European Commission

State of Health in the EU

The Netherlands

Country Health Profile 2021

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

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 policymakers and influencers with a means for mutual learning and voluntary exchange.

The profiles are the joint work of the OECD and the European Observatory on Health Systems and Policies, in cooperation 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 completed in September 2021, based on data available at the end of August 2021.

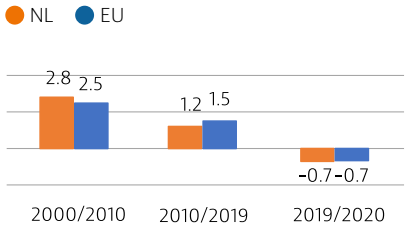
Demographic and socioeconomic context in The Netherlands, 2020

Demographic factors	The Netherlands	EU
Population size (mid-year estimates)	17 407 585	447 319 916
Share of population over age 65 (%)	19.5	20.6
Fertility rate[1] (2019)	1.6	1.5
Socioeconomic factors		
GDP per capita (EUR PPP[2])	39 641	29 801
Relative poverty rate[3] (%, 2019)	13.2	16.5
Unemployment rate (%)	3.8	7.1

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.

1 Highlights

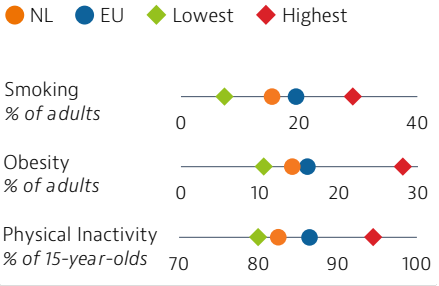
Three coverage schemes provide broad health coverage to nearly all the Dutch population. These include a competitive social health insurance system for curative care, a single-payer system for long-term care and municipal systems for social care. Like the rest of Europe, the Netherlands faced high pressures from the COVID-19 pandemic, and experienced a temporary drop in life expectancy in 2020. The unprecedented strain caused by COVID-19 posed a clear challenge at all levels of the Dutch health system.



Life expectancy gains, years

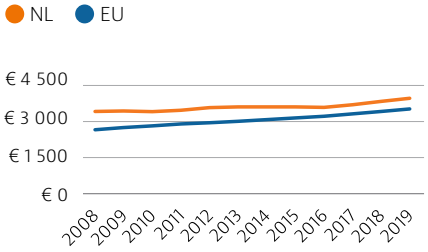
Health Status

Life expectancy in the Netherlands is higher than the EU average by about one year, but gains have slowed over the past decade. As a result of the COVID-19 pandemic, life expectancy fell by 0.7 years between 2019 and 2020 – the same as the EU average. Lung cancer, stroke and ischaemic heart disease made up the highest share of mortality in 2019. In 2020, 1 in 15 deaths were attributed to COVID-19.



Risk factors

Behavioural risk factors in the Netherlands account for a lower share of deaths than the EU average. Smoking and obesity rates are both below the EU averages. However, one in five deaths in 2019 resulted from tobacco consumption – a higher share than in the EU – and obesity levels among adults have increased over the last two decades. Dutch adults and adolescents are more physically active than those in most other EU countries.



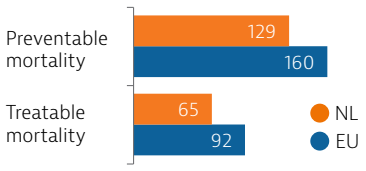
Per capita spending (EUR PPP)

Health system

The Netherlands spends more per capita (EUR 3 967) on health than the EU average (EUR 3 523), with a considerable share dedicated to long-term care. Expenditure on outpatient pharmaceuticals and medical devices is kept low, aided by volume and price control policies and well-established health technology assessment processes. Public sources cover a high percentage of health expenditure, resulting in a lower share of out-of-pocket spending for health care than the EU average.

Effectiveness

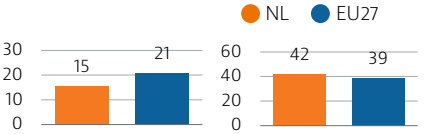
The Netherlands has among the lowest mortality rates from preventable and treatable causes in the EU. Most preventable deaths are from lung cancer, while colorectal cancer and breast cancer account for 40 % of deaths from treatable causes. Mortality rates from ischaemic heart disease, stroke and pneumonia are among the lowest in the EU.



Age-standardised mortality rate per 100 000 population, 2018

Accessibility

The Dutch population has historically reported low unmet needs for medical treatment, but this changed during the COVID-19 pandemic when many non-urgent services were cancelled or postponed. Evidence suggests that 15 % of people had to forgo care during the first 12 months of the pandemic. Teleconsultations were used to help maintain access to services.

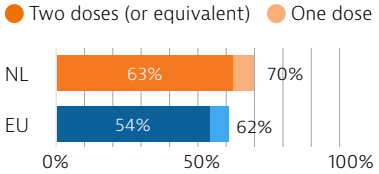


% reporting forgone medical care during first 12 months of pandemic

% using teleconsultation during first 12 months of pandemic

Resilience

The health system response to COVID-19 encountered obstacles, including fragmentation in testing, contact tracing and vaccination efforts. After a slow start, the vaccination campaign accelerated, and 63 % of the population had received two doses (or equivalent) by the end of August 2021.



Share of total population vaccinated against COVID-19 up to the end of August 2021

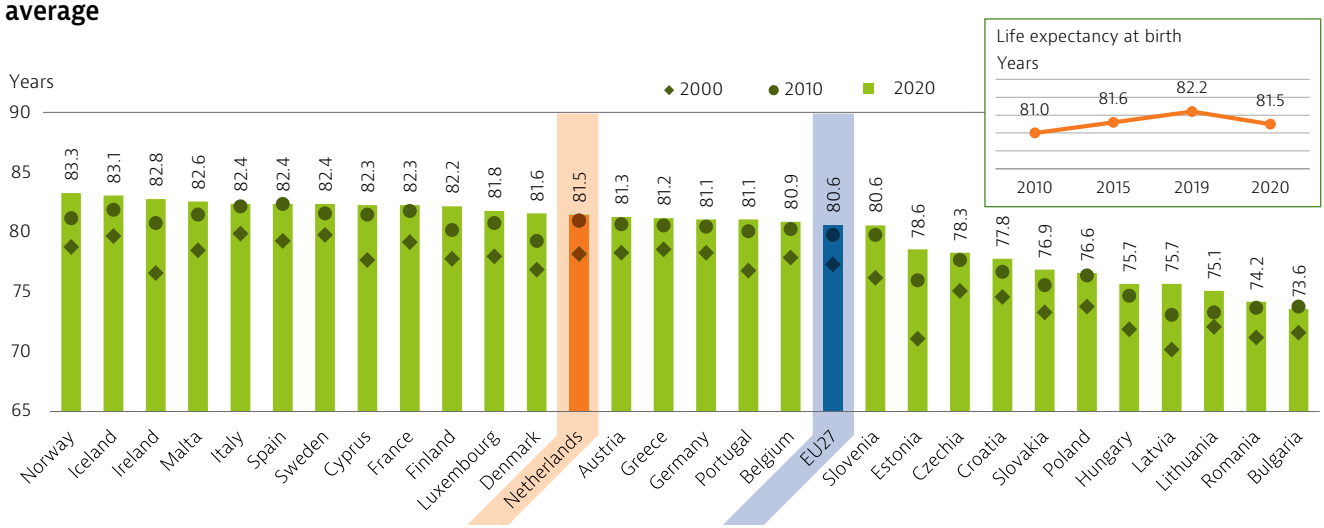
2 Health in the Netherlands

Life expectancy temporarily dropped by 0.7 years in 2020 during the COVID-19 pandemic

In 2020, life expectancy at birth for the Dutch population was 81.5 years, almost one year higher than the average in the EU as a whole (80.6 years), but lower than many of the top performing countries (Figure 1). Men in the Netherlands live almost two years longer than the EU average, while Dutch women live almost five months less. This comparatively weak performance for women reflects the legacy of high smoking rates in previous generations (see Section 3) and which has increased the number of women with lung cancer.

Progress in life expectancy in the previous two decades was significant, but between 2010 and 2019, women only gained 0.7 years in life expectancy, while men gained 1.7 years, a slowdown that is not unique to the Netherlands. Owing to the COVID-19 pandemic, overall life expectancy fell temporarily from 82.2 years in 2019 to 81.5 years in 2020, representing a decline of nearly 8.5 months.

Figure 1. Dutch life expectancy is 1.3 years below the best performing EU country but higher than the EU average



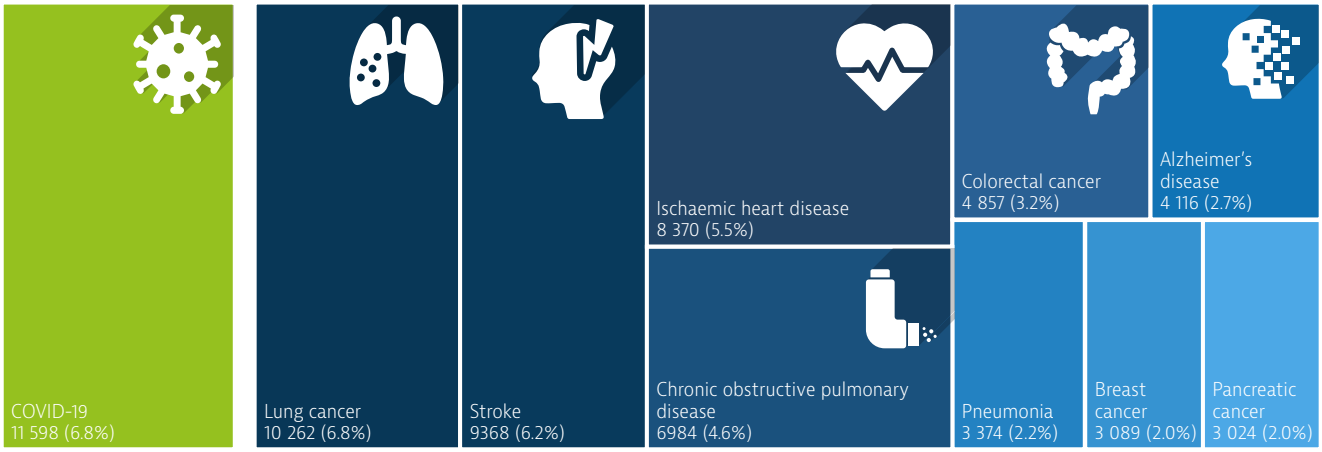
Note: The EU average is weighted. Data for Ireland refer to 2019.
Source: Eurostat Database.

COVID-19 accounted for a large number of deaths in the Netherlands in 2020

In 2019, the leading causes of death in the Netherlands were lung cancer, stroke and ischaemic heart disease (Figure 2). Mortality rates from lung cancer and chronic obstructive pulmonary disease (COPD) continue to be among the highest in the EU, despite some reductions over the years. In contrast, mortality rates from stroke and ischaemic heart disease remain among the lowest in the EU (see Section 5.1).

In 2020, COVID-19 accounted for about 11 600 deaths in the Netherlands – almost 7 % of all deaths – while an additional 6 400 deaths were attributed to COVID-19 by the end of August 2021. The majority of deaths were among people aged 60 and over. Overall, the mortality rate from COVID-19 up to the end of August 2021 was about 35 % lower in the Netherlands than the average across EU countries (approximately 1 035 per million population compared with about 1 590 for the EU average). However, the broader indicator of excess mortality suggests that the direct and indirect death toll related to COVID-19 in 2020 may have been higher (Box 1).

Figure 2. Lung cancer, stroke and ischaemic heart disease are the leading causes of death in the Netherlands



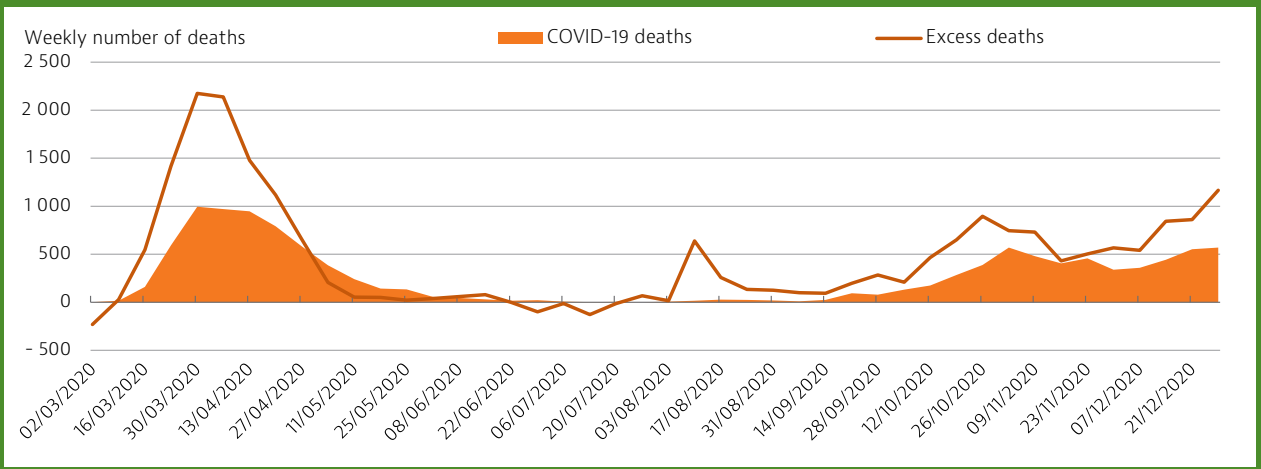
Note: The number and share of COVID-19 deaths refer to 2020, while the number and share of other causes refer to 2019. The size of the COVID-19 box is proportional to the size of the other main causes of death in 2019.
Sources: Eurostat (for causes of death in 2019); ECDC (for COVID-19 deaths in 2020, up to week 53).

Box 1. Some gaps between COVID-19 deaths and excess mortality in 2020 are evident in the Netherlands

In the Netherlands, as in many other countries, the actual number of deaths from COVID-19 is likely to be higher than the number of reported deaths, especially because there is no obligation to report COVID-19 as a cause of death until it appears on death certificates, which are only available several months later. The number of COVID-19 deaths reported also does not take into account the possible increase in deaths from other causes that may arise during or after the pandemic. These may be due, for example, to reduced access to health services for non-COVID-19 patients or fewer people seeking treatment because of fear of catching the virus (indirect deaths). The indicator of excess mortality (defined as the number of deaths from all causes over and above what would have been normally expected, based on baseline data from the previous five years) can provide a broader measure of the direct and indirect impact of COVID-19 on mortality that is not affected by issues related to testing and cause-of-death registration practices.

In the Netherlands, between March and December 2020, trends for excess deaths and reported COVID-19 deaths were generally consistent, but with some increases in the gap between the two in April and from mid-October 2020 (Figure 3). A heatwave in August 2020 was probably the cause of a relatively steep rise in excess deaths at that time, and was not connected with COVID-19. Overall, excess mortality accounted for about 20 000 deaths between March and December 2020..

Figure 3. COVID-19 and excess deaths peaked in spring 2020 in the Netherlands



Note: The calculation of excess deaths is based on the average for the previous five years (2015-2019).
Sources: ECDC (for COVID-19 deaths); OECD based on Eurostat data (for excess deaths).

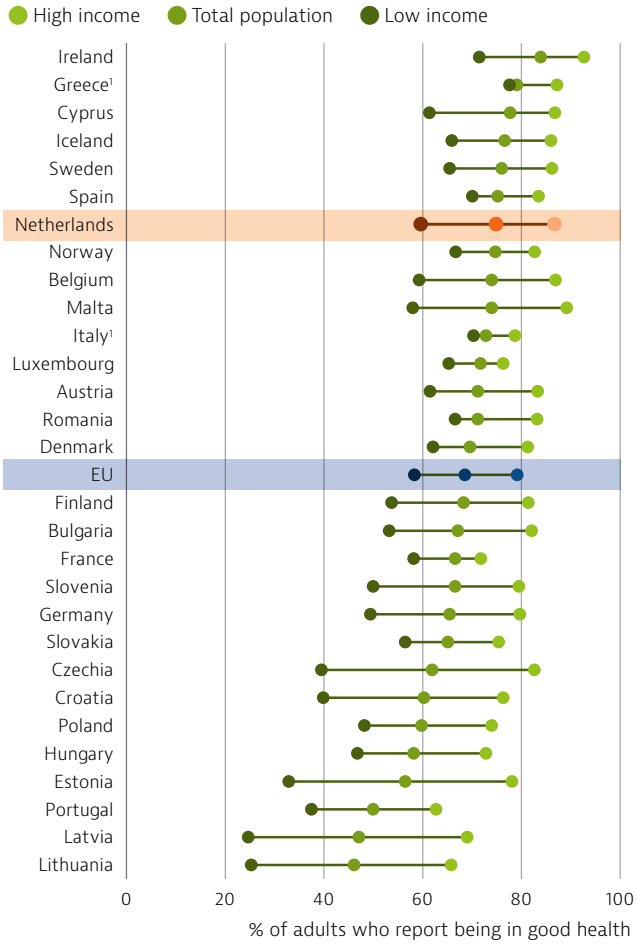
Most Dutch people report good health, but sizeable disparities exist across income groups

In 2019, about 75 % of Dutch people reported that they were in good health – a greater share than in the EU as a whole (69 %). However, as in other countries, people on lower incomes are less likely to report good health; only 60 % of those in the lowest income quintile reported good health compared to 87 % of those in the highest (Figure 4).

The burden of cancer in the Netherlands is considerable

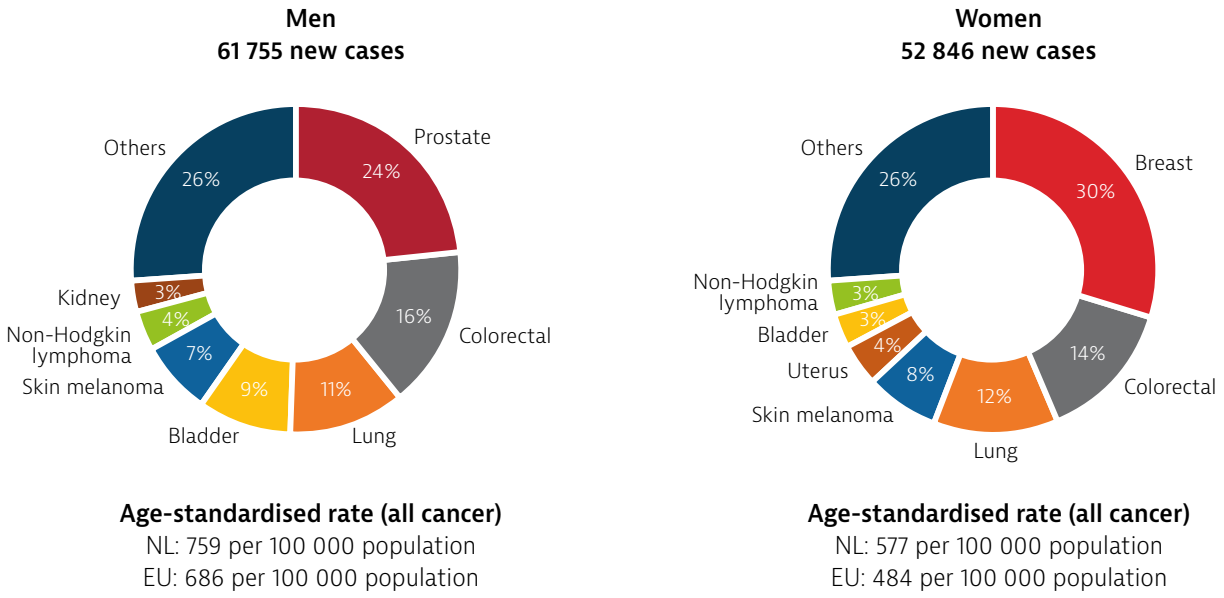
According to estimates from the Joint Research Centre based on incidence trends from previous years, around 110 000 new cases of cancer were expected in the Netherlands in 2020. However, fewer people were newly diagnosed with cancer than in previous years, probably as a result of the pause in cancer screening programmes in spring 2020 during the pandemic. Prostate cancer is the main cancer among men, while breast cancer is the leading cancer among women. Colorectal and lung cancers are the second and third leading cause of cancer among both sexes (Figure 5). Despite having a substantial disease burden, with over 45 000 deaths from cancer in 2019, cancer survival rates in the Netherlands are higher than the EU average (see Section 5.1).

Figure 4. Inequalities in self-reported health by income level are relatively large in the Netherlands



Note: 1. The shares for the total population and the population on low incomes are roughly the same.
Source: Eurostat Database, based on EU-SILC (data refer to 2019).

Figure 5. An estimated 110 000 people in the Netherlands were expected to be diagnosed with cancer in 2020



Age-standardised rate (all cancer)
NL: 759 per 100 000 population
EU: 686 per 100 000 population

Age-standardised rate (all cancer)
NL: 577 per 100 000 population
EU: 484 per 100 000 population

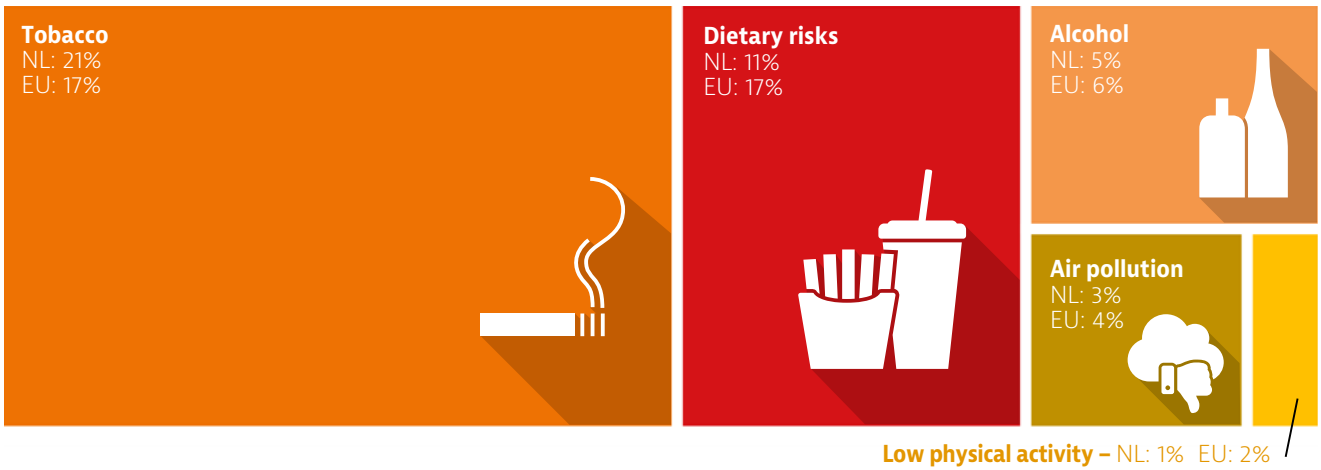
Note: Non-melanoma skin cancer is excluded. Uterus cancer does not include cancer of the cervix.
Source: ECIS – European Cancer Information System.

3 Risk factors

Behavioural risk factors account for more than one third of all deaths

More than one third (35 %) of all deaths in the Netherlands can be attributed to behavioural risk factors – below the EU average of 39 %. These behaviours include smoking, dietary risks, alcohol consumption and low physical activity (Figure 6). One in five deaths in 2019 could be attributed to tobacco consumption (including direct and second-hand smoking), which is higher than the EU average (21 % compared to 17 %). The second major risk factor is dietary risks (including low fruit and vegetable intake, and high sugar and salt consumption), which were responsible for an estimated 11 % of deaths in 2019 – well below the EU average (17 %). About 5 % of deaths that year were associated with alcohol consumption, which is close to the EU average (6 %). Environmental factors such as air pollution, in the form of fine particulate matter ($PM_{2.5}$) and ozone exposure alone accounted for nearly 5 000 deaths in the Netherlands in 2019 (or 3 % of all deaths, compared to 4 % in the EU).

Figure 6. Tobacco consumption is the leading behavioural risk factor contributing to mortality in the Netherlands



Note: 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 beverage consumption. Air pollution refers to exposure to $PM_{2.5}$ and ozone.
Sources: IHME (2020), Global Health Data Exchange (estimates refer to 2019).

Smoking and drinking rates in both adults and adolescents have decreased

Adult smoking rates have declined following the introduction of smoke-free working environments and other policy changes (see Section 5.1), and are below the EU average. In 2018, about one in eight 15-year-olds in the Netherlands reported smoking cigarettes in the past month – a substantial decline from 2014, when it was one in five.

Overall consumption of alcohol among adults has declined by about 20 % since 2000, and is now lower than in most other EU countries. Repeated drunkenness among 15-year-olds is also slightly less widespread in the Netherlands than across the EU, with 19 % of 15-year-olds reporting having been drunk more than once in their life in 2018, compared with a 22 % EU average.

Overweight and obesity rates are rising

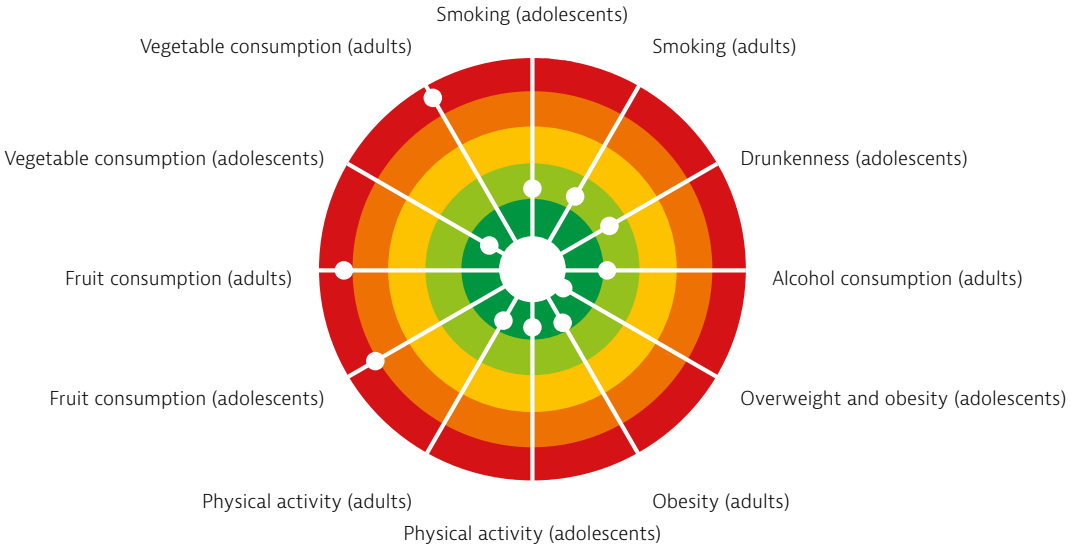
The overweight and obesity rate among Dutch teenagers and adults is lower than in most EU countries (Figure 7). More than one in eight adults (14 %) in the country were obese in 2019, up from 10 % in 2002. These trends are a cause for concern, given that obesity carries a significant risk for diabetes, cardiovascular diseases and several different cancers. This highlights the need to increase efforts to change dietary habits among both children and adults.

Adults in the Netherlands have among the lowest fruit and vegetable consumption in the EU, with around 6 out of 10 reporting that they do not eat at least one portion per day. A higher proportion of adolescents report eating at least one vegetable each day compared with the EU average, but it is the opposite for fruit consumption: only about one quarter (27 %) of 15-year-olds reported eating at least one fruit per day in 2018 – a lower proportion than the EU average (31 %).

Fewer than one in five teenagers engage in moderate physical activity every day

While most adults in the Netherlands report at least 150 minutes of moderate physical activity per week, this is not the case among 15-year-olds. Only 18 % of Dutch teenagers reported engaging in moderate physical activity on a daily basis in 2018, with a lower rate among girls: only 14 % of girls reported doing at least moderate activity each day, compared to 21 % of boys. While this exceeds the EU averages of 10 % of girls and 18 % of boys, low physical activity can affect other health outcomes and increases the risk of overweight and obesity.

Figure 7. The Netherlands performs better than most other EU countries on many risk factors



Note: 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 2017-18 for adolescents indicators; and EHIS 2019 and Dutch HIS for adults indicators.

4 The health system

Three separate coverage schemes form the basis of the Dutch health system

The Dutch government regulates and oversees three schemes that together provide broad universal health coverage. First, competing health insurers administer a social health insurance (SHI) system for curative care. The system, introduced in 2006, mandates all residents to purchase insurance policies that cover a defined benefits package set by the government. Insurers must accept all applicants, and they negotiate and contract with providers based on quality and price. The SHI scheme covers all specialist care, primary care, pharmaceuticals and medical devices, adult mental health care, some allied care services and community nursing. The second scheme is a single-payer social insurance system for long-term care, which is carried out by the regionally dominant health insurer, and which was the subject of a large reform in 2015 to rein in the scope of the scheme and spending. The third is a tax-funded social care scheme implemented by the municipalities. The National Institute for Public Health and the Environment (RIVM) provides guidance for public health services at the national level, while municipalities cover most services such as screening, vaccination and health promotion (Box 2).

Spending on health as a share of GDP is slightly above the EU average

In 2019, the Netherlands spent 10.2 % of GDP in health – slightly above the EU average of 9.9 %. This translates to EUR 3 967 per capita (adjusted for differences in purchasing power), which is well above the EU average of EUR 3 523. Expenditure growth between 2013 and 2017 only increased by 1.0 % on average per year, following the introduction of a reform package that increased financial risk

Box 2. The Netherlands took steps to implement a national-level response to the COVID-19 crisis

In accordance with the national pandemic response plan in place before the COVID-19 outbreak, the first response focused on the regional level in the province of Noord-Brabant, where the first COVID-19 outbreak occurred. Soon, the response was scaled up to the national level under the management of the RIVM (see Section 5.3), which coordinates the regionally conducted testing, contact tracing and reporting of cases. The RIVM also hosts the Outbreak Management Team, which advises the Prime Minister and the Cabinet on necessary measures, and consists of medical specialists, virologists, medical microbiologists and representatives of the national reference laboratory. Throughout the autumn of 2020, the Netherlands did not pass any national emergency legislation, and municipal authorities could determine whether to implement emergency decrees. However, the country introduced the COVID-19 Temporary Measures Act on 1 December 2020, which enables national decision making. The Act can be extended and stopped at any time with the agreement of the parliament.

Source: COVID-19 Health Systems Response Monitor.

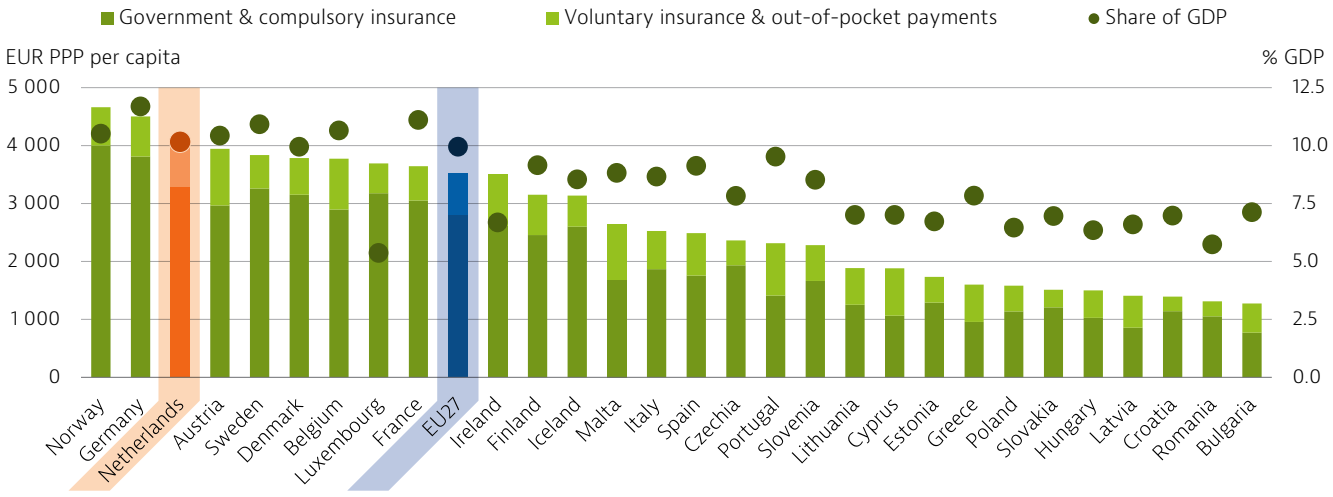
for insurers and providers and increased the share of out-of-pocket (OOP) health expenditure. In addition, the Dutch Ministry of Health signed several agreements with stakeholders that aim to keep spending growth within predefined levels. However, between 2017 and 2019, annual health expenditure growth rose to 2.3 % per year. During the COVID-19 pandemic, insurers and providers agreed on measures to compensate revenue losses and extra spending due to COVID-19. The government allocated additional tax revenues for 2020 and 2021 to the health sector, including for testing and contact tracing (EUR 476 million in 2020 and EUR 450 million in 2021) and intensive care unit (ICU) beds (EUR 80.1 million and EUR 93.9 million).

A relatively large voluntary health insurance sector contributes to low OOP payments

Following the abolition of the private insurance scheme in 2006, public expenditure (government spending and compulsory insurance) increased from about two thirds (68.4 %) of health spending in 2005 to 83.8 % in 2006, before falling slightly to 82.6 % in 2019. This remains slightly above the EU average of 79.7 % (Figure 8).

OOP spending as a share of current health expenditure was about two thirds of the EU-wide average in 2019, at 10.6 % in the Netherlands compared to 15.4 % in the EU. Around 57 % of OOP payments are due to cost-sharing, although general practitioner (GP) care, maternal care and care from district nurses remain free at the point of delivery. In the Netherlands, health insurers may offer voluntary health insurance (VHI) policies to cover services outside the benefits package. This contributes to a relatively large VHI sector (6.8 % of health spending compared to 4.9 % in the EU in 2019), as individuals who expect to incur high OOP payments usually take out VHI (see Section 5.2).

Figure 8. Health spending per capita is above the EU average

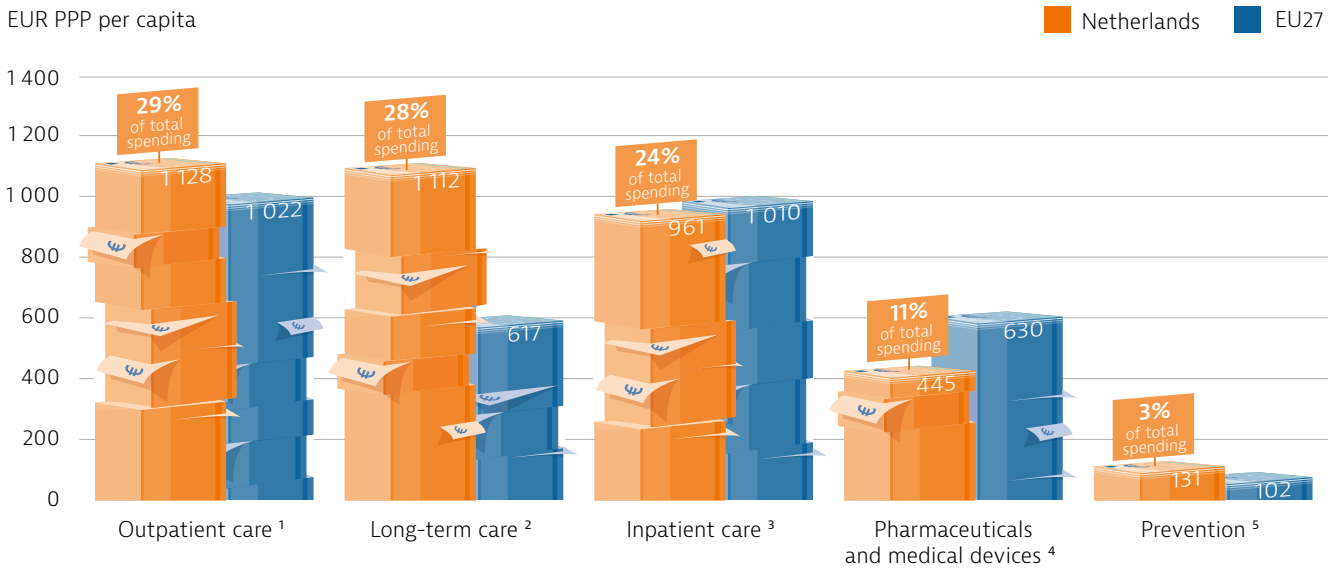


Note: The EU average is weighted.
Source: OECD Health Statistics 2021 (data refer to 2019, except for Malta 2018).

The Netherlands has the second highest share of spending on long-term care in the EU

When measured in per capita terms, health spending in the Netherlands is above the EU average for outpatient care, long-term care and prevention, and is below the average on inpatient care, retail pharmaceuticals and medical devices (Figure 9). A large long-term care sector, which covers elderly care, care for disabled people and long-term mental care, contributes to the relatively high overall spending on health. Spending on retail pharmaceuticals and medical devices is well below the EU average and even decreased from 13.9 % of total health spending in 2010 to 11.2 % in 2019. The Netherlands has among the highest levels of spending on prevention, at EUR 131 per person, compared to an EU average of EUR 102, but this amount has not increased over time. Between 2010 and 2019, the share of spending on prevention dropped from 4.3 % to 3.3 % of total health spending.

Figure 9. Long-term care expenditure exceeds that of most other EU countries



Note: The cost of health system administration is not included. 1. Includes home care and ancillary services (e.g. patient transportation); 2. Includes only the health component; 3. Includes curative-rehabilitative care in hospital and other settings; 4. Includes only the outpatient market; 5. Includes only spending for organised prevention programmes. The EU average is weighted.
Sources: OECD Health Statistics 2021, Eurostat Database (data refer to 2019).

Nursing attracts more people to the profession than in many other EU countries

In the last 10 years, the ratio of doctors to population has increased from 3.4 to 3.7 per 1 000 population, close to the EU average of 3.9. The ratio of nurses grew from 8.7 to 10.7 per 1 000 population, which is well above the EU average of 8.4. In 2019, 60 % more nurses graduated than in 2009, while doctors' graduation rates rose by a more modest 26 %. Nurses in the Netherlands participate in task-shifting and advanced nursing practices, creating a more attractive work environment. Nurse specialists were granted the authority to practise independently in 2012, and this was codified in law in 2018. They are empowered to prescribe all medicines within their competence and to perform endoscopies, among other specified services. However, the nursing workforce is overburdened in hospitals, and nursing and home care personnel also face shortages, which became more pronounced during the COVID-19 pandemic (see Section 5.3). An above-average share of doctors work as GPs – 24 % of all physicians compared with 21 % across the EU.

Strong primary care and gatekeeping contribute to low hospital admission rates

Health services are overwhelmingly provided by private non-profit providers, and most physicians are self-employed. The Netherlands operates a strict gatekeeper system. Patients require a referral from a GP to visit hospital and specialist care, including for COVID-19 (see Section 5.3). Although the Netherlands reports comparatively high numbers of outpatient contacts, it also has relatively low rates of hospital discharges, suggesting that strong primary care and outpatient specialist treatment manage to keep people out of hospitals (Figure 10). Both long-term care and mental health care reforms were designed for delivery in outpatient settings to respond to historically high institutionalisation rates (Kroneman et al., 2016).