



# State of Health in the EU

# Belgium

Country Health Profile 2019

## 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 Information.

## Contents

1. HIGHLIGHTS	3
2. HEALTH IN BELGIUM	4
3. RISK FACTORS	7
4. THE HEALTH SYSTEM	9
5. PERFORMANCE OF THE HEALTH SYSTEM	12
5.1. Effectiveness	12
5.2. Accessibility	15
5.3. Resilience	18
6. KEY FINDINGS	22

## Data and information sources

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

The calculated EU averages are weighted averages of the 28 Member States unless otherwise noted. These EU averages do not include Iceland and Norway.

This profile was completed in August 2019, based on data available in July 2019.

To download the Excel spreadsheet matching all the tables and graphs in this profile, just type the following URL into your Internet browser: <http://www.oecd.org/health/Country-Health-Profiles-2019-Belgium.xls>

## Demographic and socioeconomic context in Belgium, 2017

### Demographic factors

	Belgium	EU
Population size (mid-year estimates)	11 375 000	511 876 000
Share of population over age 65 (%)	18.5	19.4
Fertility rate <sup>1</sup>	1.7	1.6

### Socioeconomic factors

GDP per capita (EUR PPP <sup>2</sup> )	35 000	30 000
Relative poverty rate <sup>3</sup> (%)	15.9	16.9
Unemployment rate (%)	7.1	7.6

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.

Disclaimer: The opinions expressed and arguments employed herein are solely those of the authors and do not necessarily reflect the official views of the OECD or of its member countries, or of the European Observatory on Health Systems and Policies or any of its Partners. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

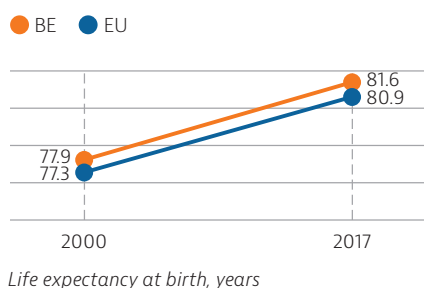
This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Additional disclaimers for WHO are visible at <http://www.who.int/bulletin/disclaimer/en/>

© OECD and World Health Organization (acting as the host organisation for, and secretariat of, the European Observatory on Health Systems and Policies) 2019

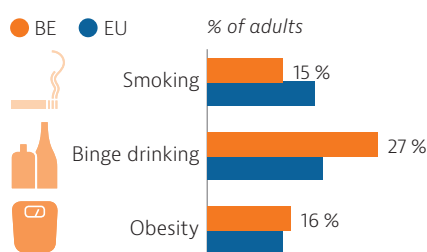
# 1 Highlights

The health status of the Belgian population is generally good and life expectancy is longer than ever, but there are important socioeconomic disparities. The Belgian health system performs well in providing acute care in hospitals, but many aspects of broader public health and prevention policies could be strengthened to improve health and reduce health inequalities. In response to population ageing, the main challenges are to strengthen further primary care and to promote greater care coordination for the growing number of people with chronic diseases.



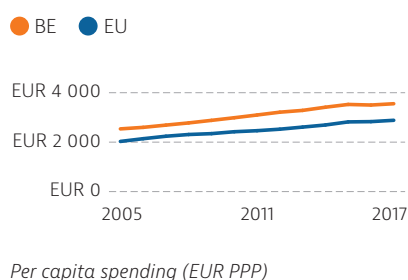
## Health status

Life expectancy at birth reached 81.6 years in 2017, up by almost four years since 2000. It remains slightly above the EU average but lags behind many western European countries. Further, the least educated men and women can expect to live five years less than the most educated, one of the largest gaps in western European countries. People on lower incomes are also less likely to report being in good health than those on higher incomes.



## Risk factors

In 2018, only about one in seven adults in Belgium smoked tobacco every day, down from over one in five in 2008. This is lower than the EU average. Nearly three in ten adults reported binge drinking, a rate well above the EU average. One in six adults was obese in 2018, up from one in eight adults in 2001.

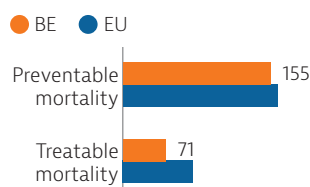


## Health system

Total health spending has increased slowly in recent years and remains higher than the EU average. In 2017, Belgium spent EUR 3 554 per capita on health care, compared to EUR 2 884 in the EU as a whole. Health spending accounted for 10.3 % of GDP, up from 8.9 % in 2006, and also a higher share than the current EU average of 9.8 %. Public spending accounted for 77 % of overall health spending (close to the EU average of 79 %). The remaining spending is borne by voluntary health insurance and by households.

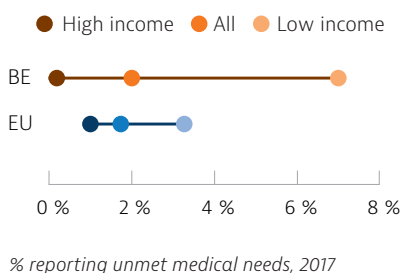
## Effectiveness

Preventable mortality is slightly lower than the EU average, while treatable mortality is much lower. This signals opportunities to strengthen prevention, which requires strong collaboration across federal and federated entities.



## Accessibility

Access to health care is relatively good as service coverage is broad, but user charges apply for most services. There are large disparities in unmet medical care needs by income group.



## Resilience

Population ageing will continue to exert pressure on health and long-term care systems.



While efficiency gains have been achieved in hospitals, promoting more appropriate use of services and pharmaceuticals could help to free up resources to respond to these growing needs. Another challenge is to strengthen primary care and improve care coordination – in particular for people with chronic conditions.

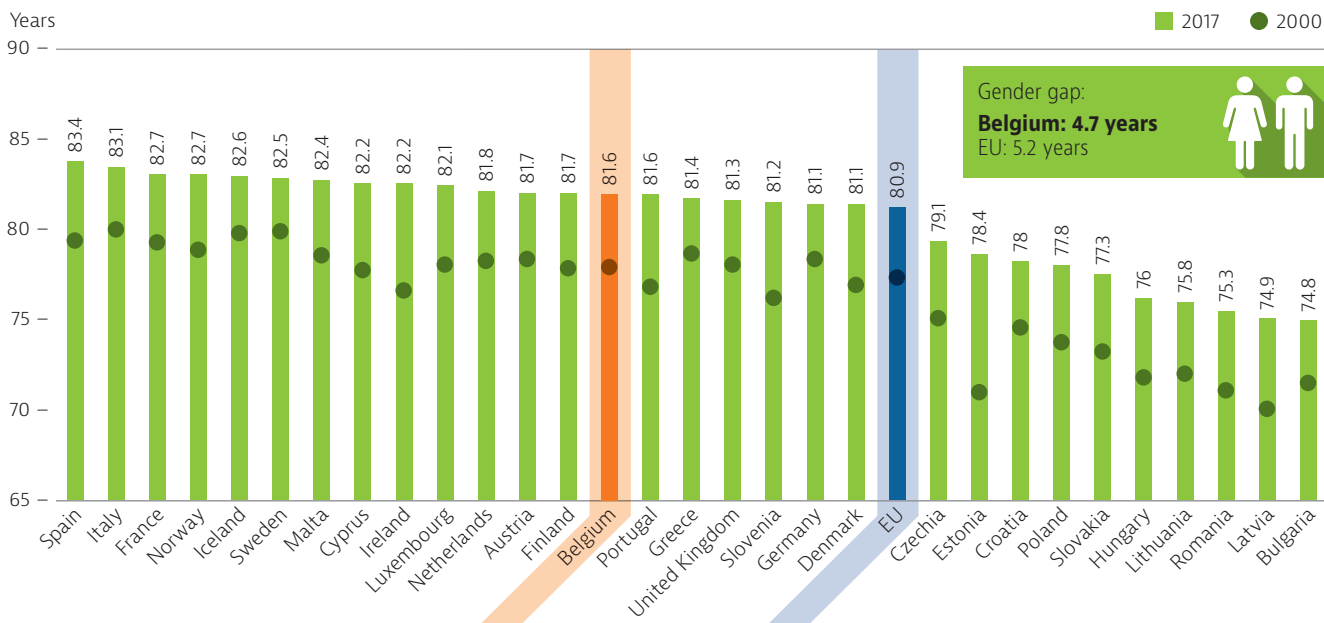
# 2 Health in Belgium

## Life expectancy has increased steadily and remains above the EU average

Life expectancy at birth reached 81.6 years in Belgium in 2017 and remains above the EU average, although

it is lower than in many western European countries (Figure 1). Since 2000, Belgian life expectancy has increased slightly more rapidly among men than women, although the gender gap was 4.7 years in 2017 (79.2 years for men vs. 83.9 years for women).

**Figure 1. Life expectancy has risen gradually and remains above that of most EU countries**

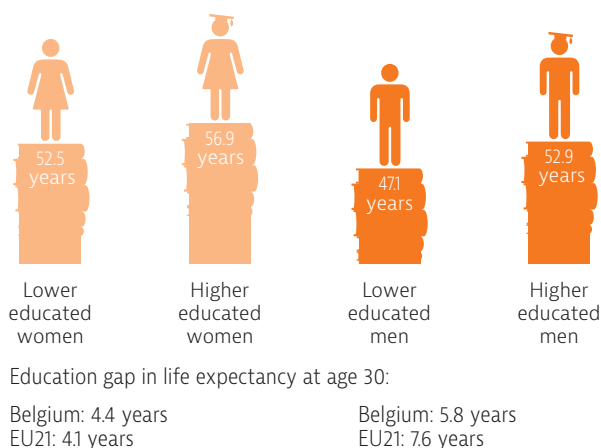


Source: Eurostat Database.

## Social inequalities in life expectancy are larger among men than women

Inequalities in life expectancy in Belgium exist not only by gender but also by socioeconomic status. Life expectancy for men with the lowest level of education at age 30 was about six years lower than for those with the highest level; the difference was a little smaller among Belgian women but still more than four years (Figure 2). This education gap is lower than the EU average for men and similar to the EU average for women, but higher than in most other western European countries. It can be explained at least in part by differences in living standards and exposure to risk factors.

**Figure 2. At age 30, Belgians with higher education can expect to live several years longer**



Note: Data refer to life expectancy at age 30. High education is defined as people who have completed a tertiary education (ISCED 5-8) whereas low education is defined as people who have not completed their secondary education (ISCED 0-2).

Source: Sciensano (2019), Health Status Report (data refer to 2011) and Eurostat Database for EU average (data refer to 2016).

### The three main causes of death are ischaemic heart disease, stroke and lung cancer

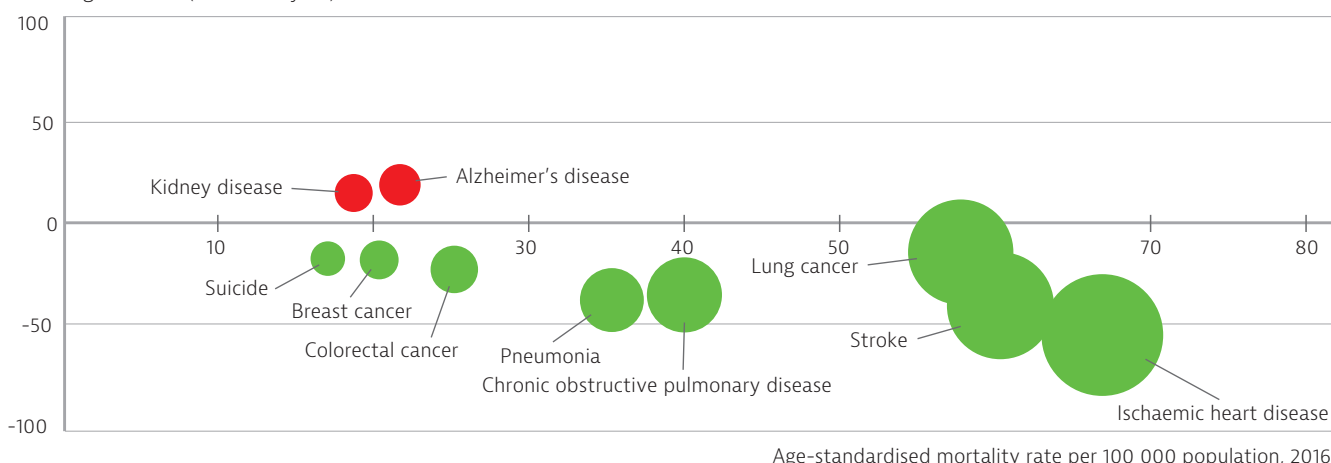
The increase in life expectancy in Belgium since 2003 has been driven mainly by reductions in mortality rates from circulatory diseases – notably ischaemic heart disease and stroke – and lung cancer (Figure 3). There have also been important reductions in death rates from respiratory diseases, such as chronic obstructive pulmonary disease and pneumonia. Nonetheless, these diseases are still the leading

causes of death. In particular, lung cancer is still the most frequent cause of death by cancer, reflecting the legacy of high tobacco consumption.

The mortality rate from Alzheimer's disease has increased since 2003 and is now among the ten leading causes of death. This rise is due in part to the ageing of the population and improvements in diagnostics.

**Figure 3. Ischaemic heart disease, stroke and lung cancer are still the leading causes of death**

% change 2003-16 (or nearest year)



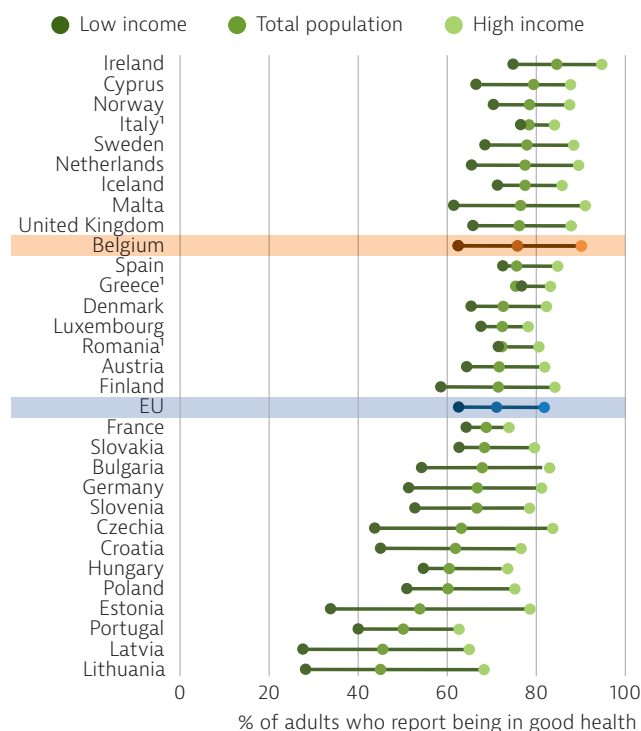
Age-standardised mortality rate per 100 000 population, 2016

Note: The size of the bubbles is proportional to the mortality rates in 2016. Source: Eurostat Database.

### Most Belgians report being in good health, but substantial disparities exist

In 2017, about three-quarters (74 %) of Belgians reported being in good health, compared with about two-thirds of the population in the EU as a whole. However, people on higher incomes are more likely to report being in good health than those on lower incomes. In 2017, about 90 % of Belgians in the highest income quintile reported being in good health, compared with only about 60 % of those in the lowest (Figure 4). This difference is larger than in nearly all other western European countries and is higher than the EU average. It is related to inequalities in exposure to risk factors and access to health care.

**Figure 4. Large disparities in health status by income level persist**



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 2017).

## Belgian people live longer, but not all remain healthy as they age

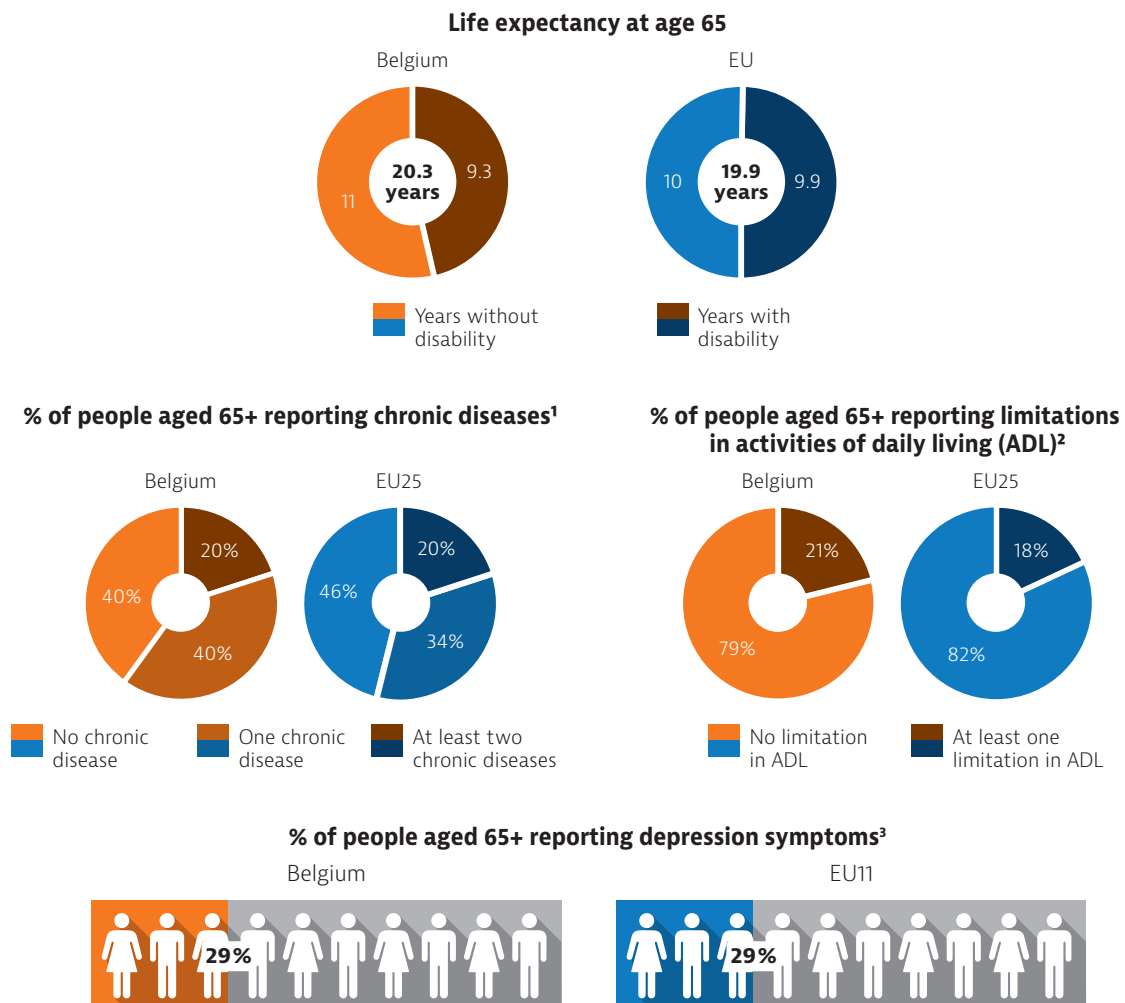
Because of rising life expectancy and declining fertility rates, the share of people aged 65 and over now represents 18 % of the population in Belgium, up from 14 % in 1980, and this is projected to rise to 27 % in 2050.

In 2017, Belgians reaching the age of 65 could expect to live another 20.3 years, slightly more than the EU average of 19.9 (Figure 5). However, about half of these years are lived with some chronic diseases and disabilities. Substantial health inequalities persist

in old age, with life expectancy and healthy life expectancy substantially lower for the least educated (Sciensano, 2019).

Three in five Belgians aged 65 and over (60 %) reported having at least one chronic disease in 2017, although this does not necessarily impede them leading a normal life. Most people are able to continue to live independently in old age, but about one in five (21 %) report severe disabilities in the form of limitations in basic activities of daily living such as dressing and showering that may require long-term care, a share slightly higher than the EU average.

Figure 5. After age 65, many Belgians have some chronic diseases and disabilities



Note: 1. Chronic diseases include heart attack, stroke, diabetes, Parkinson's disease, Alzheimer's disease and rheumatoid arthritis or osteoarthritis. 2. Basic activities of daily living include dressing, walking across a room, bathing or showering, eating, getting in or out of bed and using the toilet. 3. People are considered to have depression symptoms if they report more than three depression symptoms (out of 12 possible variables).  
Source: Eurostat Database for life expectancy and healthy life years (data refer to 2017); SHARE survey for other indicators (data refer to 2017).

## 3 Risk factors

### Behavioural risk factors have important impacts on mortality

Estimates suggest that around 40 % of all deaths in Belgium in 2017 can be attributed to behavioural risk factors, including tobacco smoking, dietary risks, alcohol consumption and low physical activity (IHME, 2018; Figure 6).

Around 19 % of all deaths can be attributed to tobacco smoking (including direct and second-hand smoking), a slightly greater share than the EU average. Dietary risks (including low fruit and vegetable intake, and high sugar and salt consumption) are estimated to account for about 14 % of all deaths, a share below the EU average. About 5 % of deaths can be attributed to alcohol consumption and 2 % to low physical activity, both close to the EU average.

**Figure 6. About 40 % of all deaths can be attributed to modifiable lifestyle risk factors**



*Note: The overall number of deaths related to these risk factors (40 000) is lower than the sum of each one taken individually (44 000), because the same death can be attributed to more than one risk factor. Dietary risks include 14 components such as low fruit and vegetable consumption and high sugar-sweetened beverages and salt consumption.*

*Source: IHME (2018), Global Health Data Exchange (estimates refer to 2017).*

### Tobacco consumption among adults remains a serious public health concern

One in seven adults are daily smokers in Belgium, a rate lower than in many other EU countries (Figure 7). Although smoking rates have decreased more among men than women, Belgian men still smoke much more than women. Smoking rates among 15-year-old girls and boys have strongly declined and are now among the lowest in EU countries.

### Overweight and obesity rates have increased, driven partly by low physical activity

Obesity rates among adults have increased to reach 16 % in 2018, up from 12 % in 2001. The rate of overweight and obesity among 15-year-olds has also risen steadily, from 11 % in 2001-02 to 16 % in 2013-14 – a level higher than in many other EU countries. Poor nutrition, such as low consumption of fruit and vegetables and high intake of sweet beverages, contributes to the rise in overweight and obesity rates. While the proportion of adults in Belgium reporting

that they eat at least one vegetable or fruit every day is higher than in many EU countries, about 25 % do not eat any vegetables and 45 % any fruit daily.

Low physical activity is also an important risk factor in overweight and obesity. Belgian adults are less physically active than those in many EU countries. Physical activity is also less common among 15-year-olds in Belgium than in most EU countries, and this is particularly the case for girls: only 9 % of 15-year-old girls reported doing at least moderate physical activity each day in 2013-14, compared with 17 % of 15-year-old boys.

### Alcohol consumption remains higher than the EU average

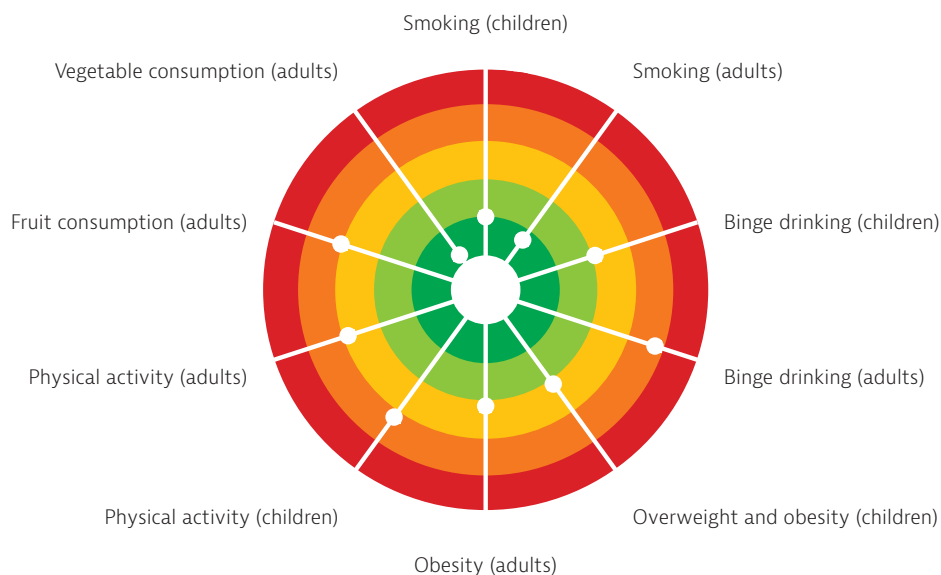
Overall alcohol consumption has slightly decreased in Belgium since 2000, but it is still above the EU average. As in all EU countries, binge drinking<sup>1</sup> is more common among men than among women: 37 % of men reported binge drinking in 2018, compared with 18 % of women. These proportions are higher than in most other EU countries.

<sup>1</sup>: Binge drinking is defined as consuming six or more alcoholic drinks on a single occasion for adults, and five or more alcoholic drinks for adolescents.

While regular binge drinking among teenagers is less common in Belgium than in many other EU countries, it is nonetheless high. More than one-third of 15- and 16-year-old girls and boys reported binge drinking

in the past month in 2015. In 2018, Belgium passed a law aiming to reduce alcohol consumption among teenagers (see Section 5.1).

**Figure 7. Excessive alcohol consumption and obesity are important public health issues**



*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.*

*Source: OECD calculations based on ESPAD survey 2015 and HBSC survey 2013-14 for children indicators; and Belgium HIS 2018, EU-SILC 2017, EHIS 2014 and OECD Health Statistics 2019 for adults indicators.*

### Social inequality contributes to health risks

Many behavioural risk factors in Belgium are more common among people with lower education or income levels. In 2018, over one-fifth (22 %) of adults with no more than secondary education smoked daily, compared to only 10 % among those with tertiary education. In the same vein, 22 % of people with no more than secondary education were obese in 2018, compared to only 12 % of those with higher education. This higher prevalence of risk factors among socially disadvantaged groups largely contributes to inequalities in health and life expectancy.





# 4 The health system

## Federal authorities and federated entities have different responsibilities

Federal authorities are responsible for regulating the compulsory health insurance fund; the ambulatory care budget; the hospital budget and programming standards; pharmaceuticals and their price controls; and the health professions. Federated entities (regions and communities) are responsible for health promotion and prevention; organisation of primary care and palliative care; maternity and child health care; social services and community care; financing hospital investment (infrastructure and heavy medical equipment); and establishing hospital licensing standards. Inter-ministerial conferences are regularly organised to facilitate collaboration between the federal authorities, the regions and the communities.

## Near universal coverage is achieved through compulsory health insurance

Coverage is nearly universal in Belgium, with 99 % of the population covered for health services. Belgium's compulsory health insurance is implemented through

five private, not-for-profit national associations of sickness funds; one fund for railway personnel; and one public sickness fund. The remainder (about 1 %) of the population who are not covered are those who have not fulfilled administrative or financial requirements. In addition, irregular migrants and homeless people are not covered and are excluded in the definition of the population covered because they do not have legal resident authorisation or do not have a regular address (Box 1).

The compulsory health insurance is managed by the National Institute for Health and Disability Insurance, which allocates a prospective budget to the sickness funds to finance the health care costs of their members. The budget is adjusted each year according to inflation and to a legal 'real-growth norm', which guarantees stable funding for the health system. The legislated ceiling on public expenditure on health was reduced from a growth rate (in real terms) per year of 4.5 % in 2004-12 to 3 % in 2013-14 and to 1.5 % since 2015 to contain costs. Since 2015, public spending on health per capita in real terms has increased at a rate of 1-2 % per year.

### Box 1. Access to health care is more difficult for vulnerable groups

Access to care in Belgium can be more difficult for vulnerable groups such as migrants and homeless people either because they are not covered by social health insurance or because they are reluctant to seek medical help and end up in hospital emergency departments when they fall ill.

Irregular migrants and applicants for international protection (asylum seekers) have different access to health services:

- Irregular migrants (people without a residence permit authorising them to stay in Belgium) cannot be affiliated to a Belgian sickness fund. They are entitled to receive Urgent Medical Aid, but few reach out to these medical services. It is estimated that only 10-20 % of irregular migrants had at least one contact with a medical service in 2013, compared with approximately 90 % for people affiliated to a Belgian sickness fund.

- Applicants for international protection (or asylum seekers) are entitled to medical care to preserve human dignity. They live either in reception centres or outside, but each reception centre to which they are affiliated is responsible for organising and paying for any needed medical services. Little is known about their actual use of health services, however.

Homeless people are entitled to health services like the rest of the population. However, because of the lack of a regular address and a reluctance to seek medical help, they often access health care through hospital emergency departments. In a survey carried out in 2016-17, 8 % of homeless people said they never use health care, even if they need it.

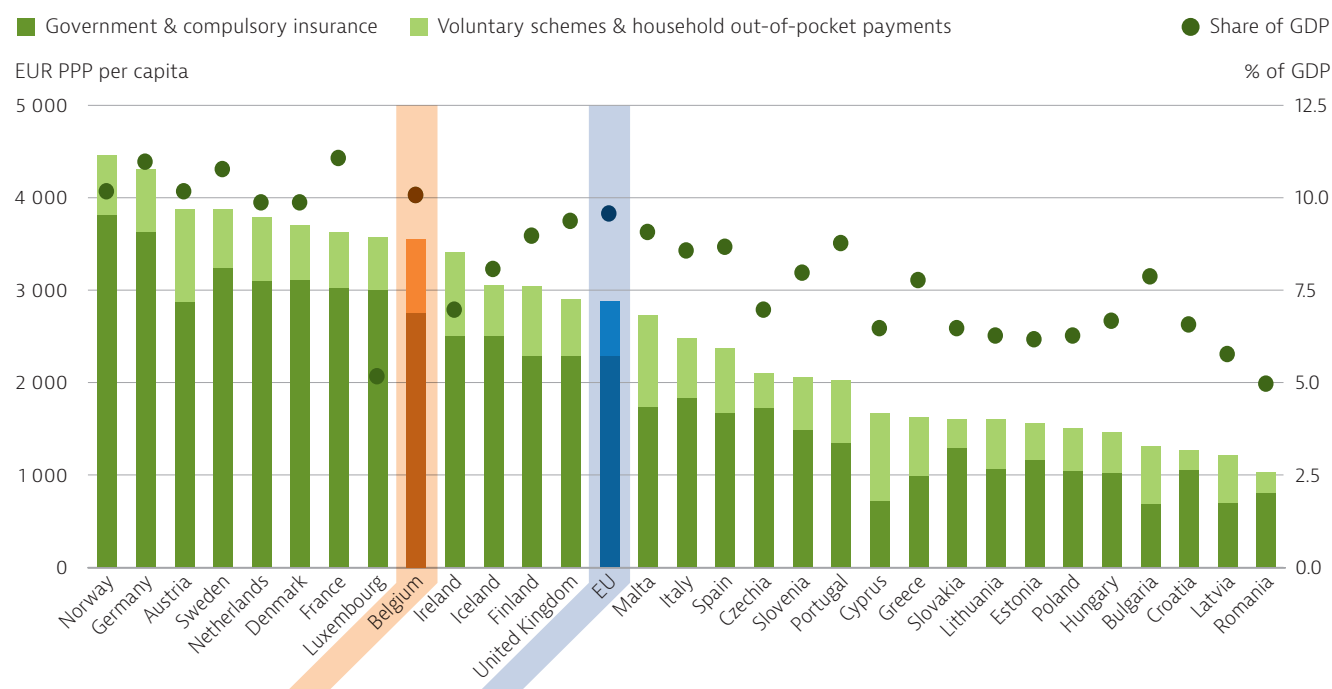
Source: Devos et al. (2019).

## Health spending in Belgium accounts for 10 % of GDP

Belgium spent 10.3 % of its GDP on health in 2017, a share higher than the EU average of 9.8 %. On a per capita basis, health spending in Belgium reached EUR 3 554 in 2017 (adjusted for differences in purchasing power), 20 % more than in the EU as a whole (EUR 2 884) but less than in all its neighbouring countries (Figure 8).

Public sources (including compulsory health insurance coverage) made up 77 % of all health expenditure in 2017, a share close to the EU average (79 %). Direct out-of-pocket (OOP) payments accounted for 18 % of overall health spending, and voluntary health insurance for the remaining 5 %.

**Figure 8. Health spending is above the EU average but lower than in neighbouring countries**



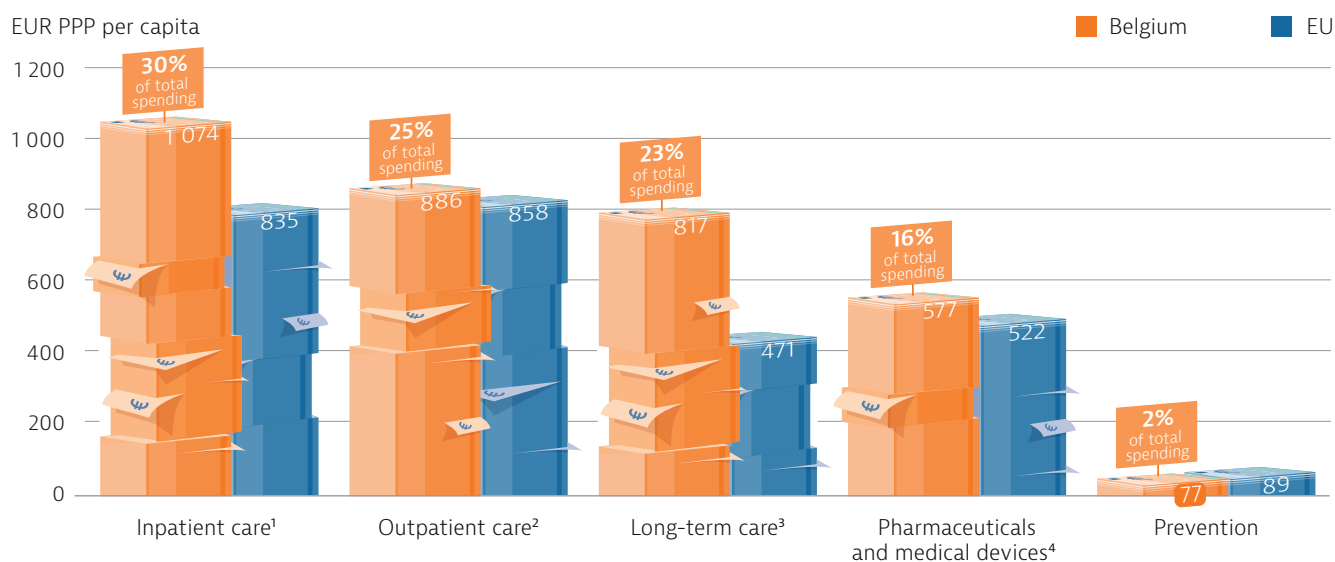
Source: OECD Health Statistics 2019 (data refer to 2017).

## Social security contributions to sickness funds are a major funding source

Financial contributions to the health system are mostly made by social contributions paid by employees, independent workers and employers. Since 1995, reforms have diversified the funding sources from social security contributions to other revenues such as value-added taxes and subsidies from the state, to rely less on payroll contributions. Patients also contribute through OOP payments. These vary according to the status of the individual (access to preferential reimbursement), the type of service and the amount of co-payments already made. These user charges apply for most services, including general practitioner (GP) consultations and home visits, specialist consultations, outpatient pharmaceuticals, physiotherapy and inpatient hospital stays (per day).

## Inpatient and outpatient care are the main categories of health spending

The largest category of health spending in Belgium is inpatient care (typically provided in hospitals), which accounted for almost one-third of all health expenditure in 2017 (EUR 1 074 per capita), a slightly higher share than the 29 % EU average (Figure 9). About one-quarter of health spending was allocated to outpatient care (EUR 886 per capita). Spending on long-term care (the health component) accounted for slightly more than one-fifth of all health spending (EUR 817 per capita), while one-sixth of health spending (EUR 577 per capita) was allocated to pharmaceuticals and medical devices dispensed outside hospitals. This latter category does not include pharmaceutical expenditure in hospitals, which is reported under inpatient or outpatient care. Spending on prevention accounted for just over 2 % of all health spending (EUR 77 per capita), a share lower than the 3.1 % EU average, but this only includes spending dedicated to organised prevention programmes.

**Figure 9. Most health spending is on inpatient and outpatient care, with little on prevention**

Note: Administration costs are not included. 1. Includes curative-rehabilitative care in hospital and other settings; 2. Includes home care; 3. Includes only the health component; 4. Includes only the outpatient market.

Sources: OECD Health Statistics 2019, Eurostat Database (data refer to 2017).

### Freedom of choice is an important characteristic of the Belgian health system

In Belgium, patients are free to consult any GP or specialist. Primary care doctors are mainly self-employed, working in solo or group practices; they are mainly paid by fee-for-services. Patients can access specialist and hospital care without a referral. In 2017, Belgians had on average seven consultations per year with a doctor, a number similar to the EU average.

Recent initiatives in Belgium have tried to strengthen the role of GPs, especially in the management of chronic diseases. Since 2012, multidisciplinary team work in primary care has been encouraged in multiple ways, notably by gathering different health professionals (including GPs, nurses and physiotherapists) in community health centres with a capitation-based remuneration system, organising continuity of GP services during out-of-office hours and providing lump-sum payments for multidisciplinary care. Specialist care can be accessed mainly in hospital outpatient departments but also in private practices.

Nurses also play a key role in providing care in hospitals, long-term care institutions and at home. In 2019, a legal framework for a new professional role was defined – the advanced practice nurse – to develop task-sharing with doctors and improve the career prospects and progression of those nurses who want to expand their scope of practice. A master's degree is required to become an advanced practice nurse.

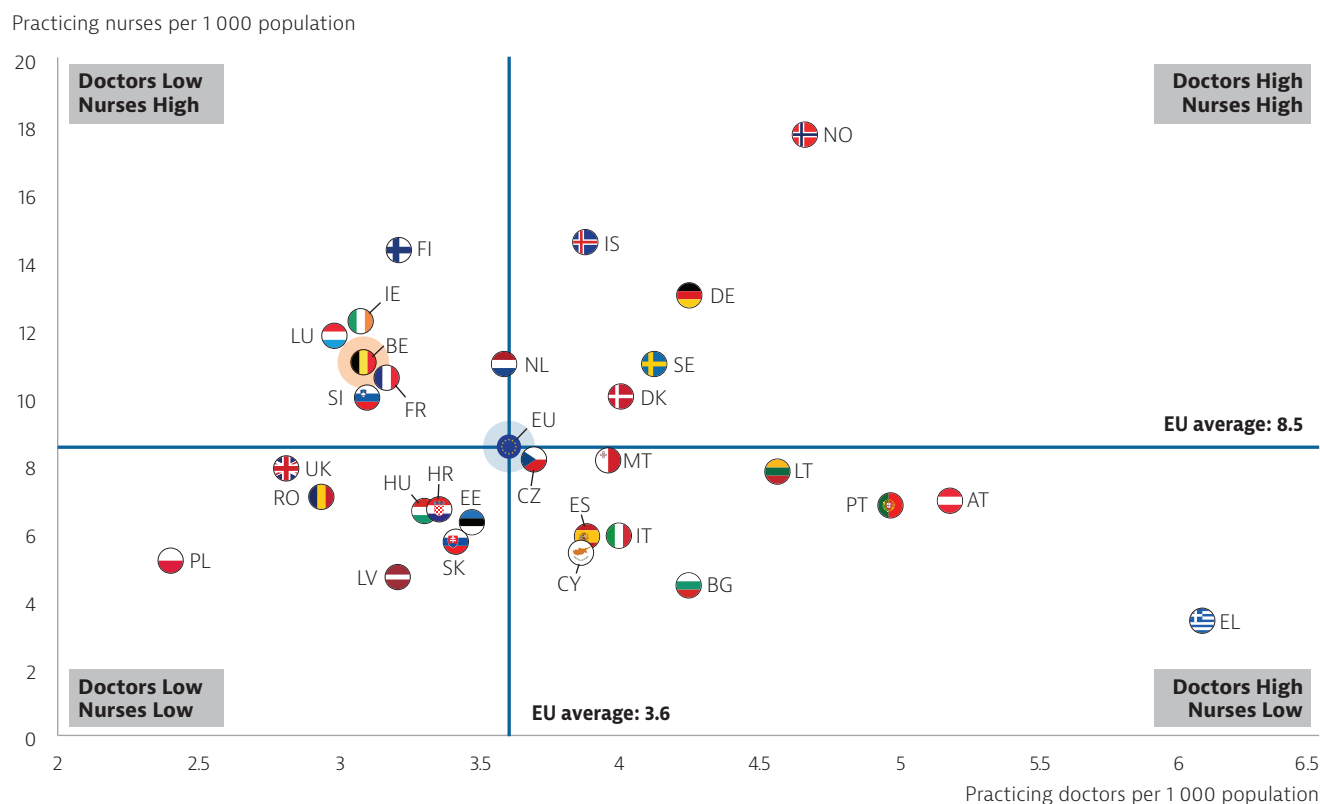
2: However, the number of doctors in Belgium is slightly underestimated compared with other countries as it includes a minimum threshold of activities for GPs to be considered 'practising' (500 consultations per year), whereas other countries do not use this threshold.

### Belgium has a comparatively low number of doctors but a high number of nurses

In 2017, the number of practising doctors was 3.1 per 1 000 population (Figure 10), well below the EU average (3.6 per 1 000 population).<sup>2</sup> Over the past decade, the number of doctors per capita has increased at a slower rate in Belgium than in most EU countries, but the increase in the number of medical students and graduates in recent years should contribute to increasing the supply of doctors in the future (see Section 5.3). About 37 % of doctors in 2017 were GPs, a higher share than the EU average (22 %). However, as in most other EU countries, this share has decreased (down from 42 % in 2000).

The number of nurses has increased fairly rapidly over the past decade, both in absolute numbers and relative to the population, to reach 11 nurses per 1 000 population in 2016, up from 9 per 1 000 population in 2005. This is well above the EU average of 8.5 nurses per 1 000 population. However, this does not mean that there are no shortages of nurses and difficulties in recruiting nurses in some areas and hospitals. Many nurses work part time, reducing the effective supply of services.

Figure 10. Belgium has fewer doctors but more nurses per capita than the EU average



Note: In Portugal and Greece, data refer to all doctors licensed to practice, resulting in a large overestimation of the number of practising doctors (e.g. of around 30 % in Portugal). In Austria and Greece, the number of nurses is underestimated as it only includes those working in hospital.  
Source: Eurostat Database (data refer to 2017 or the nearest year).

## 5 Performance of the health system

### 5.1. Effectiveness

#### Mortality from treatable causes is low but preventable mortality is near the EU average

Belgium fares well in terms of mortality from treatable causes: it is in the top third of EU countries with the lowest rates. This indicates that the health system is likely to be effective in saving the lives of people with life-threatening conditions. The leading causes are colorectal cancer, ischaemic heart diseases, breast cancer, stroke and pneumonia.

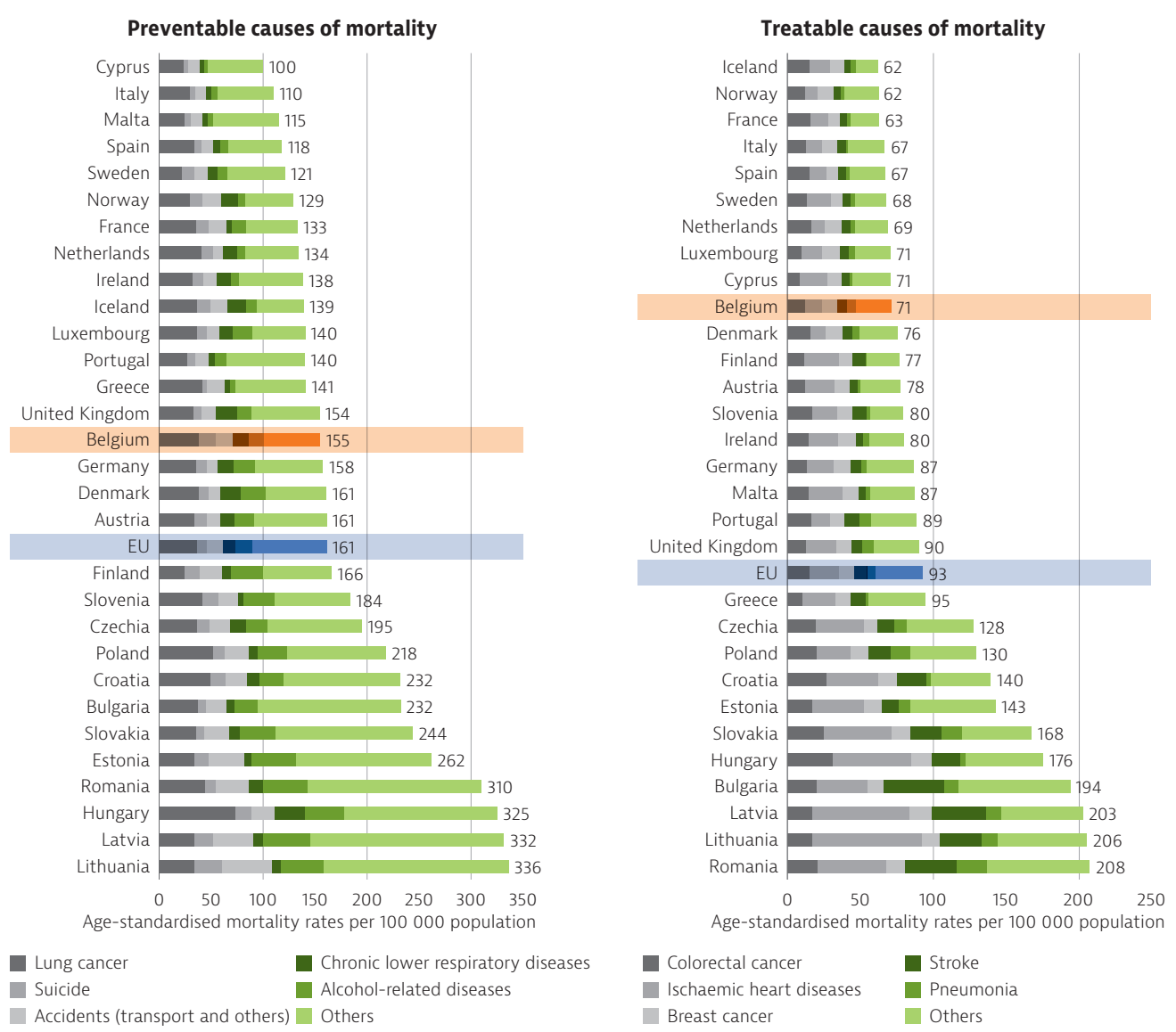
However, preventable mortality is higher in Belgium than in many other western European countries (albeit lower than the EU average), indicating that further progress can still be made in reducing premature deaths through public health and prevention policies. The leading causes of preventable mortality are lung cancer, suicide, accidents (including road accidents and other types of accidental death), chronic lower respiratory diseases and alcohol-related diseases (Figure 11).

#### Strengthening public health policies could reduce preventable mortality

As noted in Section 4, Belgium spends relatively little on public health and disease prevention, allocating only 2.2 % of overall health expenditure to organised prevention programmes – less than the EU average of 3.1 %.

The sharing of responsibilities for public health and prevention programmes requires strong inter-governmental collaboration (European Commission, 2019). In recent years, the Belgian federated entities launched several initiatives to strengthen public health policies. At the federal level, some measures were taken to reduce tobacco consumption and promote healthy nutrition. Tobacco control policies included notably better reimbursement of smoking-cessation treatments. Taxes on sugar-sweetened beverages were introduced in 2016 and increased in 2018.

Figure 11. Preventable mortality is higher in Belgium than in many western European countries



Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Mortality from treatable (or amenable) causes is defined as death that can be mainly avoided through health care interventions, including screening and treatment. Both indicators refer to premature mortality (under age 75). The data are based on the revised OECD/Eurostat lists. Source: Eurostat Database (data refer to 2016).

In 2016, taxes on alcohol were increased, based on the quantity of alcohol in drinks. In addition, since 2018, sales of hard liquor to 16- to 17-year-olds have been legally forbidden, although they can still purchase beer and wine.

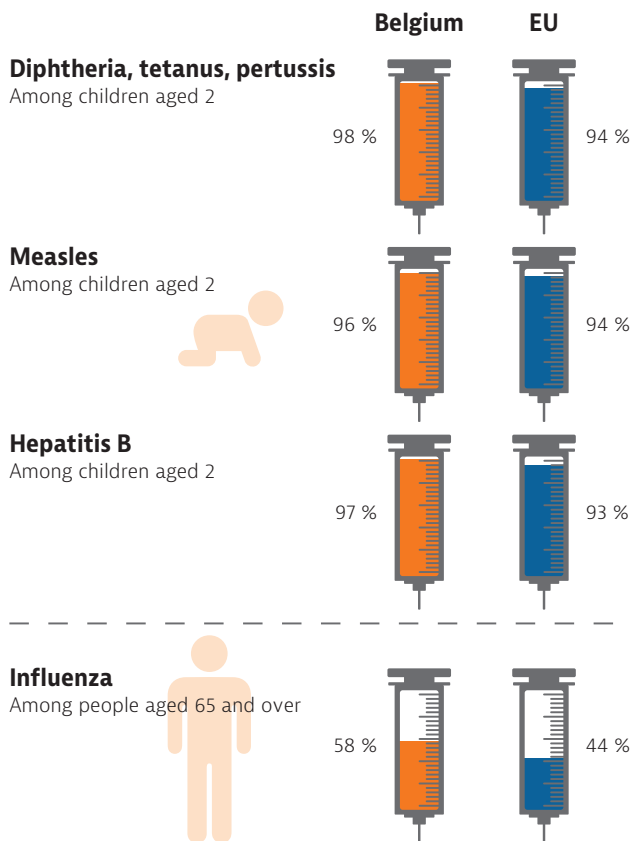
**Vaccination coverage is good among children but lower among older people**

Vaccination is one of the most cost-effective public health interventions. Belgian vaccination programmes are organised at the community level. Overall, vaccination coverage among children is higher than the 95 % WHO target (Figure 12). However, coverage among the whole population, including adults, is not complete. A recent outbreak of measles in 2017 and at the start of 2018 (mainly in Wallonia) was probably

due to a cluster of children and adults who were never or were incompletely vaccinated.

Vaccination coverage of older people against influenza is much lower: only 58 % of people aged over 65 were vaccinated in 2018, well below the WHO target of 75 %. The proportion of Belgians aged over 65 vaccinated against influenza has declined over the past decade, from 64 % in 2004. This is partly due to misinformation and misperceptions regarding the safety and effectiveness of flu vaccination. While the vaccination is never fully effective in preventing all types of flu, it can still prevent many older people from catching the disease. In Flanders, a public campaign on influenza vaccination targeting health workers was launched in 2018-19.

**Figure 12. Vaccination coverage is high among children but lower among older people**

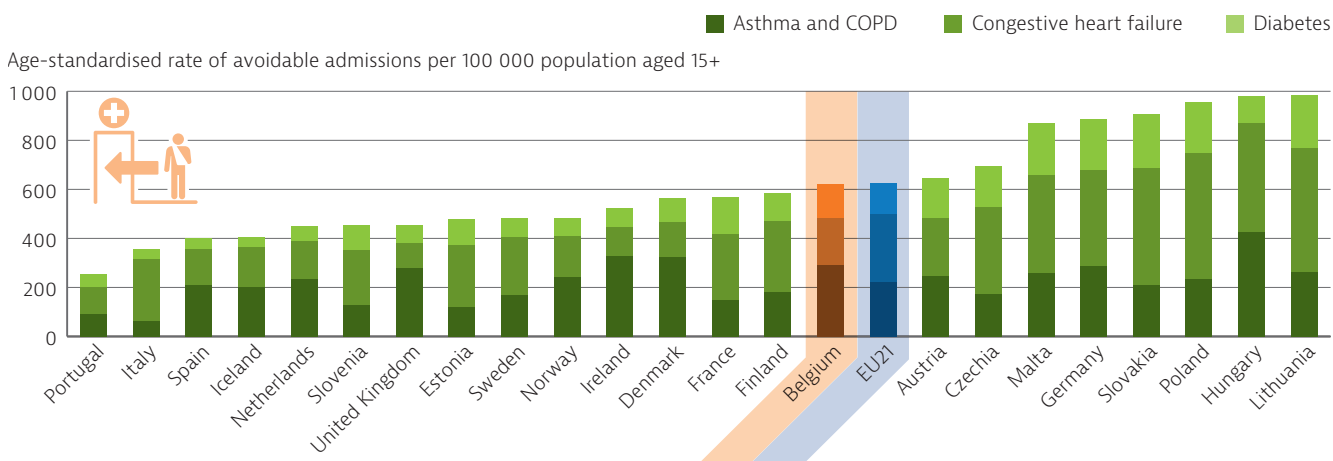


*Note: Data refer to the third dose for diphtheria, tetanus, pertussis and hepatitis B, and the first dose for measles.  
Source: WHO/UNICEF Global Health Observatory Data Repository for children (data refer to 2018); OECD Health Statistics 2019 and Eurostat Database for people aged 65 and over (data refer to 2017 or the nearest year).*

**Potentially avoidable hospital admissions are higher than in many other EU countries**

Avoidable hospital admissions for chronic diseases such as asthma, chronic obstructive pulmonary disease (COPD), diabetes and congestive heart failure have been reduced over the past decade and are overall currently at the EU average level (Figure 13). Admission rates for some conditions like asthma and COPD remained well above the EU average in 2017, however, suggesting room for improvement in primary care to better manage these conditions. New care pathways for people with diabetes have been developed in recent years, with multidisciplinary teams involving GPs, specialists and other health care providers (see Section 5.3).

**Figure 13. Avoidable hospital admissions for chronic diseases are higher than in many EU countries**



*Source: OECD Health Statistics 2019 (data refer to 2017 or nearest year).*

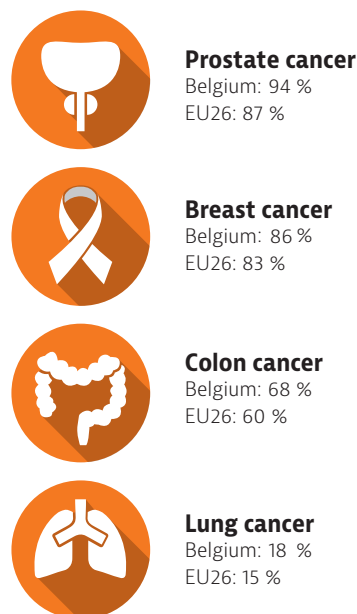
## Cancer care and screening rates have improved

Survival following diagnosis for common types of cancer (breast, cervical, colorectal and lung cancer) has increased in Belgium over the past decade and is higher than the EU average, reflecting earlier diagnosis and effective treatments (Figure 14).

Two-thirds (67 %) of women aged 50-69 reported that they had a mammography screening in the past two years in 2018, up from about 60 % in 2001, but down from 75 % in 2013. Regular screening for colorectal cancer is not as widespread yet, but 36 % of men and women aged 50-79 reported in 2018 being screened over the past two years, up from about 10 % in 2008 and 17 % in 2013.

However, survival rates for some rare cancers can vary substantially between hospitals, which led Belgium to centralise treatments to a limited number of hospitals for these rare cancers.

**Figure 14. Five-year survival rates are higher than the EU average for many types of cancer**



*Note: Data refer to people diagnosed between 2010 and 2014.  
Source: CONCORD programme, London School of Hygiene and Tropical Medicine.*

## 5.2. Accessibility

### Unmet medical and dental care needs are relatively low, but higher among people on low incomes

Although 99 % of the Belgian population is covered, some people face greater barriers to medical care for financial or other reasons. About 7 % of people in the lowest income quintile reported unmet medical needs due to costs, distance or waiting times in 2017, compared with nearly zero (0.1 %) in the highest income quintile (Figure 15). The gap in unmet medical needs between the poorest and richest quintile is the largest of all western EU countries and above the EU average (European Commission, 2019).

Unmet needs are even greater for dental care: 11 % of people in the lowest income quintile reported unmet needs for dental care due to financial reasons, distance or waiting times in 2017, compared with only 0.4 % of those in the highest. This high proportion among people on low incomes is mainly a result of dental care being less covered by social health insurance. This gap is also above the EU average.

### Out-of-pocket spending is mostly driven by retail pharmaceuticals and inpatient care

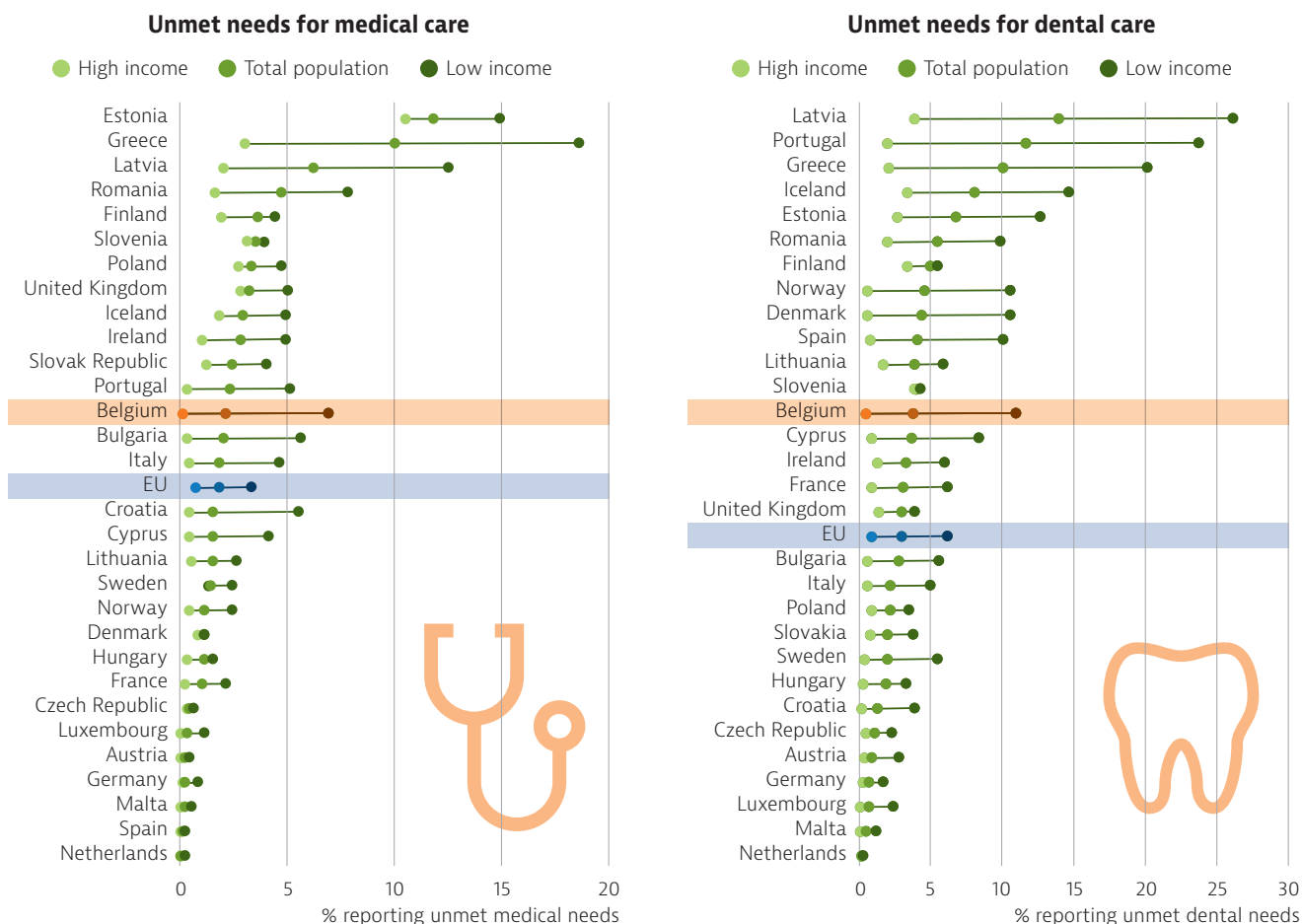
As noted in Section 4, the range of health services and goods covered by the public health insurance in Belgium is broad, but most of these are subject to some cost-sharing. Many Belgians also have voluntary health insurance, but the share of health spending directly paid out of pocket by households still represents 18 % of all health spending, a share higher than the EU average of 16 % (Figure 16). A large part of this OOP spending is on user charges for inpatient care (5 %) and pharmaceuticals dispensed out of hospitals (4 %).

OOP spending on dental care as a share of all health spending is relatively low, not because dental care is well covered by public health insurance (only children under 18 are fully covered) but rather because spending on dental care is generally lower than for the other main categories.

### Concerns about shortages of doctors have prompted an increase in domestic medical students

As noted in Section 4, the number of doctors per population in Belgium has increased relatively slowly over the past 15 years. However, the geographical distribution of doctors is more even than in most other European countries (Box 2).

Figure 15. Belgians on low incomes are much more likely to report unmet needs for care



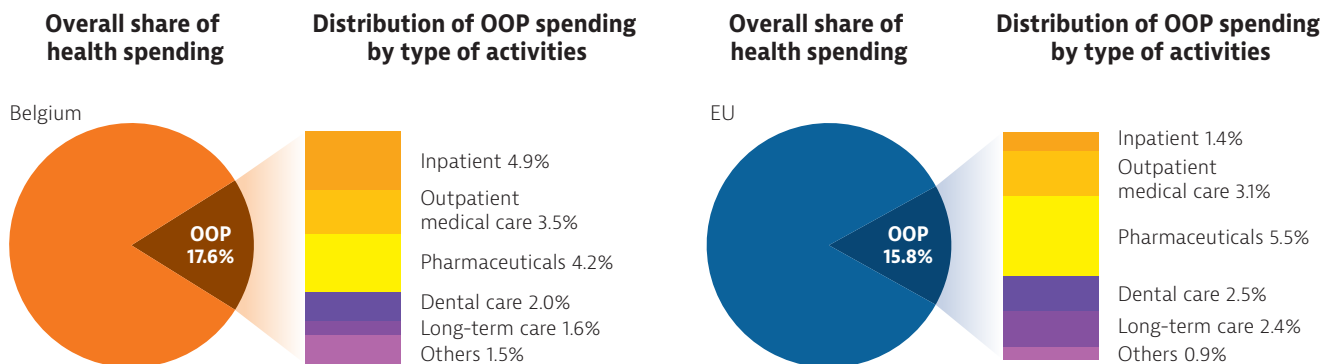
Note: Data refer to unmet needs for a medical or dental examination or treatment due to costs, distance to travel or waiting times. Caution is required in comparing the data across countries as there are some variations in the survey instrument used. Source: Eurostat Database, based on EU-SILC (data refer to 2017).

**Box 2. The geographical distribution of GPs is more even than in most EU countries**

The geographical distribution of GPs is less uneven in Belgium than in most other EU countries, where there is often a large concentration of doctors in the national capital region (OECD, 2019; Figure 17).

Since 2004, financial support has been provided in Belgium to support the recruitment and retention of GPs in rural areas. However, with the projected wave of retirement of many GPs in the coming years, there are growing concerns of shortages in many regions.

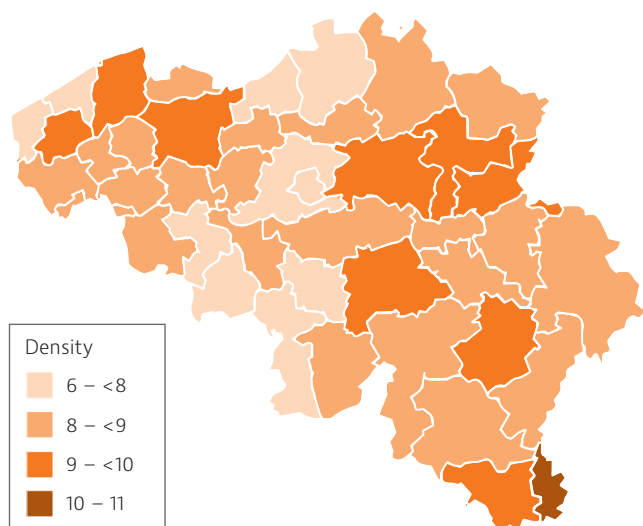
Figure 16. Most out-of-pocket spending relates to pharmaceuticals and inpatient care



Source: OECD Health Statistics 2019 (data refer to 2017).



**Figure 17. The distribution of GPs is relatively even in Belgium**



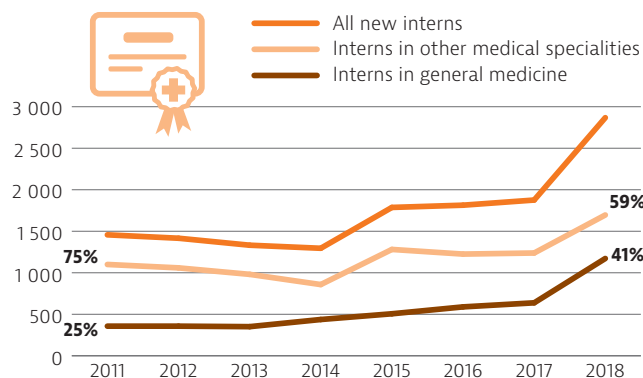
Source: RIZIV-INAMI (2019) (data refer to 2017): number of GPs per 10 000 insured people, in full time equivalent (FTE). FTE is estimated by the ratio between individual revenue and the median revenue for the same specialism for practitioners between 45 and 55 years old (with a cap at 1).

About 45 % of doctors are now over the age of 55, raising concerns about growing shortages in the future. A medical workforce planning system has been put in place and developed in Belgium over the past two decades to monitor the supply, demand and potential shortages of doctors, allowing the government to adjust the quotas of medical students (although there is a time lag of several years between any decision to increase the number of medical students and when they become available as fully trained doctors). The number of students admitted to medical schools in Belgium has increased strongly over the past decade in response to the projected wave of retirement among current doctors. In addition, the French community in Belgium has restricted access to international students to no more than 30 % of the total number of medical students, on the grounds that these students are less likely to stay in the country after graduation.<sup>3</sup>

The number of internship training places has also increased substantially in recent years, particularly in general medicine. The number of new medical graduates undertaking their training in general medicine increased from about 350 per year between 2011 and 2013 to over 600 in 2017. The number increased greatly in 2018 to over 1 100, but 2018 was an exceptional year since two cohorts of students graduated at the same time, following a reduction in the length of medical studies by one year that was introduced a few years ago. As a share of all internship places, the share in general medicine

reached a new high of 41 % in 2018, up from 25 % in 2011, meaning that a large wave of new GPs should become available by 2020 (Figure 18). However, this will be a 'one-off' event, and the number of newly trained GPs is expected to be lower in the following years.

**Figure 18. The number of interns training in general medicine has increased in recent years**



Source: Ministry of Health, Register of Professionals.

The number of nursing graduates has also increased greatly over the past decade to respond to growing demand for nurses and concerns about shortages, particularly in the light of the ageing of the nursing workforce, with the number of new graduates increasing from around 4 500 in 2010 to over 7 000 in 2018. This increase coincided with the implementation of a plan to improve the attractiveness of the profession by improving the working conditions, career prospects and social recognition of nurses.

In 2016, the duration of a university bachelor degree in nursing was increased from three to four years and that of a nursing school diploma increased from three to three-and-a-half years in the French-speaking community to meet the requirement of the European Directive on the recognition of professional qualifications. This will result in a sharp reduction in the number of graduates in the French-speaking community in 2019.

A bigger concern is that the number of students registering in nursing schools has decreased in recent years (by about 10 %), probably related to the longer studies without any clear sign of improvements in working conditions, which may have reduced the attractiveness of these programmes.

3: The European Commission has taken legal action against this decree on the grounds that it violates the principle of free mobility of people. The Belgian authorities have been able to maintain this quota since then, on the condition that they provide some yearly justification of the negative impact that removing this quota would have on their health system.

## 5.3. Resilience<sup>4</sup>

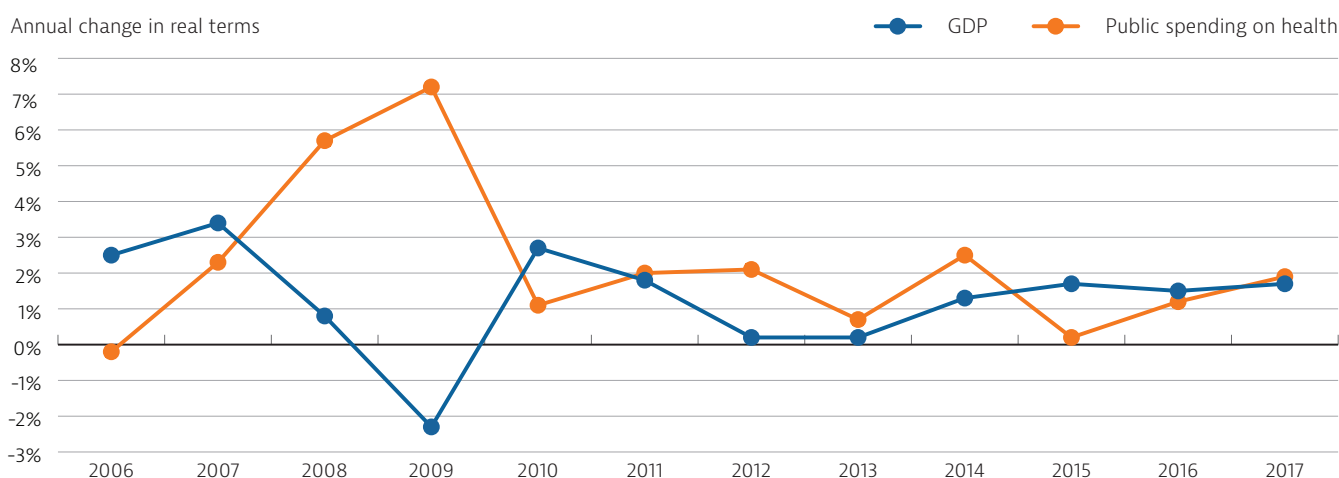
### Health spending has increased in line with GDP growth in recent years

Following the economic crisis of 2008-09, total health expenditure grew on average at a rate of 1.6 % per year between 2009 and 2017, close to the EU average. Public spending on health also grew at a moderate rate, in line with the slow growth of the economy (Figure 19).

Looking ahead, population ageing and technological progress are projected to add pressures on public spending on health in the coming decades. However,

according to the latest projections of the European Commission, public spending on health is expected to increase by only 0.4 percentage point of GDP between 2016 and 2070, assuming that the recent cost-control measures are maintained. Budgetary pressures are expected to be greater on long-term care expenditure, with a projected increase in public spending from 2.3 % of GDP in 2016 to 4.0 % in 2070, raising fiscal sustainability concerns (European Commission-EPC, 2018).

**Figure 19. Health spending has grown in line with GDP since 2010**



Source: OECD Health Statistics 2019; Eurostat Database.

### Hospital efficiency has improved since 2000, but further progress can be made

Efficiency gains have been achieved in the hospital sector since 2000. The average length of stay in hospital has decreased from over eight days to seven days in 2017, a level lower than the EU average of eight days (Figure 20). The number of hospital beds per population has also been reduced steadily, although it remains above the EU average.

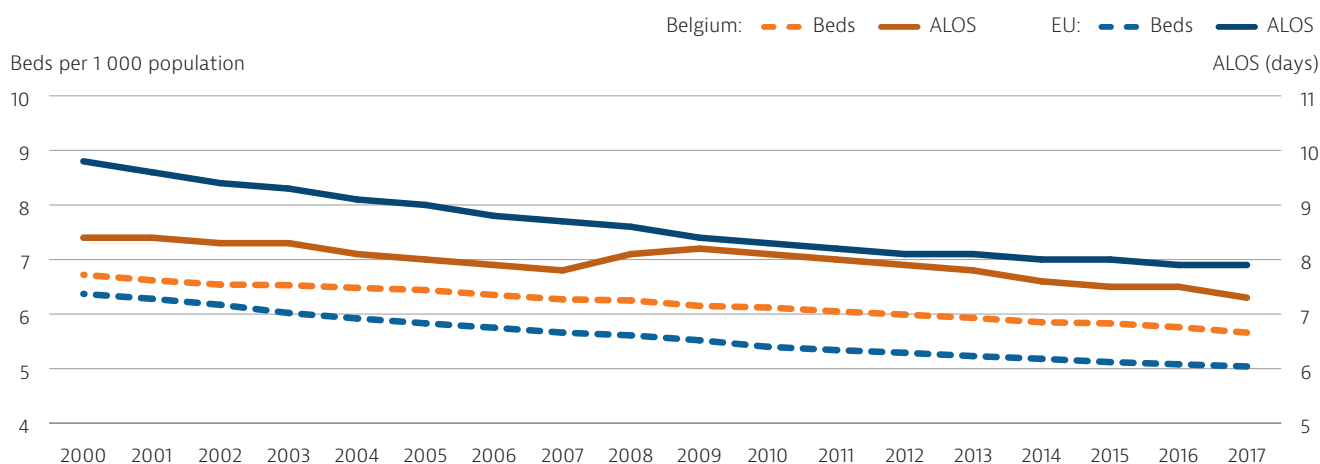
The Belgian health system has also started to shift activities from inpatient to outpatient care and day surgeries. However, while the rollout of day surgery has been rapid for some interventions and hospitals, it has lagged behind for others. For example, day surgery rates for laparoscopic cholecystectomy (gallbladder removal) ranged from nil to 60 % depending on the hospital in 2011-13 (Leroy et al., 2017).

### Recent initiatives promote appropriate use of medical procedures and pharmaceuticals

In 2017, the Appropriate Care Unit in the National Institute for Health and Disability Insurance launched a programme to tackle unnecessary or inappropriate care, by working in close cooperation with medical associations. In 2019, this programme monitors the variations in use of 40 different diagnostic and surgical procedures by geographical area and hospital to identify where utilisation rates appear to be particularly high. For example, the rate of tonsillectomy (the removal of tonsils, an operation mainly performed on children) varies by almost two-fold across districts without any evidence that the needs in some districts are greater than in others (INAMI-RIZIV, 2019).

<sup>4</sup> Resilience refers to health systems' capacity to adapt effectively to changing environments, sudden shocks or crises.

**Figure 20. The number of hospital beds and average length of stay have decreased since 2000**



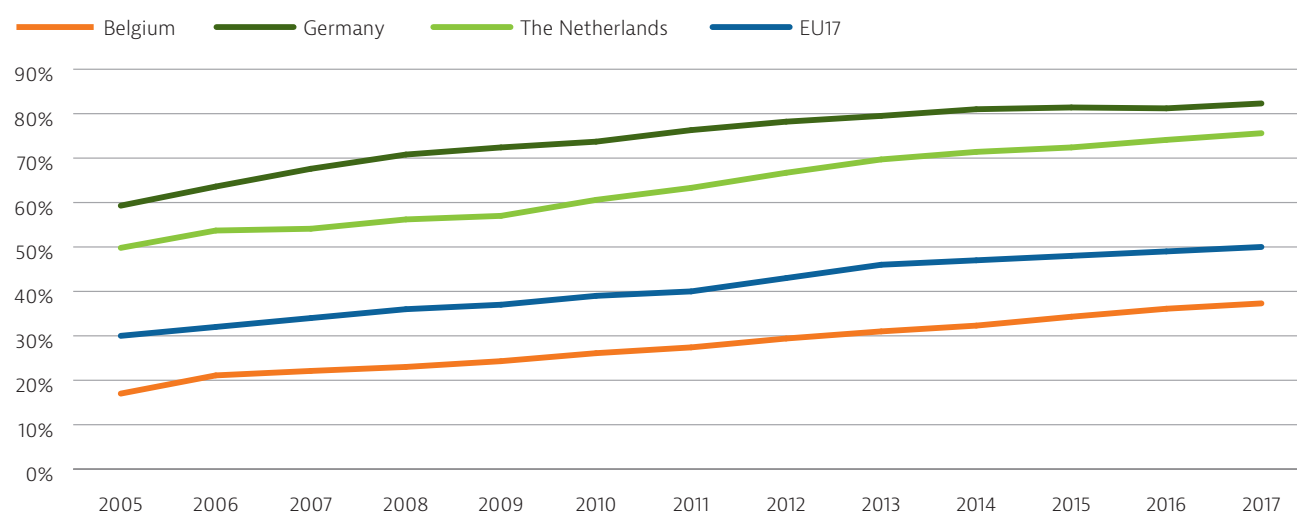
Note: There was a break in average length of stay data in 2008 in Belgium.  
Source: Eurostat Database.

### Initiatives are under way to improve access to new medicines at affordable costs

A large part of out-of-pocket spending is on pharmaceuticals, and access to new medicines can be very costly, so Belgium has undertaken a number of initiatives to improve access to new medicines at affordable costs. The country relies on health technology assessment (HTA) to make coverage decisions on pharmaceuticals and to provide evidence on certain medical technologies and interventions. Belgium is one of the founders of the new BeNeLuxA initiative on joint HTA, horizon scanning, information exchange and pricing/reimbursement negotiation for new medicines (Box 3).

For pharmaceuticals already on the market, since 2002 Belgium has established an internal reference pricing system that sets the cost coverage of pharmaceuticals that have substitutes at affordable levels. This system covers generics, original branded pharmaceuticals sold at the price of generics and biosimilars. Alongside this, the country has provided financial incentives to purchase generics, has established and recently increased prescription quotas for GPs and specialists and has instituted mandatory substitution by pharmacists for some categories of medicines, such as antibiotics and antifungals (against mycosis). The generics market has more than doubled in volume from 17 % in 2005 to 37 % in 2017 (Figure 21). Over the same period, the value of the generics market rose from 8 % to 13 %, but it remains lower than other EU countries such as the Netherlands and Germany.

**Figure 21. The share of the generics market remains lower than in other EU countries**



Note: Data refer to the share of generics in volume.  
Source: OECD Health Statistics 2019.

### Box 3. Belgium seeks to develop its horizon-scanning capacity through the BeNeLuxA initiative

The BeNeLuxA initiative was started in 2015, initially formed of Belgium, the Netherlands, Luxembourg and Austria, with Ireland joining in 2018. It aims to increase the efficiency of assessment, and reinforce pricing and reimbursement processes to improve the payer's position in the market.

In 2018, the BeNeLuxA countries launched the International Horizon Scanning Initiative. This would assess upcoming products based on their predicted impact on patient health, the organisation of health systems and potential costs to public finances.

More than ten countries (in addition to the BeNeLuxA members) have now joined this project. Given the potential impact of new high-cost medicines on long-term access and fiscal sustainability of health systems, more detailed predictive information is becoming increasingly important.

### Primary care is becoming more integrated

The federal level and federated entities (regions and communities) have recognised the importance of strengthening primary care in the context of population ageing and the growing number of chronic diseases. In 2015, a national 'integrated care for better health' plan was approved by the federal level and federated entities. This was accompanied by the release of a guidebook outlining the following 'triple aim' of more integrated care: a) to increase the quality of life of patients with chronic diseases; b) to improve the health of the population; and c) to make better use of the resources devoted to care by working more efficiently. The implementation strategy follows a bottom-up approach through regional pilot projects. These will run for four years and will receive some state funding.

In 2015, the Flanders region also initiated a reform of its primary care system, aiming to achieve more person-centred integrated care, also based on a strong participatory and bottom-up approach. In 2017, a 'reform trajectory for primary care' was endorsed and then implemented through pilot projects. Two initiatives are also under way to review regulations in relation to the delivery of primary care and the delivery of home care and care for older people.

In the Wallonia region, priority areas also include better integration of services and promoting access to care, especially by supporting the installation of doctors in underserved areas.

### Belgium has adopted a new eHealth plan for 2019-21

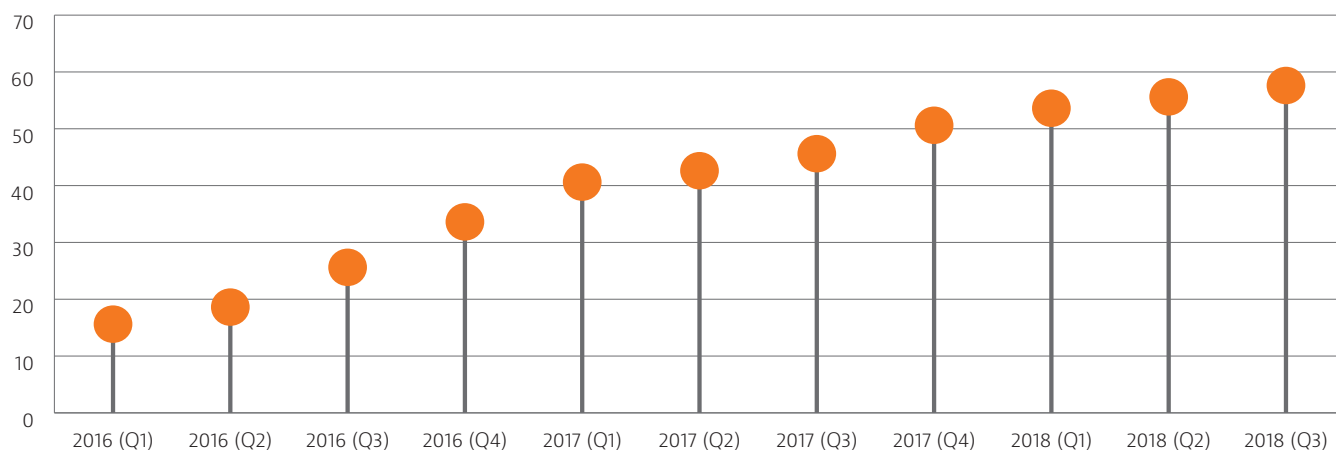
In February 2019, Belgium adopted a new eHealth plan for the period 2019-21, building on the previous plan from 2013-18. It will continue to implement various eHealth projects already under way, while at the same time developing new digital tools targeting care providers and patients (eHealth, 2019).

The new eHealth plan will continue to strengthen initiatives to digitalise and share information in primary care settings and in hospitals. Almost 60 % of GPs used the electronic global medical record accessible through MyCareNet in late 2018, up from less than 20 % in early 2016 (Figure 22). GPs are also increasingly using ePrescriptions. In November 2018, over 4 000 000 prescriptions were prescribed electronically, representing about half of the total, and ePrescription will become mandatory for GPs in 2020.

The new eHealth plan will further develop medical practices supported by mobile devices (mHealth). A new system was established to evaluate and validate mHealth applications, and six were validated by April 2019, including, for example, the Airview application to monitor sleep disorder and respiratory failure. The new eHealth plan will continue to develop information sharing with patients via a new secure online platform, the 'personal health viewer', which offers relevant and secure health information directly to patients. Belgium is also developing a new public website 'Healthy Belgium' to improve the availability and use of health information.

**Figure 22. The share of GPs using electronic medical record has strongly increased**

% of GPs using electronic global medical record through MyCareNet



Source: Devos et al., 2019.

### Patient-reported information is increasingly collected and used

In 2013, the Belgian Health Interview Survey began to monitor patient experiences in interactions with primary care providers, with a view to providing a broader range of information on the quality of care provided. In addition, a new pay-for-performance scheme for hospitals will use information reported by patients as part of a broader set of indicators to allocate additional payments based on quality (Box 4).



Source: Belgian Health Care Knowledge Centre.

#### Box 4. Patient-reported measures are on the rise, including first experiences in using pay-for-performance incentives

The Belgian Health System Performance Report includes indicators on patient-reported experience measures as part of a broader set of indicators to monitor the accessibility, quality, efficiency and equity of the health system (Devos et al., 2019). For the most part, these indicators come from the national Health Interview Survey. They include four indicators of patient experience in primary care, based on the OECD module.

In 2018, the government introduced a pay-for-performance scheme for hospitals, with voluntary participation. The scheme is based not only on

volumes of care provided but also on assessment of patient experiences. From a maximum of 80 points, hospitals can earn 10 points by carrying out a patient experience survey and an additional 5 points by having positive scores on the two patient experience questions. The total budget distributed by the scheme is relatively small, at slightly more than EUR 6 million for 102 hospitals in 2018. Nearly all hospitals used a survey to assess patient-reported experience measures in 2018; more of these and more patient-reported outcome measures will be included in the programme.

## 6 Key findings

- Life expectancy in Belgium has increased by nearly four years since 2000, but there continue to be large inequalities by gender and socioeconomic group: the least educated men live about six years less than the most educated. While this gap is slightly smaller than the EU average, it is one of the largest among western European countries. To a large extent these differences are due to greater exposure to environmental and behavioural risk factors.
- Some behavioural risk factors such as tobacco smoking have been addressed effectively, but excessive alcohol consumption remains an important public health issue. Increasing overweight and obesity rates are also of growing concern among adolescents and adults. Scope remains for improving coordination across the federal and federated entities to strengthen prevention while encouraging primary care providers to play a greater role in promoting healthy lifestyles for the whole population.
- Belgium spends a relatively high proportion of its GDP on health (10.3 % in 2017 compared with an EU average of 9.8 %), and nearly 80 % of health spending is publicly funded. The reduction in the ceiling for public spending growth since 2013 has contributed to keeping the growth rate in line with GDP growth. Given the measures in place, budgetary pressures in the future are expected to come mainly from growing needs for long-term care due to population ageing, which creates a potential risk for fiscal sustainability.
- Access to health care is generally good, but co-payments are common and 18 % of health spending is borne directly by households, a share higher than the EU average of 16 %. People on low incomes report relatively high unmet needs for medical care and even more so for dental care, mainly for financial reasons. This is mainly related to the lower coverage of dental care by social health insurance.
- Although the number of doctors in Belgium has increased slowly over the past 15 years, about 45 % of doctors are now over the age of 55, raising concerns about growing shortages in the future. In response, the number of students admitted to medical schools has increased strongly in recent years, and a growing share of internship places have been opened for general medicine to increase the future supply of general practitioners.
- Belgium has taken several steps since 2015 to strengthen primary care and promote greater integrated care for people with chronic conditions. A number of pilot projects have been launched to test new delivery and financing models, notably by encouraging multidisciplinary teamwork for patients with chronic diseases, such as diabetes.
- The social health insurance started to work with medical associations to promote more appropriate use of health services in 2017; by 2019 this programme covered more than 40 diagnostic and surgical procedures. This work is starting to signal the potential misuse of some services in some geographical areas, as well as opportunities to shift some activities from inpatient cases to day cases.
- Numerous measures have been taken over the past few years to speed up the digital transformation of the health system, notably to develop the use of electronic medical records and ePrescriptions. The eHealth plan for 2019-21 will pursue digital transformation further and expand the range of digital tools available to health professionals and patients.

# Key sources

OECD/EU (2018), *Health at a Glance: Europe 2018: State of Health in the EU Cycle*. OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264265592-en>.

European Observatory on Health Systems and Policies (2019), *Health Systems and Policy Monitor: Belgium*, <https://www.hspm.org/countries/belgium25062012/countrypage.aspx>.

## References

Devos C et al. (2019), *Performance of the Belgian Health System – Report 2019*. KCE Report 313. Belgian Health Care Knowledge Centre (KCE), Brussels.

eHealth (2019), *Portail des services de l'eSanté [eHealth Services Portal] – Roadmap 3.0*, <https://www.ehealth.fgov.be/fr/esante/roadmap-30/roadmap-30>.

IHME (2018), *Global Health Data Exchange*, <http://ghdx.healthdata.org/gbd-results-tool>.

European Commission (2019), *Country Report Belgium 2019*. 2019 European Semester. Brussels.

European Commission (DG ECFIN)-EPC (AWG) (2018), *The 2018 Ageing Report – Economic and Budgetary Projections for the EU Member States (2016-2070)*, Institutional Paper 079. May 2018. Brussels.

INAMI-RIZIV (2019), *Medical practice variations – Respiratory system – Tonsillectomy-adenoidectomy*, <https://www.healthybelgium.be/en/medical-practice-variations/respiratory-system/tonsillectomy-adenoidectomy>

Leroy R et al. (2017), *Proposals for a Further Expansion of Day Surgery in Belgium*, KCE Report 282. Belgian Health Care Knowledge Centre (KCE), Brussels.

OECD (2019), *Health at a Glance: OECD Indicators*. OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264265592-en>.

Sciensano (2019), *Health Status Report 2019: the State of Health in Belgium*. Sciensano, Brussels.

### Country abbreviations

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

# State of Health in the EU

## Country Health Profile 2019

The Country Health Profiles are an important step in the European Commission's ongoing *State of Health in the EU* cycle of knowledge brokering, produced with the financial assistance of the European Union. The profiles are the result of joint work between the Organisation for Economic Co-operation and Development (OECD) and the European Observatory on Health Systems and Policies, in cooperation with the European Commission.

The concise, policy-relevant profiles are based on a transparent, consistent methodology, using both quantitative and qualitative data, yet flexibly adapted to the context of each EU/EEA country. The aim is to create a means for mutual learning and voluntary exchange that can be used by policymakers and policy influencers alike.

Each country profile provides a short synthesis of:

- health status in the country
- the determinants of health, focussing on behavioural risk factors
- the organisation of the health system
- the effectiveness, accessibility and resilience of the health system

The Commission is complementing the key findings of these country profiles with a Companion Report.

For more information see: [ec.europa.eu/health/state](http://ec.europa.eu/health/state)

Please cite this publication as: OECD/European Observatory on Health Systems and Policies (2019), *Belgium: Country Health Profile 2019, State of Health in the EU*, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels.

ISBN 9789264623385 (PDF)  
Series: State of Health in the EU  
SSN 25227041 (online)