



State of Health in the EU

Luxembourg

Country Health Profile 2023

The Country Health Profile Series

The *State of Health in the EU's Country Health Profiles* provide a concise and policy-relevant overview of health and health systems in the EU/European Economic Area. They emphasise the particular characteristics and challenges in each country against a backdrop of cross-country comparisons. The aim is to support policy makers and influencers with a means for mutual learning and voluntary exchange. For the first time since the series began, the 2023 edition of the Country Health Profiles introduces a special section dedicated to mental health.

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

Contents

1. HIGHLIGHTS	3
2. HEALTH IN LUXEMBOURG	4
3. RISK FACTORS	7
4. THE HEALTH SYSTEM	9
5. PERFORMANCE OF THE HEALTH SYSTEM	11
5.1 Effectiveness	11
5.2 Accessibility	14
5.3 Resilience	16
6. SPOTLIGHT ON MENTAL HEALTH	20
7. KEY FINDINGS	22

Data and information sources

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

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

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

This profile was finalised in September 2023, based on data that were accessible as of the first half of September 2023.

Demographic and socioeconomic context in Luxembourg, 2022

Demographic factors	Luxembourg	EU
Population size	645 397	446 735 291
Share of population over age 65 (%)	14.8	21.1
Fertility rate ¹ (2021)	1.4	1.5
Socioeconomic factors		
GDP per capita (EUR PPP ²)	91 870	35 219
Relative poverty rate ³ (%)	17.4	16.5
Unemployment rate (%)	4.6	6.2

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

Disclaimers: This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Member countries of the OECD. The views and opinions expressed in European Observatory on Health Systems and Policies publications do not necessarily represent the official policy of the Participating Organizations.

This work was produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

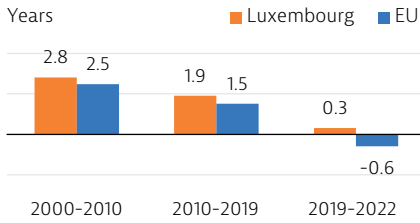
The names and representation of countries and territories used in this joint publication follow the practice of WHO.

Territorial disclaimers applicable to the OECD: This document, as well as any data and map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Additional specific disclaimers are available [here](#).

Territorial disclaimers applicable to the WHO: The designations employed and the presentation of this material do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

© OECD and World Health Organization (acting as the host organisation for, and secretariat of, the European Observatory on Health Systems and Policies) 2023.

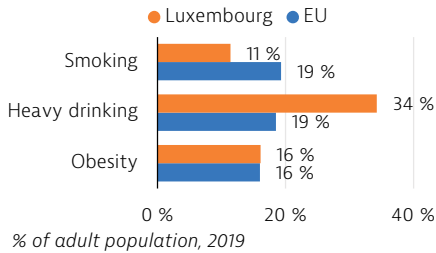
1 Highlights



Changes in life expectancy at birth

Health Status

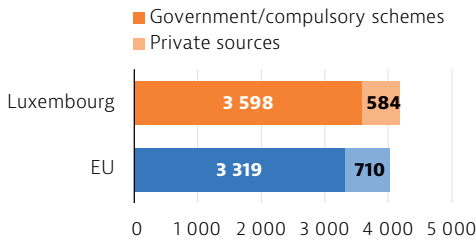
Life expectancy at birth in Luxembourg rose by 2.8 years between 2000 and 2010 and by 1.9 years between 2010 and 2019. After a temporary decline of 6 months in the first year of the COVID-19 pandemic, it rebounded, registering an overall gain in life expectancy of 0.3 years between 2019 and 2022. At 83.0 years it is 2.3 years higher than the EU average.



% of adult population, 2019

Risk Factors

Despite a decline in consumption in recent years, heavy drinking continues to be the greatest health issue in Luxembourg, with rates almost double the EU average. Smoking prevalence, on the other hand, remained well below the EU average in 2019. Rates of obesity among adults have remained constant over the past half decade, and match the EU average but the rate among adolescents is increasing.



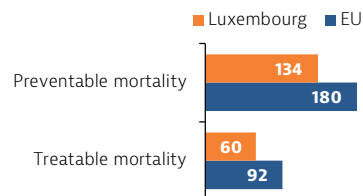
EUR PPP per capita, 2021

Health System

Spending per capita on health in Luxembourg is among the highest in the EU, at EUR 4 182. However, health expenditure as a share of GDP (5.7 %) is low. Luxembourg has the second highest public expenditure on health (86 %) in the EU, while out-of-pocket spending is among the lowest, at 9 %: and complementary voluntary health insurance represents 3.9 % of health expenditure.

Effectiveness

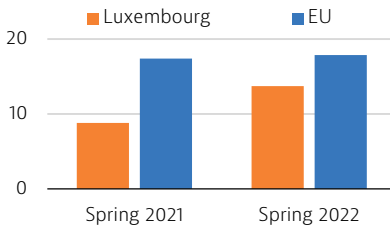
The relatively low rates of preventable and treatable mortality in Luxembourg indicate that the health system is effective in treating life-threatening diseases, and is able to prevent diseases through public health interventions. As in other EU countries, the number of preventable deaths in 2020 increased as a result of COVID-19.



Age-standardised mortality rate per 100 000 population, 2020

Accessibility

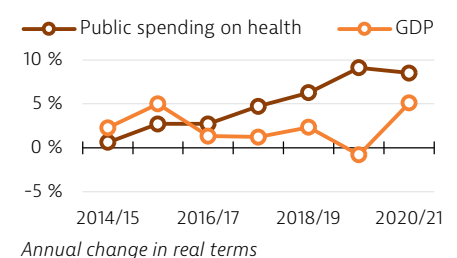
Access to healthcare is good in Luxembourg, with people reporting among the lowest levels of unmet needs for medical and dental care in the EU. However, unmet needs increased during the pandemic, with nearly one in seven people reporting that they had forgone needed healthcare in spring 2022.



% unmet healthcare needs

Resilience

Public spending on health in Luxembourg has increased continuously over the last 10 years. The increase was substantially higher in 2019/2020 and 2020/2021 than previous years because of the COVID-19 pandemic, despite negative or lower GDP growth in the same period.



Annual change in real terms

Mental Health

Before the COVID-19 pandemic, one in six Luxembourgers experienced a mental health issue. The most common mental health conditions were anxiety (estimated to affect 6 % of the population), depression (4 %) and alcohol and drug-use disorders (4 %). Nearly one fifth of all unmet needs for medical care in 2022 were for mental healthcare services. Luxembourg has created health promotion and prevention programmes, including crisis helplines and hotlines, support for young people and adolescents, and psychological care in schools.

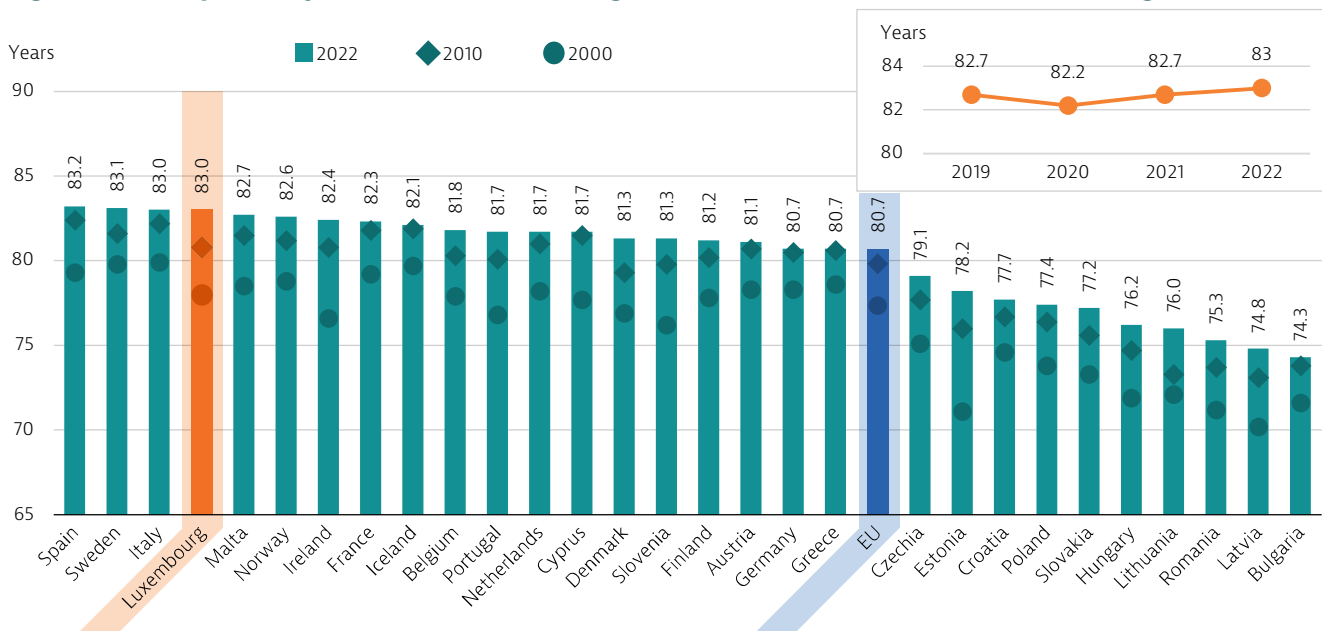
2 Health in Luxembourg

Life expectancy has now surpassed the pre-COVID-19 level and is relatively high

In Luxembourg, life expectancy at birth was 83.0 years in 2022. This is 2.3 years higher than the EU average, but lower than in other EU countries such as Spain, Italy and Sweden (Figure 1). Between 2010 and 2019, life expectancy increased steadily from 80.8 to 82.7 years; however, during the first

year of the COVID-19 pandemic, as was the case in most countries, it fell temporarily by half a year before returning to its pre-pandemic level in 2021. In 2022, life expectancy increased further by 0.3 years. Women live on average 4.4 years longer than men – a gender gap in life expectancy lower than the EU average (5.4 years).

Figure 1. Life expectancy at birth in Luxembourg continues to be well above the EU average



Notes: The EU average is weighted. The 2022 data are provisional estimates from Eurostat that may be different from national data and may be subject to revision. Data for Ireland refer to 2021.

Source: Eurostat Database.

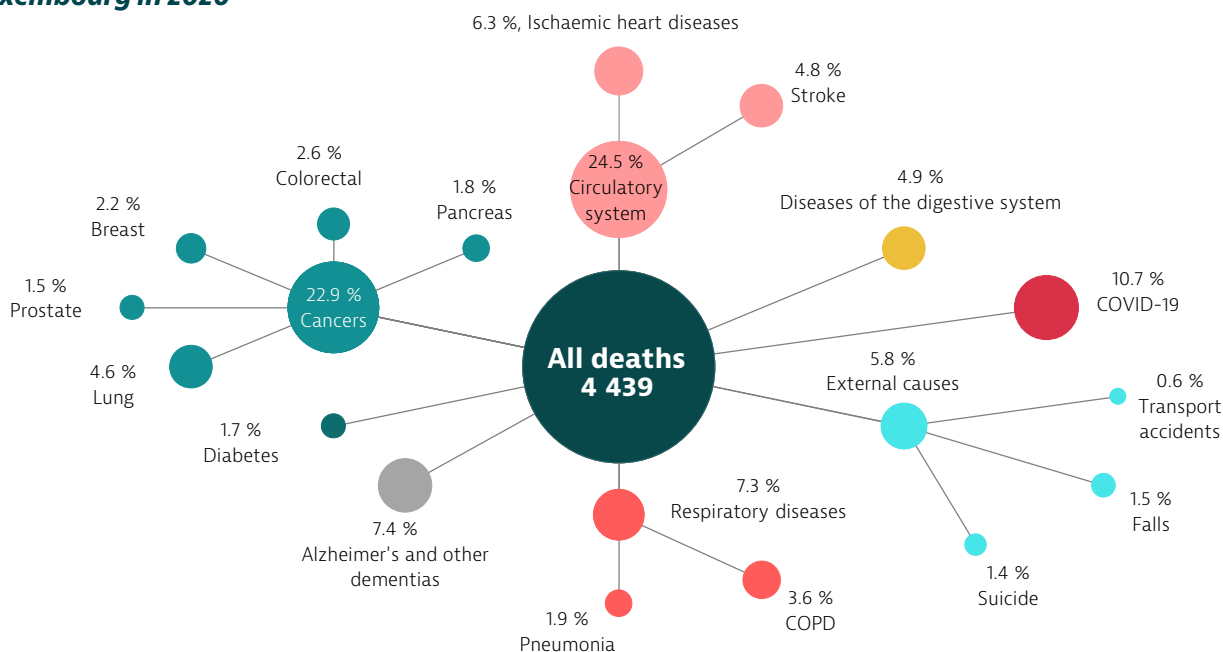
Circulatory diseases, cancer and COVID-19 were the main causes of mortality in 2020

In 2020, the leading causes of death in Luxembourg were circulatory diseases, such as stroke and ischaemic heart disease, cancer and COVID-19 (Figure 2). In 2021, however, the leading cause of death was cancer, and mortality attributed to cardiovascular diseases decreased faster than mortality attributed to cancer (Health Directorate, 2023). During the first year of the pandemic, people dying with COVID-19 accounted for 474 deaths in Luxembourg – 10.7 % of all deaths. About half of deaths with COVID-19 in 2020 were among people aged 85 and over.

The broader indicator of (all-cause) excess mortality shows that excess deaths in 2020, 2021 and 2022 were about 7-12 % higher in Luxembourg than in the previous five years. The rates were similar to the EU average in 2020 but well below

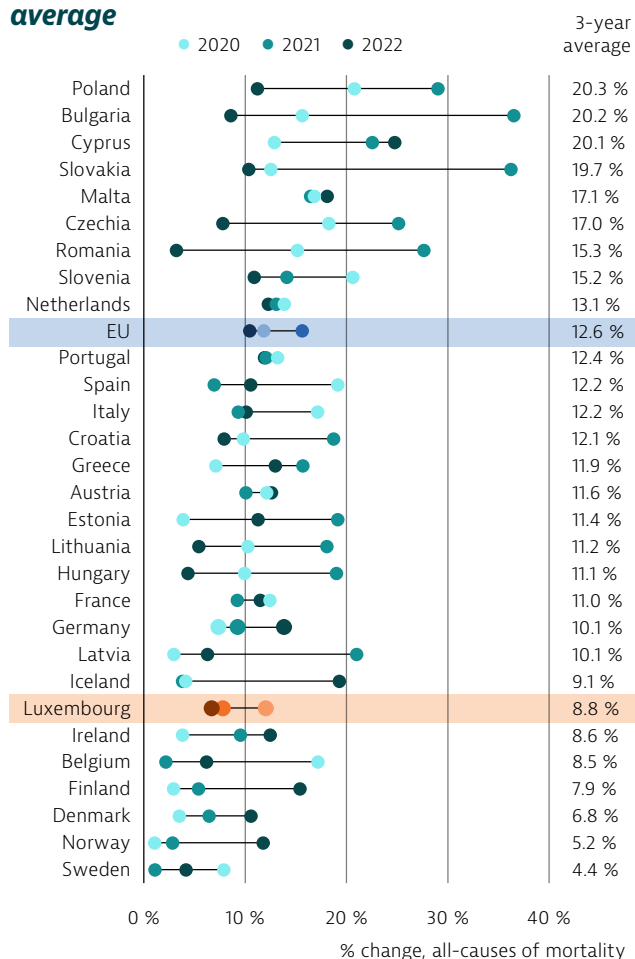
the EU averages in 2021 and 2022 (Figure 3). Deaths with COVID-19 were greater than excess mortality in 2021, indicating that there were fewer deaths from other causes. One possible explanation for this is displaced mortality: the probability that COVID-19 precipitated the death of frail and vulnerable people who would otherwise have died from other medical conditions.

Figure 2. Circulatory system diseases and cancer, as well as COVID-19 were the leading causes of death in Luxembourg in 2020



Note: COPD refers to chronic obstructive pulmonary disease.
Source: Eurostat Database (data refer to 2020).

Figure 3. Excess mortality in Luxembourg between 2020 and 2022 was below the EU average



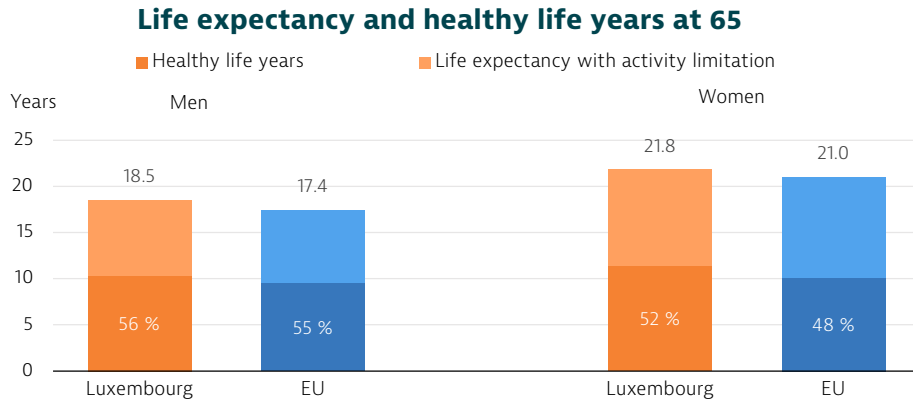
Note: Excess mortality is defined as the number of deaths from all causes above the average annual number of deaths over the previous five years before the pandemic (2015-19).
Source: OECD Health Statistics based on Eurostat mortality data (last updated on 30 June 2023).

Men and women in Luxembourg record more healthy life years than the EU averages

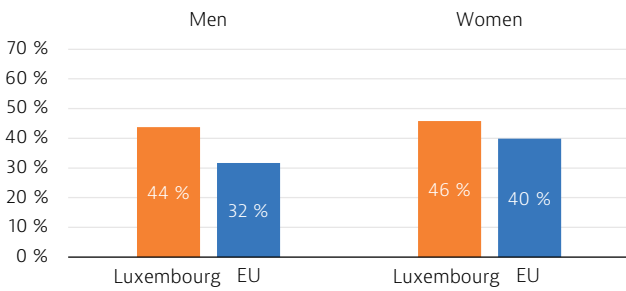
One in seven people in Luxembourg was aged 65 and over in 2020. This share is projected to increase to more than one in five by 2050. In Luxembourg, both men and women are living longer, and with more years free of disabilities than the EU averages. In 2020, women in Luxembourg at age 65 could expect to live another 21.8 years, which is slightly more than the EU average, while men could expect to live 18.5 years – over a year above the EU average (Figure 4). Just over half of this remaining time is lived without limitations in daily activities or disabilities, with a slightly higher proportion for men than for women.

About 45 % of people aged over 65 in Luxembourg report living with more than one chronic condition. This is well above the EU average, especially for men, and may reflect a better rate of diagnosis and awareness. However, a higher proportion of women (28 %) than men (20 %) in Luxembourg report having limitations in daily activities, as is the case in other EU countries. The share of people with such limitations will continue to grow with population ageing, increasing the burden on health and long-term care systems.

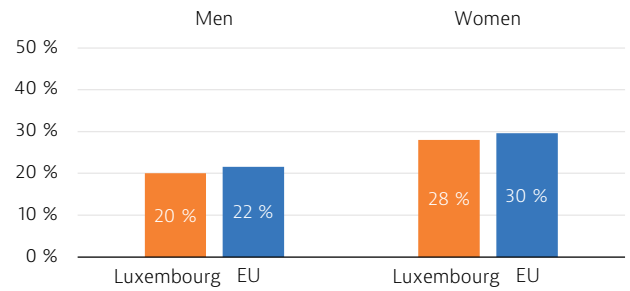
Figure 4. More older people in Luxembourg report having chronic conditions than the EU average



Proportion of people aged 65 and over with multiple chronic conditions



Limitations in daily activities among people aged 65 and over



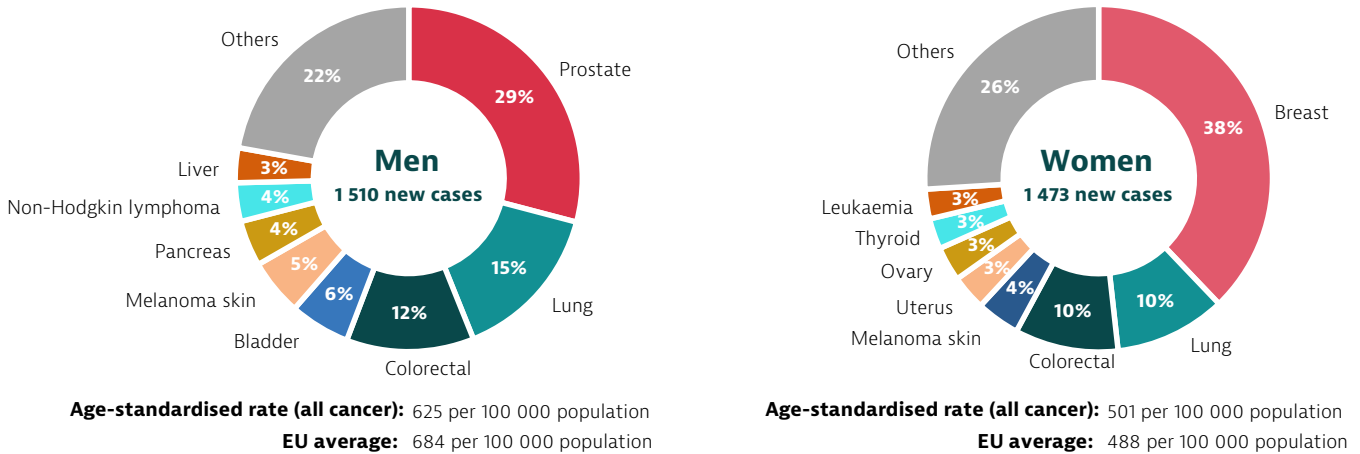
Sources: Eurostat Database (for life expectancy and healthy life years) and SHARE survey wave 8 (for multiple chronic conditions and limitations in daily activities). All the data refer to 2020.

Prostate and breast cancers continue to be the most diagnosed cancers in Luxembourg

According to estimates from the Joint Research Centre based on incidence trends from previous years, around 3 000 new cases of cancer were expected to be diagnosed in Luxembourg in 2022. The all-cancer incidence rates were expected to be

lower than the EU average for men but higher than the average for women. For men, prostate cancer is the most common while for women it is breast cancer. Colorectal and lung cancers are the next most frequent cancers for both men and women (Figure 5).

Figure 5. Nearly 3 000 people in Luxembourg were estimated to have been diagnosed with cancer in 2022



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

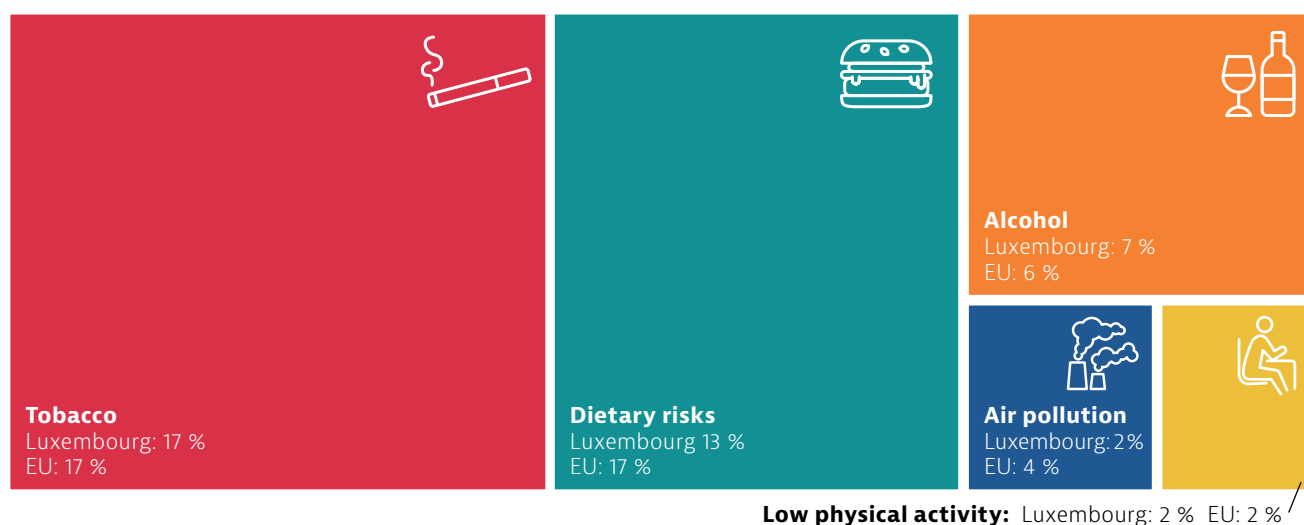
3 Risk factors

Behavioural risk factors are a major driver of mortality

More than one third of all deaths in Luxembourg in 2019 can be attributed to behavioural risk factors. These include tobacco smoking, unhealthy diet, alcohol consumption and low physical activity. In addition, environmental issues such as air pollution also contribute to a sizeable number of deaths from circulatory diseases, respiratory diseases and some types of cancer (Figure 6). About 17 % of all

deaths can be attributed to tobacco smoking – a share similar to the EU average. Unhealthy diets (including low fruit and vegetable intake, and high sugar and salt consumption) rank second, and account for about 13 % of all deaths in Luxembourg. About 7 % of all deaths can be attributed to alcohol consumption, while about 2 % are related to low physical activity. Air pollution in the form of fine particulate matter (PM_{2.5}) and ozone exposure alone accounted for about 2 % of all deaths in 2019.

Figure 6. Tobacco, unhealthy diets and alcohol are major contributors to mortality in Luxembourg



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. Unhealthy diets include 14 components such as low fruit and vegetables diet, high sugar-sweetened beverages consumption. Air pollution refers to exposure to PM_{2.5} and ozone.
Sources: IHME (2020), Global Health Data Exchange (estimates refer to 2019).

Poor nutrition and low physical activity contribute to rising obesity among adolescents

In 2022, self-reported data showed that more than one in five 15-year-olds considered themselves to be overweight or obese in Luxembourg, and the rate was higher among boys (25 %) than girls (19 %). This is a higher proportion than in most EU countries, and a significant rise since 2006 (from 13 % to 22 %). In contrast, the obesity rate among adults is similar to the EU average – about one in six adults reported being obese in Luxembourg in 2019.

Poor nutrition is the main factor contributing to being overweight or obese. Fruit and vegetable consumption are less common in Luxembourg than in most other EU countries: in 2019, only 14 % of adults reported eating at least five portions of fruit and vegetables every day, a share that has slightly declined since 2014. Altogether, in 2022, about 30 %

of 15-year-olds reported that they consume a fruit or vegetable on a daily basis. Low physical activity also contributes to weight problems. About 45 % of adults reported spending more than 150 minutes doing moderate physical activity in a week, which is a higher share than the EU average of 33 %. Among adolescents, however, the rates are much lower. In 2022, only 13 % of 15-year-olds reported doing at least moderate physical activity every day – a lower proportion than the EU average (15 %).

Rates of heavy drinking among adults are among the highest in the EU

Heavy drinking continues to be a major public health issue in Luxembourg, and insufficient progress has been made to tackle the problem. General alcohol consumption has slowly but steadily decreased over the last two decades; however, the percentage of adults reporting heavy

drinking¹ is the third highest in the EU after Denmark and Romania (Figure 7). In 2019, more than one in three adults reported such behaviour on a monthly or weekly basis. On a more positive note, in 2022, only one in eight 15-year-olds reported having been drunk at least twice in their life – the third lowest rate in the EU. The 2020-24 Action Plan against alcohol abuse aims to reduce alcohol-related morbidity and mortality. The Plan particularly targets adolescents and pregnant women, and seeks to create supportive environments that enable people to adopt healthy and reasonable drinking behaviours. In addition, it seeks to create an early alcohol abuse detection programme and to organise coordinated therapeutic and rehabilitative care for people with alcohol misuse issues.

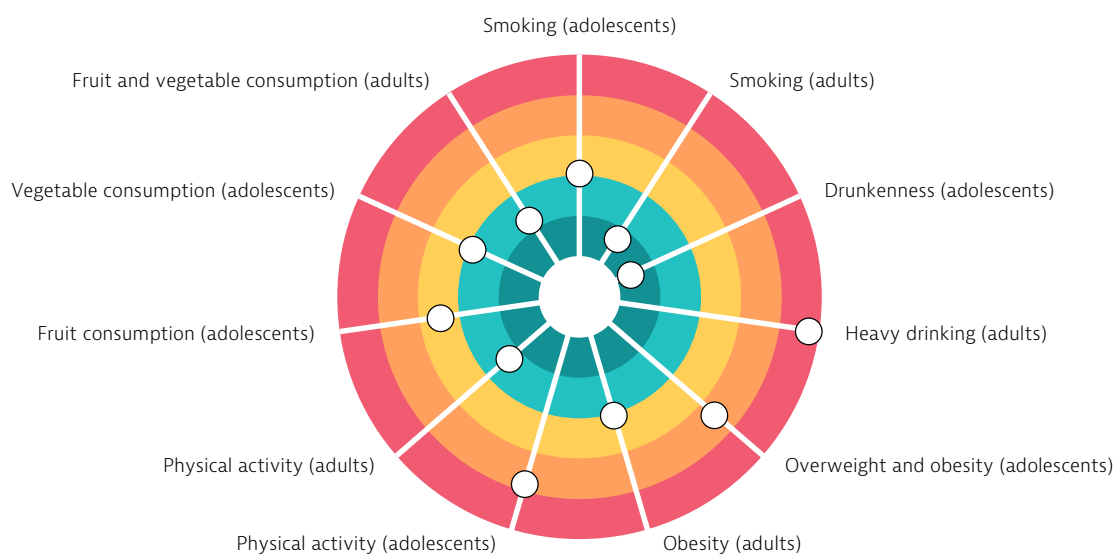
Smoking among adults and teenagers continues to decrease

In Luxembourg, the proportion of adults who reported smoking on a daily basis has decreased over the last 20 years. In 2019, around one in ten

adults smoked daily, compared to the EU average of around one in five (Figure 7). However, adults on low incomes (19 %) were more than twice as likely to smoke as adults on high incomes (8 %). More recent data from the Luxembourg Cancer Foundation Survey shows that in 2022, 20 % of adults smoked daily, rising from 17 % in 2019.

Smoking rates among adolescents have also decreased. Between 2014 and 2022, the share of 15-year-olds reporting smoking in the past month decreased from 21 % to 13 %, which is lower than the EU average (17 %). A portion of this reduction can be attributed to the anti-tobacco initiatives launched over the last few decades. These include, for example, the 2006 ban on smoking in public places, warnings on cigarette packaging and the slight increase in the price of tobacco (EUR 0.20 per packet) in 2023 (see Section 5.1). Although the smoking ban contributed to a reduction in socioeconomic inequalities in smoking (Tchicaya, Lorentz & Demarest, 2016), the difference between the lowest and highest income groups persists.

Figure 7. Heavy drinking among adults and rising obesity among adolescents are important public health concerns



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

Sources: OECD calculations based on HBSC survey 2022 for adolescents indicators; and EHIS 2019 for adults indicators.

¹ Heavy drinking is defined as consuming six or more alcoholic drinks on a single occasion for adults.

4 The health system

The compulsory health insurance system ensures universal coverage

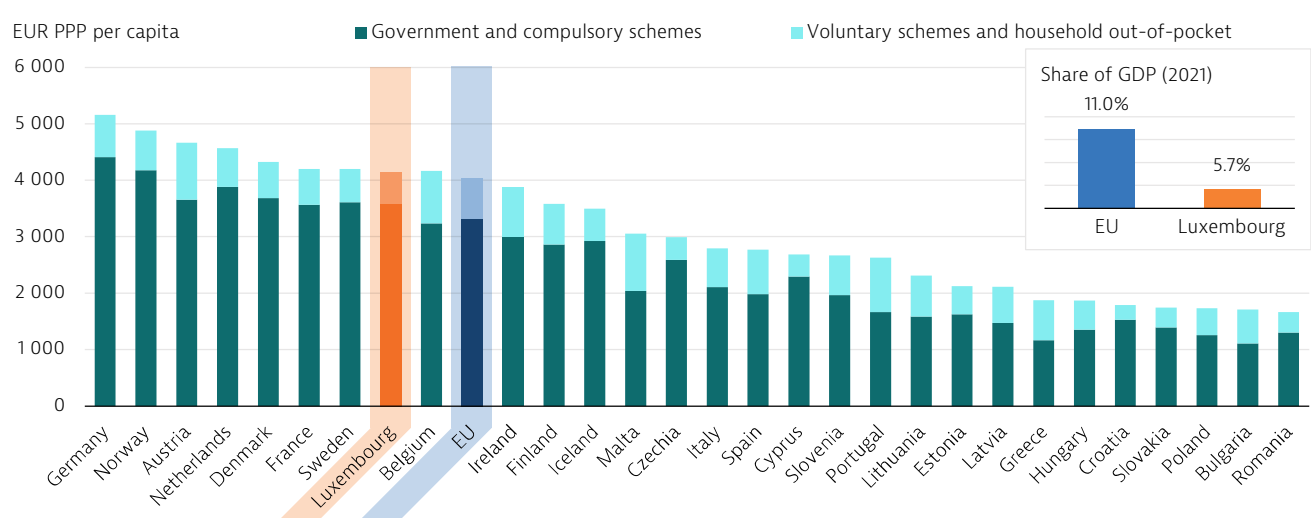
Luxembourg operates a social health insurance (SHI) system, which is compulsory for everyone who is economically active or receiving state benefits. The National Health Insurance Fund – Caisse Nationale de Santé (CNS) – is responsible for financing and purchasing of health services, and covers three schemes: healthcare, sickness leave and long-term care insurance.

About one third of those covered by the CNS (35.8 %) are cross-border employees (who make up nearly half of Luxembourg’s workforce). As these non-residents mostly seek healthcare in their country of residence, many health services covered by the CNS are provided outside Luxembourg – mainly in Belgium, France and Germany. In total, about 97 % of all health spending outside Luxembourg in 2021 was on health services provided to non-residents in their country of residence. The costs of treatment in neighbouring countries accounted for 16 % of total health expenditure in 2021 (IGSS, 2023).

Public financing of healthcare is among the highest in the EU

Spending on health per capita in Luxembourg is relatively high, at EUR 4 182 in 2021 (Figure 8). In contrast, Luxembourg spends only 5.7 % of GDP on health; this is the lowest share in the EU, where the average is 11.0 %. This statistic reflects Luxembourg’s strong overall economic performance.² Public expenditure on health (including expenditure for long-term care and accident insurance) is the second highest in the EU, accounting for 86.0 % of the total (compared to the EU average of 81.1 %) – a share that has increased continuously since 2012. The revenue for this is based on a system of shared contributions: 40 % is paid by the state, and the rest is shared between the social security contributions paid by employers and employees. Due to the very broad coverage of the SHI scheme in terms of benefits, private households spend relatively little on healthcare. Out-of-pocket (OOP) spending is the lowest in the EU, along with France, at 9 % compared to an EU average of 15 %. Complementary voluntary health insurance (VHI) represents only 3.9 % of health expenditure, although it is purchased by two thirds of the population.

Figure 8. Per capita spending on healthcare is relatively high in Luxembourg



Note: The EU average is weighted.
Source: OECD Health Statistics 2023 (data refer to 2021, except Malta (2020)).

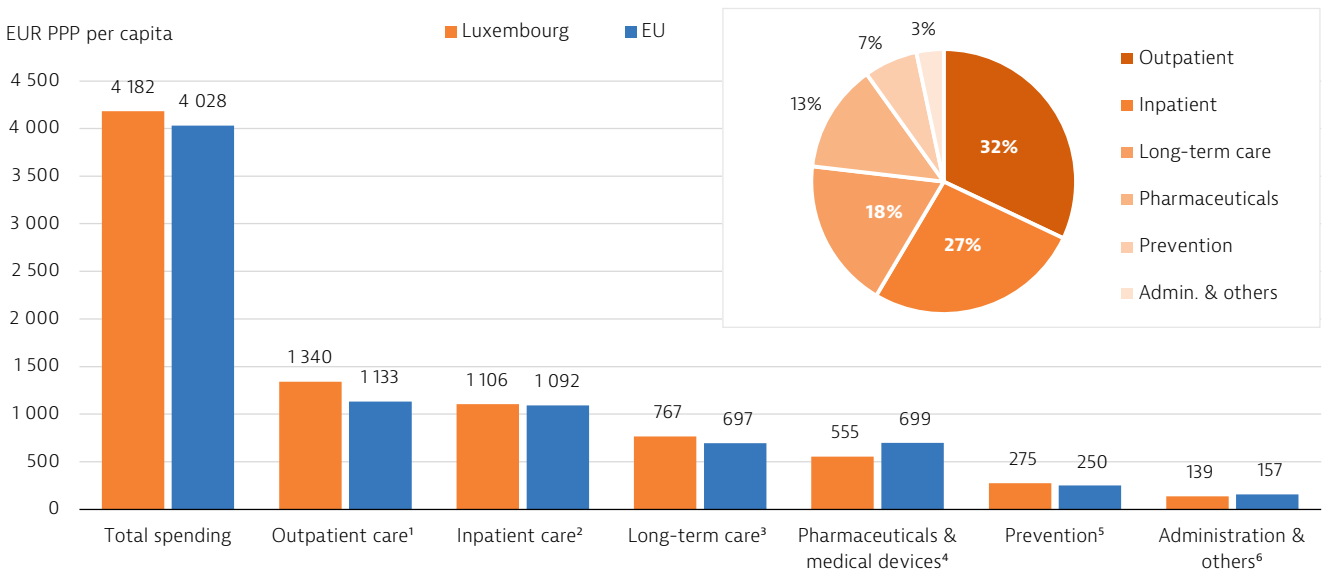
² A significant proportion of GDP in Luxembourg consist of profits from foreign-owned companies that are repatriated. Thus, gross national income may be a more meaningful measure of the country’s capacity to pay for healthcare, but even that is not a true measure of the productive capacity of the domestic economy.

Luxembourg's spending on prevention is among the top 10 shares in the EU

Outpatient care (including home care) is the largest category of health spending in Luxembourg (Figure 9), accounting for about one third (32 %) of all health spending in 2021 – above the EU average (28.8 %). Around 26.5 % of health spending was allocated to inpatient care, which is slightly below the EU average (27.6 %). Long-term care made up a substantial portion of health expenditure,

at 18.3 % of health spending, while 13.3 % was dedicated to retail pharmaceuticals and medical devices. Spending on prevention accounted for more than 6.6 % of all health spending in 2021, a share that is among the top 10 in the EU (compared to an EU average of 6 %). As in other countries, this only includes spending dedicated to organised prevention programmes, resulting in an underestimation of real spending on prevention.

Figure 9. One third of health expenditure is on outpatient care



Notes: 1. Includes home care and ancillary services (e.g. patient transportation); 2. Includes curative-rehabilitative care in hospital and other settings; 3. Includes only the health component; 4. Includes only the outpatient market; 5. Includes only spending for organised prevention programmes; 6. Includes health system governance and administration and other spending. The EU average is weighted.

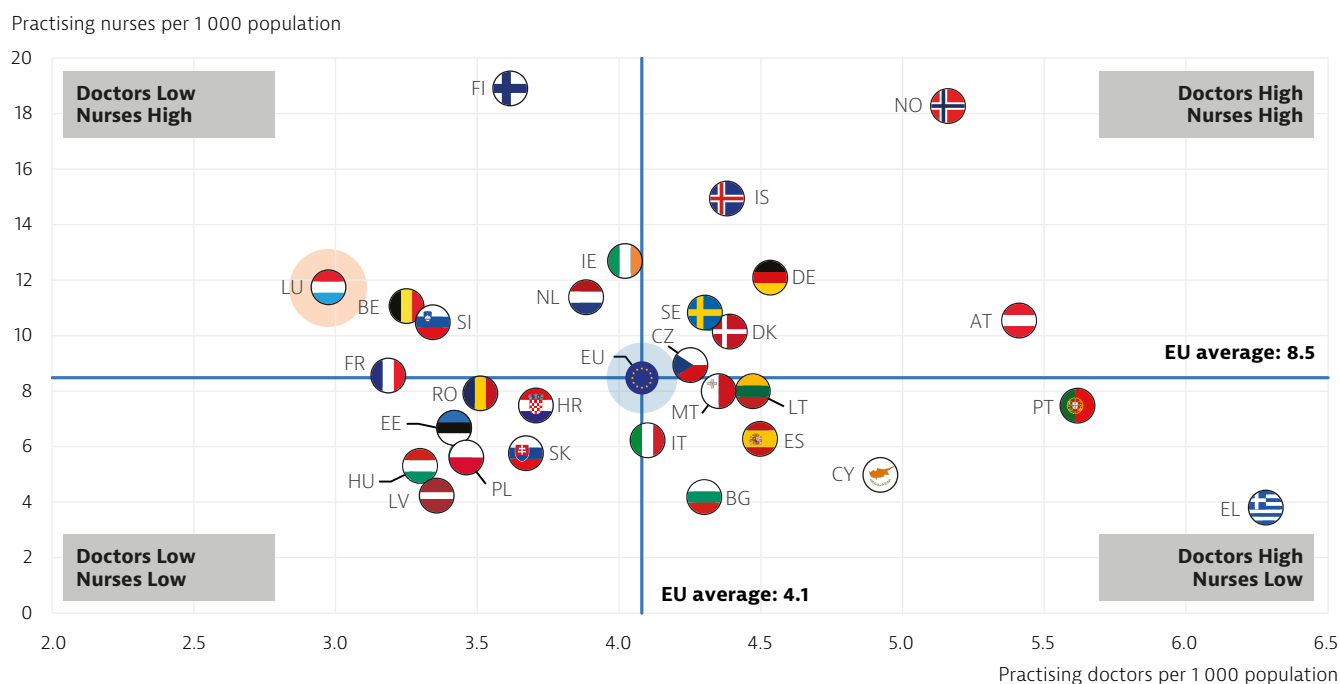
Sources: OECD Health Statistics 2023, Eurostat Database (data refer to 2021, except Malta (2020)).

Luxembourg has fewer physicians but more nurses per capita than the EU average

In the last 10 years, the ratio of doctors in Luxembourg has increased from 2.8 to 3.0 doctors per 1 000 population (in 2017), but it remained below the EU average both in 2019 (3.8) and currently (4.1) (Figure 10). This low density mostly relates to the absence of medical training in the country until 2021, when the first national bachelor's degree in medical science was launched (see Section 5.3), making the country dependent on foreign-trained doctors. The share of doctors living outside the country but practising in Luxembourg nearly doubled between 2008 and 2017 (from 15.6 % to 26.4 %). Moreover, only about half

of all practising doctors are national citizens of Luxembourg (IGSS, 2023). In contrast, the number of nurses in Luxembourg is one of the highest in the EU (at approximately 11.7 nurses per 1 000 population in 2017 compared to an EU average of 8.5 per 1 000), and has increased continually over the last few years.

Figure 10. Luxembourg has a higher nursing workforce than the EU average, but very lower numbers of doctors



Notes: The EU average is unweighted. The data on nurses include all categories of nurses (not only those meeting the EU Directive on the Recognition of Professional Qualifications). In Portugal and Greece, data refer to all doctors licensed to practise, resulting in a large overestimation of the number of practising doctors (e.g. of around 30 % in Portugal). In Greece, the number of nurses is underestimated as it only includes those working in hospitals. Source: OECD Health Statistics 2023 (data refer to 2021 or the nearest available year).

5 Performance of the health system

5.1 Effectiveness

Luxembourg continues to have low rates of avoidable causes of mortality

Luxembourg has seen a declining trend in the number of deaths considered preventable or treatable in the last decade. While mortality from treatable causes continued to decrease in 2020, preventable mortality rates increased; this can be explained by that fact that COVID-19 has been classified as a preventable cause of mortality. Despite this increase, Luxembourg has a relatively low preventable mortality rate, at 134 deaths per 100 000 population compared to an EU average of 180 deaths per 100 000 in 2020. The rate of treatable mortality in Luxembourg was 60 per 100 000 population, which is a third below the EU average (Figure 11).

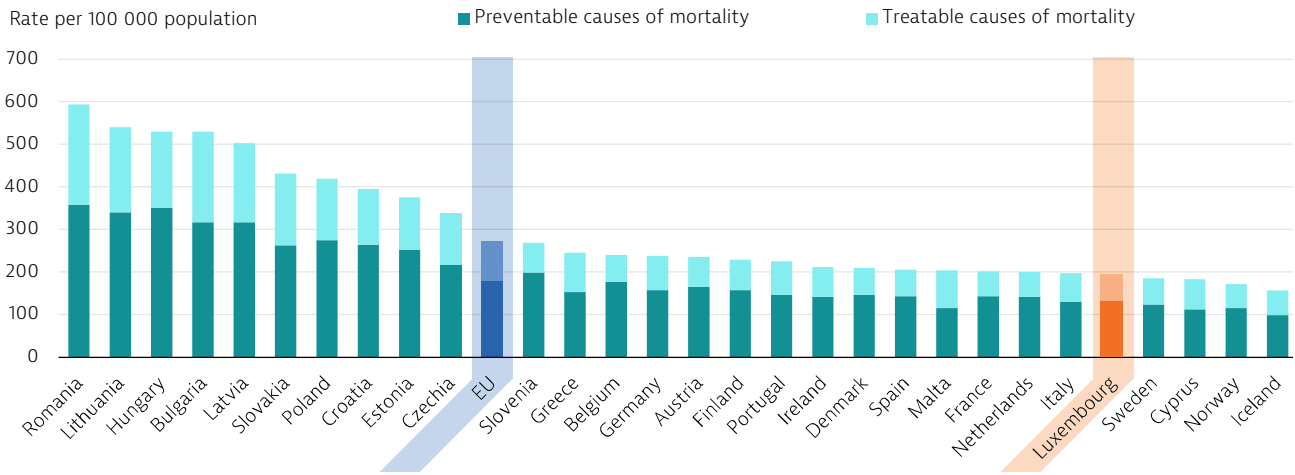
Preventable mortality is low due to effective public health interventions

Lung cancer, COVID-19 and alcohol-related diseases accounted for half of all preventable deaths in 2020. Comparatively low levels of preventable mortality in Luxembourg might be explained by strong and concentrated public health campaigns, the Action

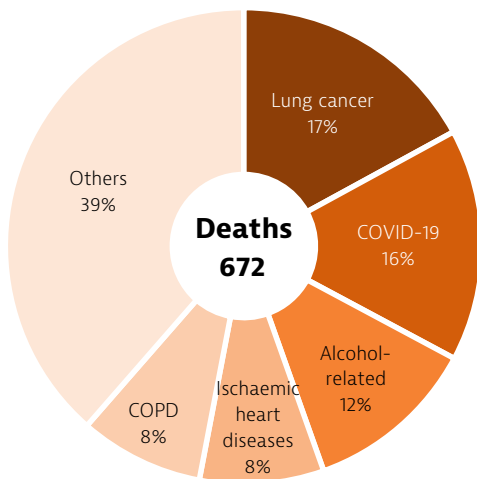
Plan on Illicitly Acquired Drugs (2020-24) and the national recommendations on evidence-based medical prevention care. These recommendations provide guidance to general practitioners (GPs) and other medical specialists on assessment of risk factors, recommended screening, early identification of health conditions and individual preventive measures for adolescents and adults. However, their impact has not been measured systematically.

Several national strategies have been developed, including “Eat Healthily, Move More” which promotes healthy diet and exercise; first launched in 2006, the current strategy covers the period 2018-25. The most recent Action Plan against the Misuse of Alcohol, released in 2020, has an ambitious implementation plan and evaluation framework. In addition, the country’s first Anti-Tobacco Plan was published in 2016 and laid out 14 measures and 53 actions for the period 2016-20. Since then, the government has adopted several measures to better protect the population from the harmful effects of tobacco. In 2023, it launched an awareness and information campaign on the risks of smoking, specifically targeting young people. As of July 2023, a new agreement

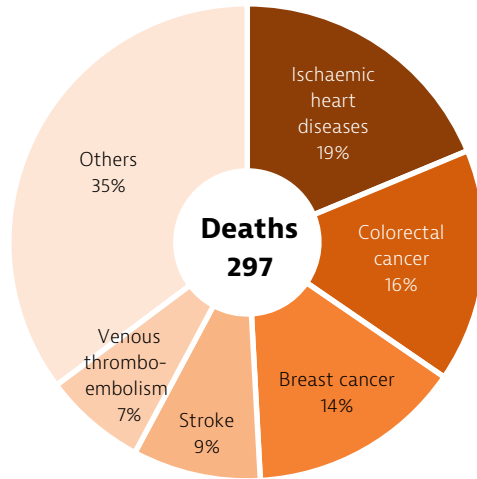
Figure 11. Mortality from preventable and treatable causes are lower in Luxembourg than the EU averages



Preventable causes of mortality



Treatable causes of mortality



Luxembourg

Notes: Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Treatable (or amenable) mortality is defined as death that can be mainly avoided through healthcare interventions, including screening and treatment. Both indicators refer to premature mortality (under age 75). The lists attribute half of all deaths from some diseases (e.g. ischaemic heart disease, stroke, diabetes and hypertension) to the preventable mortality list and the other half to treatable causes, so there is no double-counting of the same death. COPD refers to chronic obstructive pulmonary disease.

Source: Eurostat Database (data refer to 2020).

with the CNS allows any smoker who is covered by SHI to join a new tobacco cessation programme that is more effective and accessible than the previous programme. Moreover, the government is currently considering the introduction of plain packaging to reduce the attractiveness of cigarette packs (Ministry of Health, 2023a).

Cancer is one of the leading treatable causes of mortality

Colorectal and breast cancers were among the most common treatable causes of mortality in Luxembourg in 2020, followed by ischaemic heart disease (see Figure 11). In 2020, the second National Cancer Plan 2020-24 followed the first Plan launched in 2014, with a focus on using digital

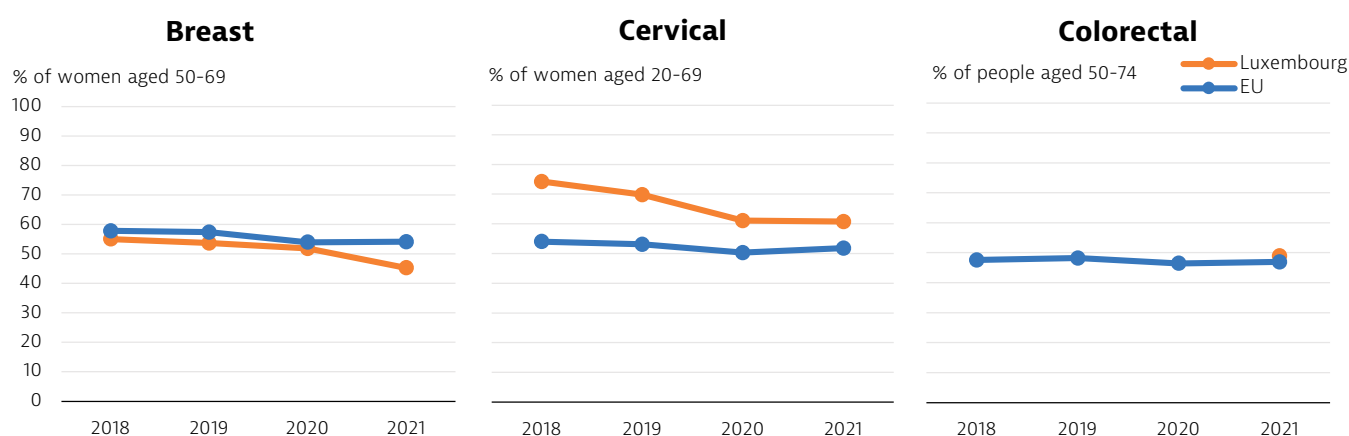
health tools to improve diagnosis and screening. The Plan focuses on translational oncology and the digitisation of the cancer care system to facilitate better flow of information and data throughout a patient’s cancer care journey, and ultimately to improve quality of care and reduce fragmentation (OECD, 2023a). In addition, the Plan seeks to promote collaboration with patients, taking their feedback into greater consideration in order to improve diagnosis and treatment. For this purpose, the Luxembourg Institute of Health launched “Colive Cancer” – a national initiative where adults who have been treated for cancer since 2018 can share their experiences to evaluate the current cancer care system by type of cancer and treatment received (Ministry of Health, 2023b).

Cancer screening and treatment were delayed in 2020

Screening rates for both breast and cervical cancers have been on the decline in Luxembourg since 2018 (Figure 12). Exacerbating the situation, organised screening programmes for certain cancers were interrupted by the COVID-19 lockdown in 2020. The uptake of breast cancer screening appointments in the target group fell from 53.7 % in 2019 to 45.3 % in 2021, placing Luxembourg below the EU average. A similar trend can be seen with the uptake of cervical cancer screening, which decreased

from 69.8 % in 2019 to just below 61 % in 2021, although this is above the EU average. This can be explained by the change of cervical screening recommendations in 2019. Data for colorectal screening uptake was available for the first time in 2021. With a screening rate of 49 % of individuals in the target population, Luxembourg fares just above the EU average (47 %). Preventive screening delays may result in worse survival rates and poorer chances of remission, but no data are yet available to assess this potential impact.

Figure 12. Breast and cervical cancer screening rates have been decreasing since 2018



Note: Rates refer to the share of individuals within the target groups who have undergone screening in the last two years.

Source: OECD Health Statistics 2023 (based on national programme data).

A further campaign has been launched to improve flu vaccination rates among older people

Luxembourg has made headway in influenza vaccination since 2017 for those over 65, reaching a vaccination rate of 46.3 % in 2020, above the EU average. However, the rate decreased by 2 percentage points in 2021, and is therefore slightly below the EU average. The Flu Jab Campaign was launched in October 2022, calling on the population at risk to get vaccinated against the seasonal flu. The vaccine is offered free of charge to anyone at risk or over the age of 65, and can be administered by a GP or a nurse under direct supervision of a GP.

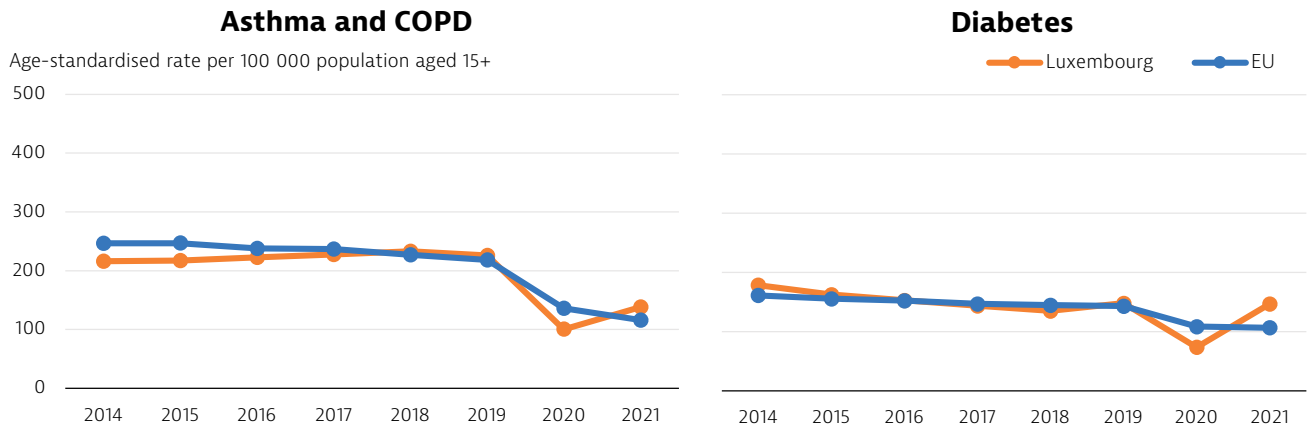
Human papillomavirus (HPV) vaccination is recommended for girls and boys aged 15 and is freely available in primary care. Nevertheless, less than half of the target group received the vaccination in 2017, the year for which the latest data is available due to absence of a central vaccination registry. A law establishing a vaccine registry – including an automatic vaccine ordering system – is in preparation. The registry will assess vaccination rates and coverage, and facilitate management of the wide-ranging vaccination

programme. In terms of increasing accessibility, although in 2021 pharmacists were permitted to administer COVID-19 vaccines after proper education and training, a proposal to extend the administration of routine immunisations or flu vaccines by pharmacists was not passed by parliament.

Avoidable hospital admissions for chronic conditions fell temporarily due to COVID-19

Hospital admissions for conditions that can generally be managed effectively outside of hospitals would normally provide an indication of the availability and effectiveness of outpatient and primary care services. Luxembourg's avoidable hospital admissions for asthma and chronic obstructive pulmonary disease, as well as for diabetes were comparable to the EU average in 2019. Similar to many other EU countries, these rates decreased significantly in 2020 and then increased in 2021, particularly for diabetes (Figure 13). These trends should be interpreted within the context of the disruption caused by COVID-19, which severely impacted the capacity of hospitals to provide acute care and modified patients' healthcare-seeking behaviour.

Figure 13. Hospitalisation rates for asthma and chronic obstructive pulmonary disease and diabetes were close to the EU averages before the pandemic



Note: Admission rates are not adjusted for differences in disease prevalence across countries.
Source: OECD Health Statistics 2023.

Further monitoring of these rates over the next few years will be required before they can shed any insights into the quality of primary care. In the meantime, strengthening assistance within primary and outpatient settings to relieve the pressure on emergency and inpatient services remains an important government priority.

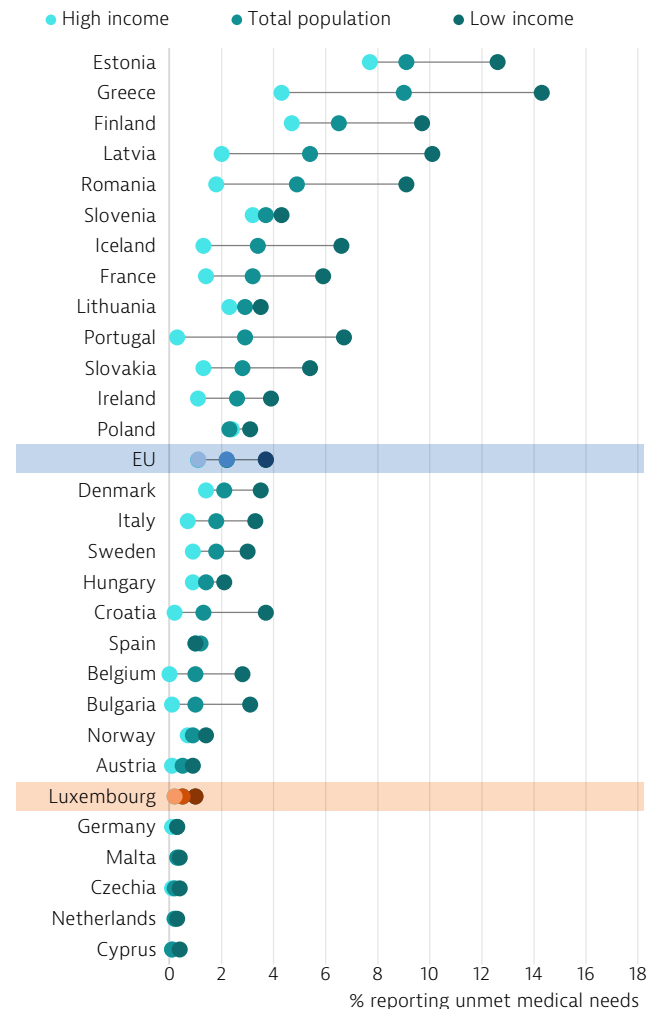
5.2 Accessibility

The proportions of people reporting unmet needs for medical and dental care in Luxembourg are very low

According to the EU-SILC survey, very few residents of Luxembourg (0.5 %) reported unmet needs for medical care due to costs, distance to travel or waiting times in 2022 (Figure 14), and the rate is far below the EU average of 2.2 %. The same applies to unmet needs for dental care (0.8 %), compared to the EU average of 3.4 %. Nevertheless, inequalities in access to care still exist. People in the lowest income quintile were much more likely to report unmet needs than those in the highest income quintile.

A separate set of Eurofound surveys³ on unmet needs for healthcare during the pandemic found that during the initial months of 2021, 9 % of residents in Luxembourg reported having forgone a needed medical examination or treatment, compared to 17 % across the EU (Eurofound, 2022). This increased to 14 % in spring 2022, when the EU average was 18 %. While these shares are below the EU averages, the numbers for Luxembourg should be viewed with caution due to the small sample size.

Figure 14. Unmet needs for medical care are among the lowest in the EU



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

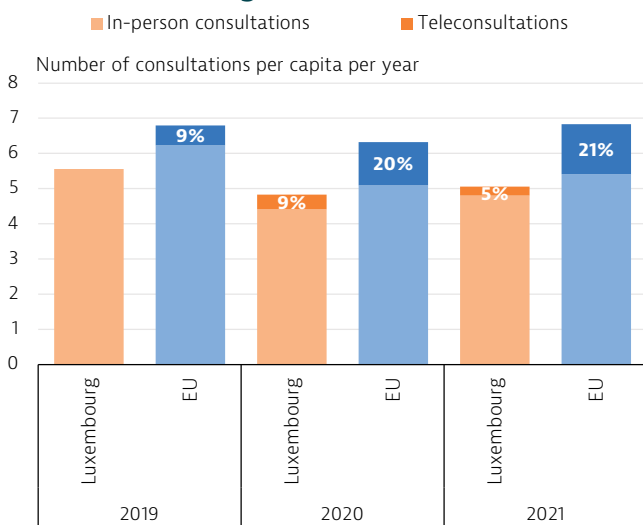
Source: Eurostat Database, based on EU-SILC (data refer to 2022, except Norway (2020) and Iceland (2018))

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

The newly created teleconsultation platform helped to increase access to health services during the pandemic

The rapid deployment of remote consultations, remote monitoring of COVID-19 patients and electronic prescription services is likely to have contributed to the relatively low levels of unmet needs during the pandemic in Luxembourg. While data on teleconsultations were not collected prior to the pandemic, in March 2020 Luxembourg changed provider payments to promote the use of telemedicine, covering teleconsultations through the SHI scheme and also allowed teleconsultations to be performed by health workers other than doctors (OECD, 2023b). As a result, remote consultations accounted for about 9 % of all medical consultations in 2020 and 5 % in 2021 (Figure 15). The lack of integration of the teleconsultation platform with the Electronic Health Record was reported as one of the obstacles to the wider adoption of teleconsultations.

Figure 15. Use of teleconsultations during the pandemic increased, but was less pronounced than the EU average



Sources: OECD Health Statistics 2022 (for in-person consultations) and national sources (for teleconsultations); Eurostat Database.

Despite a broad benefits package, reliance on complementary insurance is high

Luxembourg offers a broad benefits package, which has been subject to regular expansions – particularly for therapeutic services, and most recently for dental care for children and adolescents under 18, who are fully covered since 2022.

The SHI scheme covers most inpatient and outpatient services; for outpatient services, patients pay providers for services and are later reimbursed

by the CNS at different rates, ranging from 60 % to 100 % of the cost. Usually, 88 % of costs for medical and dental services are reimbursed by the CNS, and the first EUR 75.46 of costs for dental care per year is also paid by health insurance. Medicines included in the positive lists are reimbursed at three different rates. Cost-sharing exemptions for certain services apply to people with disabilities or severe chronic conditions, children and pregnant women, or if cost sharing exceeds 2.5 % of annual gross income. A third-party payment system is being implemented progressively in 2023 whereby the CNS, rather than patients, pays the reimbursed tariff directly to providers for services at the point of care.

Despite limited cost-sharing requirements about two thirds (65.3 %) of the population purchase VHI to cover copayments or supplementary services in outpatient care, daily hospital charges, single rooms in hospitals, dental care or eyeglasses.

The proportion of out-of-pocket spending on health is among the lowest in the EU

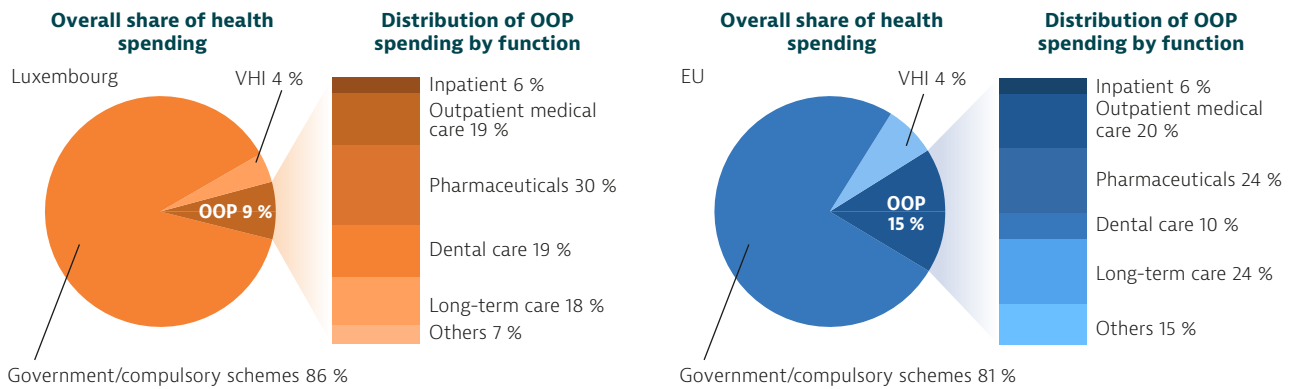
The comprehensive nature of Luxembourg's compulsory SHI scheme results in low OOP spending, which, at 9 % of total health expenditure, is among the lowest in the EU and far below the EU average of 15 %. Despite this, it can be substantial for pharmaceuticals (30 % of OOP expenditure) and dental care (19 % of OOP expenditure) (Figure 16).

Efforts are being made to improve retention rates within the health workforce

As noted in Section 4, Luxembourg has low numbers of physicians but high numbers of nurses. Nevertheless, there is a high level of fluctuation among nurses and other medical staff, a high dependency on foreign health professionals, and retention of personnel in their posts is critical. The government has set up public campaigns to increase the attractiveness of health professions. The “healthcareers.lu” campaign, launched in December 2022, aims to highlight the diversity of health professions, and especially to inspire young people to take up these careers. The website presents the different health sectors available in Luxembourg, offers job descriptions and testimonials from professionals and highlights working conditions and remuneration.

To increase the attractiveness and domestic supply of professionals the government introduced four bachelor's degrees in nursing, starting in September 2023. These degrees are an alternative to the existing vocational nursing diploma, which requires two years of training,

Figure 16. Pharmaceuticals make up the bulk of comparatively low out-of-pocket spending



Notes: VHI also includes other voluntary prepayment schemes. The EU average is weighted.
Sources: OECD Health Statistics 2023; Eurostat Database (data refer to 2021).

and open up possibilities for further training and career opportunities in nursing. Additionally, new bachelor's degrees will be launched for professionals who have already graduated in general nursing (see Section 5.3). The creation of a unified Digital Registry of Health Professionals is ongoing; this will aid the creation of work placements in areas of need.

Waiting times have been an issue for many services

According to a 2019 Waiting Times Policy Questionnaire (OECD, 2020), waiting times are an issue across almost all services, including specialist care, diagnostic tests, hospital emergency departments and cancer care.⁴ Only elective treatment, mental health services and cardiac care report no waiting time issues.

Initiatives to improve waiting times include the expansion of primary care services by funding medical on-call centres to provide out-of-hours primary care. To reduce waiting times and improve quality of care Luxembourg has also reorganised and streamlined cancer care delivery and improved coordination, which has significantly reduced waiting times for such diagnoses. To shorten waiting time in hospital emergency departments, a regulation was introduced in 2019, mandating triage of patients as well as patient pathways.

Another government initiative to reduce waiting times for imaging services focuses on decentralising certain services that currently can only be provided by hospitals (medical imaging, oncology, chemotherapy and renal dialysis). Four hospital centres will be able to set up and operate a maximum of two ambulatory centres for each of

these services, either with their own medical staff or in collaboration with independent physicians. Moreover, a one-year pilot is under way (since April 2023) to reduce waiting times for magnetic resonance imaging scans by extending opening times.

5.3 Resilience

The COVID-19 pandemic has proved to be the most significant disruption to health systems in recent decades. It has shed light on the vulnerabilities and challenges within countries' emergency preparedness strategies and their ability to provide healthcare services to their populations. In response to the enduring effects of the pandemic – as well as other recent crises such as cost-of-living pressures and the impact of conflicts like the war against Ukraine – countries are implementing policies to mitigate the ongoing impacts on service delivery, invest in health system recovery and resilience,⁵ improve critical areas of the health sector, and fortify their preparedness for future shocks.

Luxembourg had sufficient capacity to manage COVID-19 patients throughout all waves of the pandemic

Luxembourg has a well-resourced health system. Despite a continued decrease in the number of hospital beds since 2004, capacity (4.1 beds per 1 000 population) remained close to the EU average (4.8 beds per 1 000) in 2021 (Figure 17). In particular, Luxembourg fares well with regard to intensive care bed capacity. Among the 17 EU countries for which data are available, Luxembourg ranks higher for numbers of intensive care beds per 1 000 population than the EU average.

⁴ Since 2019, Luxembourg has reorganised and streamlined cancer care delivery and improved coordination to achieve efficiency gains.

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

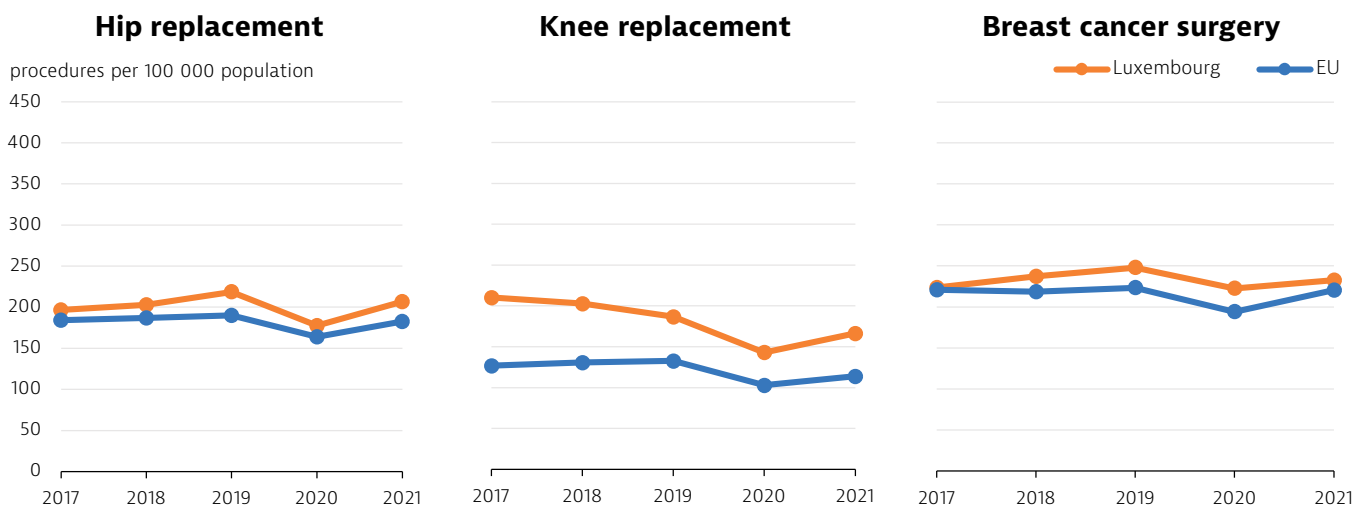
Non-emergency treatment was suspended during the first COVID-19 wave, with adverse impacts on routine care

During the first wave of the COVID-19 pandemic, several measures were implemented to expand hospital capacity and increase the pool of available health professionals. Hospitals expanded intensive care bed capacity available for COVID-19 patients, mostly by installing additional beds and redeploying recovery rooms as intensive care units. Acute care capacity was made available by delaying planned and elective procedures. This resulted in a wide-scale suspension of operations and other non-emergency procedures during the first lockdown in 2020, with potential losses of opportunity for patients (OECD, 2022). As in most other EU countries, hospital activity and discharges, as well as occupancy rates, dropped in 2020 and rebounded somewhat in 2021 (see

Figure 17). Equally, the number of emergency department visits and medical imaging exams decreased in 2020, with an unknown impact on population health.

Looking at individual elective procedures, Luxembourg saw more pronounced drops in knee and hip replacement interventions in 2020 compared to the EU averages, while breast surgery decreased to a similar extent to the EU average. Nevertheless, for all three elective procedures, Luxembourg's volumes were higher than the EU average and the rates increased again in 2021 (Figure 17). Drawing lessons from the first pandemic wave, the government defined a second plan to manage hospital capacity from July 2020, which made it possible to pace the response better and maintain more non-COVID-19 procedures (OECD, 2020).

Figure 17. Luxembourg saw a significant drop in elective surgical procedures during the first year of the pandemic



Note: The EU average is unweighted (calculated by the OECD).
Source: OECD Health Statistics 2023.

Luxembourg recorded a decline in outpatient consultations

As in the hospital sector, there was a significant drop in outpatient consultations of more than 10 % in 2020 compared to 2019 (OECD, 2022). The decline was particularly pronounced during the first lockdown and then levelled off in the second lockdown, with the exception of paediatricians, who saw activity fall by 27 %.

Vaccination coverage for COVID-19 kept up momentum in 2022

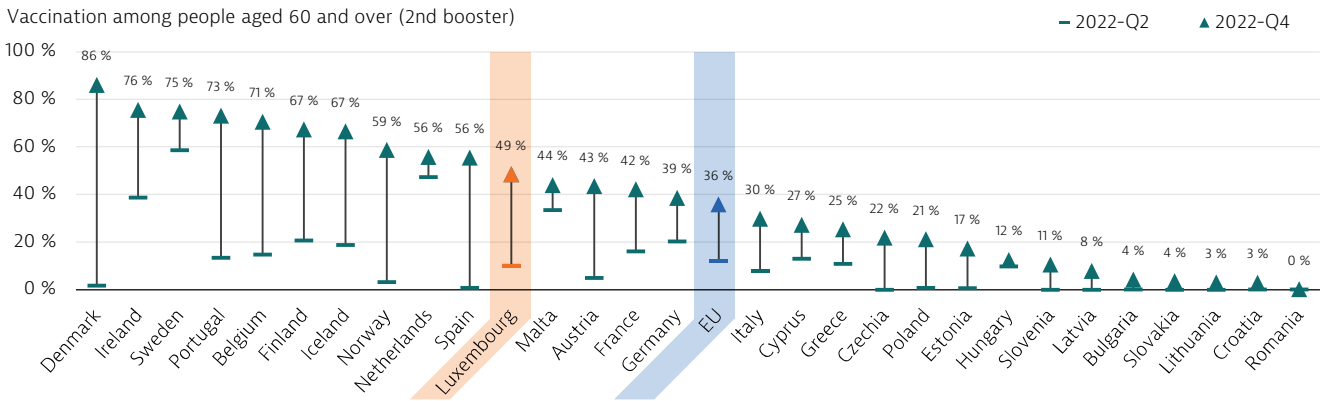
In 2022, the government recommended a second booster (fourth dose) for certain population groups, including people aged 60 and over, those aged 12-59 with co-morbidities that put them at risk of severe

forms of COVID-19, immunocompromised people, pregnant women and health professionals. Nearly half (49 %) of the at-risk population cohort aged 60 and over had received a second booster by the end of 2022 (Figure 18).

High public spending on health has been sustained

Public spending on health in Luxembourg has maintained positive growth continuously since 2012 (Figure 19). The increase was particularly pronounced in 2020 (8.6 % growth) and 2021 (8.5 % growth) owing to additional allocations to fund the country's response to the COVID-19 pandemic. At the same time, GDP growth declined during the first year of the pandemic.

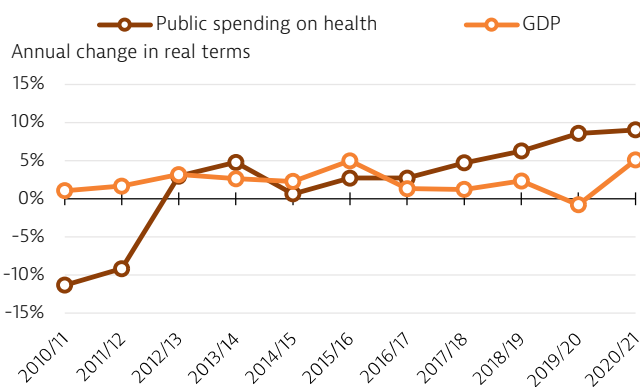
Figure 18. Take-up of second COVID-19 boosters among older people was considerably higher than the EU average



Note: The EU average is unweighted (calculated by the OECD).
Source: ECDC.

Given these growth rates and the overall high level of public spending on health over the last decade (see Section 4), Luxembourg’s Recovery and Resilience Plan dedicates only a small proportion (1.3 %) of its total investment to the health sector. These funds aim to improve the resilience and efficiency of the health system through investment in digitalisation – telemedicine solutions for remote medical follow-up of patients – and in the development of the Digital Registry of Health Professionals (see Section 5.2). Moreover, in May 2023 additional funding was dedicated to developing and implementing a national digitalisation strategy, including electronic health records.

Figure 19. Public spending on health continued to increase during the pandemic and outpaced GDP growth



Source: OECD Health Statistics 2023.

Some initiatives are being developed to strengthen coordination of care

During the pandemic, Luxembourg reorganised its model of primary healthcare, including establishment of on-call GP services during weekends and public holidays for residential

facilities. The objective was to reduce hospital admissions and deliver better continuity of care within nursing homes. Based on the positive experiences and the success of this model, the government signed an agreement with providers in December 2022 to continue this service. Implementation of the model will be facilitated by 10-15 regional medical coordinators and one national coordinator.

In 2022 and 2023, the first three “competence networks” were authorised. These bridge primary and secondary care in designing and organising patient care pathways that focus on the needs of people with specific diseases – chronic pain, neurodegenerative diseases and immunologic rheumatic disorders.

New education and training programmes aim to increase the domestic supply of health professionals

As noted in Section 4, until recently Luxembourg had no complete national curriculum in medicine, and students had to complete almost all their undergraduate and graduate studies outside the country. While the University of Luxembourg offered the first year of medical education, students then had to switch to universities in other countries to complete their clinical training. In 2021, Luxembourg initiated a new four-year bachelor’s programme in medical science, after which graduates will pursue postgraduate medical education and training abroad. Postgraduate specialty medical training within Luxembourg is currently restricted to general practice, neurology and oncology (offered as four-year training since 2021). These opportunities are expected to facilitate the recruitment of specialists, including GPs. In 2021, GPs accounted for about one quarter of physicians and 26 % were over the age of 60 (IGSS, 2023).

New academic training programmes also will be implemented for nurses. In 2023, the University of Luxembourg launched four new bachelor's degrees for nursing professionals who have already graduated in general nursing and want to specialise in medical technical assistance in surgery, anaesthesia and intensive care, paediatrics and psychiatry, with 15 places each. A bachelor's programme in general nursing and two others for midwives and medical assistants in radiology will start in 2024.

Pandemic preparedness is being strengthened through various initiatives

The COVID-19 pandemic revealed structural weaknesses in Luxembourg's healthcare system, which undermined the country's pandemic preparedness. No pandemic preparedness exercises had been conducted prior to the first case of COVID-19 (OECD, 2022), but since then the country has taken steps to improve its readiness in the event of similar emergencies. Luxembourg is involved in research projects that aim to optimise responses to ongoing and future epidemics; these include the European-level preparedness project BE READY, as well as the international PANDEMIC and BeYond-COVID projects. The latter aims to tackle data challenges that can hinder effective pandemic response.

During the first wave of the pandemic in 2020, the government set up a platform for medical and non-medical volunteers to register in the "health reserve". Enrolment was open to all practitioners (including retired practitioners and those working in private practice) and offered attractive hourly remuneration – a key factor in the success of the scheme. Throughout the COVID-19 waves, healthcare workers were mobilised and assigned to work in hospitals, advanced care centres, vaccination centres and public administration. In 2022, this national health reserve was extended to staff working in elderly care (such as social and family assistants and assistants for seniors) and others – including students and retired people – who were available to support health and care personnel in residential care facilities thereby allowing them to refocus on their core caring tasks.

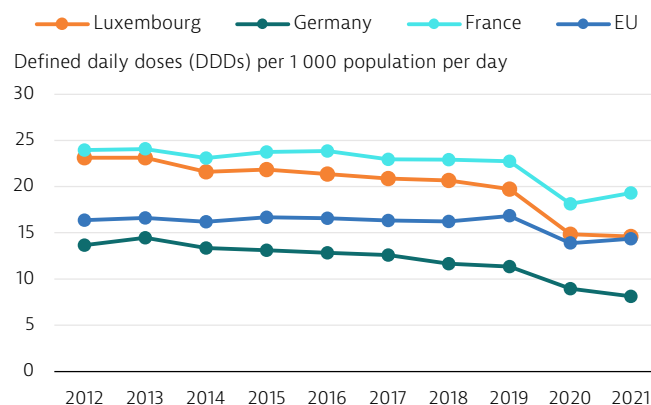
Antibiotic consumption has decreased significantly over the last decade

Antimicrobial resistance (AMR) is a major public health concern in the EU, with estimates of about 35 000 deaths in the EU/EEA due to antibiotic-resistant infections and healthcare-associated costs of around EUR 1.1 billion per year (OECD/ECDC, 2019). Because antibiotic overprescription and overuse in humans and animals are major

contributors to the development of antibiotic-resistant bacteria, antibiotic consumption data are a useful tool to evaluate the risk of AMR and the efficacy of programmes to promote their appropriate use.

In 2021, total consumption of antibiotics for systemic use (in the community) in Luxembourg was 14.6 defined daily doses (DDDs) per 1 000 inhabitants per day, which was marginally above the EU average and a significant reduction from 23.1 per 1 000 in 2012 (Figure 20). Use of antibiotics has been on the political agenda for several years. Communication campaigns are conducted to raise awareness of the problem of antibiotic misuse among patients and animal keepers, as well as doctors and veterinarians. The National Antibiotic Plan 2018-22 was launched in 2018; it has since been readapted and extended to 2024. This Plan is part of the One Health approach.

Figure 20. Consumption of antibiotics in Luxembourg has decreased to the EU average



Note: The EU average is unweighted.

Sources: ECDC ESAC-Net.

Luxembourg has put a plan in place to help build a climate-resilient health system

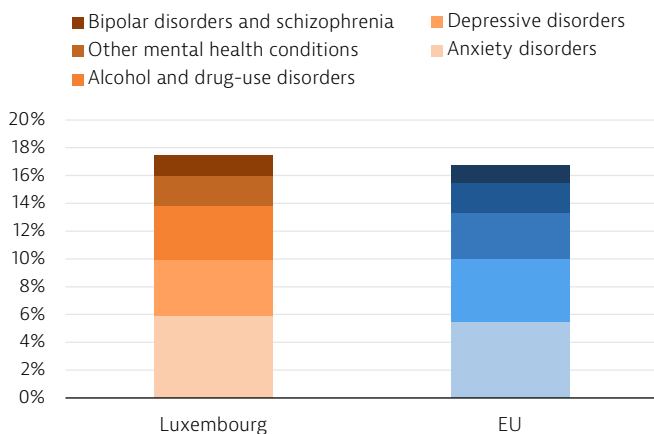
The National Adaptation Strategy and Action Plan for adaptation to the effects of climate change (2018-23) includes health as one of 13 sectors. The Action Plan addresses four areas with 43 measures in the area of health, including increase of allergenic organisms, heat stress and pressure from harmful substances (ozone, particles) as well as water quality. Climate projections for Luxembourg for the second half of this century foresee significant impacts on public health conditions. The danger of increasing heat exposure for the population is most severe in urban areas with high building densities, due to increased thermal storage capacity and night-time thermal emissions (European Climate and Health Observatory, 2021).

6 Spotlight on mental health

Mental health issues affect one in six people

According to estimates from the Institute for Health Metrics and Evaluation (IHME), 17 % of the population in Luxembourg had a mental health issue in 2019, which is equal to the EU average. The most common mental health conditions are anxiety (estimated to affect 6 % of the population), depression, and alcohol and drug-use disorders (both 4 %) (Figure 21). The economic costs of mental ill health are substantial, with direct and indirect costs estimated at over 3 % of Luxembourg's GDP (EUR 1.6 billion) in 2015 (OECD/EU, 2018).

Figure 21. Anxiety and depressive disorders were the most prevalent mental health conditions in Luxembourg before the pandemic



Note: The EU average is unweighted.
Source: IHME (data refer to 2019).

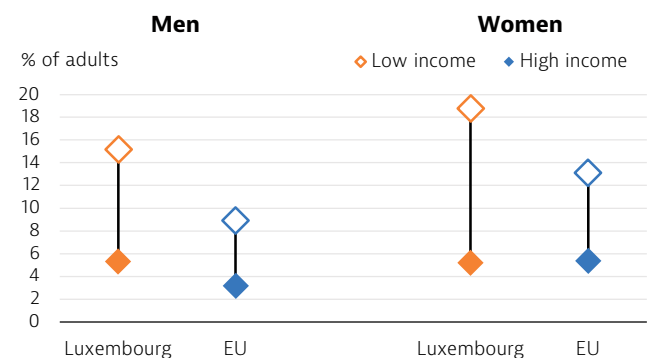
The COVID-19 pandemic had a significant impact on the mental health of the population, particularly among younger people

As in most countries, the COVID-19 pandemic put a strain on people's mental health in Luxembourg. In particular, there was a deterioration in mental health among children and young people: 31 % of children aged 6-11 and 43 % of children aged 12-16 within a small sample study reported that their satisfaction with life had decreased, mainly due to social and physical distancing measures (Kirsch et al., 2022). Among young adults aged 18-44, about 37 % reported that their mental health had deteriorated, compared to 22 % of those aged 65 and over (O'Connor & Peroni, 2021).

Depression affects one tenth of the population

Data from the European Health Interview Survey (EHIS) show that 10 % of people in Luxembourg reported having depression (compared to the EU average of 7 %) in 2019. The risk of experiencing depression differed between genders and income groups. About 18.8 % of women in the lowest income quintile reported depression in 2019, which is over three times higher than the rate among those in the highest quintile (5.2 %). Just over 15 % of men in the lowest income quintile reported the condition compared to 5.3 % of men in the highest quintile (Figure 22).

Figure 22. Women and people in the lowest income quintile are more likely to report depression



Note: High income refers to people in the top income quintile (20 % of the population with the highest income), whereas low income refers to people in the bottom income quintile (20 % of the population with the lowest income).

Source: Eurostat Database (based on EHIS 2019).

Mental health services are mainly focused on community-based options

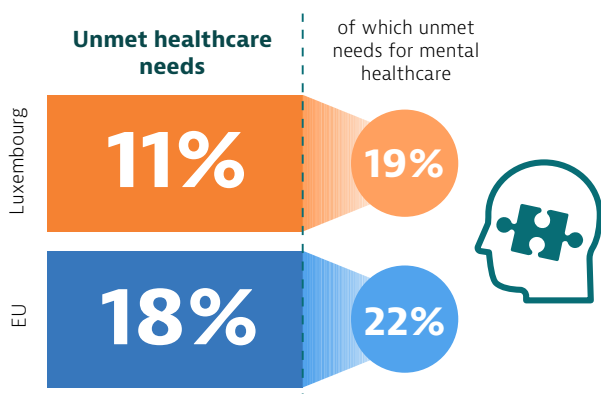
Luxembourg's publicly financed mental health services have developed to encompass community treatment options and not solely inpatient treatment models. Outpatient mental healthcare is delivered primarily by GPs and specialised mental healthcare providers. All general hospitals participate in the public hospital emergency service and have specialised psychiatric services closely linked to community-based outpatient care facilities. However, there is room for improved service integration between GPs and psychiatrists. Since January 2023, the CNS has covered psychotherapy if prescribed by a doctor,

with a 70 % reimbursement rate for adults and 100 % for adolescents and children (previously, only psychiatrist services were reimbursed).

A substantial number of people reported unmet needs for mental healthcare during the pandemic

According to a Europe-wide survey carried out in spring 2021 and spring 2022, 11 % of people living in Luxembourg had unmet healthcare needs, of which 19 % were related to mental healthcare (Figure 23). The proportion of reported unmet needs for mental healthcare was smaller than the EU average. Reasons for this may be the well-resourced mental health services provided in the country. During the first wave of the pandemic, several counselling services were put in place for the general population and for health and care workers, including online information documents, new mental health helplines and increased access to mental health services (such as psychotherapy).

Figure 23. About one fifth of unmet needs during the pandemic were for mental healthcare



Note: Survey respondents were asked whether they had any current unmet healthcare needs and, if so, for what type of care, including mental healthcare.

Sources: Eurofound (2022).

Mental health first aiders are being trained to improve early detection of mental health problems

Given the increasing prevalence of mental health diseases in Luxembourg, a training programme for mental health first aiders was launched in 2021. Its aim is to mobilise and empower communities by equipping people with the knowledge and confidence to recognise, connect with and respond to someone experiencing a mental health problem. By March 2023, 2 600 people had received this training to become mental health first aiders (Premier Secours en santé mentale Luxembourg, 2021).

Prevention and promotion programmes target the mental health needs of specific population groups

The Placement of Persons with Mental Disorders Act of 2009 is the main mental health legislation in Luxembourg. A new National Mental Health Plan for 2021 was deferred due to the COVID-19 pandemic and the Plan was released in July 2023. The new National Mental Health Plan 2024-28 puts accessibility of mental care and people's well-being at the centre of health policy. It also emphasises health promotion, strengthening of primary care, integrated care strategies and digitisation.

Luxembourg's health promotion and prevention programmes encompass crisis helplines and hotlines, support for young people and adolescents, and school medical and psychological services. Other types of services – such as those addressing the mental health needs of elderly people and specialist services for people with autism and neurodevelopmental disorders – are being commissioned. In recent years more focus has been put on concrete programmes that target well-being at work, with the goal of minimising occupational mental health problems. People suffering from chronic psychiatric illnesses rely on not-for-profit organisations that offer supported living facilities and/or provide daytime activities and vocational training opportunities (Malmendier-Muehlschlegel & Power, 2022).

7 Key findings

- Life expectancy in Luxembourg remains among the highest in the EU. It rebounded from a temporary decline in 2020 to reach 83.0 years in 2022.
- Over one third of all deaths in Luxembourg in 2019 could be attributed to behavioural risk factors, including smoking tobacco, dietary risks, alcohol consumption and low physical activity. Smoking, being overweight or obese, and heavy drinking have a negative impact on life expectancy. Heavy drinking rates in Luxembourg remain among the highest in the EU, and continue to be a major public health challenge.
- The share of public spending on health in Luxembourg is the second highest in the EU, accounting for 86.0 % compared to the EU average of 81.1 %. Health spending per capita is also among the highest in the EU, although it represents a relatively small share of Luxembourg's GDP (5.7 %). Out-of-pocket spending is the equal lowest in the EU (along with France), at 9 %, and is considerably below the EU average (15 %).
- These health financing statistics indicate not only Luxembourg's strong overall economic performance but also the very broad coverage of the social health insurance scheme in terms of benefits and costs. Consequently, unmet needs for medical and dental treatments are among the lowest in Europe, and continue to decrease. Only 0.5 % of the population reported unmet needs for medical care due to costs, distance to travel or waiting times in 2022, which is far below the EU average of 2.2 %.
- Luxembourg continues to have low rates of preventable mortality, highlighting the effectiveness of concentrated public health campaigns. Cancer remains the leading cause of premature death. Colorectal and breast cancers are the most common treatable causes of mortality, while lung cancer is the most common preventable type of cancer.
- Public spending on health has increased continuously in the last few years, and saw a spike during the pandemic. Only a small portion of Luxembourg's total investment in its Recovery and Resilience Plan is dedicated to the healthcare sector, but the investment flows that are included seek to implement a national digitalisation strategy in the health system, target telemedicine solutions for remote medical follow-up of patients and establish a Digital Registry of Health Professionals.
- Waiting times for medical care are a reason for concern in Luxembourg – especially for specialist care, diagnostic tests, hospital emergency departments and cancer care. Patient triage and care pathways in emergency departments, as well as the decentralisation of diagnostic services around four hospital centres, aim to reduce waiting times.
- Luxembourg continues to rely strongly on foreign health professionals, adding to the country's capacity constraints. With the creation of new education and training programmes, the government aims to attract more citizens to the medical and nursing professions, and to increase the domestic supply of health and care personnel.
- The COVID-19 pandemic had a significant impact on the mental health of the population, particularly among younger people: 33 % of children aged 6-11 and 43 % of children aged 12-16 reported that their satisfaction with life had decreased. Anxiety, depression, and alcohol and drug-use disorders make up the bulk of Luxembourg's mental health burden; they also disproportionately affect those in lower income groups. Unmet needs for mental healthcare are below the EU average but represent one fifth of all unmet needs for healthcare. The new National Mental Health Plan, which was delayed by the pandemic, was launched in July 2023.

Key sources

Rausch et al., (Forthcoming – 2024), Luxembourg: health system review. *Health Systems in Transition*, 25.

OECD/EU (2022), *Health at a Glance: Europe 2022 – State of Health in the EU Cycle*. Paris, OECD Publishing.

References

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

Eurofound (2022), *Living, working and COVID-19 survey, rounds three and five (spring 2021 and spring 2022)*. Dublin, <https://www.eurofound.europa.eu/surveys/living-working-and-covid-19-e-survey>

European Climate and Health Observatory (2021), *Country Profile Luxembourg*. Brussels.

Health Behaviour in School-aged Children study (2023), *Data browser (findings from the 2021/22 international HBSC survey)*: <https://data-browser.hbsc.org>

Health Directorate (2023), *Statistiques des causes de décès au Luxembourg – fact sheet 2021 [Causes of death in Luxembourg statistics- fact sheet 2021]*. Luxembourg.

IGSS (2023), *Rapport général sur la sécurité sociale au Grand-Duché de Luxembourg 2022 [General report on the social security system in the Grand Duchy of Luxembourg 2022]*. Luxembourg.

Kirsch C et al. (2022), *The impact of the COVID-19 pandemic in Luxembourg in 2021: children aged 6-16 share their subjective well-being and experiences. First findings of the project COVID-Kids II*. Esch-sur-Alzette. University of Luxembourg.

Malmendier-Muehlschlegel A, Power NC (2022), *Mental health services in Luxembourg: an overview*. *BJPsych International*, 19(3):72-4.

Ministry of Health (2023a), *National tobacco control strategy*. Luxembourg.

Ministry of Health (2023b), *Luxembourg launches a national survey of people with cancer with the aim of improving the quality of care*. Luxembourg, https://msan.gouvernement.lu/fr/actualites.gouvernement%2Bfr%2Bactualites%2Btoutes_actualites%2Bcommuniqués%2B2023%2B01-janvier%2B11-sondage-national-cancer.html

O'Connor KJ, Peroni C (2021), *One in three Luxembourg residents report their mental health declined during the COVID-19 Crisis*, *Int J Community Wellbeing*, 4(3):345-51.

OECD (2020), *Waiting times for health services: next in line*. Paris, OECD Publishing.

OECD (2022), *Evaluation of Luxembourg's COVID-19 response: learning from the crisis to increase resilience*. Paris, OECD Publishing.

OECD (2023a), *EU Country Cancer Profile: Luxembourg 2023, EU Country Cancer Profiles*. Paris, OECD Publishing.

OECD (2023b), *The COVID-19 pandemic and the future of telemedicine*. Paris, OECD Publishing.

OECD/ECDC (2019), *Antimicrobial Resistance: Tackling the Burden in the European Union*. Paris, OECD Publishing.

OECD/EU (2018), *Health at a Glance: Europe 2018 – State of Health in the EU Cycle*. Paris, OECD Publishing.

Premier Secours en santé mental Luxembourg (2021), *Become a mental health first aider*. Luxembourg, <https://www.prevention-psy.lu/pssm/a-propos/>

Tchicaya A, Lorentz N, Demarest S (2016), *Socioeconomic inequalities in smoking and smoking cessation due to a smoking ban: general population-based cross-sectional study in Luxembourg*. *PLoS One*. 11(4):e0153966.

Country abbreviations

Austria	AT	Denmark	DK	Hungary	HU	Luxembourg	LU	Romania	RO
Belgium	BE	Estonia	EE	Iceland	IS	Malta	MT	Slovakia	SK
Bulgaria	BG	Finland	FI	Ireland	IE	Netherlands	NL	Slovenia	SI
Croatia	HR	France	FR	Italy	IT	Norway	NO	Spain	ES
Cyprus	CY	Germany	DE	Latvia	LV	Poland	PL	Sweden	SE
Czechia	CZ	Greece	EL	Lithuania	LT	Portugal	PT		

State of Health in the EU

Country Health Profile 2023

The *Country Health Profiles* are a key element of the European Commission's *State of Health in the EU* cycle, a knowledge brokering project developed with financial support from the European Union.

These Profiles are the result of a collaborative partnership between the Organisation for Economic Co-operation and Development (OECD) and the European Observatory on Health Systems and Policies, working in tandem with the European Commission. Based on a consistent methodology using both quantitative and qualitative data, the analysis covers the latest health policy challenges and developments in each EU/EEA country.

The 2023 edition of the Country Health Profiles provides a synthesis of various critical aspects, including:

- the current state of health within the country;
- health determinants, with a specific focus on behavioural risk factors;
- the structure and organisation of the health system;
- the effectiveness, accessibility and resilience of the health system;
- For the first time in the series, an account of the state of mental health and related services within the country.

Complementing the key findings of the Country Health Profiles is the Synthesis Report by the European Commission.

For more information, please refer to: ec.europa.eu/health/state

Please cite this publication as:

OECD/European Observatory on Health Systems and Policies (2023),
Luxembourg: Country Health Profile 2023, State of Health in the EU,
OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels.

ISBN 9789264534131 (PDF)

Series: State of Health in the EU

SSN 25227041 (online)