

## State of Health in the EU Finland 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).

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#### 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 Finland, 2022

Demographic factors	Finland	EU		
Population size	5 548 241	446 735 291		
Share of population over age 65 (%)	23.1	21.1		
Fertility rate <sup>1</sup> (2021)	1.5	1.5		
Socioeconomic factors				
GDP per capita (EUR PPP²)	38 679	35 219		
Relative poverty rate <sup>3</sup> (%)	12.7	16.5		
Unemployment rate (%)	6.8	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.

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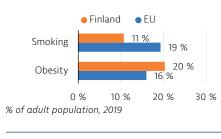
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### Highlights



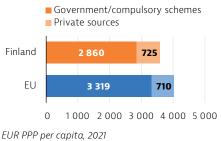


#### **Health Status**

Life expectancy in Finland increased at a faster rate than the EU average in the decade before the pandemic. While it only fell slightly during the first two years of the pandemic, it experienced a significant drop in 2022 to 81.2 years: nearly 1 year lower than before the pandemic. This was a greater reduction than the EU average and that in other Nordic countries.

#### **Risk Factors**

One third of deaths in Finland in 2019 could be attributed to behavioural risk factors. The country has implemented a range of policies in recent years to control tobacco and alcohol consumption, particularly among young populations. While the share of adults who smoke daily is much lower than the EU average, the obesity rate has increased over the past two decades, and is now much higher than the EU average.

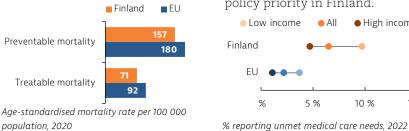


**Health System** 

Finland spends less on health than both the EU average and other Nordic countries on a per capita basis and as a share of GDP. Nevertheless, Finland's health expenditure reached 10.3 % of GDP in 2021 – an increase of more than 1 percentage point compared to pre-pandemic years. Out-of-pocket payments by households are higher than both the EU average and the share in other Nordic countries. Pharmaceuticals and dental care account for half of all out-of-pocket expenditure.

#### Effectiveness

Preventable and treatable mortality rates in Finland are lower than the EU averages, but are the highest among Nordic countries. Deaths of "despair" (related to suicide and drug and alcohol abuse) remain significantly higher in Finland than the EU average, and call for further prevention and support services.



population, 2020

#### Accessibility

ΕU

%

In 2022, the share of Finns reporting unmet medical care needs was higher than both the EU average and the rates in other Nordic countries. There was a large gap in unmet care needs between the highest and lowest income quintiles, mainly due to waiting times. With increasing demand for health and social care, ensuring access to care is becoming a high policy priority in Finland.

All

5 %

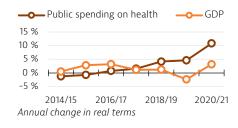
High income

15 %

10 %

#### Resilience

Public spending on health in Finland increased by 5 % in 2020 and 11 % in 2021, while GDP fell during the first year of the pandemic but bounced back in 2021. Tackling increasing waiting times and supporting the digital transformation of the health system are the two priorities of Finland's Recovery and Resilience Plan for investments in the health sector



#### Mental Health

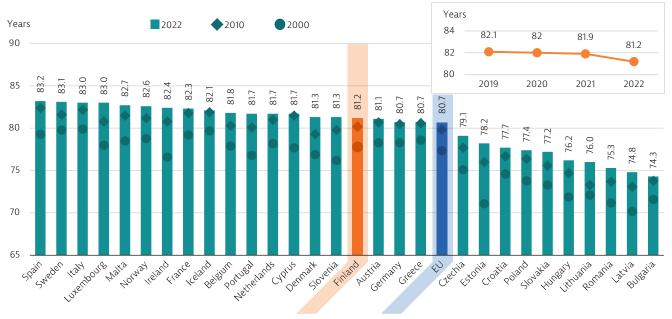
The leading causes of mental health issues in Finland in 2019 were depressive, anxiety, and alcohol and drug-use disorders. As in other countries, depression is more prevalent among people in the lowest income group, especially among women. Despite the reduction in recent decades, suicide rates in Finland remain higher than the EU average. Finland has moved away from standalone policies on suicide prevention and has adopted more integrated strategies as part of its National Mental Health Strategy 2020-30.

# 2 Health in Finland

### Life expectancy was only slightly higher than the EU average in 2022

In 2022, life expectancy in Finland was 81.2 years, half a year higher than the EU average, but lower than in all other Nordic countries (Figure 1). During the first two years of the pandemic, life expectancy in Finland only fell slightly, but the reduction in 2022 was much greater and the biggest of the last 50 years (Statistics Finland, 2023). This reduction was driven mainly by a higher number of deaths due to COVID-19 or for which COVID-19 was a contributing factor, particularly among the population aged over 80.

#### Figure 1. Life expectancy in Finland was half a year higher than the EU average in 2022



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.

As in other European countries, men tend to live shorter lives than women in Finland. The gender gap in life expectancy was 5.1 years in 2022 (78.7 years for men, 83.8 years for women), which was slightly less than the EU average (5.4 years).

#### Circulatory diseases, cancer, and Alzheimer and other dementias were the main causes of death in 2021

In 2021, the leading causes of death in Finland were circulatory diseases – notably ischaemic heart diseases and stroke – cancer, and Alzheimer and other dementias. Together these diseases accounted for three quarters of all deaths. Among deaths due to cancer, lung cancer was the main cause of mortality, followed by colorectal and pancreas cancer (Figure 2).

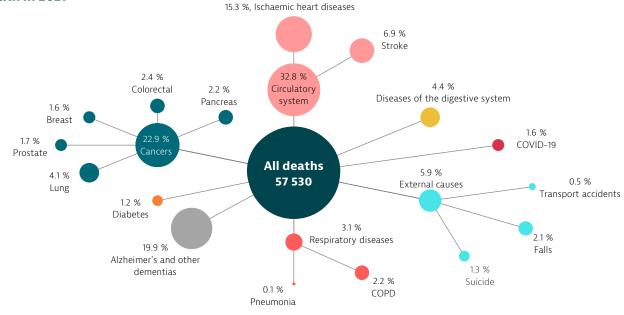
While COVID-19 accounted for less than 2 % of all deaths in 2021, the number and share of COVID-19 deaths in Finland increased greatly in 2022.

The broader indicator of (all-cause) excess mortality shows the marked increase in excess deaths in Finland in 2022. While excess mortality was only 3 % higher in 2020 and 5 % higher in 2021 than in the five years before the pandemic, it was 15 % higher in 2022 (Figure 3).

#### About two thirds of adults report being in good health, but sizeable disparities exist across income groups

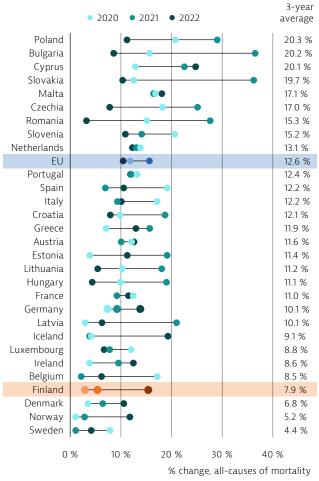
In 2022, 65 % of Finnish people reported that they were in good health – a share slightly lower than the EU average (68 %). However, as in other countries, people on lower incomes are less likely to report being in good health: only 53 % of those in the lowest income quintile reported being in good health compared to 75 % of those in the highest quintile (Figure 4).

### Figure 2. Circulatory diseases, cancer and Alzheimer and other dementias were the leading causes of death in 2021



Note: COPD refers to chronic obstructive pulmonary disease. Source: Eurostat Database (data refer to 2021).

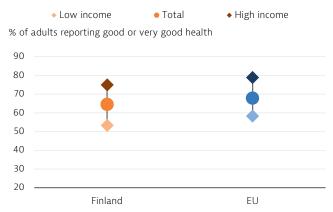
### Figure 3. Excess mortality in Finland was low in 2020 and 2021, but increased in 2022



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 2023, based on Eurostat data.

### Figure 4. Inequalities in self-reported health by income level are large in Finland



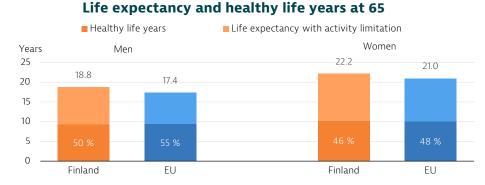
Source: Eurostat Database, based on EU-SILC (data refer to 2022).

### Women live a greater portion of their lives after age 65 with activity limitations

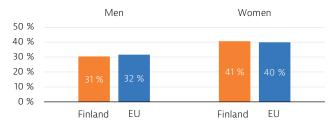
As a result of rising life expectancy, a fertility rate below replacement level and the ageing baby-boom generation, the share of people aged 65 and over in Finland grew from 15 % in 2000 to 22 % in 2020. It is projected to reach 28 % by 2050.

In 2020, women at age 65 could expect to live another 22.2 years, while men could expect to live 18.8 years (Figure 5). However, the gender gap in healthy life years (defined as disability-free life expectancy) was much smaller (less than a year) because women spend a greater proportion of their remaining years of life after age 65 with some activity limitations (disabilities).

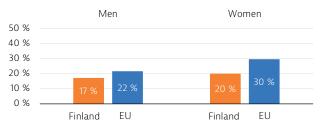
#### Figure 5. The gender gap in healthy life years at age 65 is much smaller than the gap in life expectancy



#### Proportion of people aged 65 and over with multiple chronic conditions



### Limitations in daily activities among people aged 65 and over

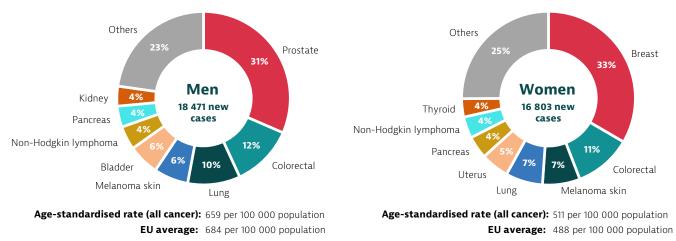


Sources: Eurostat Database (for life expectancy and healthy life years) and SHARE survey wave 8 (for chronic conditions and limitations in daily activities). Data refer to 2020.

About one in three Finnish men and two in five women aged over 65 reported having more than one chronic condition in 2020. These proportions are similar to the EU averages. A higher proportion of women (20 %) than men (17 %) in Finland reported having limitations in daily activities, as is also the case in other EU countries.

### The burden of cancer in Finland is close to the EU average

According to estimates from the Joint Research Centre based on incidence trends from previous years, more than 35 000 new cases of cancer were expected to be diagnosed in Finland in 2022.<sup>1</sup> The main cancer sites among men are prostate, lung and colorectal, while among women breast cancer is the leading cancer, followed by colorectal and lung cancer (Figure 6). A new national colorectal cancer screening programme was introduced in 2022 (see Section 5.1).



#### Figure 6. More than 35 000 cancer cases in Finland were expected to be diagnosed in 2022

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

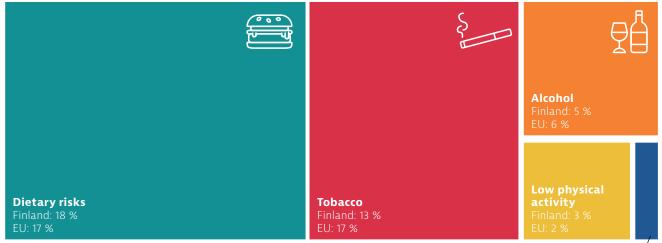
1 The most recent annual report on cancer in Finland reported 36 540 new cancer cases in 2021 (Seppä et al., 2023).

#### Over one third of deaths in Finland can be attributed to behavioural risk factors

Estimates show that about 35 % of deaths in Finland in 2019 could be attributed to behavioural risk factors, including dietary risks, tobacco smoking, alcohol consumption and low levels of

physical activity (Figure 7). This was below the EU average (39 %). Air pollution in the form of fine particulate matter  $(PM_{2.5})$  and ozone exposure alone accounted for about 1 % of all deaths in Finland in 2019 – a much lower share than the EU average (4 %).

#### Figure 7. Over one third of deaths can be attributed to behavioural risk factors in Finland



Air pollution: Finland: 1 % EU: 4 % /

Notes: The overall number of deaths related to these risk factors is lower than the sum of each one taken individually, because the same death can be attributed to more than one risk factor. Dietary risks include 14 components, such as low fruit and vegetable intake, and high sugar-sweetened beverages consumption. Air pollution refers to exposure to PM2.5 and ozone.

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

#### Smoking and alcohol consumption have decreased

About 12 % of adults smoked daily in 2020, down from 23 % in 2000. The proportion of daily smokers in Finland is now much lower than in most EU countries. Projections based on data from national health examination surveys (FINRISKI and FinHealth) forecast a continuing reduction among both men and women – down to 9 % by 2040 for both genders (Tolonen et al., 2022).

Alcohol consumption has also decreased since 2005 (by over 15 %), and was lower than in most EU countries in 2021. Total consumption of alcoholic beverages in Finland further decreased by 1 % in 2022 (Finnish Institute for Health and Welfare, 2023a).

Among adolescents, 23 % of 15-year-old Finns reported having been drunk more than once in their life in 2022 – a lower proportion than a decade earlier, but still higher than the EU average (18%). Smoking and alcohol consumption among

teenagers have decreased over the past decade following improvements in health education in schools and the implementation of stricter controls on sales.

#### Overweight and obesity rates are growing among Finnish adults and adolescents

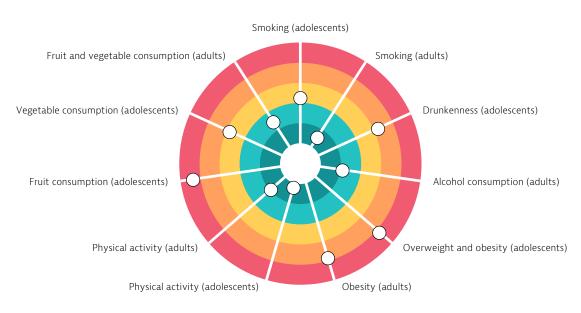
One in five adults (20 %) in Finland was obese in 2019, based on self-reported data – up from 11 % in 2000.<sup>2</sup> The rate in 2019 was higher than in most EU countries. Projections forecast further increases in obesity: by 2040, the prevalence of obesity is projected to reach 23 % among Finnish men and 30 % among Finnish women (Tolonen et al., 2022).

Nearly one in four 15-year-olds (24 %) were overweight or obese in 2022 – a rate higher than the EU average (21 %), according to the Health Behaviour in School-Aged Children (HBSC) survey (Figure 8). National register-based sources also report increasing child overweight and obesity rates between 2014 and 2020. In 2020, 27 % of

ased on actual measurements of people's height and weight, obesity rates among adults are even higher, reaching 27 % in 2017, up from 23 % in 2000. 2

and 13-16 years (Finnish Institute for Health and Welfare, 2022a).

#### Figure 8. Overweight and obesity are growing public health issues in Finland



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 (except physical activity which comes from EHIS 2014 and alcohol consumption which comes from OECD Health Statistics with the data relating to 2021).

#### Many behavioural risk factors are more frequent among people with lower socioeconomic status

As in other countries, many behavioural risk factors in Finland are more common among people with lower education levels. In 2019, over one in ten adults (11 %) with lower education levels smoked daily, compared to about one in twenty (6 %) among those with higher education levels, based on the European Health Interview Survey (EHIS) (Figure 9). People with lower education levels were also less likely to eat five portions of fruit and vegetables per day and more likely to be obese.

### Figure 9. People with lower education levels are more likely to smoke and be obese than the more highly educated



Note: Low education is defined as people who have not completed secondary education (ISCED 0-2), whereas high education is defined as people who have completed tertiary education (ISCED 5-8). Source: Eurostat Database (based on EHIS 2019).

# **4** The health system

#### Newly established well-being services counties are responsible for organising health services

After two decades in the making, a major structural reform has led to a greater centralisation and the establishment of counties as units responsible for health and social service provision in Finland from 2023 (Tynkkynen et al., 2023). Since January 2023, primary and specialist healthcare and social services is organised into 21 well-being services counties (WBSCs) and the City of Helsinki. The WBSCs are financed from the state budget and governed by elected councils. Each WBSC belongs to one of five collaborative areas, coordinated through the WBSCs and the Helsinki University Hospital Group, to deliver tertiary and other highly specialised care. The Ministry of Social Affairs and Health has strengthened its role in steering of the health system through its increased functions in annual planning and investment, and ability to direct WBSCs within collaborative areas if required. As 2023 is the first year of the full-scale implementation of this major structural reform, it is expected that there will be further changes and adjustments.

The reform also changes the key financing source for healthcare from municipalities to the national budget. Other financing channels have remained in place: the National Health Insurance system, which funds medicines and some other services; employers' expenditure on occupational healthcare; voluntary health insurance (VHI); and household out-of-pocket (OOP) payments.

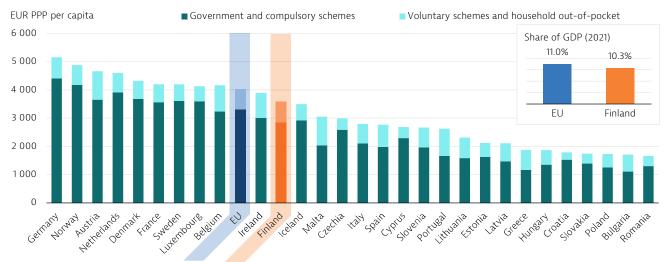
#### Population coverage is comprehensive, but employed people enjoy better access to services

All residents are covered by the public system, yet health coverage in Finland remains uneven as most employees (85 %) are additionally covered for primary care services through occupational healthcare, which is free of user charges and often allows faster access to care.

The WBSCs will be funded based on revenue from the central government and to a smaller extent on fees collected from users. They will receive money depending on the simulated costs of service needs, the circumstances of the welfare areas, and the tasks of rescue services. The inputs for the simulations are based on the size of the population, health and social needs, language composition, and the health and well-being of the population.

### Public expenditure on health in Finland has increased but remains below the EU average

Finland's health expenditure reached 10.3 % of GDP in 2021, amounting to EUR 3 584 per person (adjusted for differences in purchasing power), which is lower than the EU average (Figure 10). About 80 % of spending came from public sources compared to the 81 % average across the EU. Public expenditure on health in Finland has grown since 2017, and increased further during the first two years of the pandemic. The share of OOP payments has decreased gradually to 16 % in 2021, after peaking at over 19 % in 2016, while the share financed by VHI remained relatively small – at 4 % of current expenditure on health.



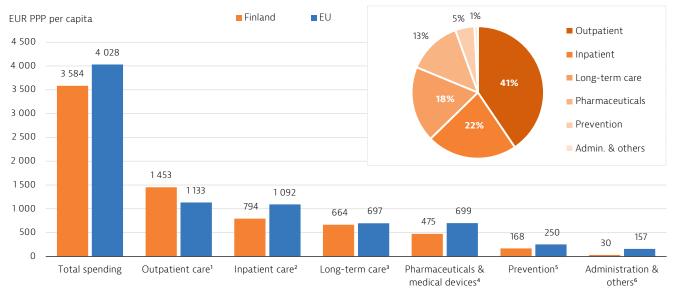
#### Figure 10. Finland spends less on health than the EU average and other Nordic countries

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

#### Finland has seen a consistent expansion of outpatient care, and spending on prevention increased during the pandemic

Over 40 % of current health spending goes towards outpatient care. The other big spending categories are inpatient care (22 %), long-term care (18 %) and pharmaceuticals and medical devices (13 %) (Figure 11). As in many other countries, spending on prevention increased during the pandemic. Prevention expenditure accounted for about 5 % of overall health spending in 2021 – up from about 4 % before the pandemic.

#### Figure 11. Outpatient care is by far the largest health spending category in Finland



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 (data refer to 2021).

### Centralisation of specialist care accelerated reductions in hospital bed numbers

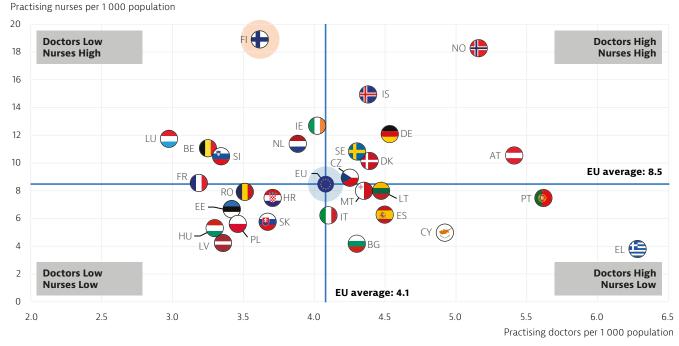
In the past 10 years, the process of centralising specialist care has led to mergers of hospitals and closures of some smaller providers of inpatient care. It has also led to a marked reduction in hospital bed numbers to 2.8 per 1 000 population in 2021, which is similar to the level in other Nordic countries and markedly below the EU average of 4.8 beds per 1 000. In the first two years of the pandemic, the number of beds continued to drop, as Finland managed to avoid a major surge in COVID-19 cases in 2020 and 2021.

#### Workforce shortages are growing concerns despite substantial advances in task sharing

Finland has fewer doctors (3.6) and far more nurses (18.9) per 1 000 population than the EU averages (Figure 12). There are notable regional variations in the distribution of doctors, with the northern districts recording lower ratios (fewer than 2 doctors per 1 000 population) than the southern districts. Since the early 2000s, the shortage of doctors prompted policies to encourage task shifting from doctors to nurses, with nurses taking on tasks such as prescribing, consultations in primary care and more advanced roles in hospital care (see Section 5.3).

While the number of nurses continued to increase between 2010 and 2020, the demand for nursing care has also gone up, and the shortage of nurses has increased in recent years. According to the national Occupational Barometer, in the first half of 2022 there were on average 8 051 open vacancies for registered nurses and 15 495 for practical nurses (Ministry of Economic Affairs and Employment, 2022). The implementation of the maximum waiting times under the Health Care Act is also putting additional pressure on the limited supply of health workers (see Section 5.3).

#### Figure 12. Finland has more nurses than other EU countries, but fewer 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 for most countries but to 2020 for Finland).

# 5 Performance of the health system

#### 5.1 Effectiveness

#### Avoidable mortality in Finland is lower than the EU average, but higher than in other Nordic countries

Finland had lower rates of mortality from preventable and treatable causes in 2020 than most EU countries, but higher rates than other Nordic countries (Figure 13). The most common preventable cause of death in Finland is alcohol-related deaths, with a rate much higher than in most other EU countries, followed by lung cancer. Accidents and suicides also account for a sizeable number of preventable causes of death. Treatable mortality rates were more than two times lower than preventable mortality rates, and have decreased by 18 % over the past decade.

### Finland has introduced several national policies to reduce risk factors

The 2016 Tobacco Act (549/2016) set an ambitious target that no more than 5 % of the Finnish

population would use tobacco or nicotine products by 2030. New amendments were introduced to the Act in May 2022. The main amendment was the introduction of plain packaging (meaning that all promotional, advertising and marketing features of packages of tobacco and nicotine products must be removed). Other new measures included expanding smoking bans in playgrounds and public beaches to contribute to the process of de-normalising tobacco.

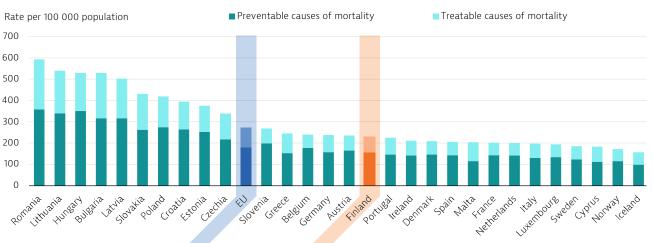
As noted in Section 3, total alcohol consumption in Finland has decreased since the early 2000s. Finland has regulated alcohol advertisements, granted a monopoly to a government-owned company for retail sales of alcohol products above 5.5 % by volume,<sup>3</sup> and limited opening hours for retail sales and sales in bars and restaurants.

### Finland has national screening programmes for breast, cervical and colorectal cancer

In Finland, screening has been available to women in specific age groups since the 1960s for cervical

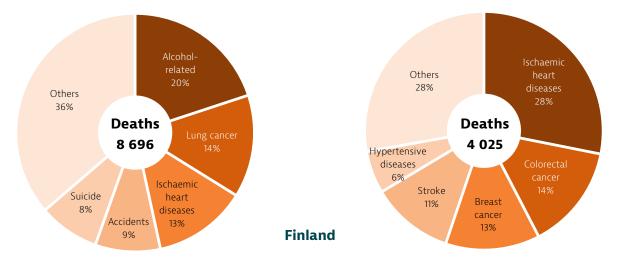
<sup>3</sup> The new government proposes to increase this volume of alcohol to 8 %.

#### Figure 13. Avoidable mortality in Finland was lower than the EU average in 2020





#### Treatable causes of mortality



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. Source: Eurostat Database (data refer to 2020).

and the 1980s for breast cancer. In 2022, the country also introduced a nationwide colorectal cancer screening programme for women and men aged 60-68 every two years, with a plan to extend this age group to 56-74 years in 2031.

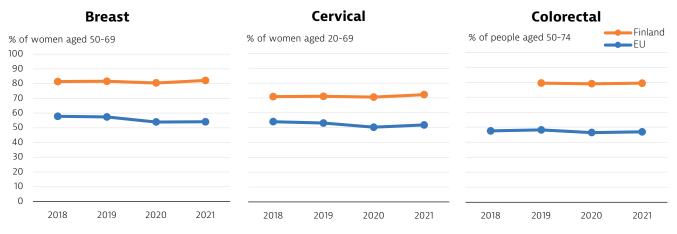
Finland's longstanding experience with cervical and breast cancer screening is reflected in relatively high take-up rates. The share of the target population who were screened for breast cancer in 2021 (82 %) was much higher than the EU average (54 %) (Figure 14). While uptake of cervical cancer screening is slightly lower than that for breast cancer (72 %), it was 20 percentage points above the EU average in 2021. The colorectal cancer screening rate was also much higher than the EU average even before the introduction of the new programme in 2022. The pandemic did not seem to have any significant impact on screening rates in Finland in 2020 and 2021, although all municipalities paused invitations for colorectal screening during the first wave in March-April 2020 (OECD, 2023a).

### Influenza vaccination rates among older people have increased sharply since 2020

The COVID-19 pandemic raised the importance of increasing vaccination rates against influenza to minimise avoidable pressure on hospitals. The government launched public awareness campaigns during the pandemic to encourage people at risk to get vaccinated. The influenza vaccination rate among people aged 65 and over went up to over 60 % during the 2020/21 vaccination campaign before falling slightly during the 2021/22 vaccination campaign, but remaining above the rate in pre-pandemic years (Figure 15). These rates were also above EU average.

# FINLAND

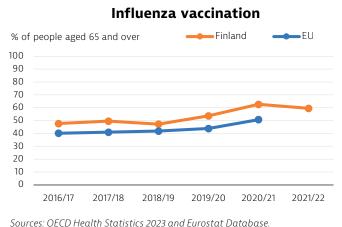
#### Figure 14. Finland is ahead of most EU countries in cancer screening



Note: Rates refer to the share of individuals within the target groups who have undergone screening in the last two years (or within the specific screening interval recommended in each country).

Source: OECD Health Statistics 2023 (based on national programme data, except colorectal cancer which are based on pilot studies).

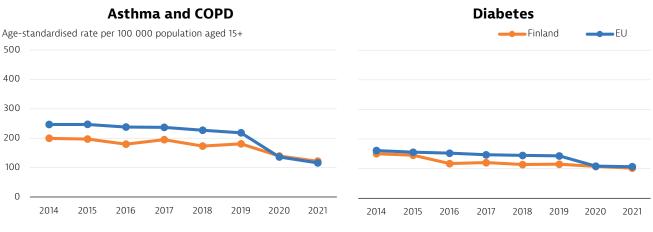
# Figure 15. Influenza vaccination rates among older people rose substantially during the pandemic



### Potentially avoidable admissions for chronic conditions are close to the EU average

For several diseases, admissions to hospital can be avoided through accessible and effective primary care. Admission rates for asthma and chronic obstructive pulmonary disease (COPD) and diabetes in Finland were slightly below the EU averages before the pandemic (Figure 16). The marked decline in admissions observed in 2020 should be interpreted in the context of the COVID-19 pandemic, which affected non-COVID-19 hospital activity and modified healthcare-seeking behaviours (see Section 5.3). These declines cannot therefore be understood as indicative of improved accessibility or quality of primary care for these chronic conditions in outpatient settings.

### Figure 16. Avoidable admissions for respiratory conditions and diabetes were slightly below the EU averages before the pandemic



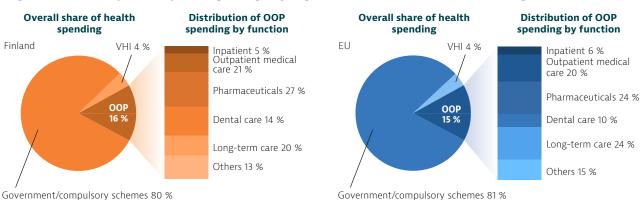
Note: Admission rates are not adjusted for differences in disease prevalence across countries. Source: OECD Health Statistics 2023.

#### 5.2 Accessibility

# The Finnish health system covers nearly all the population, yet some gaps in coverage and the degree of coverage remain

In Finland, all permanent residents are covered for a broadly defined package of health services. Employees in Finland are also covered through occupational healthcare for a set of services determined by their employers (with minimum standards set by law). Occupational healthcare creates a parallel system: it provides quicker and free access to services for employees, while other parts of the population face copayments and waiting times (Tervola et al., 2021).

User fees remain an important issue for many households in Finland. Public funding accounted for 80 % of total health spending in 2021, which is slightly lower than the EU average of 81 % and much lower than in all other Nordic countries (where the share is over 85 %). Most of the private spending is paid directly out of pocket by households. A large proportion of OOP spending in Finland goes to pay for pharmaceuticals (27 %) and dental care (14 %) (Figure 17).



#### Figure 17. Out-of-pocket spending is slightly higher in Finland than the EU average

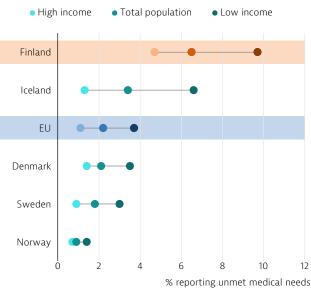
Notes: VHI also includes other voluntary prepayment schemes. The EU average is weighted. Sources: OECD Health Statistics 2023; Eurostat Database (data refer to 2021).

### Unmet medical care needs remain high mainly due to waiting times

The share of the population in Finland reporting unmet medical care needs (6.5 %) was nearly three times the EU average (2.2 %) in 2022, and even greater than the shares in other Nordic countries except Iceland (Figure 18). There is a wide income gap in reported unmet medical care needs in Finland: people in the lowest income quintile (9.7 %) were more than twice as likely to report unmet medical care needs in 2022 as those in the highest quintile (4.7 %). Most of these unmet medical care needs were due to waiting times.

The COVID-19 pandemic increased unmet needs for healthcare, at least in part because of temporary disruptions to services. Based on the Eurofound Living, working and COVID-19 survey, the share of Finns who reported some unmet healthcare needs (including not only medical care but also dental care, mental health services and other services) went up from 15 % to 25 % between spring 2021 and spring 2022 – a much greater increase than the EU average (Figure 19).<sup>4</sup>

#### Figure 18. A higher share of Finns report unmet medical care needs than the EU average, with large inequalities by income

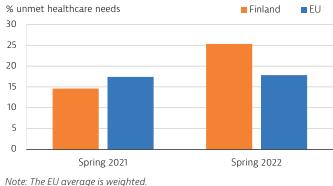


Note: Data refer to unmet needs for a medical examination or treatment due to costs, distance to travel or waiting times.

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

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

### Figure 19. The share of Finns reporting unmet healthcare needs increased in 2022



Source: Eurofound (2022).

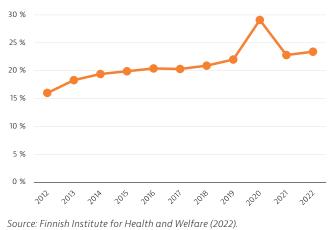
#### Finland's pre-existing telemedicine policies helped maintain access to care during the pandemic

Telemedicine services provided an alternative to maintain access to care during the pandemic, but they can also improve access to care for people living in rural and remote areas under normal circumstances. Real-time consultations and remote patient monitoring services are covered by the public health insurance system in Finland. Payment for telemedicine services is equal to in-person services, and cost-sharing for telemedicine services is also similar to cost-sharing for equivalent in-person services. Finland was one of a few countries that had already implemented telemedicine policies before the pandemic, which helped with quick expansion of the use of these services during the pandemic (OECD, 2023b).

During 2020, the share of remote outpatient consultations in Finland exceeded 29 %, marking an increase of over 7 percentage points compared to 2019. After the first year of the pandemic, the share of remote consultations in Finland reverted to its pre-pandemic growth pattern (Figure 20).

#### Figure 20. The share of outpatient teleconsultations in Finland peaked in 2020

Remote care visits, % of all outpatient care visits



### Shortages of health and long-term care workers are a growing concern

As noted in Section 4 (see Figure 12 above), Finland has fewer doctors but more nurses per 1 000 population than the EU average. The 2022 Occupational Barometer found that three quarters of the top 15 occupations identified as being in shortage were in the health and social care sector. These include general practitioners, registered nurses, practical nurses, home care assistants, psychologists and dentists (Ministry of Economic Affairs and Employment, 2022).

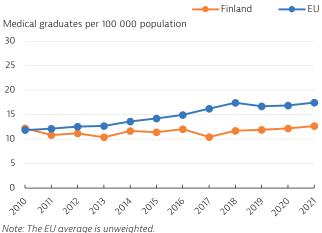
The Ministry of Social Affairs and Health launched a five-year programme in November 2021 to ensure sufficient availability of health and social care workers in response to population ageing and the need to provide care in various settings. The programme aims to address the shortage of health and social care workers through a series of measures, including ensuring sufficient intake of students in health education and training programmes; reviewing the division of tasks and responsibilities between professions and the organisation of work; making greater use of digital solutions; and improving working conditions to attract and retain more workers in the health and social care sector.

The main source of new doctors and nurses in Finland are domestic medical and nursing graduates, with recruitment of foreign-trained doctors and nurses playing only a secondary role. Since 2010, the number of new medical graduates relative to population size has been below the EU average, as the number has increased more slowly than in most other countries (Figure 21). The number of nursing graduates is higher than the EU average, but it has decreased since 2018.

The government decided a few years ago to increase the number of students admitted to medicine and nursing degrees, which should lead to growing numbers of graduates in the coming years if students complete their studies. The number of students enrolled in medical schools increased slightly from 730 in 2019 to 779 in 2022, while enrolments in nursing schools increased much more – from 4 037 students in 2019 to 5 330 in 2022. These numbers were expected to continue to increase in 2023.

Training more doctors and nurses is crucial to replace the large numbers who are expected to retire in the coming decade, but it is equally important to retain nurses and other health workers in the profession. According to a survey conducted by the Finnish Nurses Association during the first year of the pandemic, about

### Figure 21. Finland has fewer medical graduates than the EU average



Sources: OECD Health Statistics 2023; Eurostat Database

three quarters of young nurses were considering changing profession due to high workload and low pay. Several thousands of nurses and other health workers went on strike in April 2022, calling for better working conditions and better pay. A final pay agreement was reached in March 2023, which included a minimum pay increase of 20.9 % over the period 2022-27.

#### 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 on 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,<sup>5</sup> improve critical areas of the health sector, and fortify their preparedness for future shocks.

### Elective surgery rates fell in 2020 and waiting times increased thereafter

At the beginning of the pandemic in 2020, Finland postponed large volumes of elective (non-urgent) hospital care to create a buffer of excess resources (beds, staff and equipment) to respond to any surge of COVID-19 patients and reduce the risk of hospital outbreaks (OECD, 2023b). These contingency measures reduced the number of hospital admissions in 2020, particularly for elective surgical procedures such as hip and knee replacements, but activity rates rebounded in 2021. Following a 9 % reduction in hip replacement rates in 2020, the rate increased by 11 % in 2021. The reduction in knee replacement rates in 2020 was slightly lower (7 %) and the increase in 2021 larger (15 %) than for hip replacements (Figure 22).

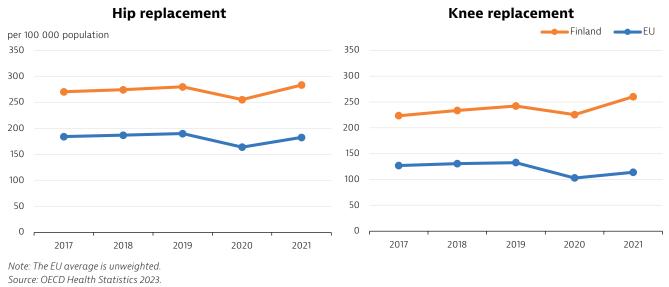


Figure 22. Surgical procedures in Finland fell during the first year of the pandemic, but rebounded in 2021

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).

The effect of the reduced volume of hip and knee replacement in 2020 on waiting times started to be felt the year after. The mean waiting times for patients to have a hip replacement increased from 83 days in 2020 to 112 days in 2021, while the waiting times to get a knee replacement went up from 101 days to 114 days. However, the increase in waiting times was less pronounced than in Sweden (Figure 23).



#### Figure 23. Waiting times for hip and knee replacement increased markedly in 2021

Source: OECD Health Statistics 2023.

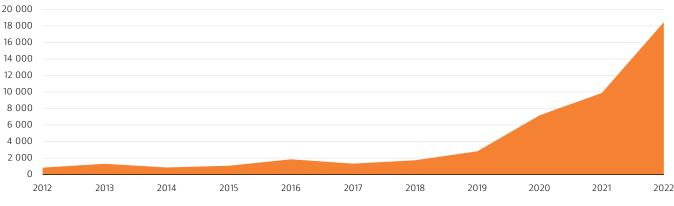
People waiting more than six months

WBSCs are responsible in Finland for ensuring timely access to diagnoses and treatment. The Health Care Act states that patients should be able to have contact with a primary care provider within a day during office hours and, following referral, a specialist consultation to assess the need for treatment within three weeks. Until 1 September 2023, treatment was to be provided within three months of the assessment (six months for dental care). Since 1 September 2023, waiting times for treatment have been reduced to 2 weeks in primary care (and 4 months for dental care).

Three times a year, the Finnish Institute for Health and Welfare produces a statistical report on access to primary care, specialised care and treatment.

At the end of December 2022, more than 160 000 people were waiting for non-urgent specialist treatment, and 12.7 % of these had waited for more than 6 months (Finnish Institute for Health and Welfare, 2023b). The number of people waiting more than 6 months for treatment increased greatly in 2021 and 2022 (Figure 24).

### Figure 24. The number of people waiting more than six months for treatment increased greatly in 2021 and 2022



Source: Finnish Institute for Health and Welfare (2023b).

#### Public spending on health started to increase before the pandemic, and growth accelerated in 2020 and 2021

Following years of modest or even negative growth in real terms, public spending on health in Finland started to grow at a higher rate of 4 % in 2019, and increased further by nearly 5 % in 2020 and nearly 11 % in 2021 (Figure 25). This strong growth in 2021 was driven by a "catch-up" effect of healthcare activities after the reduction in 2020, as well as the cost of COVID-19 testing and vaccination campaigns.

### Figure 25. Public spending on health started to rise just before the pandemic, but the growth rate accelerated in 2020 and 2021



Source: OECD Health Statistics 2023.

#### The Finnish Recovery and Resilience Plan focuses on addressing waiting times and the digital transformation of the health system

The initial Finnish Recovery and Resilience Plan set out investments of EUR 372.8 million in the health sector (20 % of the overall budget). The largest share of the plan is dedicated to reducing waiting times for hospital and primary care services, and increasing access to non-urgent treatment. The second main priority is to support the digital transformation of health and social care services and thus support the implementation of the WBSC reform. Other priorities include strengthening preventive care and boosting the number of medical students (Figure 26).

### Figure 26. Finland's Recovery and Resilience Plan prioritises addressing waiting times and digital transformation of the health system



Other: EUR 5 000 000

Notes: These figures refer to the original Recovery and Resilience Plan. The ongoing revision of the plan might affect its size and composition. Some elements have been grouped together to improve the chart's readability. The funding allocated to increasing the number of students in universities includes new places in medical education programmes, but also in information and communication technology (ICT) and engineering programmes. Source: European Commission – Recovery and Resilience Scoreboard.

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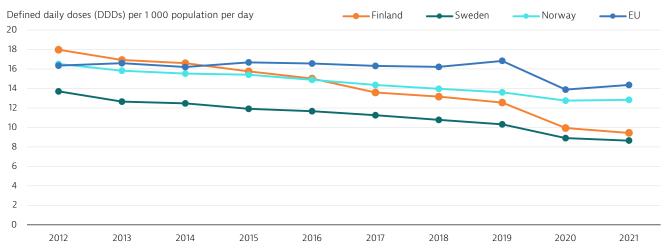
The investments in digital health will be complemented by EU Cohesion Policy 2021-27 programming, with Finland planning to invest about EUR 15 million in the development of telehealth services and applications, of which 58 % will be co-financed by the EU.<sup>6</sup>

# Reducing the risks of other public health threats: Finland's preparedness to antimicrobial resistance

Antimicrobial resistance (AMR) is a major public health concern in the EU, with estimates of about 35 000 deaths due to antibiotic-resistant infections (ECDC, 2022) and healthcare-associated costs of around EUR 1.1 billion per year (OECD/ECDC, 2019). Because antibiotic overprescription and overuse in humans are major contributors to the development of antibiotic-resistant bacteria, antibiotic consumption data are useful to evaluate the risk of AMR and the efficacy of programmes to promote their appropriate use. The most recent National Action Plan on AMR in Finland dates back to 2017-21. This comprised five main priority areas to control AMR: a) training of health professionals and education of the general public; b) nationally coordinated One Health surveillance, including surveillance of AMR and use of antibiotics; c) prevention of infections and control of spreading of multi-resistant bacteria; d) guidance on the use of antimicrobials; and e) support for further research (Ministry of Social Affairs and Health, 2017).

Finland performs relatively well compared to most other EU countries in terms of antibiotic consumption. Over the past 10 years, consumption in the community (outside hospitals) has declined much more than the EU-wide reduction, resulting in a consumption rate 35 % lower than the EU average in 2021 (Figure 27). During the COVID-19 pandemic, Finland's antibiotic use decreased by nearly 25 % between 2019 and 2021, a sharper fall than that across the EU. This massive decline can be attributed partly to reduced infections due to pandemic-related measures.





Notes: The EU average is unweighted. The data only include consumption in the community (outside hospitals). Source: ECDC ESAC-Net.

Consistent with this lower level of antibiotic consumption, Finland also fares well in the fight against AMR. For example, only 2.6 % of hospital patients had bloodstream infections due to methicillin-resistant staphylococcus aureus (MRSA) in 2021 – a much lower proportion than the EU average of over 15 % (ECDC, 2023).

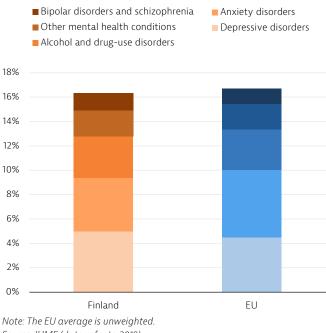
<sup>6</sup> These EU Cohesion Policy figures reflect the status as of September 2023.

# 6 Spotlight on mental health

Even before the pandemic, the burden of mental ill health in Finland was significant, and affected hundreds of thousands of people. The economic costs of mental ill health are substantial, with direct and indirect costs estimated at over 5 % of GDP or EUR 11 billion in 2015 (OECD/EU, 2018).

According to estimates from the Institute for Health Metrics and Evaluation (IHME), 16 % of Finns had a mental health issue in 2019, which is close to the EU average (Figure 28). The leading causes of mental health issues in Finland were depressive, anxiety, and alcohol and drug-use disorders.

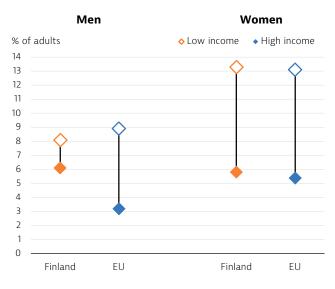
#### Figure 28. About one in six people in Finland had a mental health issue before the pandemic



Source: IHME (data refer to 2019).

In Finland, as in other countries, the share of women who reported depression in 2019 was significantly higher than the share of men. The income gap among women was even wider, with women in the lowest income quintile more than twice as likely to report depression than those in the highest quintile (Figure 29).

### Figure 29. Rates of depression are particularly high among women in the lowest income group



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).

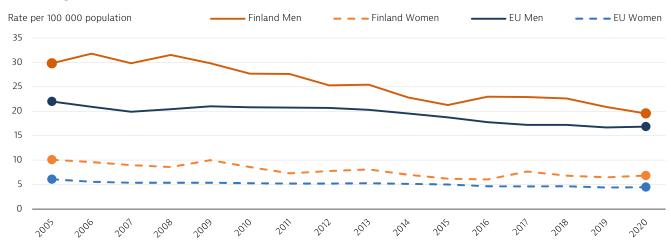
#### Rates of deaths of "despair" remain higher than in most EU countries, despite a reduction in suicide rates

The rate of deaths of "despair" (defined as deaths from suicide, alcohol abuse and drug overdose) in Finland remains well above the EU average and the rates in other Nordic countries, despite the reduction in suicide rates over the last 15 years. Death from acute alcohol abuse was the leading cause of deaths in this category in Finland in 2018, followed by suicide and drug overdose (Fleischer & Stokenberga, 2023).

Despite the substantial reduction over the past 15 years, in 2020, suicide rates remained nearly three times higher among Finnish men than women, and slightly higher than EU average (Figure 30).<sup>7</sup>

<sup>7</sup> In 2021, suicide rates remained the same for men but increased among women, slightly narrowing this gap.

### Figure 30. Suicide rates in Finland have decreased over the past 15 years, but remain higher than the EU average



Source: Eurostat Database.

### The proportion of people experiencing anxiety and depression increased during the pandemic

As in other countries, the share of the Finnish population reporting symptoms of depression and anxiety increased markedly during the pandemic, when social isolation, and financial and health insecurity all contributed to a significant worsening of people's mental health. Anxiety increased notably among young people, particularly young women. The proportion of young women aged 13 to 20 reporting generalised anxiety symptoms increased from 20 % to 30 % between 2019 and 2021, while the increase was more modest among young men, from about 6 % to 8 % (Kiviruusu et al., 2023). The most recent data from the School Health Promotion Survey show that anxiety symptoms have continued to increase among grade 8 and 9 students between 2021 and 2023, although at a slower rate than in the previous two years (Finnish Institute for Health and Welfare, 2023c).

### Finland's mental health services use a community-based approach

Mental health services in Finland are built on community- and outpatient-based care, supported by social services. The system has undergone several major changes over the last 30 years, starting with decreasing the volume of institutional care and increasing capacity in outpatient department services (Korkeila, 2021). Patients can seek mental healthcare in primary care, local healthcare centres, outpatient departments and mental health offices in hospitals, but a referral is needed to access specialised care. Remote appointments in outpatient care, including online psychotherapy by the Helsinki University Central Hospital, were introduced in 2009. This service contains a part tailored specifically for adolescents, reflecting the recent policy focus on the improvement of child and youth mental health (Tynkkynen et al., 2023).

Given that the new WBSCs are responsible for organising both mental health services and social services, this should help in promoting greater integration and coordination of these services for people with mental health conditions. Preventive strategies are jointly coordinated between the WBSCs and municipalities, based on local needs.

### Finland has started to implement a new mental health strategy

A new ten-year National Mental Health Strategy and Programme for Suicide Prevention was launched in 2020, recognising the importance of mental health as a resource that should be supported (Finnish Institute for Health and Welfare, 2020). The Strategy is based on five broad goals: a) recognising mental health as human capital; b) promoting the mental health of children and young people; c) recognising mental health as a human right; d) promoting appropriate and broad-based mental health services; and e) ensuring proper mental health management, including through cross-sectoral activities and regular monitoring of progress. Under this Strategy, Finland aims to increase the resources available for mental health services in primary care and to strengthen coordination between primary care and more specialised care.

# 7 Key findings

- During the first two years of the pandemic, life expectancy in Finland fell only slightly, but the reduction in 2022 was much greater and the largest in over 50 years. This reduction was driven mainly by higher deaths from COVID-19, particularly among people aged over 80.
- About 35 % of all deaths in Finland in 2019 could be attributed to behavioural risk factors. Although progress has been achieved in reducing tobacco and alcohol consumption, obesity and overweight are growing public health concerns. In 2019, 20 % of adults were obese, up from 11 % in 2000, and the adult obesity rate was higher than in most EU countries. Overweight and obesity rates among adolescents in 2022 (24 %) were also higher than the EU average (21 %).
- Finland's health expenditure reached 10.3 % of GDP in 2021 a large increase compared to 2019 due mainly to the increase in health spending during the first two years of the pandemic. Health spending as a share of GDP remained lower than the EU average in 2021 (11.0 %), however.
- All residents are covered by the health system, but most employees benefit from occupational healthcare that provides quicker and free access to some services, while other parts of the population face copayments and waiting times. In 2022, a larger proportion of the population (6.5 %) reported unmet medical care needs in Finland than the EU average (2.2 %), mostly related to waiting times.
- While waiting times for elective surgical procedures did not increase much during the first year of the pandemic, they went up substantially in 2021 and 2022, despite a rebound in volumes of surgical activity following the reduction in 2020. The number of people on waiting lists for more than 6 months for treatments such as hip and knee replacements increased sharply in 2021 and 2022. The main priority of Finland's Recovery and Resilience Plan is to address this backlog as quickly as possible.

- Shortages of health and long-term care workers are growing concerns, with employers having difficulties in recruiting many categories of staff, including general practitioners, nurses and homecare assistants. The Ministry of Social Affairs and Health launched a five-year programme in November 2021 to increase the supply of health and social care workers in response to population ageing. The main measures are to increase student intakes in health education and training programmes, review the division of roles and responsibilities between professions in health service delivery, make greater use of digital solutions, and improve working conditions to attract and retain more workers in the health and social care sector.
- A major reform implemented in January 2023 reorganised health and social services in Finland through the creation of well-being services counties (21 counties and the City of Helsinki). These are financed from the state budget and governed by elected councils. The Ministry of Social Affairs and Health has strengthened its role in steering the health system through greater involvement in annual planning and investment.
- Even before the pandemic, the burden of mental ill health was significant: an estimated one in six Finns had a mental health issue in 2019. The most frequent causes were depression, anxiety, and alcohol and drug use. Suicide rates remain much higher in Finland than the EU average, despite a significant reduction in the past 15 years. The National Mental Health Strategy and Programme for Suicide Prevention aims to promote the mental health of children and young people, increase the resources available for mental health services in primary care, and strengthen coordination between primary and specialist care.

# Key sources

Keskimäki I et al. (2019), Finland: health system review, Health Systems in Transition, 21(2):1-166.

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

Tynkkynen LK et al. (2023), Finland: Health system summary, 2023. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies.

## References

ECDC (2022), Health burden of infections with antibiotic-resistant bacteria in the European Union and the European Economic Area, 2016-2020.

ECDC (2023), Antimicrobial resistance surveillance in Europe 2023 – 2021 data, Antimicrobial resistance surveillance in Europe 2023 - 2021 data (europa.eu)

Eurofound (2022), Living, working and COVID-19 survey, rounds three and five (spring 2021 and spring 2022).

Finnish Institute for Health and Welfare (2020), The National Mental Health Strategy and Programme for Suicide Prevention 2020–2030.

Finnish Institute for Health and Welfare (2022), Finland's Report Card 2022 -- Physical Activity for Children and Youth.

Finnish Institute for Health and Welfare (2023a), Consumption of alcoholic beverages 2022, Statistical report OSF 20/2023.

Finnish Institute for Health and Welfare (2023b), Access to treatment in specialised medical care, Statistical report 14/2023.

Finnish Institute for Health and Welfare (2023c), Sotkanet Statistics and Indicator Bank, Results table - Sotkanet.fi, Statistics and Indicator Bank.

Fleischer L and Stokenberga L (2023), Well-being in Finland: bringing together people, economy and planet, OECD Papers on Well-being and Inequalities.

Health Behaviour in School-aged Children study (2023), Data browser (findings from the 2021/22 international HBSC survey): https://data-browser. hbsc.org Kiviruusu O et al. (2023), Generalized anxiety among Finnish youth from 2013 to 2021-Trend and the impact of COVID-19. Journal of Affect Disorders.

Korkeila J (2021), Organization of community psychiatric services in Finland, Consortium Psychiatricum, 2(1):55-64.

Ministry of Economic Affairs and Employment (2022), Occupational Barometer.

Ministry of Social Affairs and Health (2017), National Action Plan on Antimicrobial Resistance 2017–2021.

OECD (2023a), EU Country Cancer Profile: Finland 2023.

OECD (2023b), Ready for the next crisis? Investing in health system resilience, OECD Health Policy Studies.

OECD/ECDC (2019), Antimicrobial resistance, Tackling the burden in the European Union, Briefing note for EU/EEA countries.

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

Seppä, K. et al. (2023), Cancer in Finland 2021. Cancer Society of Finland.

Statistics Finland (2023), Life expectancy decreased due to clear increase in mortality in 2022, 21 April 2023.

Tervola, J. et al. (2021), Can people afford to pay for health care? New evidence on financial protection in Finland. WHO Regional Office for Europe.

Tolonen, H. et al. (2022), Development of non-communicable disease risk factors in Finland: projections up to 2040, Scandinavian Journal of Public Health.

#### **Country abbreviations**

Austria	
Belgium	
Bulgaria	
Croatia	
Cyprus	
Czechia	

AT | Denmark BE | Estonia BG | Finland HR | France CY | Germany CZ | Greece DK | Hungary EE | Iceland FI | Ireland FR | Italy DE | Latvia EL | Lithuania

HU	Luxembourg	LU	Romania	RO
IS	Malta	MT	Slovakia	SK
IE	Netherlands	NL	Slovenia	SI
IT	Norway	NO	Spain	ES
LV	Poland	PL	Sweden	SE
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

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