This Health system summary is based on the *Belgium: Health System Review* (HiT) published in 2020 in the Health Systems in Transition (HiT) series but is significantly updated, including data, policy developments and relevant reforms as highlighted by the Health Systems and Policies Monitor (HSPM) (www.hspm.org). For this summary, key data have been updated to those available in September 2023 unless otherwise stated. Health system summaries use a concise format to communicate central features of country health systems and analyse available evidence on the organization, financing and delivery of health care. They also provide insights into key reforms and the varied challenges testing the performance of the health system.


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How is the health system organized?

ORGANIZATION

Compulsory social health insurance covers 99% of Belgian residents for a large range of services and with no selection based on health risks. Every Belgian resident must be affiliated to a sickness fund of their choice or to the public auxiliary fund. The provision of care is based on the principles of independent medical practice, direct access (no gatekeeping), free choice of physician and of health care facility, and predominantly fee-for-service payment. Reimbursed health care services are provided by both public and private institutions and individual health care providers who mainly comply with the same set of rules, enjoy the same therapeutic freedom, and offer the same services. The organization of the health care system is divided between the federal authorities and the federated entities.

PLANNING

Belgium is a federal state consisting of one federal level and the federated entities: three regions and three communities (Box 1). The devolution of health-related matters from the federal level to the communities and regions occurred during reforms in 1980 and the sixth State Reform in 2014. Because of the latter reform, more than €5 billion was transferred from the federal state to the federated entities (nearly 15% of public expenditure on health). The implementation of this reform required major reorganization and the adoption of new legislative frameworks within the federated authorities that were mainly completed in 2018–19.

BOX 1 | DISTRIBUTION OF RESPONSIBILITIES IN BELGIAN HEALTH CARE

There are three levels of power in Belgium comprising the federal authorities, federated entities (three regions based on territory and three communities based on language: Dutch, French and German) and local authorities (provinces and municipalities). The federal authorities are responsible for matters in the general interest of all Belgians, i.e. the national compulsory health insurance, setting the hospital budget, regulating health products and activities, regulating health care professionals and patients’ rights. The National Institute for Health and Disability Insurance (NIHDI) manages the compulsory health insurance. The Ministry of Health (Federal Public Service Health, Food Chain Safety and Environment – Health Directorate) is responsible for the general organization of the health system. Federated entities undertake the main responsibility for primary care organizations, care for older people, mental health care and rehabilitation as well as health promotion and disease prevention. To facilitate cooperation between the federal authorities and the federated entities, interministerial conferences are regularly organized.
PROVIDERS

Health care providers in Belgium are not directly contracted by the sickness funds. They are independent and their practice is private, but they can commit to applying the national tariffs (so-called conventioned physicians). These conventions and agreements are established to determine the official fees and cost-sharing mechanisms.

Those who do not accede to these conventions are known as non-conventioned practitioners and can engage in extra-billings. Some 86.5% of physicians agreed to the 2022–23 national agreement. Important variation can nevertheless be observed between medical specialities (see section on accessibility and financial protection). Tariffs and reimbursement levels for services are agreed between representatives of the health care providers and the sickness funds.

How much is spent on health services?

FUNDING MECHANISMS

The health system is based on compulsory health insurance with social contributions proportional to income as the main financing source. To control expenditure, since 1995 a real growth cap has been applied to the global budgetary objective of the compulsory health insurance. Since 2022, the budget process also includes an allocation of resources based on clearly defined health objectives, with a longer-term vision and a multi-annual financial plan. The compulsory health insurance is managed by the NIHDI, which allocates a prospective budget to the sickness funds. Sickness funds are non-profit making, private players that operate the reimbursement system of health care services covered by the compulsory health insurance for their members. They also provide a replacement income in cases of long-term illness. The health insurance budget relies on negotiations between representatives of the government, patients (via the sickness funds), employers, salaried employees and self-employed workers.

HEALTH EXPENDITURE

Health spending increased over the past two decades and has stabilized at between 10.2% and 11.2% of gross domestic product (GDP) since 2009. In 2021, current health expenditure (CHE) as a share of GDP was 11.0%, and spending per capita was EUR 4,168 (PPP) (Fig. 1). This places Belgium among the top 10 spenders on health across European Union (EU) countries and within the World Health Organization (WHO) European Region (Fig. 2). The public share of CHE was more than three quarters (77.6%) of health expenditure in 2021, while out-of-pocket payments (OOPs) and voluntary health insurance (VHI) represented shares of 17.9% and 4.5%, respectively.
FIG. 1  TRENDS IN HEALTH EXPENDITURE, 2000–2021

Notes: PPP: purchasing power parity. Data refer to 2021, except for Malta (2020).

FIG. 2  CURRENT HEALTH EXPENDITURE (EUR PPP) PER CAPITA IN THE EU, 2021

Note: CHE: current health expenditure. Data refer to 2021, except for Malta (2020).
OUT-OF-POCKET PAYMENTS

OOPs (17.9% of CHE in 2021) apply for non-reimbursed services, official co-payments and extra-billings (Fig. 3). Official co-payments represented about 20% of patients’ OOPs in 2021 (after deduction for reimbursements related to the system of maximum co-payments). The exact share of extra-billings (in particular in ambulatory care) is currently not known but efforts to collect information on extra-billings are in progress. Official co-payments vary from service to service and patients with preferential reimbursement status pay reduced co-payments. A series of protection mechanisms are also in place (e.g. a system of maximum co-payments), which mainly depend on household income.

FIG. 3 COMPOSITION OF OUT-OF-POCKET PAYMENTS IN BELGIUM, 2021

Note: Data refer to 2021, except for Malta (2020).
Source: OECD Health Statistics 2023; Eurostat Database.

COVERAGE

To be covered by compulsory health insurance an individual must register with a sickness fund and pay social contributions. The 1% of the population who are not covered are people whose administrative and/or financial requirements have not been fulfilled. This does not mean that uninsured people have no rights to necessary medical care. The medical needs of undocumented migrants, asylum seekers or refugees can, for example, be covered by the Urgent Medical Aid scheme, by their reception centre or by their municipality’s public centre for social assistance (according to their status). The services that are (partially) covered by compulsory health insurance are described in the national fee schedule (called the nomenclature), which is negotiated between representatives of the sickness funds and of health care professionals. Particular services, such as dental care, are subject to high OOP expenditure (see Box 2).
Paying Providers

General practitioners (GPs) and medical specialists are mainly paid on a fee-for-service (FFS) basis, while salaries are paid in a limited number of hospitals and in homes for older people. GPs and other primary care professionals (e.g. physiotherapists and nurses) can also work in community health centres financed by a capitation payment system, and can either be salaried or self-employed (with monthly income paid by the centre). For GPs, a third option of mixed financing based on FFS, per capita payments, and premiums is being discussed and is expected to be implemented from April 2024. Hospitals are mainly paid using a dual system: (i) an allocation from the national hospital budget covering nursing and non-medical activities, and (ii) fees for medical and medico-technical activities such that providers give a share of their fees to the hospital to pay for (part of) the costs (e.g. hospital space, equipment, personnel) (Fig. 4).

Box 2 | What are the key gaps in coverage?

The share of OOPs for dental care expenditure is high (64.7% in 2021) and much higher than in Germany (25.4%) and the Kingdom of the Netherlands (21.0%). OOPs account for 37.0% of spending for medical goods, 36.1% of spending for outpatient care and 12.1% of spending for inpatient care. Reimbursement for mental health care is more limited than for acute care, but accessibility has been improved by the reimbursement of ambulatory psychological care for adults since 2019 and for children and adolescents since 2020. Reimbursement for mental health care was extended at the end of 2021 and is now organized via mental health care networks.

According to the EU-SILC survey, in 2022, the share of individuals postponing medical examinations because of cost was 0.9%, which is equal to the EU27 average (0.9%). For dental care, this rate was 2.5% (in 2022), which is slightly below the EU27 average (2.6%). However, for the lowest income quintile group, these rates are among the highest in Europe for dental examinations (6.6% in Belgium, compared to 5.8% for the EU27).

Fig. 4  Provider payment mechanisms in Belgium

<table>
<thead>
<tr>
<th>GPs</th>
<th>Specialists</th>
<th>Acute hospitals</th>
<th>Hospital outpatient services</th>
<th>Dentists</th>
<th>Pharmacies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee-for-service</td>
<td>Fee-for-service</td>
<td>Mainly hospital budget allocation and share of providers’ fee-for-service</td>
<td>Mainly fee-for-service</td>
<td>Mainly fee-for-service</td>
<td>Paid per product (reimbursed pharmaceuticals)</td>
</tr>
<tr>
<td>Salary/monthly income e.g. in community health centres</td>
<td>Salary e.g. in university hospitals</td>
<td>*Mixed system (fee-for-service payment, and capitation payment)</td>
<td></td>
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</tbody>
</table>

*Third option under discussion
What resources are available for the health system?

HEALTH PROFESSIONALS

The number of practising physicians per 100,000 population in Belgium in 2021 was below the EU27 average (325 compared to 407) (Fig. 5). The proportion of physicians aged 55 years and over is higher in Belgium than the unweighted EU27 average (43.3% compared to 37.4%) but has been slightly decreasing since 2016.

The number of practising nurses has increased (from 879 to 1,107 per 100,000 population from 2004 to 2018), but the patient-to-nurse ratio in hospitals remains high. Access to specialization for physicians is limited with global quotas defining the maximum number of physicians. Moreover, since 2021, federated entities have been responsible for the distribution of the global quota into sub-quotas per specialty: the French community, for example, has determined that 43% of medical specialists should opt for general practice (to tackle the possible shortage identified by their planning commission).

Similar percentages were also set by the Flemish community.

**FIG. 5** PRACTISING NURSES AND PHYSICIANS PER 100 000 POPULATION, 2021 OR LATEST AVAILABLE YEAR

*Note:* Data for Belgium nurses are for 2018.

HEALTH INFRASTRUCTURE

In the hospital sector, mergers have led to larger hospitals which are spread over different hospital sites. Hospitals can be classified into acute care hospitals (103 in the country) and psychiatric hospitals (59), which are spread over 270 sites (January 2023 data). There are also specialized or geriatric hospitals under the responsibility of federated entities.

There has been a gradual decrease in the density of hospital beds (from 672 to 549 per 100 000 population between 2000 and 2021). Compared with bordering countries, Germany and France have a higher bed density (Fig. 6). A projection study on the required hospital capacity for 2025 concluded a decreased need for traditional hospital beds (−5.4%), especially maternity beds and surgical beds, but indicated a higher need for day hospitalization, geriatric beds and chronic care beds (Van de Voorde et al., 2017). Similar to neighbouring countries, the average length of stay has decreased. There is also national planning for heavy medical equipment and some specialized services and care programmes.

The number of magnetic resonance imaging (MRI) devices, subject to national planning, has remained unchanged at 121 from 2014 to 2020. In 2018, it was agreed that 18 new devices will be added progressively, increasing to 122 devices in January 2021, 134 devices in January 2022 and 136 devices in January 2023. The number of computed tomography (CT) scanners has slightly increased from 269 in January 2020 to 289 in January 2023 (Fig. 7).

FIG. 6 ALL BEDS IN HOSPITALS PER 100 000 POPULATION IN BELGIUM AND SELECTED COUNTRIES, 2000–2021

DISTRIBUTION OF HEALTH RESOURCES

There are no major variations in the density of physicians dispersed between regions, although some rural provinces have lower ratios compared with urban areas. The geographical distribution of hospitals and the number of curative beds in each province is in line with population distribution. Moreover, the Belgian Hospital Act defines three types of hospital collaboration, which also impact on geographical distribution: hospital groups, hospital associations and hospital mergers. Since 2020, collaboration between general (basic) and specialized functions and university hospitals has been reinforced by the legal requirement that every hospital must be in a loco-regional hospital network, with task allocation within the network.

How are health services delivered?

PRIMARY AND AMBULATORY CARE

Primary care is accessible without a referral and patients have the freedom to choose their health care provider, obtain a second opinion or consult multiple providers simultaneously (Box 3). There is also direct access to specialist care. Nurses play a key role in providing services to people with chronic conditions or disabilities, e.g. wound and diabetes care. Pharmacists can also serve as a first point of contact, e.g. by providing advice on medications and health promotion, helping with over-the-counter products, reviewing the medication scheme for multi-medicated patients and administering both influenza vaccines as well as COVID-19 boosters. Medical specialists can work on an ambulatory basis in hospitals (public or private not-for-profit), in private for-profit clinics (called extramural centres) and/or in a private practice.

Measures have been taken to strengthen the position of GPs as the preferred entry point for health services, including the introduction of the Global Medical Record (GMR) which allows patients to have a single GP to manage their medical information and have lower co-payments. There is also increased reimbursement to patients for the first specialist visit if referred by a GP. In 2021, 83% of people had a GMR with a GP (that must be electronic since 2021). In 2021, 60% of patients visited their preferred GP three quarters of the time over a 2-year period (Gerkens et al., 2024). This proportion, however, has been slightly decreasing since 2011.
HOSPITAL CARE

Since 2015, there has been an action plan for both the federal state and federated entities to reform the hospital landscape. Initiatives on care concentration, including referral agreements are in progress, e.g. from January 2020, complex surgery of the pancreas and oesophagus are only reimbursed in a limited number of hospitals with proven experience. There are also initiatives to stimulate the integration of care between settings (see Box 4). The shift to day surgery varies between hospitals and between interventions. Some incentives have been introduced to promote day surgery; however, providers have not responded in large part due to the complex payment rules (some interventions are financed within a closed-end budget and others are paid for by lump sums) and lack of transparency.

A working group has been established to analyse how to remove the financial obstacles in the development of day hospitalization.

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BOX 3 | WHAT ARE THE KEY STRENGTHS AND WEAKNESSES OF PRIMARY CARE?

Direct access and free choice of health care professionals by patients is an important strength of the Belgian health care system; however, there are concerns about whether the availability of GPs will be sufficient to cope with an ageing population and increasing multimorbidity. The absence of a real gatekeeping role can lead to overconsumption and inefficient use of resources. Nevertheless, there are incentives to encourage patient loyalty to a GP and to consult their GP as a primary entry point. In addition, there are initiatives to enforce primary care professionals to work in multidisciplinary teams and to share relevant patient information. New roles and profiles have been recently developed or are in progress, such as advanced practice nurse, assistant in nursing care, clinical research nurse, qualified carer and practice assistant (see also the section on reforms).

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BOX 4 | ARE EFFORTS TO IMPROVE INTEGRATION OF CARE WORKING?

Several initiatives have been launched to enhance the integration of care within hospitals, between hospitals, and between hospitals and primary care. Since 2017, these include:

- Pilot projects on alternatives to hospitalization (2017), mainly covering intravenous antibiotics and cancer therapy, then implemented on a more structured basis since July 2023.
- Integrated care projects for the management of chronic patients (2018), such that stakeholders (including social care) are incentivized to set up innovative initiatives of care centred around patients across different care settings in their geographical area (Ministry of Health, 2018). After recognizing that people in the field perceived the existing initiatives as inadequately coordinated and too fragmented, a new interfederal plan on integrated care is planned for early 2024 to try to tackle this lack of coordination.
- Care pathways for long-COVID patients (2022).
- The development of additional care pathways in progress also include care pathways on childhood obesity and for children with eating disorders; multidisciplinary perinatal care pathways (pre- and post-natal) for vulnerable women; care pathways around the patient before and after an abdominal organ transplant; start-up pathway for patients with type 2 diabetes in an early stage; and better somatic screening for psychiatric patients.

A major prerequisite for delivering integrated care efficiently is the ability to share patient information in a secure way. Successive eHealth plans have been defined to enhance multidisciplinary information exchange.
PHARMACEUTICAL CARE

Pharmaceuticals, including over-the-counter medicines, are exclusively distributed through community and hospital pharmacies. To be reimbursed, pharmaceuticals must be included in a positive reimbursement list. The percentage of reimbursement varies according to the therapeutic importance of the pharmaceutical and the socioeconomic status of the patient (i.e., having access to a preferential reimbursement or not). Different measures have been taken to sustain innovation, strengthen the role of community pharmacists, improve accessibility and promote the cost-effective use of pharmaceuticals. Nevertheless, the exponential increase in the price of innovative treatments and the lack of transparency in confidential price agreements threaten the system and new solutions such as the BeNeLuxA initiative are being pursued.

MENTAL HEALTH CARE, PALLIATIVE, LONG-TERM AND REHABILITATION CARE

Regarding mental, palliative, long-term and rehabilitation care, the main focus is now on the deinstitutionalization of patients and the development of home-based and community-based care so that the patient can remain at home for as long as possible. Enhancing access to psychological care also has become a priority, with reimbursement introduced for adults in 2019 and for children and adolescents in 2020. This reimbursement was then increased and extended via local mental health networks at the end of 2021.

DENTAL CARE

Having regular contacts with a dentist is incentivized, for example, with full reimbursement for the majority of preventive and restorative procedures for all children up to 18 years (including 19-year-olds since September 2023). Moreover, reimbursement for some dental care is made conditional upon a registered dental contact during the previous year. Nevertheless, several treatments (e.g., fixed prosthodontics, most periodontal treatments, dental implants, orthodontics in adults, and fluoride applications) are not reimbursed at all. Overall, dental care is the health service with the lowest coverage, with only 35.2% of dental expenditure covered by compulsory health insurance or the government in 2021.

What reforms are being pursued?

Long-standing policy objectives include ensuring accessibility to health care, improving quality of care, ensuring sustainability, and improving efficiency of the health system (Box 5). Since the COVID-19 pandemic, improving resilience has been an additional major objective and many specific measures were taken to face this crisis (see the COVID-19 Health System Response Monitor platform).1 Ensuring a sufficient number of health professionals and improving the attractiveness of the health professions has been an important focus in recent years, with a re-evaluation of their remuneration and a rethinking of their practice, for example with the creation of new roles and profiles. The

1 https://eurohealthobservatory.who.int/monitors/hsrm/hsrm-countries/hsrm/belgium
COVID-19 pandemic severely affected health professionals (for example, according to a survey conducted in September 2021, 27.6% of health care professionals had considered leaving the profession) and it is important to continue to implement measures to support them.

Strategies such as multidisciplinary and integrated care, expertise concentration, alternatives to hospitalizations and patient care trajectories also have been promoted (see also Box 4).

Efforts have also continued on the digitalization of health information and the sharing of data between health professionals and settings. Premiums have been introduced to promote the use of eHealth services by health professionals and a new reimbursement framework has been developed to allow for telemedicine.

Several measures also have been taken to improve the accessibility of care and the financial protection of the population, with a focus on the vulnerable population and on mental health care.

In terms of governance, the development of health objectives and priorities is in progress. A procedure for setting the health budget has been adapted with a more long-term strategic vision that integrates health care objectives. The development of a method for identifying unmet medical needs is also in progress.

Greater emphasis has been placed on minimizing inappropriate care, exemplified by initiatives such as providing feedback and implementing Belgium’s national action plan, One Health, targeting antimicrobial resistance (AMR). Anticipated future measures include revisions to the national fee schedule, increased adoption of bundled payments, and the implementation of pay-for-quality/performance mechanisms.

Additional measures have been taken in prevention, for example flu vaccination by pharmacists. The ongoing definition of public health priorities underscores the expectation of heightened attention to prevention and health promotion in the future. Furthermore, the environmental impact of the health system has emerged as a novel topic in ongoing discussions.

**BOX 5 | KEY HEALTH SYSTEM REFORMS OVER THE LAST 5 YEARS**

- **Review of the National Fee Schedule (from 2019):** to correct unjustified fee differences between medical specialists (ongoing), to introduce incentives to promote quality and to develop new models of care (telemedicine in 2020–22, hospital at home in 2023, a third organizational model for GPs in 2024). A new pay scale was also introduced for salaried health professionals.

- **Inpatient care centralization and cooperation (from 2019):** requiring hospitals to concentrate their expertise in certain fields and cooperate within loco-regional networks and supra-regional networks.

- **Access to psychological care (2019–22):** progressive introduction of reimbursement.

- **eHealth plans (2019–24):** developed to share digital medical information between health care professionals and settings and to improve the collection and use of health data for decision making.

- **New roles and profiles (2019–24):** advanced practice nurses, practice assistants, extended roles for pharmacists and ongoing additional profiles to allow task delegations in nursing care.

- **A multi-year health care budget trajectory (from 2022):** allowing the integration of health care objectives.

- **Coverage and financial protection of vulnerable populations (2022–23):** extension of the maximum billing system and of the (automatic) entitlement to increased reimbursement, removal of the third-party payment system obligation in ambulatory care and ongoing inclusion of prisoners and internees in the compulsory health insurance scheme.
How is the health system performing?

HEALTH SYSTEM PERFORMANCE MONITORING AND INFORMATION SYSTEMS

The performance of the Belgian health system is assessed on a regular basis since 2010 by an independent scientific team. An HSPA interadministration working group has been created to monitor the project and to make the link between the independent scientific group and policy makers. Belgium’s HSPA reports are intended to be accessible to the general public and pictograms are used for performance indicators. The 2024 Belgian HSPA report is available online (https://www.healthybelgium.be/en/) to allow easy access and for data to be publicly available (Gerkens et al., 2024). Results are detailed in the next sections.

Important achievements in health information systems have also been achieved thanks to successive eHealth plans (2013–15, 2016–18, 2019–21, 2022–24) to digitize medical information in electronic health records (EHR), to share these data between health care professionals and settings, and to improve the collection and use of health data that could be useful for health care decision making.

ACCESSIBILITY AND FINANCIAL PROTECTION

Challenges remain with waiting times: in 2018, almost half of patients (48.4%) had to wait two or more weeks for a specialist appointment compared with 38.4% in 2013. This self-reported indicator is slightly higher in the Walloon region. As for GPs, 42.1% of patients had to wait one day or more for their appointment in 2018, compared to 30.1% in 2013. This percentage was higher in Flanders (44.9%) and Brussels (43.6%) than in Wallonia (36.3%), with an increase in all regions compared to 2013. New data on these indicators will be available at the end of 2025 (see also Box 6 for additional self-reported indicators).

The activity share of physicians and dentists in ambulatory care who do not engage in extra-billing (i.e. conventionalized physicians and dentists) is a good indicator of accessibility. In 2021, the share of activity performed by conventional GPs increased from 83.1% in 2012 to 87.3% in 2021 and was slightly lower in Brussels (71.2%) in Wallonia (84.4%) compared to 90.1% in Flanders and 84.4% in Wallonia). However, results were not so positive for other medical specialties, with a small declining trend over time (44.6% in 2012 and 44.0% in 2021). Important variations were also observed between specialties (e.g. only 11% for dermatologists). There is also reduced accessibility for dental care due to higher user charges.

The share of individuals reporting unmet needs for medical examination in Belgium (1.0%) was lower than the EU27 average (2.2%) in 2022, yet in Belgium there is a large difference between the lowest and highest-income quintiles, 2.8% and 0% respectively (Fig. 8). Catastrophic spending on health in Belgium amounted to 3.8% of households in 2018 and 5.2% in 2020, during the COVID-19 pandemic. As the pandemic had a profound impact on household consumption patterns, as well as on health spending, caution is required when comparing the rate in 2020 with previous years.

Socioeconomic inequalities and inequities also persist for a number of performance indicators, especially with regard to indicators on affordable access to health care, as well as on the use of preventive care, outpatient medicines, outpatient specialist and dental care (Gerkens et al., 2024).
In addition to the Belgian Health Interview survey (conducted in 2018), the Patient-Reported Indicator Survey (PaRIS), initiated by the OECD, also provides information on patient experiences in primary care. According to this survey, 96.6% of patients rated their last consultation with a health care professional (e.g. physician or nurse) as good to excellent in 2021.

Other patient-reported experience measures (PREMs) initiatives are mostly organized in hospitals, such as through the P4P programme organized on a voluntary basis at the federal level, the Flemish Indicator Initiative (VIP²) organized in Flanders and the Attentes et Satisfaction des Patients et de leur Entourage (ASPE Project) in some hospitals of the Walloon region and Brussels. According to the P4P programme, the overall patient experience in general hospitals was predominantly positive, with 91.5% reporting a positive score in 2022.

FIG. 8 UNMET NEEDS FOR A MEDICAL EXAMINATION (DUE TO COST, WAITING TIME, OR TRAVEL DISTANCE), BY INCOME QUINTILE, 2022

HEALTH CARE QUALITY

Avoidable hospital admission rates for conditions that could be treated in primary care are indicative of the quality of primary care or inefficiencies in the provision of primary care. In Belgium the number of hospital admissions related to diabetes complications in adults had been slowly decreasing between 2010 and 2020, increased in 2021 and is higher than the unweighted EU27 average (136.4 compared to 104.0 per 100 000 population in 2021) (Fig. 9). Avoidable hospitalizations for chronic obstructive pulmonary disease (COPD) are also relatively high compared with other European countries while for asthma, chronic heart failure and hypertension, results are better than the European average. The results highlight that chronic disease management outside hospitals and the functioning of primary care has improved in some areas but could improve further.

Concerning the appropriate use of antibiotics, improvements are needed. In 2021, the total volume of antibiotics prescribed in outpatient settings was 16.0 defined daily dose (DDD) per 1000 population per day, which is higher than the EU27 average (13.0). Efforts can also be continued concerning the use of antipsychotics and antidepressants (Gerkens et al., 2024).

One indicator used to evaluate the effectiveness of acute hospital care is mortality rates within 30 days after admission for acute myocardial infarction (AMI) and stroke. Between 2010 and 2021, the mortality rate for AMI decreased (from 7.9 deaths per 100 patients to 4.3 deaths per 100 patients). For ischaemic stroke, the related mortality rate decreased less significantly between 2010 and 2021 (from 9.5 to 8.2 deaths per 100 patients). The mortality rate after ischaemic stroke in 2021 in Belgium is below the unweighted EU average but is higher than in neighbouring countries (e.g. 4.9 deaths per 100 patients in the Kingdom of the Netherlands). The mortality rate after haemorrhagic stroke was 19.3 deaths per 100 patients in 2021, which is below the EU average. An important decline can be observed compared to 2019 (with 26.4 deaths per 100 patients), which was not observed in other countries.

FIG. 9 AVOIDABLE ADMISSIONS FOR ASTHMA AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE, CONGESTIVE HEART FAILURE AND DIABETES, 2021

Note: EU/EEA countries with available data; 2021 or latest. COPD: chronic obstructive pulmonary disease. CHF: congestive heart failure.

Source: OECD, July 2023.
HEALTH SYSTEM OUTCOMES

While the health status of the population is generally good, and the rate of mortality from treatable causes is decreasing, important socioeconomic inequalities are observed through the whole spectrum of health indicators. Mortality from treatable causes refers to causes of death that can be mainly avoided through timely and effective health care interventions, including secondary prevention and treatment (i.e. after the onset of disease, to reduce case-fatality). As such, it is used as an indication of the contribution that health care makes to improve population health. Preventable mortality refers to causes of death that can be mainly avoided through effective public health and primary prevention interventions (i.e. before the onset of disease/injury, to reduce incidence). In 2020, treatable mortality was below the EU27 average (63 compared to 92 per 100,000 inhabitants) (Fig. 10). The preventable mortality rate had been decreasing since 2000 but increased sharply in 2020 due to the integration of COVID-19 as a cause of preventable mortality. Although this rate is below the EU27 average, Belgium ranks poorly compared with comparator countries among the EU15 with 177 preventable deaths per 100,000 inhabitants (Fig. 10). The leading causes of preventable mortality are COVID-19 and lung cancer for both men and women. Suicide is now the third cause for men and the fifth cause for women. Some improvements in health determinants have been observed (see Box 7), including a substantial decrease in the percentage of daily smokers over the past 15 years, a slight decrease in the consumption of sugar-sweetened beverages since 2004, and a decrease of the prevalence of alcohol consumption since 2013.

FIG. 10  MORTALITY FROM PREVENTABLE AND TREATABLE CAUSES PER 100,000 POPULATION, BELGIUM AND SELECTED COUNTRIES, 2011 AND 2020

Note: Age-standardized death rates for all persons calculated by European Observatory for Health Systems and Policies.

HEALTH SYSTEM EFFICIENCY

Technical efficiency indicates the extent to which a health system is securing the minimum levels of inputs for a given output. As an entry point for discussion, the rate of treatable mortality can be compared to health expenditure levels. On the basis of this metric, when comparing Belgium with countries such as Italy and Spain, which have a similar level of treatable mortality, the Belgian per capita health expenditure is comparatively high. However, there are a cluster of countries with similar levels of spending as Belgium, such as Denmark and Sweden, whose health outcomes in terms of treatable mortality are similar to Belgium’s (Fig. 11). When looking at specific indicators that are considered proxies for efficiency, including average length of stay for a normal delivery of an infant, the rate has reduced from 5.0 days in 2000 to 2.7 days in 2021 (which is below the unweighted EU average of 3.3 days). Moreover, the proportion of surgical procedures performed in one-day hospital stays in Belgium has increased from 34.8% in 2000 to 49.5% in 2021 (Gerkens et al., 2024). Although few variations of this indicator were observed across the Belgian regions, high variability can be observed according to the type of procedure. About 98% of appendectomies are performed in a one-day surgery setting, while some other procedures (e.g. laparoscopic cholecystectomy) are much more rarely done as a one-day surgery compared with other countries. This is due to the funding specificities of these procedures, which incentivize standard hospitalization.

Regarding the consumption of pharmaceuticals, efforts have also been made to encourage the prescription of low-cost medicines (Box 8).

BOX 7 | ARE PUBLIC HEALTH INTERVENTIONS MAKING A DIFFERENCE?

In 1995, a national anti-drink-driving campaign (BOB) was established by the Vias Institute. Because of its huge success, it has been renewed each year. Advertising alcoholic products is restricted; however, the efficiency of the measures is uncertain. Hard liquor (spirits) can only be sold to those over 18 years of age, while other alcoholic beverages can be sold to those aged over 16. Yet it remains relatively easy for minors to buy hard liquor as checks are limited and the definition of hard liquor in the law is ambiguous, hampering implementation. In 2023, a new Alcohol Plan 2023–25 was approved.

Prohibition of tobacco use includes the ban on smoking in public places, workplaces and vehicles carrying minors. All tobacco-related products need to adhere to tobacco regulations including electronic cigarettes. Since 2019, sales of tobacco products are restricted to those over 18. Advertising tobacco products (and sponsorship) is prohibited with some exceptions. Plain packaging became mandatory in 2020. However, the advertising ban has some gaps; sales to minors could be better controlled and the ban on smoking in schools could be better applied.

Several initiatives are in place to promote healthy eating and exercise in schools. In 2018, the Nutri-Score was introduced on food packages in Belgium to influence healthier buying behaviour.
Since 2005, physicians have been encouraged to prescribe a certain percentage of low-cost drugs, and their prescription profile is screened by NIHDI. The percentage of low-cost drugs prescriptions issued on an outpatient basis (i.e. outside of hospitals) has been increasing consistently, from 49.1% in 2015 to 72.1% in 2022. The degree of substitution of biological treatments with biosimilars is still very low in Belgium, but an upward trend can be observed (0% in 2008 to 12.6% in 2017). The increase has been particularly accelerated since 2015 (0.42%) which is related to the increase of biosimilars available on the market. In 2022, 12 biosimilars were available in the Belgian market (Gerkens et al., 2024).

**FIG. 11** TREATABLE MORTALITY PER 100 000 POPULATION VERSUS HEALTH EXPENDITURE PER CAPITA, BELGIUM AND SELECTED COUNTRIES, 2020

Summing up

Belgium enjoys qualitatively good health care, yet challenges remain in terms of appropriateness of care concerning the use of antibiotics and psychotropics. In terms of access, nearly the entire population is covered by the compulsory health insurance scheme that includes a broad benefits package. Nevertheless, socioeconomic inequalities and inequities in access persist.

Significant room for improvement is also possible concerning preventive care, as performance indicators in this domain are often below international targets.

Prevention, health promotion and the tackling of socioeconomic inequalities and inequities in access must therefore continue to be placed high on the political agenda. These policies should not be limited to the health system alone, and a more holistic approach could be adopted.

Due to the significant impact of the COVID-19 pandemic on the health workforce and the growing number of health professionals expressing a desire to leave the health sector, it is crucial to maintain a heightened focus on their well-being. The environmental impact of the health care system will also be a key focus in Belgium in the upcoming years.

Increased efforts are needed in prevention, health promotion and tackling inequalities.
### POPULATION HEALTH CONTEXT

#### KEY MORTALITY AND HEALTH INDICATORS

**LIFE EXPECTANCY (2022)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth, total</td>
<td>81.8</td>
</tr>
<tr>
<td>Life expectancy at birth, male</td>
<td>79.6</td>
</tr>
<tr>
<td>Life expectancy at birth, female</td>
<td>83.9</td>
</tr>
</tbody>
</table>

**CAUSES OF DEATH (2020, standardized death rate per 100 000 population)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All causes</td>
<td>1051</td>
</tr>
<tr>
<td>Circulatory diseases</td>
<td>218</td>
</tr>
<tr>
<td>Malignant neoplasms</td>
<td>223</td>
</tr>
<tr>
<td>Certain infectious and parasitic diseases</td>
<td>16</td>
</tr>
<tr>
<td>External causes of morbidity and mortality</td>
<td>60</td>
</tr>
<tr>
<td>Infant mortality rate (per 1000 live births)</td>
<td>3.3</td>
</tr>
<tr>
<td>Maternal mortality rate per 100 000 live births (modelled estimate)</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Sources:** Eurostat, 2023.

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**REFERENCES**

- OECD/OBS SOHEU country health profiles database (September 2023).
The European Observatory on Health Systems and Policies is a partnership that supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of health systems in the European Region. It brings together a wide range of policy-makers, academics and practitioners to analyse trends in health reform, drawing on experience from across Europe to illuminate policy issues. The Observatory’s products are available on its web site (http://www.healthobservatory.eu).