 1492 (adjusted for purchasing power) compared to US$ 1316. Private spending, primarily through OOP payments, totalled US$ 929 per person in the same year, surpassing the averages in the EU (US$ 799), UMICs (US$ 619) and SEEHN countries (US$ 661) **(Fig. 2)**.

The share of OOP spending has remained consistently high in recent years

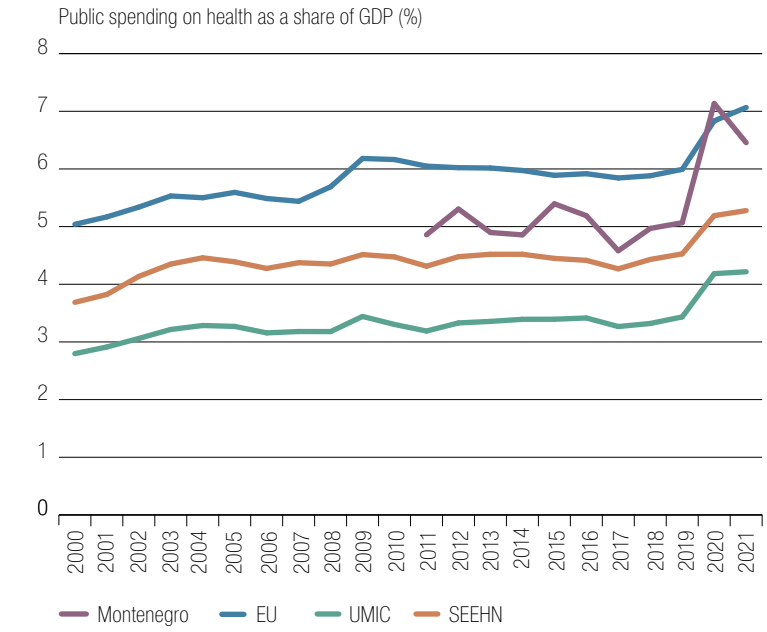
Around 38% of current health spending was covered through OOP payments in 2021, largely driven by payments for medicines that are not reimbursed by the HIF (for example, because they are bought from private pharmacies) or for services where people decide to go private due to issues such as waiting times. The share of OOP spending fluctuated between 2011 and 2021 but remained consistently high **(Fig. 3)**. Public spending on health was 61% of health spending in 2021, a level consistent with that of 2011. During the height of the COVID-19 pandemic in 2020, public spending on health peaked at 63% of health spending.

Informal payments and corruption in the health sector are present yet remain unmonitored

Transparency International lists health care as particularly vulnerable to corruption, and the effectiveness of anti-corruption measures remains uncertain, a concern applicable to all countries. The adverse effects of informal payments in health care are well documented, hindering access to services and exacerbating poverty and financial hardship (Bruckner, 2019). A 2023 national report on corruption in Montenegro's health care system underscores the pressing need for transparency improvements, strengthened oversight and punitive measures against corrupt activities (CeMI, 2023). The report emphasizes the challenge of measuring corruption due to a lack of statistics but notes the presence of signals indicating its existence (CeMI, 2023).

Fig.1

Montenegro's public spending on health increased substantially in response to the COVID-19 pandemic

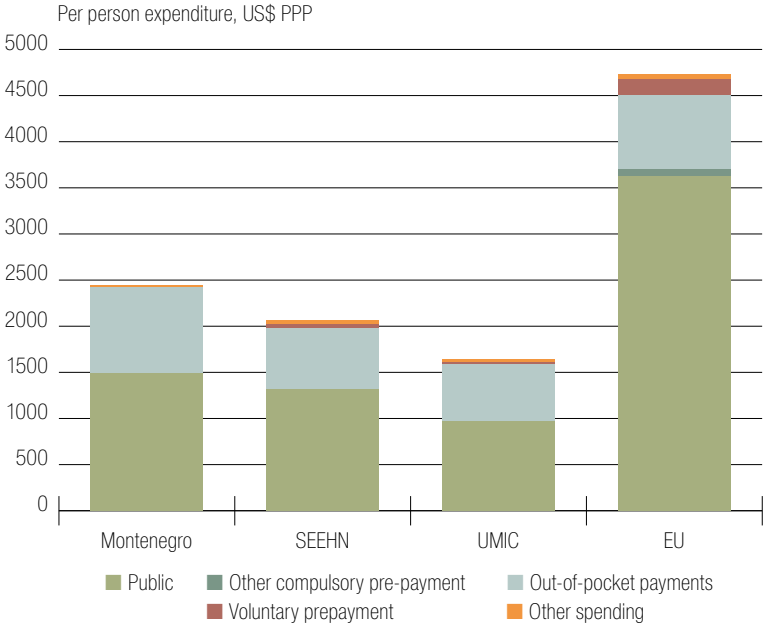


Source: WHO, 2024a.

Note: The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

Fig.2

OOP spending accounts for a large share of overall health spending

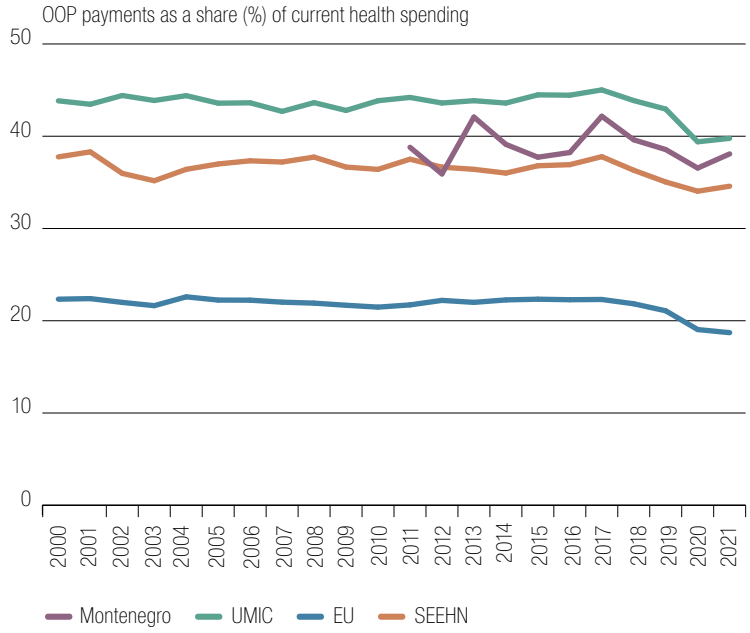


Source: WHO, 2024a.

Notes: 2021 data. Public refers to transfers from government budgets and social health insurance contributions. Other compulsory pre-payment refers to premiums for mandatory health insurance schemes in Belgium, Finland, France, Germany, the Netherlands (Kingdom of the) and Switzerland. Other spending includes external funding and some other marginal spending. PPP: purchasing power parity. The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

Fig.3

Montenegro's OOP spending far exceeds averages in south-eastern Europe and the EU



Source: WHO, 2024a.

Note: The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

Levels of catastrophic spending are high, but have decreased

While catastrophic spending levels have historically been high, there has been improvement over time. The heavy reliance on OOP payments, combined with comparatively low public spending on health per capita, results in relatively high levels of catastrophic health spending. In 2017, approximately 9% of households experienced catastrophic health spending **(Fig. 4)**, posing a concern particularly for poor households, and potentially leading to impoverishment or further impoverishment (WHO Regional Office for Europe, 2023). Nonetheless, Montenegro exhibits a lower incidence of catastrophic spending compared to some other countries with lower shares of OOP payments.

Unmet needs for medical care due to cost have declined substantially over the past decade

EU-SILC data spanning the period from 2013 to 2022 show a decline from 9.5% to 0.9% in the share of people facing unmet medical care needs due to cost. Moreover, in 2022, the share of unmet needs attributable to costs was lower in Montenegro (0.9%) compared to the EU average (1.1%) **(Fig. 5)**. The share of poorest people, i.e., people in the lowest income quintile, facing unmet medical care needs due to cost was 1.2% in 2022, compared to 2.4% in the EU during the same year. Since 2020, this share has consistently been lower in Montenegro than in the EU. Similarly, among people in the highest income quintile, the share of people experiencing unmet medical care needs due to cost was lower (0.2%) than the EU average (0.3%) in 2022.

Box 1

The COVID-19 pandemic highlighted health system inefficiencies

Montenegro dedicated 14.4% of its government budget to health care in 2021, but people experienced substantial OOP expenses, constituting 38% of current health spending **(Fig. 3)**. This suggests scope for making publicly covered health services more easily accessible. Insufficient emphasis on prevention, screening and early detection in primary care exacerbates the burden of NCDs, contributing to illness, disability and death. Prevention strategies often target behaviours rather than addressing broader social determinants of health through collaborative action across multiple sectors.

Major public health challenges include unhealthy behaviour, tobacco and alcohol consumption, antibiotic use and air quality issues, compounded by socioeconomic factors like poverty and unemployment. The COVID-19 pandemic exposed significant shortcomings in Montenegro's health system, including in primary care. Disruptions to essential services due to inadequate digital health infrastructure and insufficient protection for health workers resulted in appointment cancellations, decreased mental health support and worsened NCD management. Excess mortality during the pandemic exceeded the average for the WHO European Region.

Weaknesses in quality assurance, health technology assessment and monitoring systems, along with ineffective payment structures and governance mechanisms for procuring medical supplies, are other challenges to health system efficiency.

3 GENERATING RESOURCES, PROVIDING SERVICES AND ENSURING ACCESS

The number of hospital beds has stagnated in recent years

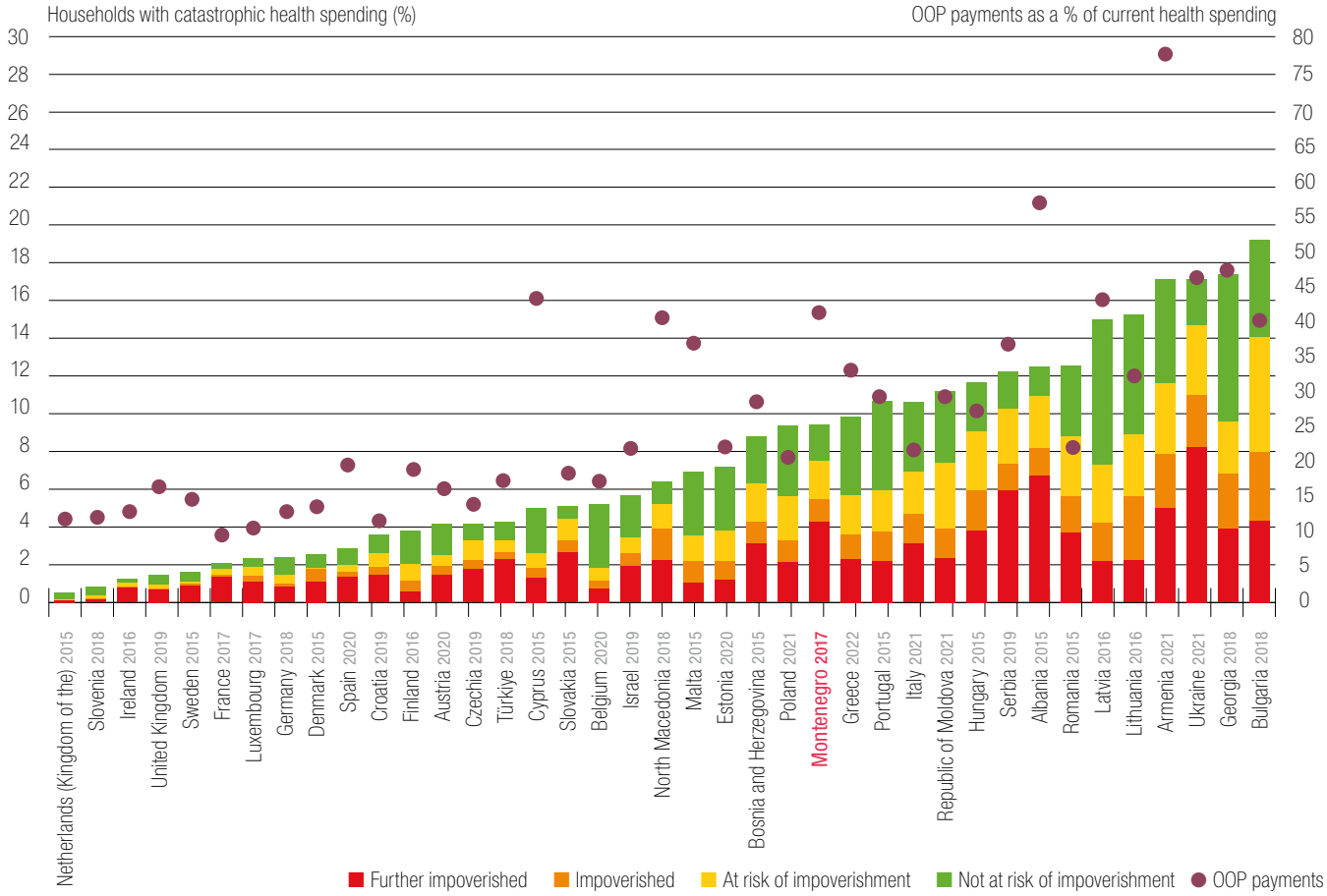
Primary health care is provided at 18 primary health care (PHC) centres ("dom zdravlja") and by the Institute of Public Health. Secondary and tertiary care services are offered at the Clinical Centre of Montenegro in the capital Podgorica, along with seven general hospitals and three specialized facilities.

In the last two decades, the number of hospital beds per 100 000 population in Montenegro has declined from 413 in 2000 to 381 in 2020 **(Fig. 6)**, with the rate of decline slowing in recent years. As of 2020, Montenegro had a lower number of hospital beds than the averages in the EU (494), the WHO European Region (470) and SEEHN countries (497).

Specialist hospitals have the highest bed occupancy rates, averaging around 80% in 2019 and 70% in 2020. General hospitals follow, with an average occupancy rate of 62% in 2019, declining to 47% in 2020, while the Clinical Centre of Montenegro had rates of 62% (2019) and 48% (2020). In contrast, PHC centre inpatient units had the lowest occupancy rates, at 34% and 27% in 2019 and 2020, respectively (IPH, 2020; IPH, 2021). These statistics highlight challenges for efficient resource use, partly impacted by the COVID-19 pandemic. However, the average length of stay in hospitals decreased from 8.9 days in 2016 to 8.1 days in 2021. In Montenegro, the length of stay in 2021 is shorter than in neighbouring Serbia (10.9 days) but longer than the EU average of 7.4 days.

Fig.4

There is a high risk of impoverishment due to health spending

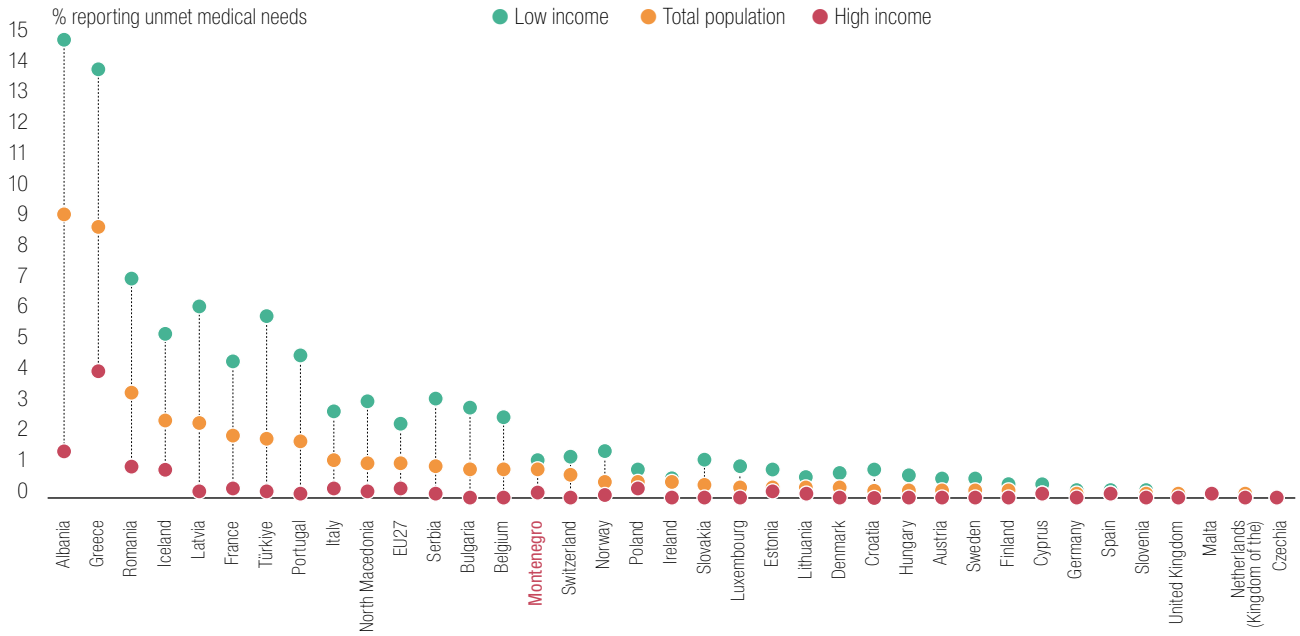


Source: WHO Regional Office for Europe, 2024a.

Notes: The data on OOP payments are for the same year as the data on catastrophic health spending (except for Greece, where data on OOP spending are from 2021). A household is impoverished if its total spending falls below the poverty line after OOP payments; further impoverished if its total spending is below the poverty line before OOP payments; and at risk of impoverishment if its total spending after OOP payments comes within 120% of the poverty line. The poverty line used here is a relative line reflecting basic needs (food, housing, utilities).

Fig.5

Montenegro has a remarkably low share of people with unmet medical needs due to costs

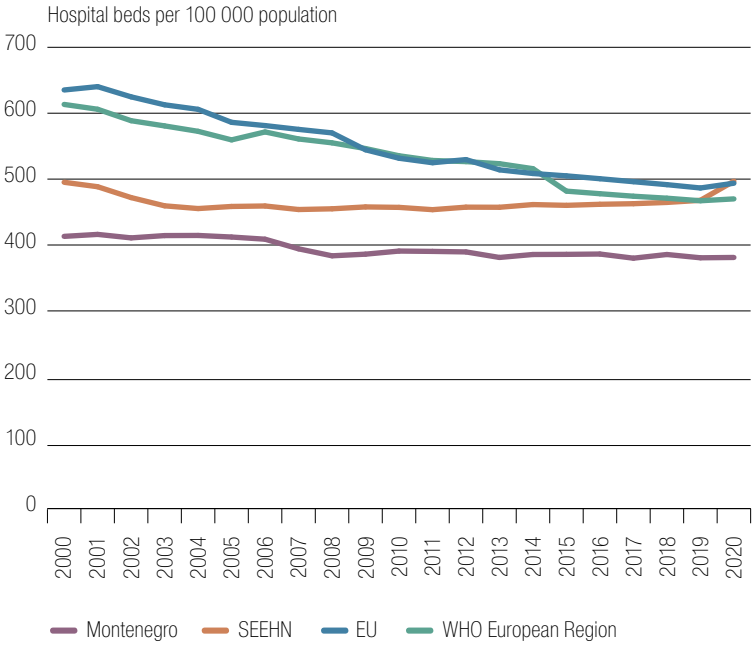


Source: Eurostat, 2024a.

Notes: data refer to 2022, except Albania and Türkiye – 2021, North Macedonia – 2020, and Iceland and the United Kingdom – 2018. Data refer to unmet needs for a medical examination or treatment due to costs among people aged 16 years and over. High income refers to people in the richest income quintile. Low income refers to people in the poorest income quintile. Caution is required in comparing the data across countries as there are some variations in the survey instrument used.

Fig.6

Montenegro has comparatively few hospital beds per population



Source: WHO, 2024b.

Note: The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

Montenegro has a shortage of health care professionals, particularly physicians

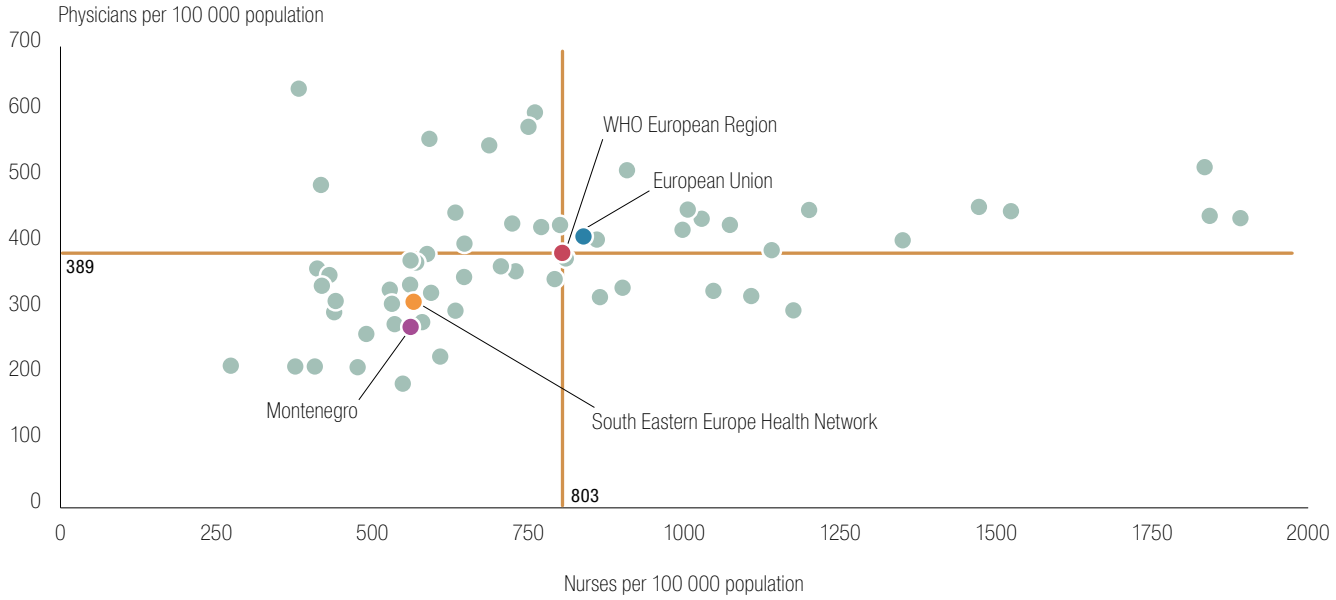
In 2021, the numbers of physicians and nurses in Montenegro were below European averages. The number of physicians per 100 000 population increased from 202 in 2010 to 275 in 2022 but was well below the averages of the EU (412), the WHO European Region (389) and the SEEHN countries (312). Similarly, the number of nurses per 100 000 population increased over time (to 559 in 2022) but remained below the averages of the EU (838), the WHO European Region (803) and the SEEHN countries (567) **(Fig. 7)**.

Childhood vaccination coverage is low

Montenegro implements a national programme mandating immunization against specific diseases, supported by an annually updated vaccination calendar and a dedicated commission for routine immunization. However, the COVID-19 pandemic disrupted essential health services, exacerbating the decline in childhood vaccination rates, particularly for tuberculosis (BCG), polio (three doses), measles (first dose of measles-containing vaccine), and hepatitis B. Despite efforts to maintain vaccination rates, childhood vaccination coverage remains low, falling well below the targeted 95% threshold. Contributing factors include misinformation spread through social media and online platforms, alongside challenges posed by anti-vaccination groups.

Fig.7

Montenegro has comparatively few physicians and nurses



Source: WHO, 2024c.

Notes: Densities were multiplied by 10 to calculate the density per 100 000 population. Averages are based on latest available years. The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

The percentage of 1-year-olds receiving the first dose of the measles-containing vaccine (MCV1) declined from 58% in 2017 to only 33% in 2022, while the second dose (MCV2) coverage by the nationally recommended age dropped from 83% to 70% over the same period. Diphtheria, tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds decreased from 87% in 2017 to 80% in 2022 (WHO, 2024b).

Montenegro had an effective response to HIV/AIDS and tuberculosis (TB)

HIV surveillance in Montenegro saw significant improvements with the implementation of the 'HIV/AIDS Strategy 2015–2020' and the introduction of advanced surveillance methods. Progress towards UNAIDS targets for HIV/AIDS diagnosis and management – the 95:95:95 goal – had mixed results as of 2022. While one target, pertaining to individuals on antiretroviral treatment with suppressed viral loads, has been achieved, others remain unmet **(Fig. 8)**.

The incidence of patients diagnosed with TB was 14 per 100 000 population in 2022, marking a significant decline from 29 in 2005. As of 2017, the most recent data available, effective TB treatment coverage was 75.7%. This rate surpassed the averages in south-eastern European countries (71.5%), the WHO European Region (63.7%) and the EU (59.2%) **(Fig. 9)**.

Access to essential health services has improved, but lags behind the WHO European Region average

Montenegro has achieved an improvement in the UHC service coverage index, a global indicator that monitors progress towards the Sustainable Development Goal (SDG) 3, target 3.8.1, on coverage of essential health services. The index grew from 67 (out of 100) in 2010 to 72 in 2021 (the latest available year), although this still fell below the WHO European Region's average of 81 in 2021 **(Fig. 10)**. Montenegro's UHC service coverage index is aligned with Serbia's and surpasses those of Albania (64) and Bosnia and Herzegovina (66) in the same year (WHO, 2024c). There is, however, room for improvement in the UHC service coverage sub-index on NCDs, which increased from 54 in 2000 to 66 in 2019 and 2021.

Montenegro has taken proactive steps to enhance access to care by implementing the Disability Guide for Action

Barriers to accessing health services, however, persist due to disparities and shortages in the availability of health care providers, infrastructure deficiencies and financial obstacles. Approximately 280 000 people with disabilities in Montenegro face difficulties in accessing health services, especially related to physical accessibility and the inadequacy of available services.

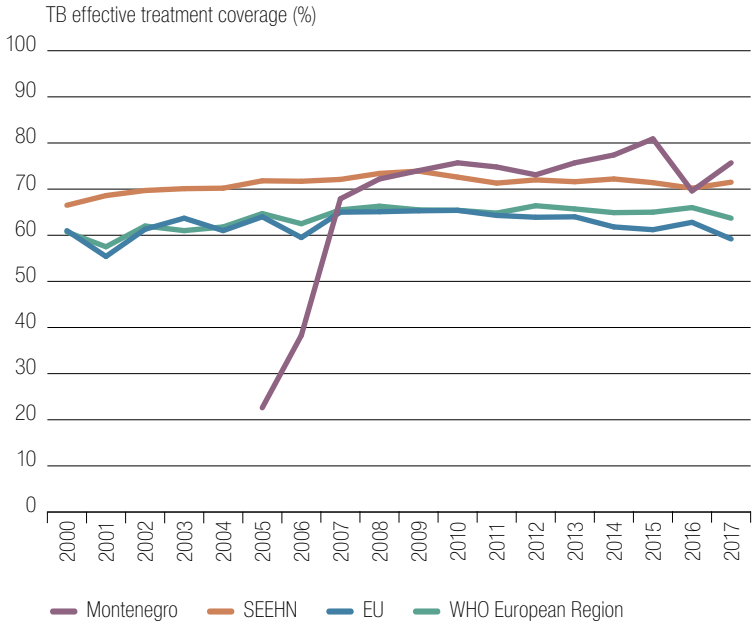
Fig.8

Montenegro has reached one of the targets to respond to HIV/AIDS

Source: UNAIDS, 2023.

Fig.9

Effective TB treatment coverage has improved dramatically



Source: WHO, 2024b.

Note: Proportion of TB cases detected and successfully treated (estimate). The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

Children with disabilities face significant challenges accessing quality health care, education, social services and child protection, limiting their inclusion in society.

The implementation of the Disability Guide for Action by Montenegro aligns with the EU Global Health Strategy, the EU Strategy for the Rights of Persons with Disabilities 2021–2030, and the WHO European Framework for Action 2022–2030. Supported by WHO, the Ministry of Health developed a strategic Action Plan through the Disability Guide for Action Working Group. This collaborative effort, including government ministries, UN agencies, national stakeholders and disability organizations, conducted a situational assessment across ten strategic entry points, informing priority interventions to enhance access for persons with disabilities.

4 IMPROVING THE HEALTH OF THE POPULATION

Life expectancy had improved prior to the COVID-19 pandemic

In 2005, life expectancy at birth stood at 74.0 years, declining slightly to 73.8 years by 2021, as a result of the COVID-19 pandemic. This fell below the averages of the EU (79.9 years), the WHO European Region (78.2 years) and the SEEHN (75.9) **(Fig. 11)**, but it

should be noted that these averages contain post-pandemic life expectancy data for many countries.

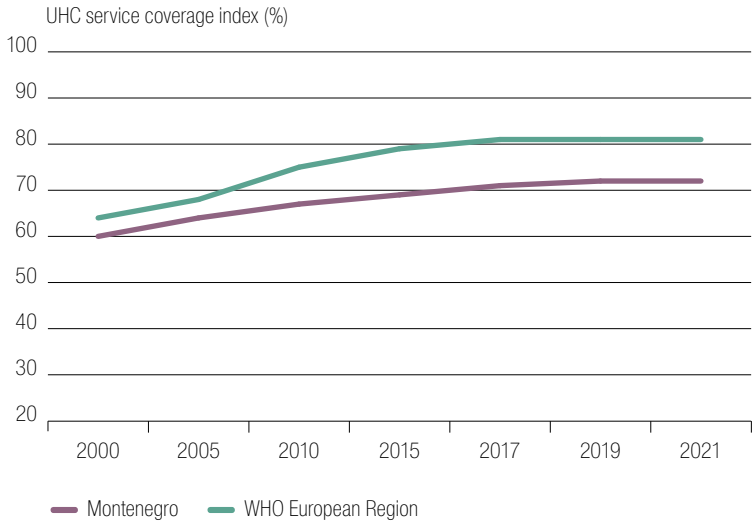
As in other European countries, females have a higher life expectancy than males. Female life expectancy stood at 78.9 years in 2014, while male life expectancy was 74.1 years. By 2021, female life expectancy had declined to 77.0 years and male life expectancy to 70.8 years. Consequently, the gap between the sexes widened from a difference of 4.8 years in 2014 to 6.2 years in 2021.

Infant and maternal mortality rates are very low

Advancements in perinatal and paediatric care have yielded remarkably low infant and maternal mortality rates. The estimated maternal mortality rate per 100 000 live births declined from 10.5 in 2000 to 6.2 in 2020, positioning it below that of both the EU (6.4 in 2020) and SEEHN countries (7.3 in 2020). Similarly, the infant mortality rate is estimated to have decreased significantly, plummeting from 12.6 per 1000 live births in 2000 to 1.9 in 2020. This places the country below the averages in 2020 for the EU (3.2), SEEHN countries (4.6) and the WHO European Region (6.3) (WHO Regional Office for Europe, 2024b).

Fig.10

Access to essential health services has plateaued

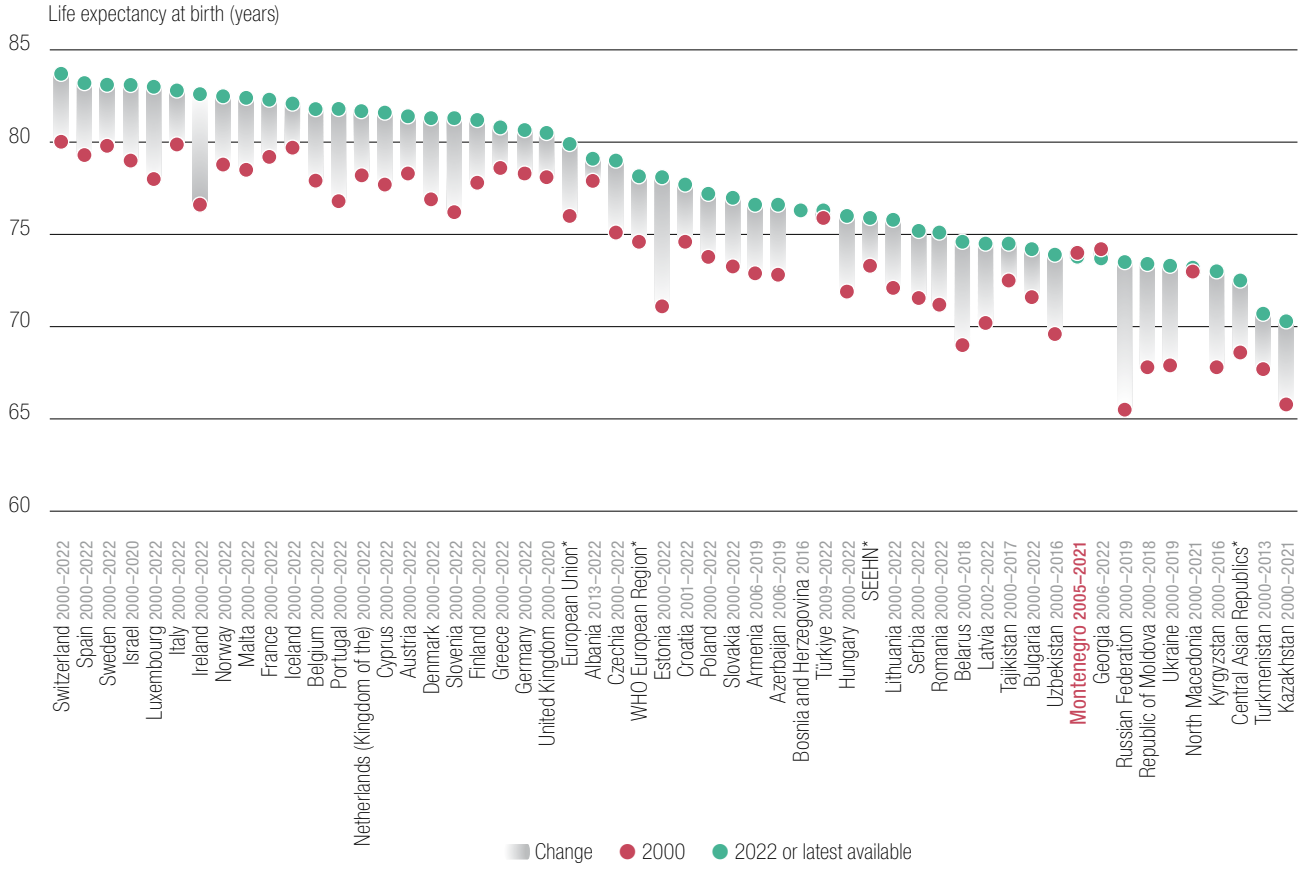


Source: WHO, 2024b.

Note: UHC service coverage index, defined as the average estimated coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health; infectious diseases; NCDs; and service capacity and access; among the general and the most disadvantaged populations.

Fig.11

Montenegro's life expectancy data show the impact of the COVID-19 pandemic



Sources: Eurostat, 2024b, for EU/EEA countries, Albania, Montenegro, North Macedonia, Serbia, Armenia, Azerbaijan, Georgia and Türkiye; WHO Regional Office for Europe, 2024b, for all others.

Notes: * averages are based on years with data available. The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

NCDs are the primary causes of death

Most deaths in Montenegro are due to NCDs. Specifically, cardiovascular diseases, cancers and to a lesser extent diabetes were the primary causes of death in 2019 **(Fig. 12)**. Enhancing health outcomes needs substantial investment in mitigating risk factors, promoting health, preventing diseases and effectively managing chronic conditions. This imperative is underscored in the National Strategy for Sustainable Development 2016–2030 as well as the Strategy for Enhancing Health Care Quality and Ensuring Patient Safety 2019–2023.

Excess mortality associated with COVID-19 was more than double that of the WHO European Region

The COVID-19 pandemic laid bare significant deficiencies within the Montenegrin health system, as evidenced by very high mortality rates. Moreover, the pandemic disrupted health care access and worsened existing health disparities, particularly impacting vulnerable groups such as women and children (MONSTAT, 2022; UN, 2021). This disruption included declining vaccination rates among children **(see above)** and a substantial reduction in the coverage of the national cancer screening programme for colorectal, cervical and breast cancer, which only reached 30% of the eligible population (WHO, 2022). While excess mortality associated with the COVID-19 pandemic was slightly lower than the WHO European Region in 2020, it almost quadrupled in 2021 **(Fig. 13)**.

Premature mortality from NCDs has declined

Premature mortality rates due to NCDs remain high, with approximately 20% of people succumbing to one of the four major NCDs (cardiovascular diseases, cancers, chronic respiratory diseases and diabetes) before reaching the age of 70 years. Premature mortality from these diseases among men is nearly double that among women. While premature deaths attributable to NCDs as a proportion of all deaths from NCDs decreased from 41% in 2000 to 31% in 2019, significant gender disparities persist, with higher premature mortality from NCDs among men (39.4%) than among women (23.3%) in 2019 (WHO Regional Office for Europe, 2024b).

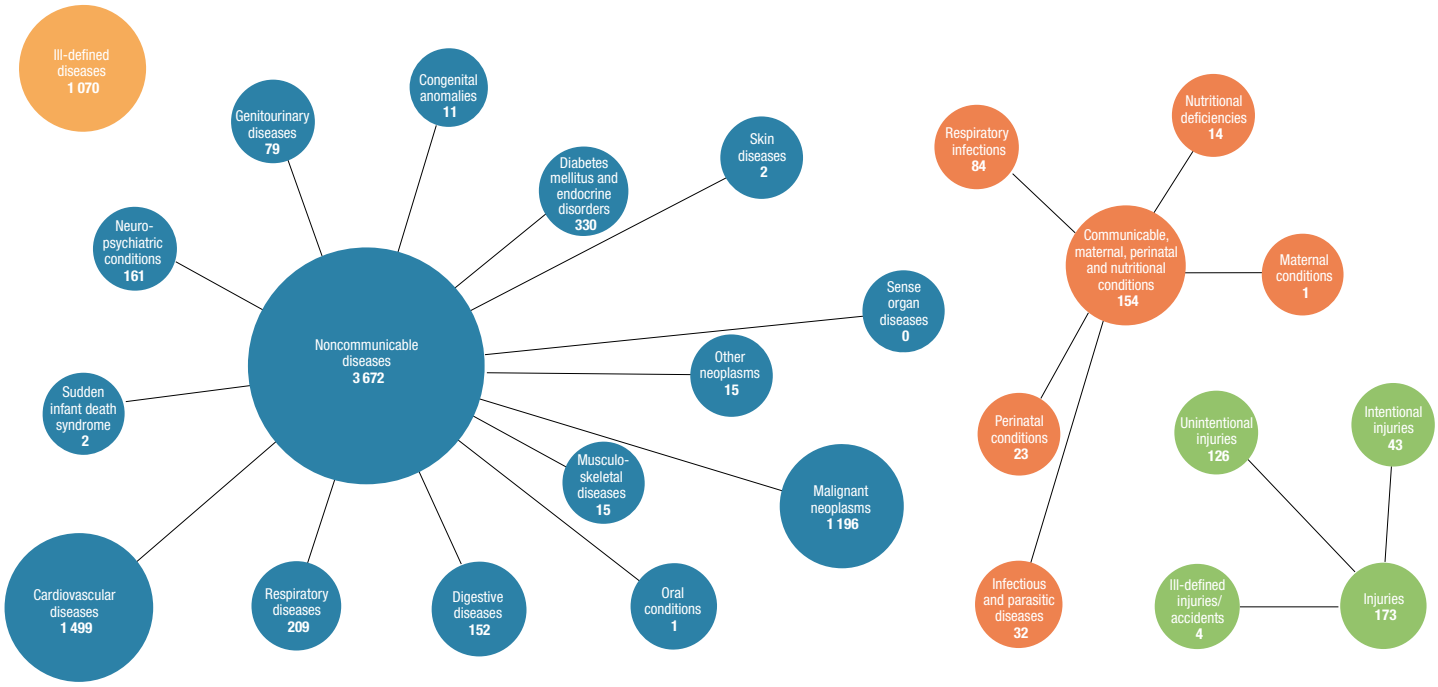
Based on the most recent statistics from 2019, Montenegro had a lower premature mortality rate from NCDs per 100 000 population than the WHO European Region and SEEHN countries overall, and only slightly higher than in the EU **(Fig. 14)**.

Most of the burden of disease is due to NCDs

In 2021, COVID-19 was the major contributor to disability and mortality in Montenegro. Eight NCDs rank among the top 10 causes of disability-adjusted life years (DALYs), with stroke and ischaemic heart disease at the top of the list **(Fig. 15)**. There is much potential for enhancing the prevention and management of cardiovascular diseases,

Fig.12

Cardiovascular diseases and cancers cause the highest number of deaths



Source: WHO, 2024d

Note: Overview of the distribution of causes of total deaths grouped by category. Data refer to 2019.

considering that 80% of cases can be prevented through early detection. Strategic investments aimed at reducing risk factors, promoting health, preventing diseases and effectively managing chronic conditions have the potential to improve Montenegro's health outcomes.

High systolic blood pressure and dietary habits are the greatest contributors to mortality

Behavioural risk factors like tobacco use, physical inactivity, alcohol consumption and poor diets increase the risk of NCDs. High systolic blood pressure was estimated to account for a quarter of all deaths in 2021. Dietary risks, including high sodium intake and low consumption of fruits, account for 14.2% of mortality. Additionally, Montenegro has a high smoking prevalence, with 32% of people aged 15 years and over estimated to be daily smokers in 2023, surpassing regional and EU rates. Notably, smoking prevalence among females (33.2% in 2023) exceeds that of males (30.7%). Tobacco use was estimated to account for 13.4% of all deaths in 2021 **(Fig. 16)**.

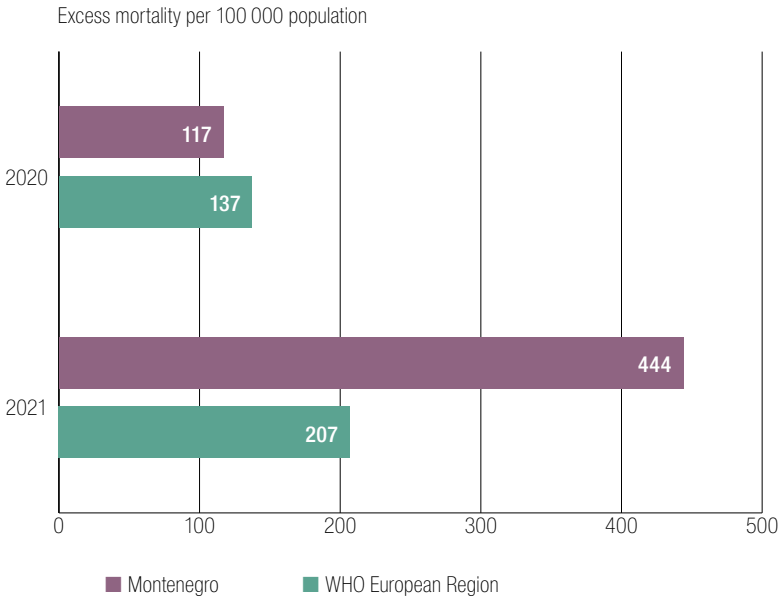
In 2019, alcohol consumption in Montenegro rose to 9.9 litres of pure alcohol per person aged 15 and above, above the average of 8.2 litres among SEEHN countries. Male alcohol consumption was higher than that of females. Additionally, a 2018 WHO study identified dietary issues such as excessive sugar and salt intake as key factors contributing to NCDs in Montenegro (D'Elia et al., 2019).

Poor air quality leads to preventable deaths

Montenegro has made strides in expanding the use of renewable energy sources, achieving a target of 33% renewable energy in its overall energy consumption. The country continues to provide support to renewable energy producers through feed-in tariffs (Spasić, 2018). Air quality in Montenegro is rated as "moderately unsafe". In 2018, exposure to elevated PM2.5 concentrations resulted in an estimated loss of 8600 years of life and 640 premature deaths among the Montenegrin population (EEA, 2021). The National Strategy for Air Quality Management recognizes the need to address air pollution's health impacts.

Fig.13

COVID-19 was associated with substantial excess mortality

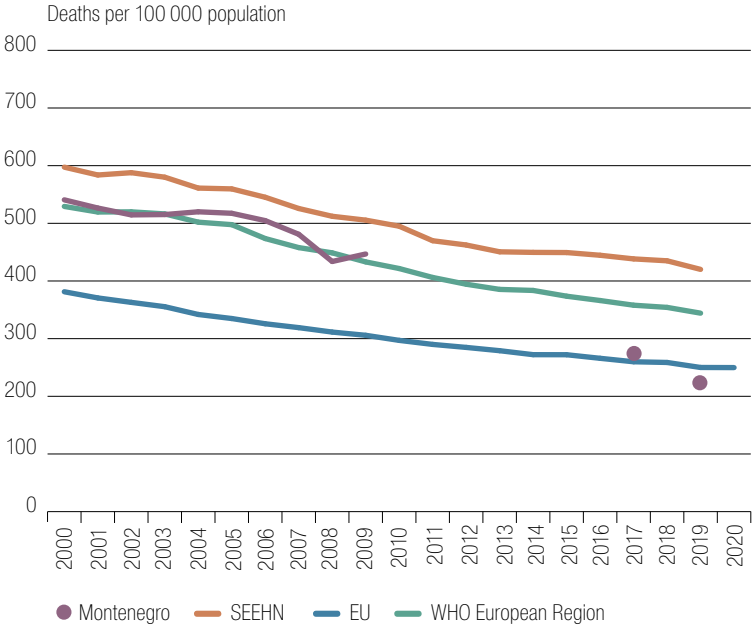


Source: WHO, 2023.

Note: Excess mortality from all causes of death, defined as the difference between the total number of deaths and the number that would have been expected in the absence of a crisis (for example, the COVID-19 pandemic). This difference is assumed to include deaths attributable directly to COVID-19, as well as deaths indirectly associated with COVID-19 through impacts on health systems and society.

Fig.14

There was a strong decrease in premature NCD mortality

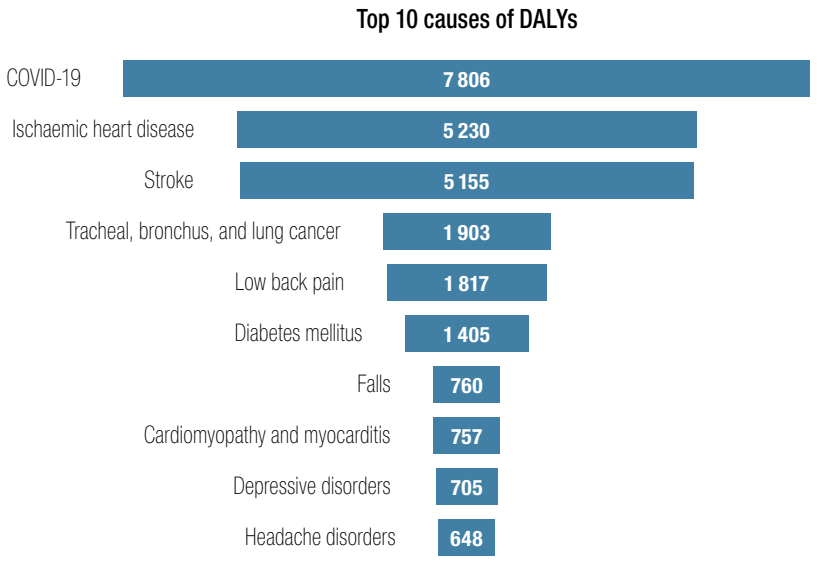


Source: WHO Regional Office for Europe, 2024b.

Notes: Premature mortality among those aged 30–69 years from four major NCDs (cardiovascular diseases, cancers, diabetes mellitus and chronic respiratory diseases). The latest data point for Montenegro is 2019. The South-Eastern Europe Health Network (SEEHN) includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia.

Fig.15

After COVID-19, cardiovascular diseases were the major contributors to disability and mortality in 2021

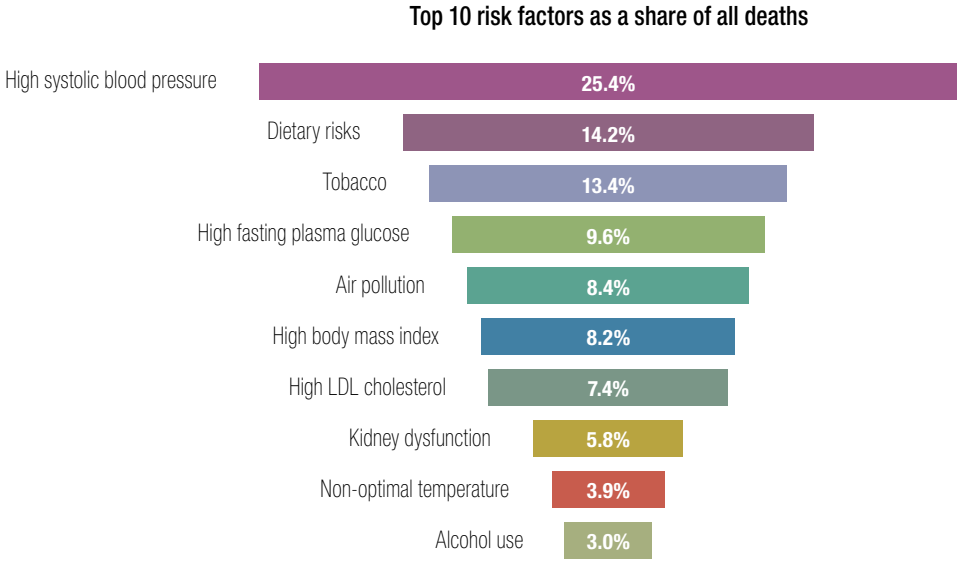


Source: IHME, 2024.

Notes: Top 10 causes of DALYs per 100 000 population for both sexes and all ages. Data refer to 2021.

Fig.16

Behavioural risk factors contribute significantly to mortality



Source: IHME, 2024.

Notes: Percentage of all deaths attributable to risk factors for both sexes and all ages. Shares overlap and therefore add up to more than 100%. LDL: low-density-lipoprotein. Data refer to 2021.

Box 2

Montenegro spearheads action for healthier communities

Montenegro has undertaken efforts to provide tobacco cessation, and WHO supported the Ministry of Health in adopting protocols for tobacco cessation in primary care settings in 2021. This involved the development of clinical guidelines and capacity-building for health professionals, including the integration of nicotine replacement therapy into the list of essential medicines. However, challenges persist in enforcing a comprehensive approach due to the need for sustained political commitment and financial investment.

Additionally, WHO advocates for comprehensive strategies to tackle unhealthy dietary practices, including salt reduction guidelines and regulations on grain quality. Montenegro aims to meet the global nutrition targets but faces challenges like anaemia and childhood obesity. In 2012, the inclusion of salt reduction goals in Montenegro's national nutritional policies aligned with WHO's European Food and Nutrition Action Plan. Nonetheless, the extent of policy implementation remains uncertain, highlighting the need for enhanced monitoring and evaluation mechanisms.

WHO's support extends to environmental health risks, such as facilitating the ratification and implementation of the Protocol on Water and Health in 2020. Montenegro works on equitable access to water, sanitation and hygiene (WASH) in health care settings and educational environments, with the support of UNICEF and WHO. Ongoing efforts include research on WASH in Roma settlements.

Box 3

WHO and UNICEF support mental health initiatives

WHO and UNICEF advocate for increased public investment in mental health services in Montenegro, particularly for children and adolescents. The COVID-19 pandemic exacerbated mental health disorders, disrupting service availability and continuity. Montenegro faces several challenges in mental health care provision, including limited data on affected individuals, insufficient human resources and outdated guidelines. The integration of health and social services remains inadequate, impeding a holistic approach.

In response, WHO supports community-based psychosocial services for severe mental illness. A ten-year collaborative effort between WHO and UNICEF aims to enhance mental health care access and quality, emphasizing capacity building in health information management, quality assurance and digital technology utilization.

Montenegro's involvement in the Small Countries Initiative (SCI) highlights collaborative efforts to address mental health challenges. Montenegro's priorities are to enhance support for children and adolescents, strengthen the workforce and combat stigma, with an emphasis on continuous professional development and evidence-based campaigns (WHO Regional Office for Europe, 2024c).

5 SPOTLIGHT ON HEALTH WORKFORCE TRENDS

The rates of health workers in Montenegro are increasing

From 2013 to 2022, the rate of doctors per 100 000 population increased from 213 to 275, and the rate of nurses per 100 000 population from 493 to 559. Despite these increases, both doctor and nurse densities remain significantly below the averages of the WHO European Region **(Fig. 17)**. In 2022, the health workforce was predominantly female, with women accounting for 63.8% of doctors and 81.8% of nurses (WHO, 2024c).

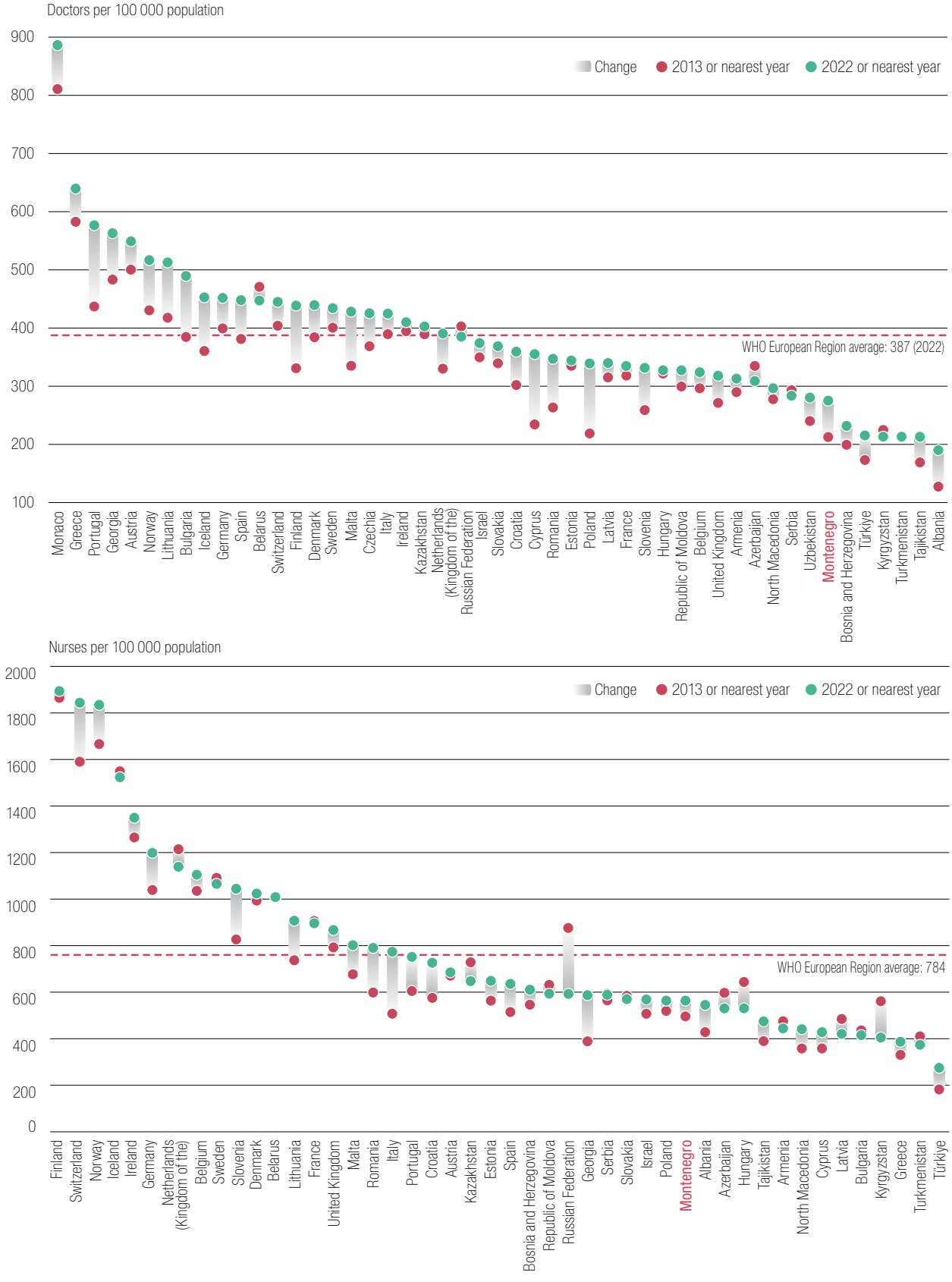
Increasing the training of medical and nursing graduates is a key strategy to raise the density of doctors and nurses. Currently, there are no internationally comparable data available for Montenegro regarding the number of medical graduates. However, statistics for nursing graduates have been available since 2018, showing fluctuations. For instance, there were 55 nursing graduates in 2018, decreasing to 34 in 2022.

In 2022, one in four doctors was over 55 years old

The share of doctors aged 55 years and over increased from 18.6% in 2013 to 26.2% in 2022. Likewise, the percentage of nurses aged 55 years and over rose from 22.3% in 2018 – the first year for which this statistic is available – to 23.8% in 2022 **(Fig. 18)**. The ageing of doctors and nurses is a problem due to potential shortages of experienced personnel while demand for health care is increasing as the population ages.

Fig.17

Doctor and nurse densities in Montenegro increased over the last decade

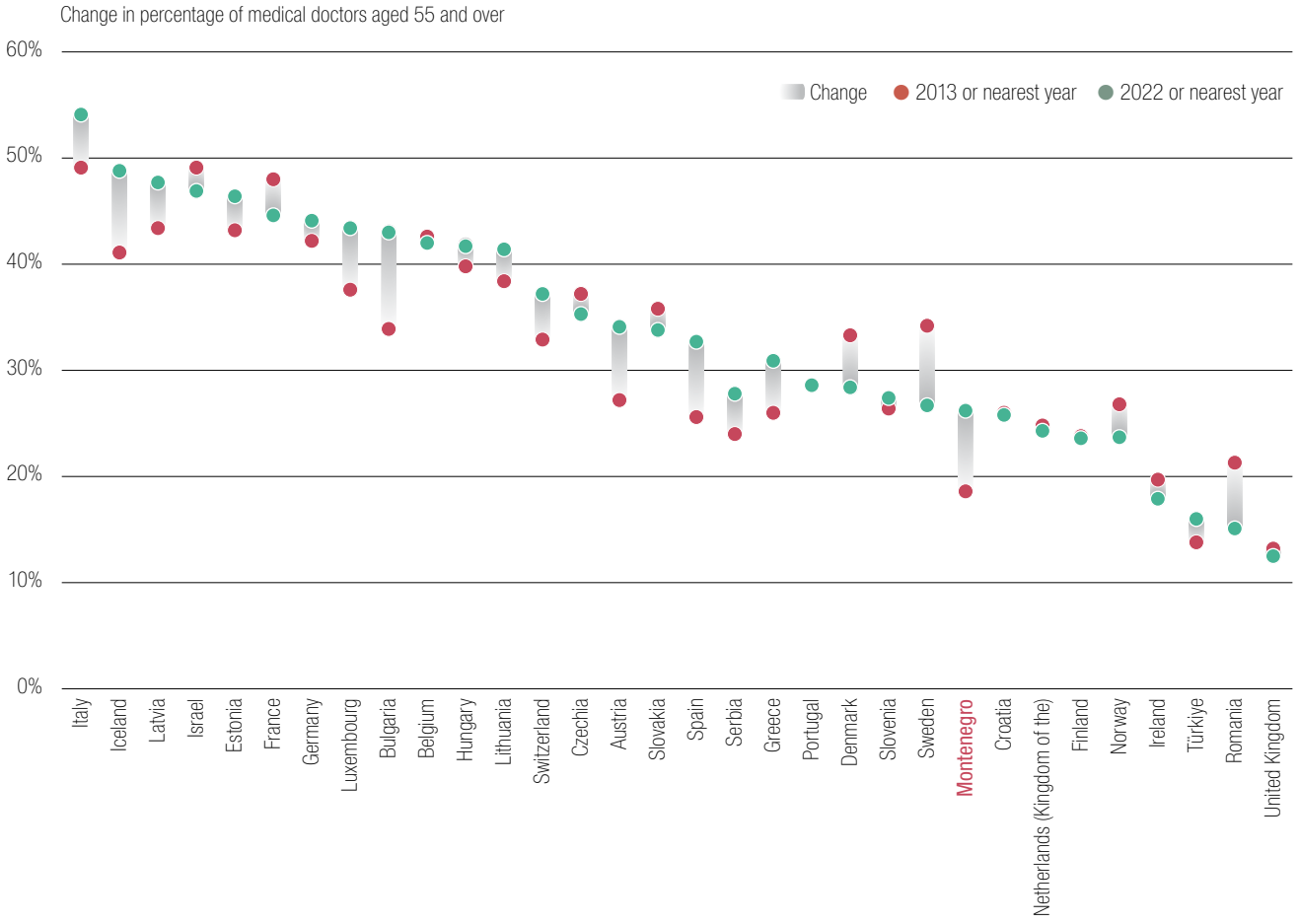


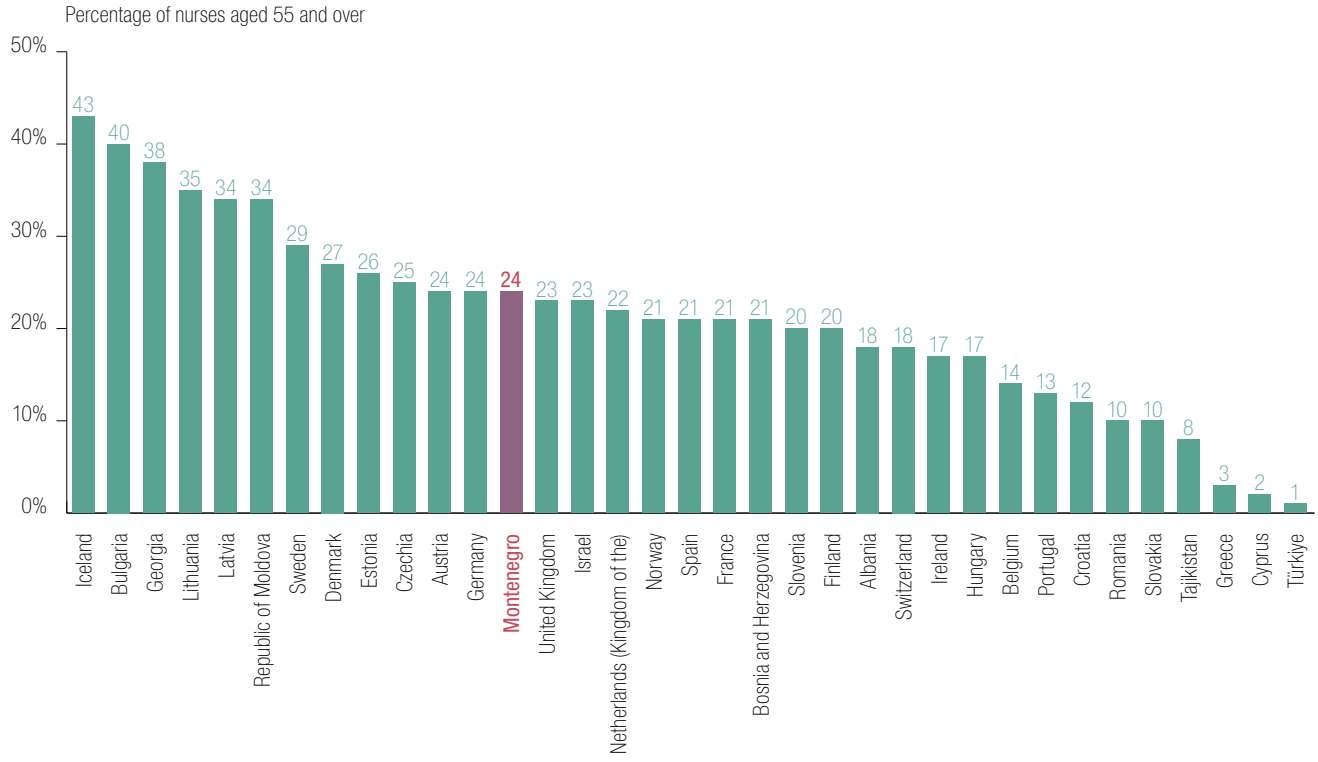
Source: WHO, 2024c.

Note: The number of nurses plotted for Austria has to be treated with caution, due to breaks in the time series and switching between "licensed to practise" and "practising" workforce numbers.

Fig.18

The proportion of older doctors is increasing in Montenegro





Sources: WHO, 2024c, for all countries except Israel and Serbia; WHO Regional Office for Europe, 2024d, for Israel and Serbia.

Montenegro saw a slight increase in the share of generalist medical practitioners

Between 2012 and 2022, the share of generalist medical practitioners, known as 'chosen doctors' in Montenegro, within the total number of doctors increased from 16% to 18.4% **(Fig. 19)**. While this growth aligns with WHO's vision of strengthening PHC to enhance population health, health care outcomes and efficiency, GPs are burdened with significant administrative tasks. Nurses in Montenegro's PHC primarily handle administrative duties, leading to limited or neglected services beyond counselling.

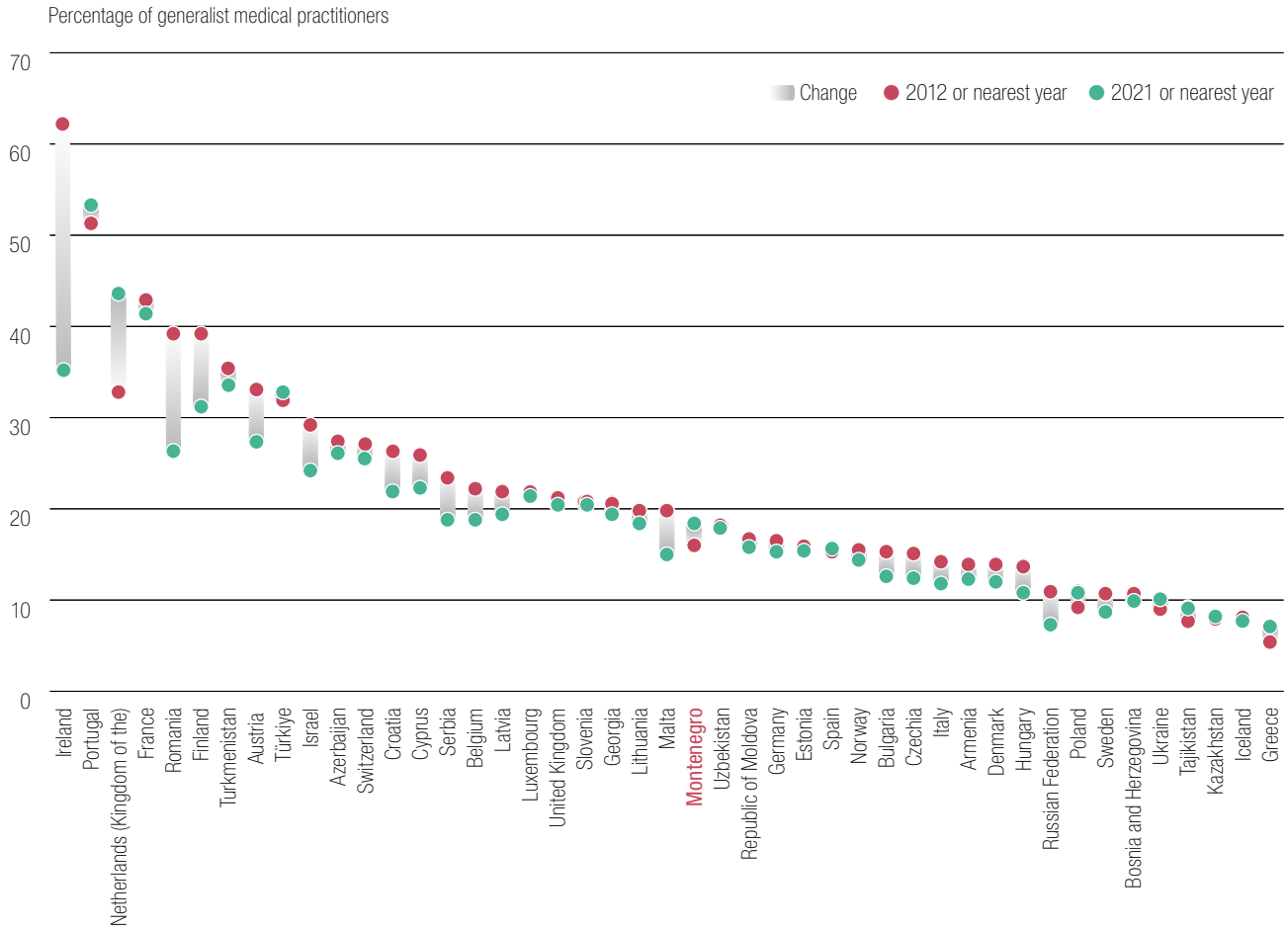
Additionally, GPs act as gatekeepers, handling between 10% and 50% of patient contacts without referral to specialists. These doctors perform various tasks, including determining incapacity for work, prescribing therapy and referring patients to higher-level care. Despite offering counselling and follow-up services, PHC lacks comprehensive risk assessment and diagnostic capabilities (WHO Regional Office for Europe, 2020).

Missing migration data hamper health care workforce monitoring

No internationally comparable statistics are available for Montenegro regarding the migration of doctors and nurses. Although exact figures are not available, the Medical Chamber of Montenegro and the Montenegrin Trade Union of Physicians estimated that approximately 7% of all physicians have emigrated in the past five years (Golubovic, 2021). The Medical Chamber of Montenegro lacks precise data on the number of doctors emigrating for work abroad. Information is available on the number of issued Certificates of Good Standing, but these are not mandatory for employment and in 2024 only a dozen certificates have been issued, making exact numbers uncertain.

Fig.19

The share of generalist medical practitioners in Montenegro is comparatively low



Source: WHO, 2024c.

Note: Occupations included in this group require completion of a university-level degree in basic medical education plus postgraduate clinical training or equivalent for competent performance. Medical interns or residents who have completed their university education in basic medical education and are undertaking postgraduate clinical training in general medicine without any area of specialization are included here. Although in some countries "general practice" and "family medicine" may be considered as medical specializations, these occupations are also classified here.

6 EUROPEAN PROGRAMME OF WORK (EPW)

Moving towards universal health coverage (UHC)

Montenegro's health system faces common challenges seen across the region. These include issues with human resources, sustainable financing and service delivery optimization, particularly in managing chronic conditions. WHO's ongoing collaboration prioritizes enhancing the quality of primary care services, aiming for integrated health services across communicable diseases, NCDs, and mental health conditions. WHO's support extends to developing and adopting a new Health Development Strategy aimed at transforming the health system to achieve UHC, bolster emergency preparedness and response, and enhance overall health outcomes. Strategic guidance and action plans actively ensure health equity, particularly for persons with disabilities.

Protecting against health emergencies

WHO aids Montenegro in strengthening capacities for preparedness, response and operational readiness by establishing the first Public Health Emergency Operations Centre. This initiative is complemented by the development of hospital emergency preparedness and response plans, crucial for maintaining health care services during emergencies. These endeavours align with the International Health Regulations core capacities, ensuring effective emergency response capabilities.

Promoting health and wellbeing

Efforts to control tobacco use are supported through the implementation of the Framework Convention on Tobacco Control. Additionally, WHO assists in combating antimicrobial resistance by developing national guidelines for antibiotic use, promoting rational antibiotic use and ultimately improving health outcomes. These measures contribute to safeguarding public health and wellbeing in Montenegro.

COUNTRY DATA SUMMARY

	Montenegro	SEEHN	WHO European Region	European Union
Life expectancy at birth, both sexes combined (years)	73.8 [a] (2021)	75.9 [a]	78.2 [a]	79.9 [a]
Estimated maternal mortality per 100 000 live births (2020)	6.2	7.3	12.6	6.4
Estimated infant mortality per 1 000 live births (2021)	1.9	4.6	6.3	3.2
Population size, in millions (2022)	0.6	54.7	929.1	512.7
GDP per capita, PPP$ (2021)	22 795	30 022	38 936	48 615
Poverty rate at national poverty lines, % of population	20.3 [b] (2021)	22.6 (2017)	14.9 (2018)	17.0 (2018)

Sources: WHO Regional Office for Europe, 2024b;
[a] Eurostat, 2024, for EU/EEA countries, Albania, Montenegro, North Macedonia, Serbia, Armenia, Azerbaijan, Georgia and Türkiye; [b] World Bank, 2024.

Notes: SEEHN includes Albania, Bosnia and Herzegovina, Bulgaria, Israel, Montenegro, North Macedonia, the Republic of Moldova, Romania and Serbia; life expectancy averages refer to latest available years.

References

Bruckner T (2019). The ignored pandemic: how corruption in healthcare service delivery threatens Universal Health Coverage. Brussels: Transparency International. Available at: https://ti-health.org/wp-content/uploads/2019/03/IgnoredPandemic-WEB-v3.pdf (accessed 29 May 2024).

CeMI (2023). Korupcija u zdravstvenom sistemu Crne Gore: šta treba znati [Corruption in the health care system of Montenegro: what you need to know]. Podgorica: Centar za monitoring i istraživanje. Available at: http://www.cemi.org.me"www.cemi.org.me (accessed 22 April 2024).

D'Elia L et al. (2019). Sodium and potassium intake, knowledge attitudes and behaviour towards salt consumption amongst adults in Podgorica, Montenegro. Nutrients, 11(1).

EEA (2021). Air quality in Europe: 2020 report. Copenhagen: European Environment Agency. Available at: https://www.eea.europa.eu/publications/air-quality-in-europe-2020-report (accessed 23 April 2024).

European Commission (2022). Montenegro 2022 report. Brussels: European Commission. Available at: https://neighbourhood-enlargement.ec.europa.eu/montenegro-report-2022_en (accessed 28 March 2024).

Eurostat (2024a). Database, based on EU-SILC. Brussels: European Commission. Available at: https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions (accessed 29 March 2024).

Eurostat (2024b). Database, life expectancy at birth. Brussels: European Commission. Available at: https://ec.europa.eu/eurostat/databrowser/view/demo_mlexpec/default/table?lang=en (accessed 8 May 2024).

Golubovic V (2021). How migration, human capital and the labour market interact in Montenegro. Torino: European Training Foundation. Available at: https://www.etf.europa.eu/sites/default/files/2021-07/migration_montenegro_0.pdf (accessed 15 April 2024).

IHME (2024). Global Burden of Disease 2021: Findings from the GBD 2021 Study. Seattle, WA: Institute for Health Metrics and Evaluation. Available at: https://www.healthdata.org/research-analysis/library/global-burden-disease-2021-findings-gbd-2021-study (accessed 30 May 2024).

MONSTAT (2022). Survey on living conditions and women safety. Release 163/2022. Podgorica: MONSTAT. Available at: https://www.monstat.org/uploads/files/demografija/gbv/Saopštenje%20GBV%2025.11.2022%20eng.pdf (accessed 23 April 2024).

Montenegro Government (2022). Montenegro Economic Reform Program 2022–2024. Available at: https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-05/Montenegro%20ERP%202022-2024.pdf (accessed 28 March 2024).

Mosca I, Terzic N, Tille F (2022). Health systems in action: Montenegro. Copenhagen: WHO Regional Office for Europe. Available at: https://eurohealthobservatory.who.int/publications/health-systems-in-action-insights (accessed 28 March 2024).

Spasić V (2018). Montenegro to start phasing out feed-in tariffs for renewables in 2020. Balkan Green Energy News. Belgrade: Centre for Promotion of Sustainable Development. Available at: https://balkangreenenergynews.com/montenegro-to-start-phasing-out-feed-in-tariffs-for-renewables-in-2020/ (accessed 4 April 2024).

UN (2021). Rapid social impact assessment of the COVID-19 outbreak in Montenegro. Podgorica: United Nations Montenegro. Available at: https://montenegro.un.org/sites/default/files/2021-10/Rapid%20Social%20Impact%20Assessment%20of%20the%20COVID-19%20Outbreak%20in%20Montenegro%20-%20September%202021.pdf (accessed 23 April 2024).

UNAIDS (2023). Montenegro Country Fact Sheet. Geneva: UNAIDS. Available at: https://www.unaids.org/en/regionscountries/countries (accessed 4 April 2024).

WHO (2022). Global pulse survey on continuity of essential health services during the COVID-19 pandemic. Geneva: World Health Organization. Available at: https://www.who.int/teams/integrated-health-services/monitoring-health-services/global-pulse-survey-on-continuity-of-essential-health-services-during-the-covid-19-pandemic (accessed 23 April 2024).

WHO (2023). Global excess deaths associated with COVID-19 (modelled estimates). Geneva: World Health Organization. Available at: https://www.who.int/data/sets/global-excess-deaths-associated-with-covid-19-modelled-estimates (accessed 10 April 2024).

WHO (2024a). Global Health Expenditure Database. Geneva: World Health Organization. Available at: https://apps.who.int/nha/database (accessed 29 March 2024).

WHO (2024b). Global Health Observatory. Geneva: World Health Organization. Available at: https://www.who.int/data/gho (accessed 15 April 2024).

WHO (2024c). National Health Workforce Accounts. Geneva: World Health Organization. Available: https://apps.who.int/nhwaportal (accessed 15 April 2024).

WHO (2024d). WHO Mortality Database. Geneva: World Health Organization. Available at: https://platform.who.int/mortality/countries (accessed 18 April 2024).

WHO Regional Office for Europe (2020). Montenegro: WHO European Primary Health Care Impact, Performance and Capacity Tool (PHC-IMPACT). Copenhagen: WHO Regional Office for Europe. Available at: https://www.who.int/andorra/publications/m/item/montenegro---who-european-primary-health-care-impact--performance-and-capacity-tool-(phc-impact)-(2020) (accessed 25 April 2024).

WHO Regional Office for Europe (2023). Can people afford to pay for health care? Evidence on financial protection in 40 countries in Europe. Copenhagen: WHO Regional Office for Europe. Available at: https://iris.who.int/handle/10665/374504 (accessed 29 March 2024).

WHO Regional Office for Europe (2024a). UHC watch – tracking progress on affordable access to health care in Europe and central Asia. Online database. Copenhagen: WHO Regional Office for Europe. Available at: https://apps.who.int/dhis2/uhcwatch/#/ (accessed 15 June 2024).

WHO Regional Office for Europe (2024b). Health for All database. Copenhagen: WHO Regional Office for Europe. Available at: https://gateway.euro.who.int/en/ (accessed 15 June 2024).

WHO Regional Office for Europe (2024c). Towards collaboration on mental health in the Small Countries Initiative. Background paper. Copenhagen: WHO Regional Office for Europe. Available at: https://www.who.int/montenegro/publications/i/item/WHO-EURO-2024-8941-48713-72418 (accessed 26 April 2024).

WHO Regional Office for Europe (2024d). European database on human and technical resources for health (HlthRes-DB). Copenhagen: WHO Regional Office for Europe. Available at: https://gateway.euro.who.int/en/datasets/#hlthres (accessed 29 July 2024).

World Bank (2024). Poverty and Inequality Platform. Washington, DC: World Bank. Available at: https://data.worldbank.org/indicator/SI.POV.NAHC?end=2023&start=2023&view=bar (accessed 25 April 2024).

WHO Regional Office for Europe

WHO is the authority responsible for public health within the United Nations system. The WHO Regional Office for Europe (WHO/Europe) covers 53 countries, from the Atlantic to the Pacific oceans.

To support countries, WHO/Europe seeks to deliver a new vision for health, building a pan-European culture of health, where health and well-being goals guide public and private decision-making, and everyone can make healthy choices. WHO/Europe aims to inspire and support all its Member States to improve the health of their populations at all ages. WHO/Europe does this by providing a roadmap for the Region's future to better health; ensuring health security in the face of emergencies and other threats to health; empowering people and increasing health behaviour insights; supporting health transformation at all levels of health systems; and by leveraging strategic partnerships for better health.

European Programme of Work 'United Action for Better Health in Europe'

The European Programme of Work (EPW) sets out a vision of how the WHO Regional Office for Europe can better support countries in our region in meeting citizens' expectations about health.

The social, political, economic and health landscape in the WHO European Region is changing. United action for better health is the new vision that aims to support countries in these changing times. "United", because partnership is an ethical duty and essential for success, and "action" because countries have stressed their wish to see WHO move from the "what" to the "how", exchanging knowledge to solve real problems. The WHO European Region's solidarity is a precious asset to be nurtured and preserved and, through the EPW, WHO/Europe supports countries as they work together to serve their citizens, learning from their challenges and successes.

The European Observatory on Health Systems and Policies

The European Observatory on Health Systems and Policies supports and promotes evidence-based health policy-making so that countries can take more informed decisions to improve the health of their populations. It brings together a wide range of policy-makers, academics and practitioners, drawing on their knowledge and experience to offer comprehensive and rigorous analysis of health systems in Europe. The Observatory is a partnership hosted by WHO/Europe. Partners include the governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the Veneto Region of Italy (with Agenas); the European Commission; the French National Union of Health Insurance Funds (UNCAM), the Health Foundation; the London School of Economics and Political Science (LSE) and the London School of Hygiene & Tropical Medicine (LSHTM). The Observatory is based in Brussels with hubs in London (at LSE and LSHTM) and at the Berlin University of Technology.

ISBN: 978 92 890 5979 4