



Key data in healthcare

General hospitals



Health
Food Chain Safety
Environment

.be

Colophon

Subject

This report provides a brief overview of the functioning of general hospitals based on a number of key figures. In four chapters on 'Organisation', 'Activity', 'Financing' and 'Quality and innovation', some trends in this sector of healthcare are highlighted.

Editorial Committee

The members of the Directorate-General for Healthcare.

Responsible publisher

Dirk Ramaekers, Galileelaan 5/2 – 1210 Brussel

Contact information



**Health
Food Chain Safety
Environment**

Federal Public Service Health, Food Chain Safety and Environment:
Directorate-General Healthcare
Galileelaan 5/2 – 1210 Brussel
T. +32 (0)2 524 97 97 (Service Center Health)

Any partial reproduction of this document is permitted provided that the source is acknowledged.

This document is available on the website of the Federal Public Service Health, Food Chain Safety and Environment:

www.health.belgium.be and www.healthybelgium.be

Wettelijk depot: D/2023/2196/33

CONTENTS

Foreword	4
-----------------	----------

Organisation	6
---------------------	----------

Hospital networks	6
-------------------	---

Types of hospitals	8
--------------------	---

Hospital activities	9
---------------------	---

Employment trends in the general hospital sector	12
--	----

Activity	14
-----------------	-----------

Evolution and characteristics of hospital stay	14
--	----

Emergency admission	18
---------------------	----

The most common diagnoses	19
---------------------------	----

Nursing care	20
--------------	----

Funding	23
----------------	-----------

Funding sources	23
-----------------	----

The Financial Resources Budget	24
--------------------------------	----

Quality and innovation	28
-------------------------------	-----------

Antimicrobial resistance	28
--------------------------	----

Pay for performance	33
---------------------	----

Healthcare Quality and Outcomes programme	34
---	----

Medical imaging	35
-----------------	----

Electronic health record	37
--------------------------	----

FOREWORD

Dear reader,

We are pleased to provide you with this publication as a source of information on some key figures and trends in healthcare. Following the success of our first publication in 2019, we at the Directorate General for Healthcare of the FPS Public Health, Food Chain Safety and Environment decided to make these reports a permanent feature. This series of publications is intended to provide an overview of the latest data and initiatives related to the operation of various sectors of the healthcare industry.

Whether you are a healthcare provider, policymaker, researcher or simply interested in developments in this field, this publication is here to inform and inspire you.

In this report, you will find a wide range of topics ranging from the organisation to the activities and financing of general hospitals. In addition to these figures, we will also briefly explain various policy initiatives, such as how hospital networks are organised and the actions undertaken to promote quality. We have tried to present the information in an accessible and understandable way, combining illustrations, graphics and short descriptions. Hyperlinks will enable interested readers to refer to the source data or to more detailed reports.

Although we were rocked by the pandemic in 2020, which has had an unprecedented impact on healthcare, in this issue of 'Key Data', we have started using some new key figures in order to provide an accurate description of the latest developments and trends in healthcare. The pandemic disrupted trends and changed the way care was traditionally organised. Because of this, you will see throughout the report that we have chosen to work with pre-pandemic figures at times. However, there are topics for which we actually and very deliberately used the figures from during the pandemic, in order to properly highlight the reality that existed at that time.

We hope this publication will help you gain a deeper understanding of the complex world of healthcare and illustrate the commitment of each department within the DG Healthcare to work with those in the field to promote health and guarantee high-quality and accessible care for all.

We invite you to discover the inner workings of hospitals, and hope you enjoy reading about it!

Sabine Stordeur,

Director General, DG Healthcare

01

ORGANISATION

24

A total of 24 locoregional hospital networks have been in the process of being created since 2019.

→ p. 6



In recent decades we have seen a shift from general beds for specialised care, geriatrics and psychiatry.

→ p. 10

103

In 2023, there are 103 general hospitals in Belgium, including 7 general university hospitals and 17 general hospitals with a university character.

→ p. 8

ORGANISATION

Hospital networks

In order to continue providing complete and high-quality care in Belgium, steps have been taken by the government to strengthen cooperation between hospitals. The creation of locoregional hospital networks since 2019 aims to encourage hospitals to use resources more efficiently, to share investments and to promote a division of labour based on expertise.



3 + 1 networks

3 networks accredited by the COCOF and/or the COCOM and/or by the French Community and/or the Walloon Region and 1 network accredited by the Flemish Community.

13 networks

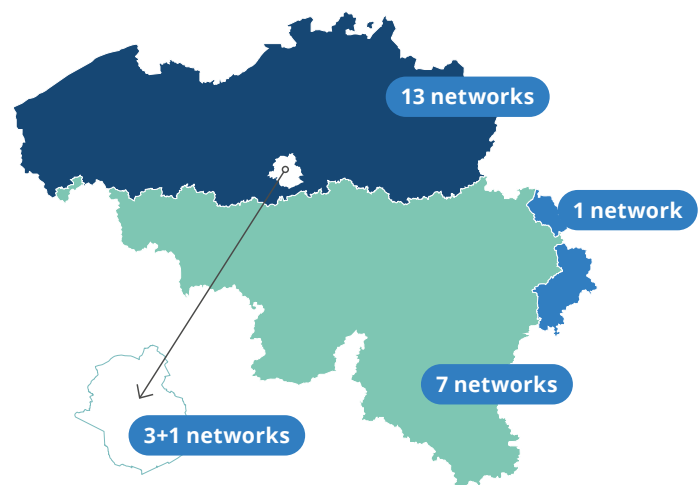
accredited by the Flemish Community.

7 networks

accredited by the Walloon Region.

1 network

accredited by the German-speaking Community and by the Walloon Region.



What are locoregional networks?

A locoregional hospital network is a cooperation between at least two hospitals, which are geographically contiguous, in the area of (basic) care. Since 1 January 2020, every hospital has been required to be part of one, and only one, locoregional hospital network. A maximum of 13 networks may be formed in Flanders, eight in Wallonia and four in Brussels. The way in which hospitals organise the management of the locoregional care provision within their network is determined by the hospital network itself.



Learn more?

https://etaamb.openjustice.be/fr/loi-du-28-fevrier-2019_n2019040712

Working together on care assignments

The basis of the reform introducing locoregional hospital networks is twofold:

‘Care should be provided in the vicinity when possible, specialist care where needed.’

In other words and on the one hand, the government wants to ensure that care is provided as close to home as possible. On the other hand, from a quality perspective, the government wants to concentrate highly specialised care. This will also lead to a more efficient use of resources.

A subdivision of care has been established that divides healthcare into locoregional and supra-regional care assignments.

1. Locoregional care assignments

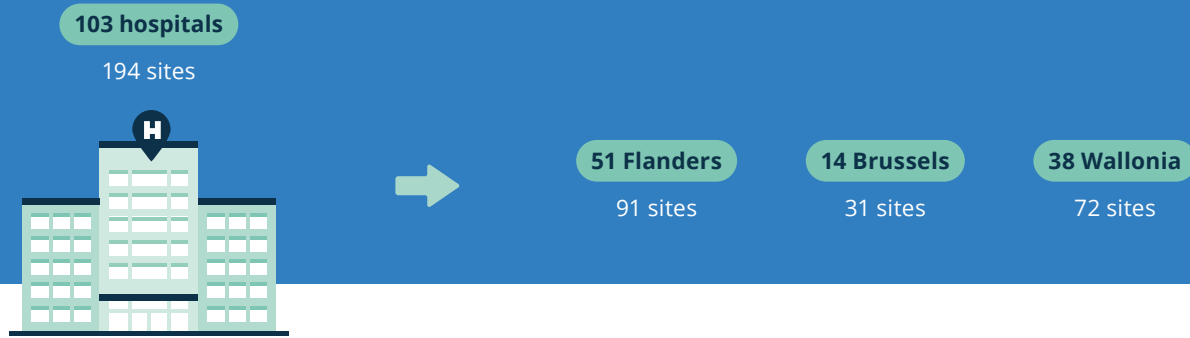
These are the care assignments that may be offered in any locoregional hospital such as an emergency department and a geriatric or paediatric department. These are services that are needed to guarantee basic care for conventional surgical procedures and medical conditions. Moreover, locoregional care includes services that require patients to come to the hospital regularly for a certain period of time, for example kidney dialysis, the oncology care programme and stroke care. These types of care should be offered in every hospital network, but not in every hospital.

2. Supra-regional care assignments

These are care assignments for a small group of patients, which require considerable expertise and/or investment. These types of care should not be offered in all networks but must be concentrated in supra-regional reference centres. These include specialist stroke care and burn centres.

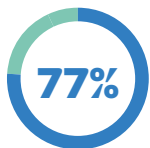
The goal is to create an appropriate framework that encourages collaboration within the sector. In the next phase, hospitals within the network may choose to bring together different services or care packages in the form of shared services. In this way, resources can be used more efficiently, for example, by making group purchases or by operating heavy equipment together.

As a result of quality improvement and specialisation, locoregional hospital networks will become more attractive to healthcare providers and patients. Mutual cooperation between reference centres, which offer supra-regional care, will allow patients to receive further follow-up in a hospital near their place of residence after undergoing a treatment.



Types of hospitals

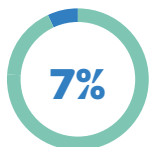
The general hospitals can be subdivided into three different types¹:



'Classic' general hospitals

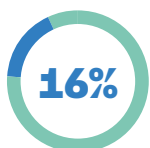
These are hospitals that receive patients both day and night to provide specialist medical care. To meet the notion of basic hospital, a hospital must have at least 150 accredited beds with a service for surgical activities and internal medicine supplemented by at least one other discipline such as geriatrics, maternity, paediatrics, neuropsychiatry or rehabilitation. Furthermore, they must include the functions of anaesthesiology, radiology, basic clinical biology activities, rehabilitation, basic hospital pharmacy activities and palliative care. Lastly, a physician must be on-site 24 hours a day.

An exception is made in the case of atypical hospitals such as hospitals focused solely on geriatric care or hospitals focusing solely on rehabilitation. With the exception of the hospital 'Foyer Horizon', these hospitals are since the sixth state reform no longer under the jurisdiction of the federal government. The latter includes only palliative beds, which remain under federal jurisdiction.



General university hospitals

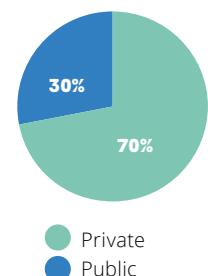
General university hospitals offer at least the same services as classic general hospitals, but they additionally accommodate patients requiring highly specialised treatment. A university hospital also has a mission to train healthcare providers, to engage in scientific research and to develop new technologies. They are connected to a university with a faculty of medicine.



General hospitals with a university character

These are general hospitals that have been allocated a number of university beds which are connected to a university.

As of 01.01.2023, 30% of the 103 hospitals in Belgium are public, i.e. managed by a public authority (a municipality or an inter-municipal, provincial, regional authority, etc.), and 70% are private and run as non-profit organisations. Historically, the latter owe their existence to religious orders, mutual societies, free universities or former company hospitals. However, given the large number of hospital fusions in recent decades, many current institutions are a legacy of both the public and private sectors. The Hospitals Act makes no distinction between the public and private sectors. Consequently, the provided government funding is identical.



¹ This report zooms in on general hospitals under federal jurisdiction. It leaves out psychiatric hospitals (which provide care exclusively to people with mental disorders).

Hospital activities

The activities of hospitals are organised into services, functions and care programmes.

Services group together activities that are linked to a specific location within the hospital. A distinction is made between hospitalisation services, where patients reside during their stay in hospital, and medical or medico-technical services, where certain specific services requiring special expertise or equipment are provided. Medical services include transplant centres or centres for burn victims. Medical-technical services include medical imaging services (CT scanning, NMR, Pet-Scanner, etc.), human genetics centres, radiotherapy services and kidney dialysis centres.

Functions are hospital activities made available to all hospital departments. Several functions are subject to specific standards and controls by the competent community or region. Functions include hospital pharmacy, palliative care, intensive care and emergency department, hospital blood bank, mediation, pain management and the clinical biology lab, amongst others.

Care programmes can be defined as an organisational framework for implementing 'care pathways' for a specific target group. They are the result of an arrangement between the hospitalisation services, medical or medico-technical services and functions that are necessary in order to provide high-quality care.

There are currently various care programmes:

- The care programme for 'cardiac pathology'
- The care programme for 'reproductive medicine'
- The care programme for cancer patients
- The care programme for children
- The care programme for geriatric patients
- The care programme for 'stroke care'.



Find out more about the location and services offered by the different hospitals:

<https://www.health.belgium.be/fr/sante/organisation-des-soins-de-sante/partage-de-donnees-de-sante/institutions-de-soins>

Types of hospital services

Each service within the hospital must be accredited and meet specific standards, including minimum bed capacity, the required level of activity, technical equipment and the number of providers of medical, paramedical and care services.

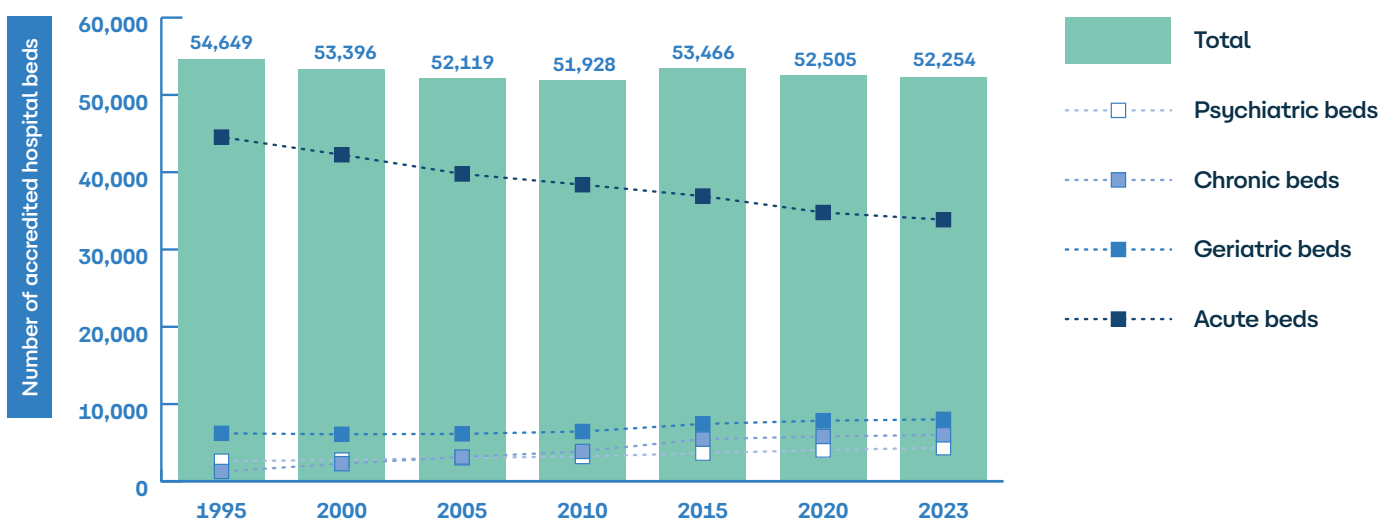
Each service is allocated an index or identification letter referring to the subgroup of patients concerned. To be able to provide a better overview, we can group the different types of services according to the nature of the conditions generally treated there.

- **Acute beds:** for short stays, i.e. stays that do not require long-term treatment: e.g. surgery (index C), internal medicine (index D), paediatrics (index E), care of premature infants (index NIC), maternity (index M).
- **Geriatric beds:** for the care of geriatric patients (index G).
- **Chronic beds:** for longer-term hospitalisations or for patients requiring chronic treatment: rehabilitation (index S1 for cardiopulmonary pathologies, S2 for locomotor pathologies, S3 for neurological pathologies, S5 for chronic polypathologies and S6 for psychogeriatric pathologies) and beds for palliative care (index S4).
- **Psychiatric beds and places:** for the care of patients with mental disorders, possibly only during the day or at night: such as beds or places for the observation and neuropsychiatric treatment of adults (index A, A1, A2, T and T1) or of children (index k, k1 and k2).

Evolution in the number of accredited hospital beds

Population ageing and innovation in healthcare are reflected in the changes in the number of accredited hospital beds. Since 1995, we have seen a decrease in the number of accredited 'acute' hospital beds (-24%). The reason for this is that over the years, patients have to spend less time in the hospital for certain illnesses and procedures. The case of geriatric (+29%), specialist (+370%) and psychiatric beds (+67%)² shows a shift in the opposite direction. In these areas, an increase in the number of beds is observed since 1995. This can be explained in part by the ageing of the population. Overall, we have observed a decrease of 2,395 beds (-4%) in Belgian hospitals. Between 2010 and 2015, we have seen an increase in accredited beds as a result of mergers between general and specialist hospitals.³

Evolution of the number of accredited hospital beds

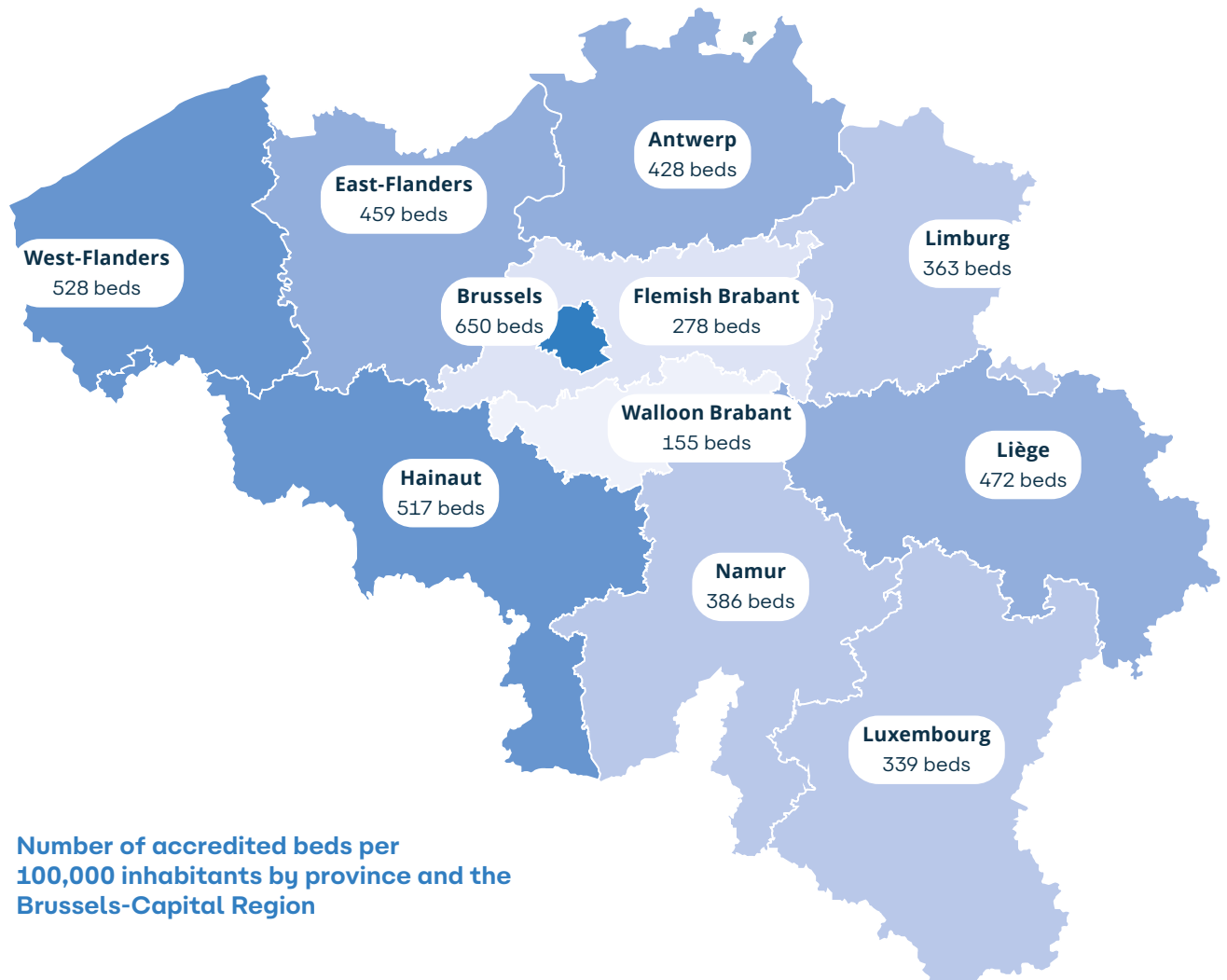


² Frozen beds will be counted given the accreditation for this is maintained.

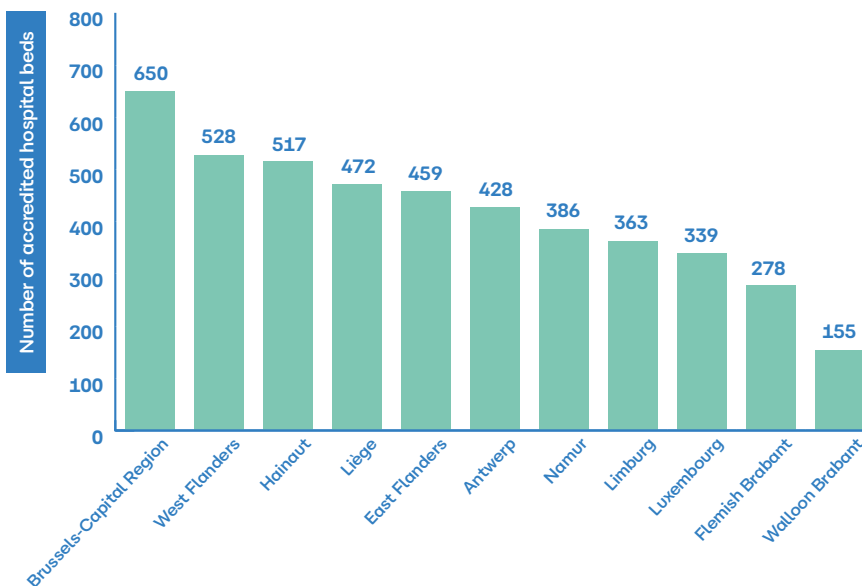
³ Source CIC: 01/01/2023

The geographical distribution of accredited hospital beds per 100,000 inhabitants

The Brussels-Capital Region has the highest number of beds per 100,000 inhabitants. In second and third place we find West Flanders and Hainaut, respectively. Walloon Brabant and Flemish Brabant are the provinces with the lowest number of beds.



Number of accredited beds per 100,000 inhabitants by province and the Brussels-Capital Region



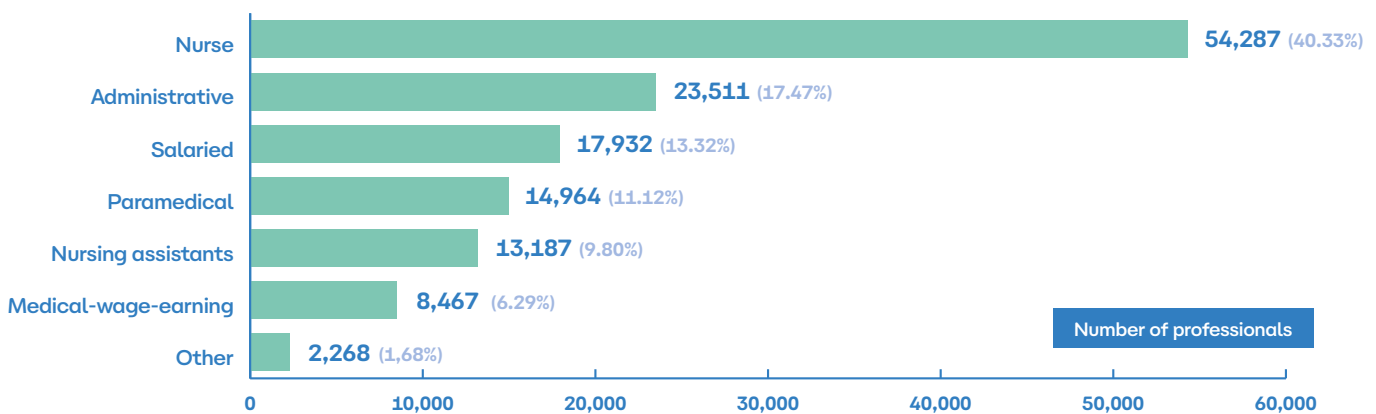
Employment trends in the general hospital sector

Nurses represent the largest group (40%) of salaried staff in hospitals in 2020 with 54,287 full-time equivalents (FTE). However⁴, the figures shown in the chart below vastly underestimate the activity of medical staff active in general hospitals. After all, many doctors are self-employed and are therefore not declared as salaried medical personnel.



4 Source: Finhosta

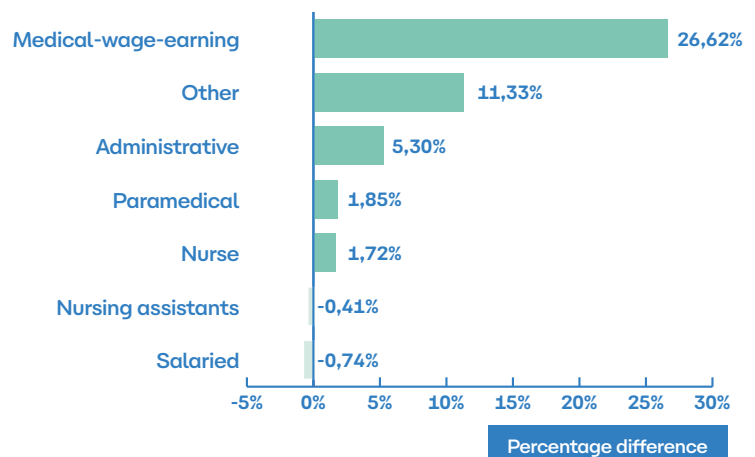
Number and percentage by category of professionals (in terms of FTEs) in 2020



The volume of FTEs increased by 4,198 FTEs (+3.22%) over the past 5 years. The largest increase is observed among medical salaried personnel (+26.62%). This increase is mainly due to the increase in the number of physician specialists in training.

FTE = Fulltime equivalent

Evolution of the volume of FTEs between 2016 and 2020



02

ACTIVITY



An 8.7% increase in contacts over 10 years, with an abrupt decrease due to the COVID-19 pandemic.

→ p. 14

Over 6 million contacts in general hospitals in 2021.

→ p. 14



Residents of Flanders have fewer contacts with the hospital than people living in Wallonia and Brussels, but more of them are seen as day-patients. Brussels residents are more likely to have ambulatory contact with the emergency department.

→ p. 18



Since 2014, there have been more day hospitalisations than classic hospital admissions.

→ p. 14



A quarter of day hospitalisations are related to chemotherapy and immunotherapy.

→ p. 19

How can I help you?



ACTIVITY⁵

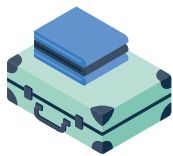
Evolution and characteristics of hospital stay

There are various types of hospital stays or hospital contacts. In the case of a day hospitalisation, the patient comes to the hospital without staying overnight. In the case of classic hospitalisations, the patient stays at least one night in the hospital and is charged a day fee for nursing. A stay via the emergency department may involve a contact without hospitalisation (hereinafter referred to as 'ambulatory contacts with the emergency department') or may involve a contact followed by admission (day hospitalisation or classic hospitalisation).

- 5 Source of figures: Minimale Ziekenhuisgegevens (Minimum Hospital Data – MZG). The following types of stays were not included: non-terminated stays (except the first period of a lengthy hospital stay), full psychiatric stays, stays of newborns which were not invoiced, stays for which the gender of the patient cannot be determined, stays in day hospitalisation for which a mini-fee or no fixed fee was charged.

Evolution in the number of stays and contacts

In 2012, the total number of hospital stays (which includes classic or day hospitalisations and ambulatory contacts with emergency departments) was 5,693,465. This number increased to 6,522,643 in 2019. Afterwards, due to the measures regarding the COVID-19 pandemic, we can observe an atypical decline. That decline is still noticeable in 2021, when 6,190,205 stays were recorded. Only the number of day hospitalisations is higher than before the pandemic.



Classic hospitalisation

1,662,115



Day hospitalisation

2,193,158



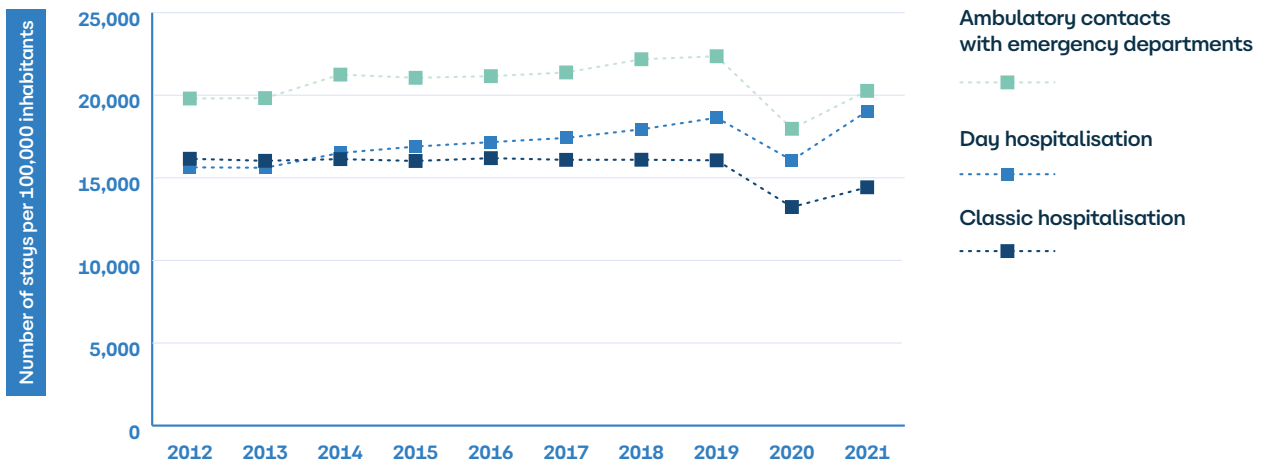
Ambulatory contacts with emergency departments

2,334,932

To accurately compare these changes over time, it is necessary to look at the number of stays/contacts per 100,000 inhabitants. From 2012 to 2019, that number increased by 10.6%. This is mainly due to a higher number of day hospitalisations (+19.2%) and ambulatory contacts with emergency departments (+12.9%).

Another lesson is that from 2014 onwards, the number of day hospitalisations have exceeded those of classic hospitalisation. This is in line with the hospital reforms. The goal is to reduce the number of unnecessary overnight stays in hospitals when it is medically safe and socially feasible for the patient. Because of medical innovations, procedures are also less invasive, allowing patients to recover faster and leave the hospital sooner. The shift to more day hospitalisation has several benefits: for example, a lower risk of hospital-acquired infections due to shorter stays and potentially reduced costs for patients and society. In addition, nurses can be deployed elsewhere if the types of care associated with an overnight stay decrease.

Evolution of the number of stays and contacts per 100,000 inhabitants by type of hospitalisation

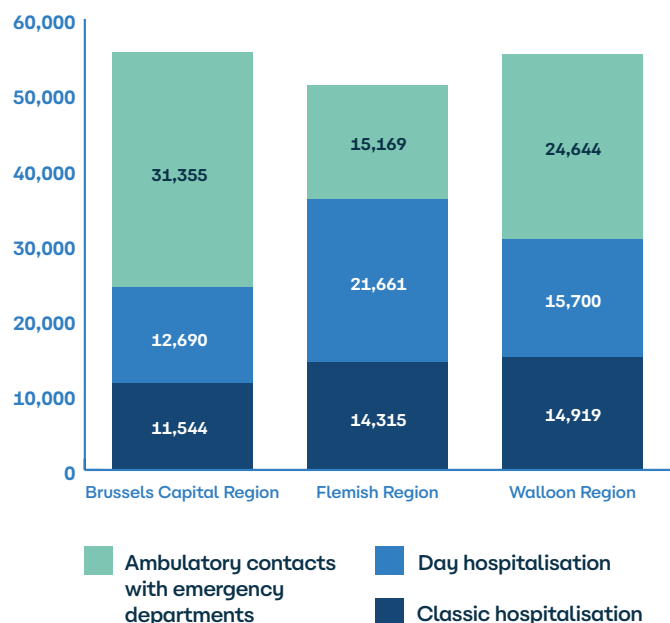


Number of hospital stays/contacts according to region⁶

In 2021, the total number of stays per 100,000 inhabitants was 51,145 in Flanders, 55,589 in Brussels and 55,263 in Wallonia. A closer look at the 3 regions reveals several differences between them. In general, the rate at which hospital care is used is lower in Flanders than in the other two regions. The number of day hospitalisations is significantly higher and the number of ambulatory contacts with the emergency departments is lower. In the Brussels-Capital Region, the emergency departments are used twice as frequently by out-patients than in the Flemish Region. In the Brussels-Capital Region, classic hospitalisations are used to a lesser degree.

⁶ Region in which the patient resides.

Number of stays per 100,000 inhabitants by type of hospitalisation and by region (2021)

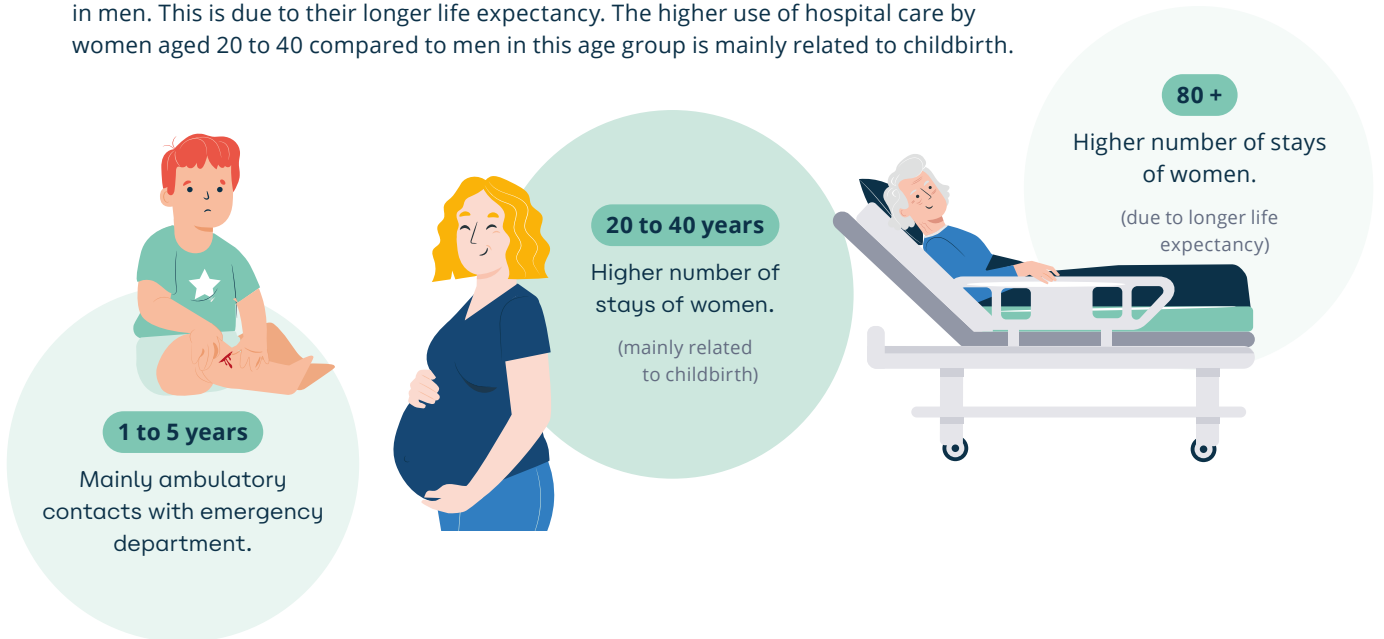


For more information about the origin of patients, visit:

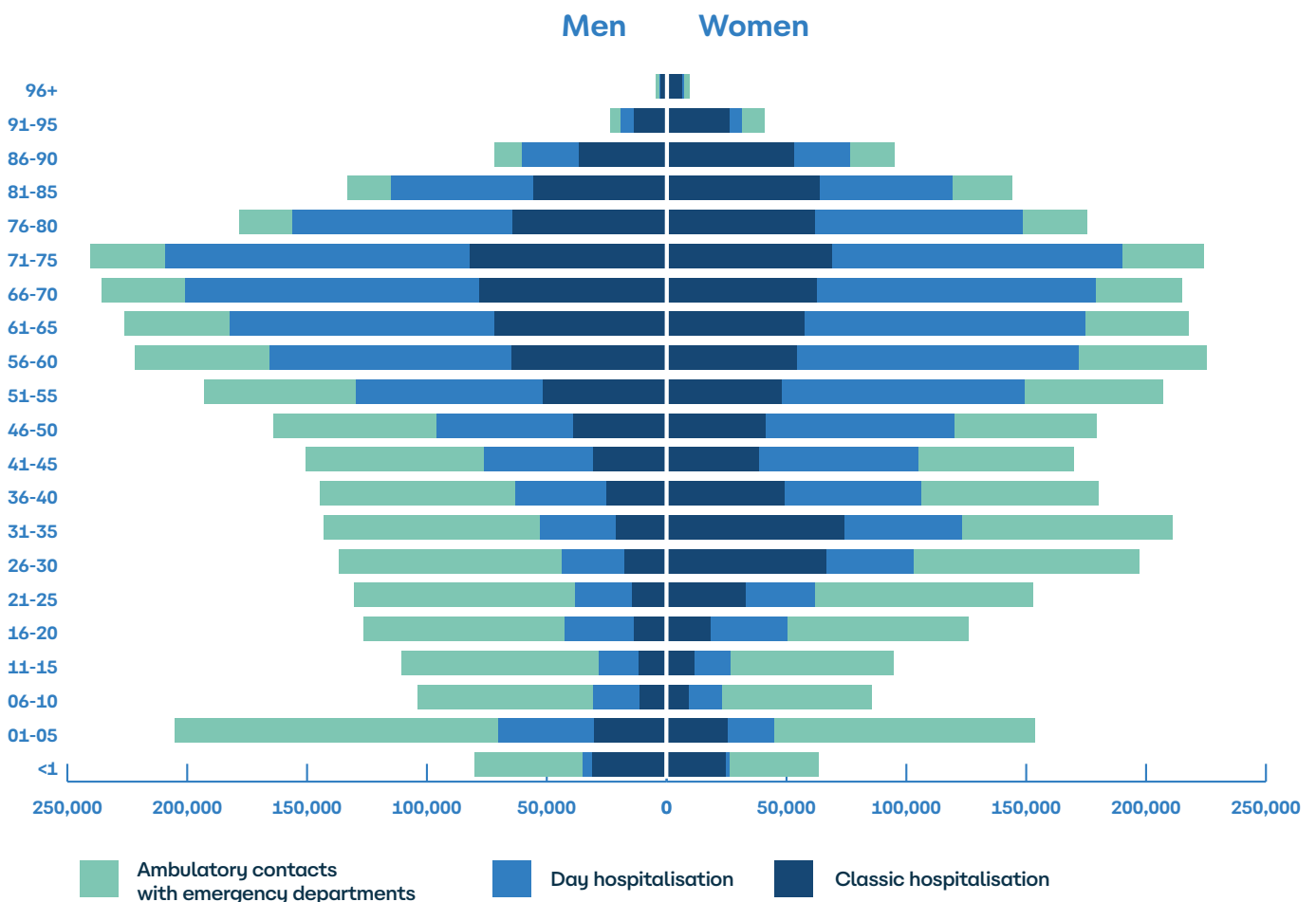
<https://www.health.belgium.be/en/node/24325>

Age and gender of patients

In children, we see a higher number of contacts with the hospital between the ages of 1 and 5 years, mainly due to more intensive use of out-patient emergency services. About one-fifth of patients are between 55 and 70 years old. Above the age of 80, we observe a higher total number of hospital stays in women than in men. This is due to their longer life expectancy. The higher use of hospital care by women aged 20 to 40 compared to men in this age group is mainly related to childbirth.



Number of stays and contacts by type of hospitalization, age and gender (2021)

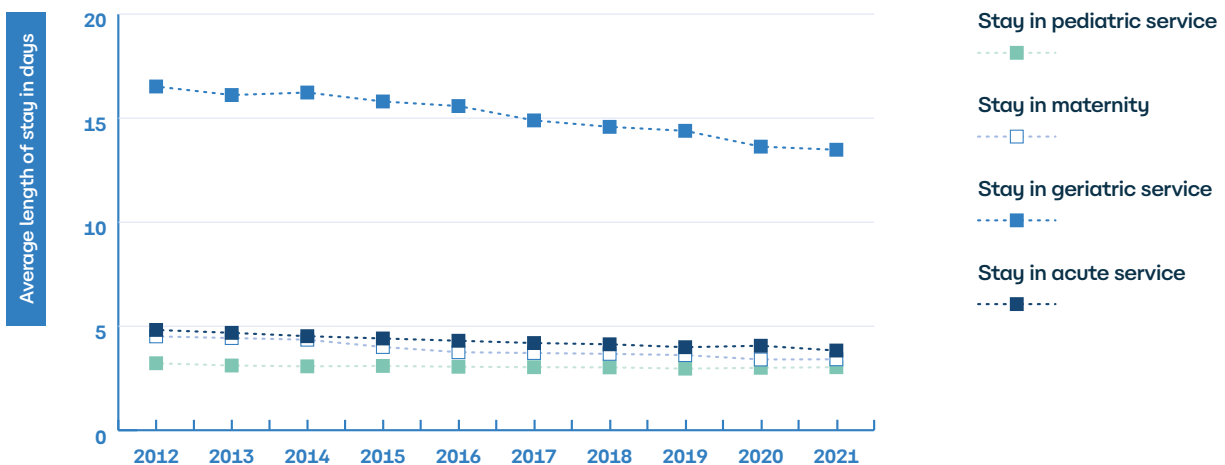


Average length of stay in the case of classic hospitalisation

For years, healthcare policy has promoted the reduction of length of stay to ensure efficiency and safeguard the proper use of hospital capacity. The intention is to achieve this without compromising the quality of care and by taking into account each patient's specific situation.

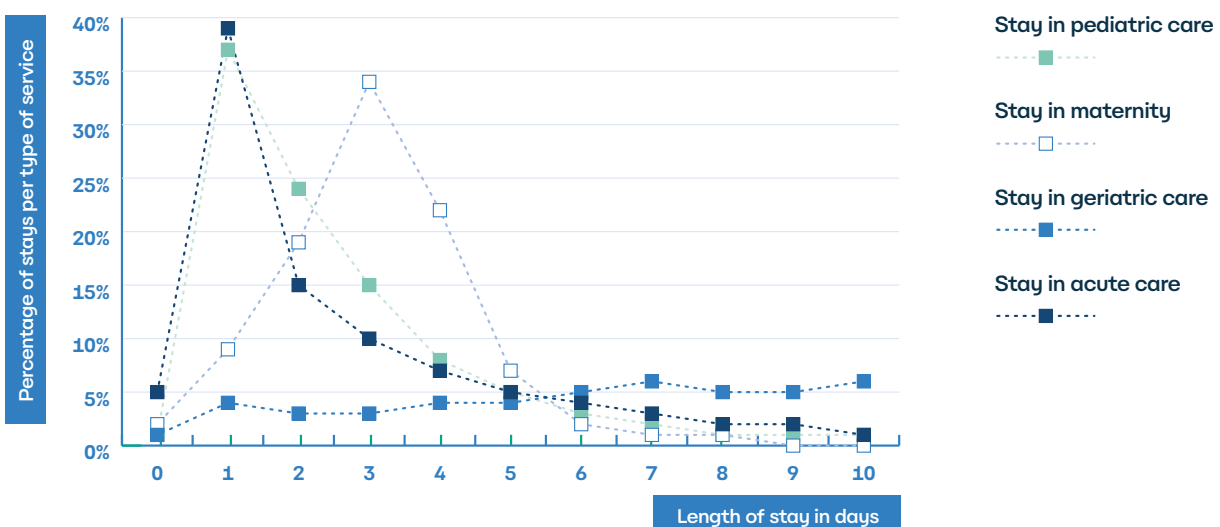
In 2021, the average length of stay in an acute department was 4 days, in a geriatrics department 13 days and in a maternity and paediatrics department 3 days. Between 2012 and 2021, the average length of stay in the acute care and maternity departments decreased by one day and in the geriatrics service by three days. In the paediatrics department, the average length of stay remained stable.

Average duration of stay per type of service



If we zoom in on the number of days that patients stay in a given department, we find that nearly 60% of acute care stays do not exceed 2 days. In maternity, in 64% of cases, the duration does not exceed 3 days and 86% of stays do not exceed 4 days.⁷ In geriatric care departments, the average length of stay is longer than in the other departments. For 54% of patients, their stay lasts longer than 10 days. In paediatrics, 62% of children spend no more than two days in hospital.

Duration of stay for classic stays according to the service (2021)



⁷ Psychiatric and chronic stays are not included in these graphs. Stays longer than 10 days are not shown in the second graph for the sake of readability.

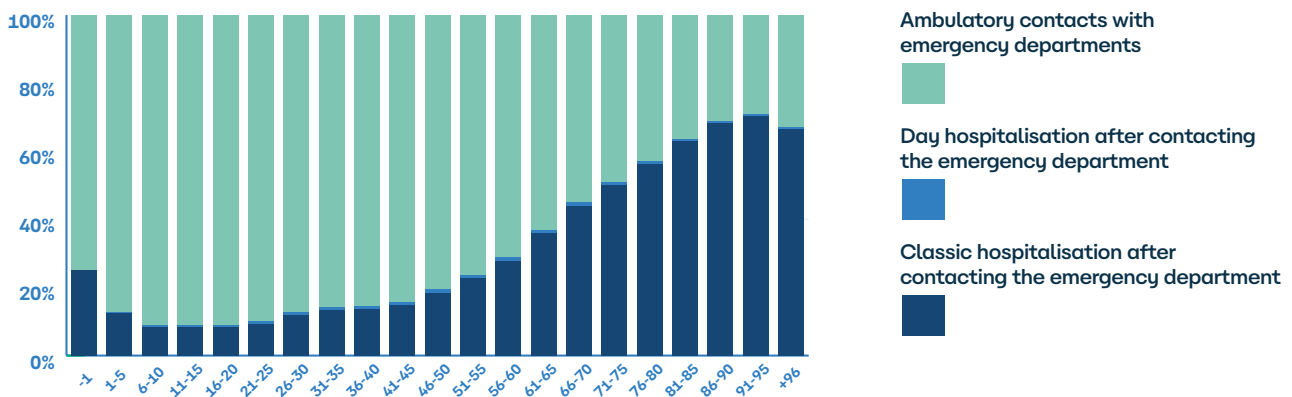
Emergency admission

The following graphs describe hospitalisations following an emergency department visit, compared to ambulatory contacts with the emergency department, without being admitted.

Breakdown according to age

In the case of children, adolescents and young adults, contact with the emergency department only results in admission in 1 out of 10 cases in 2021. Only children under 1 year of age are admitted to the hospital in a quarter of visits to the emergency department. This is twice as many as for children between the ages of 1 and 18. Among the elderly, however, hospitalisations following a visit to the emergency department are more frequent. After the age of 75, a contact with the emergency department is followed by classic hospitalisation in more than half of the cases. Day hospitalisation following a visit to the emergency department occurs only rarely.

Percentage of type of stay following a visit to the emergency department by category of age (2021)



Breakdown according to region

In Flanders, less use is made of emergency departments. Nearly 60% of stays in classic hospitalisation do not occur through the emergency department. About half of the contacts with a hospital involve ambulatory contacts with the emergency department in the Brussels Capital Region (51.3%) and in the Walloon Region (46.3%).

Percentage of stays per type and per region of the hospital after a passage at the emergency department (2021)

Brussels Capital Region



Flemish Region



Walloon Region



- Classic hospitalisation following contact with the emergency department
- Classic hospitalisation without contact with the emergency department
- Ambulatory contacts with the emergency department

Note: The stays in day hospitalisation represent a small proportion and are not included in the graph for the sake of readability.

The most common diagnoses

The graph below shows the number of stays (classic and day hospitalisation combined) for the ten main groups of diagnoses according to the ICD-10-CM classification⁸ for all ages.

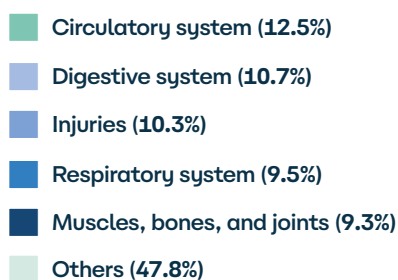
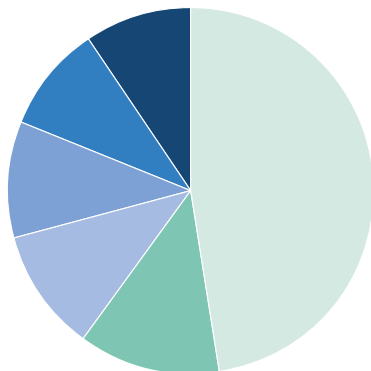
In the case of classic hospitalisation, the three most common reasons for admission are: admission due to circulatory system disorders, digestive system disorders and admission due to injury.

A quarter of day hospitalisations are related to chemotherapy and immunotherapy. Nearly one-fifth of day hospitalisations are due to disorders of the digestive system.

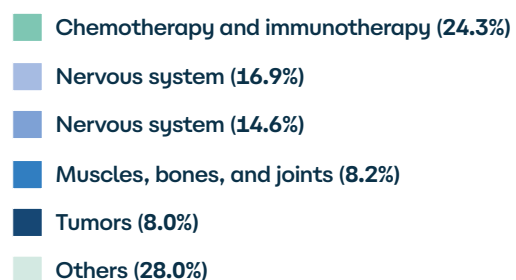
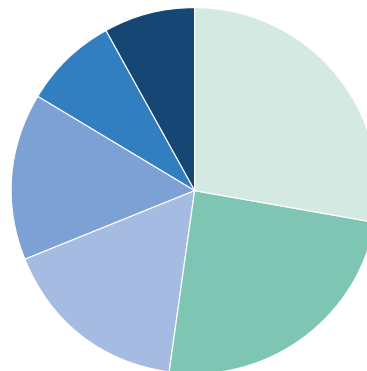


⁸ Chapters of ICD-10-BE, taking only chemo- and immunotherapy into account for chapter XXI. The other stays from this chapter were not included in the analysis (N=237,198). In addition, 10,475 stays not belonging to a chapter were not included in the selection.

Classic hospitalisation



Day hospitalisation



Learn more about the prevalence of diseases:

<https://www.health.belgium.be/fr/rhm-publications-Prevalence-des-tableaux-cliniques-en-milieu-hospitalier>

Nursing care

The chart below lists the 10 most common types of nursing care recorded in 2021. The various types of nursing care are grouped into 6 domains:

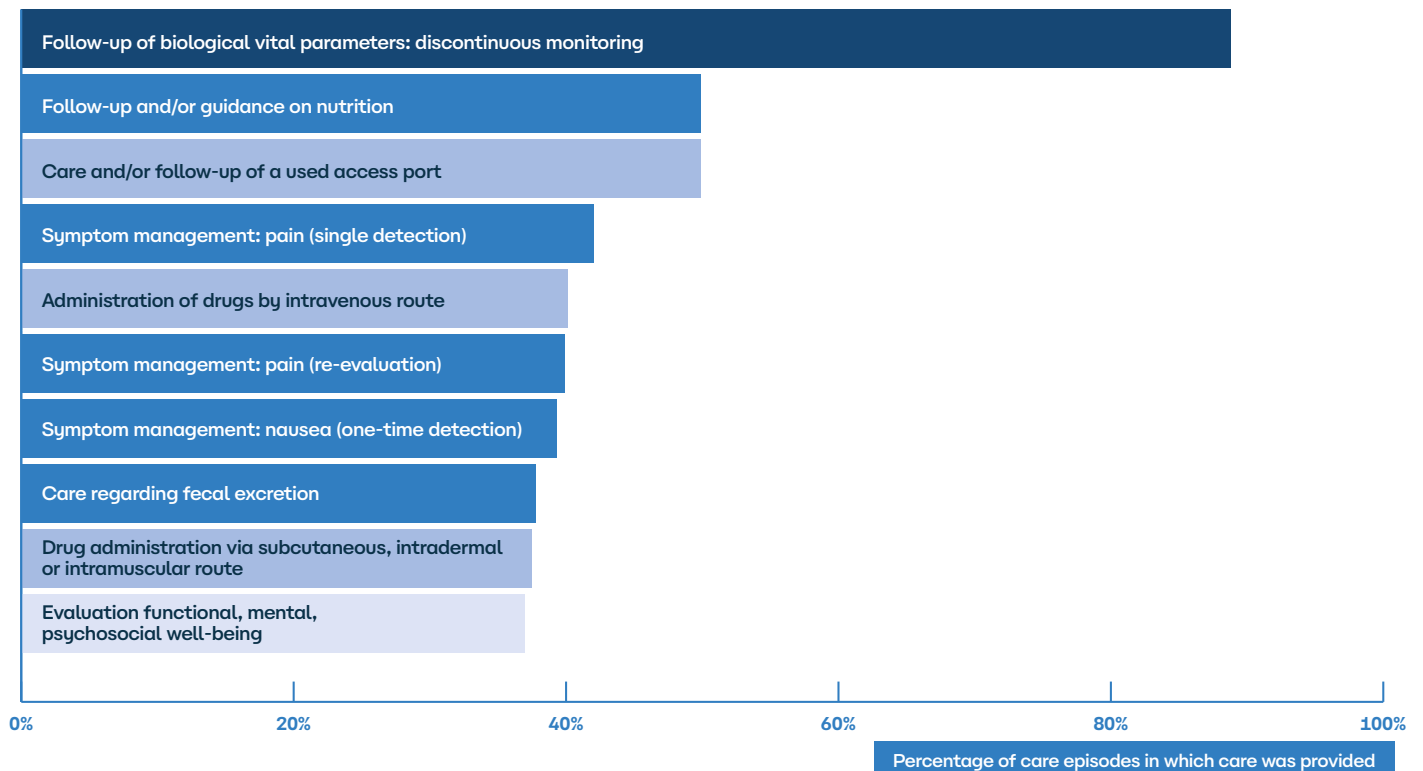
- **Domain 1:** Care for basic, physiological functions
- **Domain 2:** Care for complex, physiological functions
- **Domain 3:** Behaviour
- **Domain 4:** Safety
- **Domain 5:** Family and household
- **Domain 6:** Healthcare policy



The monitoring of biological and vital parameters is recorded in 90% of care periods. This nursing care focuses on detecting or preventing complications and involves tasks such as measuring body temperature, blood pressure or respiratory rate.

Five of the 10 most common types of care fall within domain 1, which groups all forms of nursing care that address the patient's basic needs.

10 most common nursing care in a care period in 2021



In second position on the chart are nursing activities related to feeding. In 60% of care periods, the patient is monitored while eating or is supported to eat. This includes activities such as evaluating food intake, advising mothers on breast and/or bottle feeding, or monitoring a patient who must remain sober.

Fourth, sixth and seventh place are occupied by three interventions aimed at promoting the patient's physical comfort, such as pain management. These types of care are performed in about 40% of care periods.



Pain: A focal point for better care

Pain recording and evaluation are essential aspects of nursing care⁹. Nurses play a critical role in improving pain management. Pain has a significant impact on patients' health and well-being. Research has shown that inadequate pain management leads to poor wound healing, thromboembolic events, pulmonary complications, longer stays in intensive care units and hospitals stays and an increased risk of developing chronic pain.

Unfortunately, 80% of post-operative patients still experience pain, according to the surveillance report by the Care Inspectorate. In addition, not every patient record meets the minimum requirement of two pain records per day. It is also notable that pain scores are completed less consistently compared to other vital parameters such as blood pressure, pulse and temperature.

There are various reasons for these problems. On the one hand, pain is a relatively new vital parameter, so nurses may lack knowledge about pain management, the appropriate use of analgesics, assessing pain and misconceptions about opioids and addiction. On the other hand, patients report that they were not adequately made aware of the pain to be expected and of pain management.

To improve pain management, the following recommendations are made:

- Raise awareness of all aspects of pain issues among healthcare providers.
- Increase nurses' knowledge of symptoms, complications and interventions related to unmanaged pain by means of education programmes.
- Develop, implement and evaluate a scientific hospital-wide algorithm for pain management.
- Evaluate the level of satisfaction with pain management using Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores before and after implementation of the education programme and algorithm.

⁹ Source: Improving Patient Satisfaction With Better Pain Management in Hospitalized Patients The Journal for Nurse Practitioners Volume 13, Issue 1, January 2017, Pages e23-e27
https://www.departementwvg.be/sites/default/files/media/documenten/rapport_az.pdf

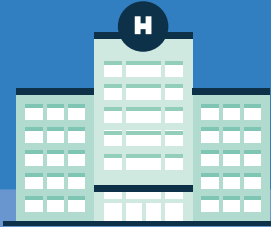
03

FUNDING

21,3

The turnover of the general hospitals amounted to approximately €21.3 billion in 2021.

→ p. 23



In January 2023, an FRB of €9,935,557,653 was provided for general hospitals.

→ p. 24

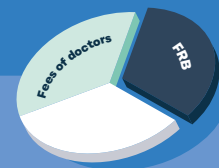
The FRB is allocated partly on the basis of fixed sums and partly on the basis of the justified activity of each hospital.

→ p. 24



The FRB has three main components: a budget for short-term credit charges (Part A2), a budget for operational costs (Part B) and a budget for the regularisation of previously allocated parts of the FRB (Part C).

→ p. 24



The Financial Resources Budget (FRB) and physicians' fees each account for one-third of the total turnover in 2021.

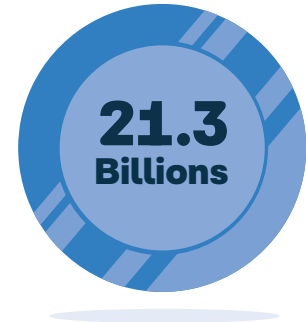
→ p. 23

FUNDING

Funding sources

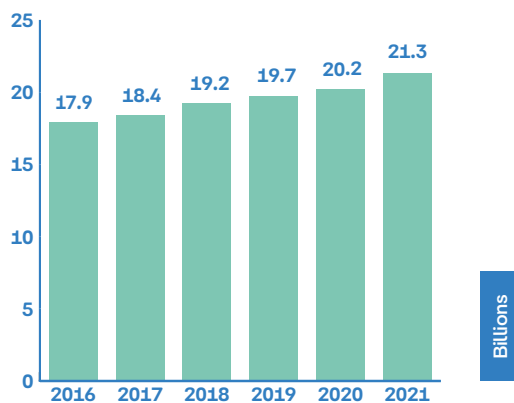
The general hospital sector represents a total turnover of €21.3 billion in 2021.¹⁰

The main sources of financing for hospitals are the Financial Resources Budget (FRB) (36.5%), the payments from the fees of doctors, dentists and certain categories of medical and paramedical staff (37.5%), the fixed sum contracts with NIHDI (RIZIV-INAMI) (4.4%), pharmaceutical and similar products (20.8%), room supplements (0.5%) and the additional products (0,2%).

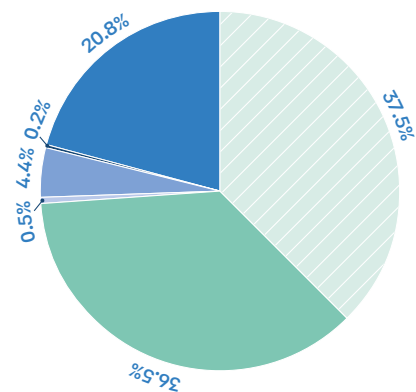


10 Source: Finhosta

Evolution of general hospital turnover



Breakdown of turn-over (2020)



- Pharmaceutical and assimilated products
- Fees of doctors
- Fixed sum contracts NIHDI
- Room supplements
- FRB
- Additional products

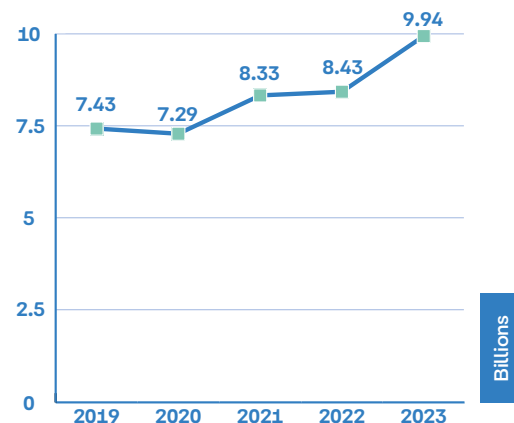
The Financial Resources Budget

Distribution of the budget

The financing of a hospital through the financial resources budget comes from the individual distribution of the overall hospital budget among all hospitals.¹¹ In January 2023, this overall budget was set at a maximum amount of €9,935,557,653 for the general hospitals. The FRB has increased by 34% over the past five years from 7.4 billion in 2019 to 9.9 billion in 2023.

11 The allocation is made on the basis of the procedures laid down in the Royal Decree of 25 April 2002 on the fixing and settlement of the financial resources budget of hospitals.

Evolution BFM general hospitals on Jan. 1



The FRB has three main components: a budget for short-term credit charges (Part A2), an operating costs budget (Part B) and a budget for the regularisation of post-financing of the various parts of the FRB (Part C). Hospital financing is mainly based on lump sums, real costs or fee-for-service services.

The components of the Financial Resources Budget		% (January 2023)
A2	Short-term credit charges	0.59%
B: Operational costs	B1 Common service charges	18.85%
	B2 Cost of clinical services	36.29%
	B3 Operating costs of medical-technical services NMR - Radiotherapy - PET	1.11 %
	B4 Recycling and fixed fees	15.42%
	B5 Operating costs of the hospital pharmacy	1.57%
	B6 Employee benefits expenses excluding FRB	1.16%
	B7 Costs related to university functions	1.93%
	B8 Costs related to the social nature of the patient population	0.32%
	B9 Social agreements expenses	17.00%
C: Corrections	C2 Catch-up amounts	5.90%
	C3 Partial recovery of room supplements	-0.13%

FRB in the spotlight



The **White Coat Fund** (le Fonds Blouses blanches) is financed via the B9 component within the FRB. It aims to improve employment opportunities and training for nurses and support staff. In this way, the effective time for patient care at the bedside can be increased. In January 2023, a sum of **€336 million** was allocated to general hospitals.

The **reform of day hospitalisation** has two goals: to encourage innovative techniques and to avoid unnecessary overnight hospital stays. Two financial actions are being undertaken to encourage this:

- On 1 January 2023, NIHDI's list of nomenclature codes related to surgical day hospitalisation was updated. The so-called **List A** contains **551 nomenclature codes or procedures**. Previously, this list included only 246 interventions. These procedures may take place in a surgical day hospital and are eligible for funding via the FRB. The expansion involves procedures such as gall bladder surgery, appendectomy or knee replacement, for example.
- **List B** will be reinstated from 2023 onwards. This is a list of 189 procedures that should be performed in a day hospital, such as the removal of varicose veins, circumcision or the removal of tonsils in a child. A hospital will only obtain reimbursement equivalent to a day admission for procedures on this list. If the patient does stay longer in the hospital, there will be no additional reimbursement for this via the FRB. This would then be regarded as **an improper stay**. This arrangement applies only to persons under the age of 75 and without additional healthcare problems. This list should ensure that hospitals have no interest in admitting patients for longer than necessary.

The federal government decided in 2020 to provide financial compensation for hospitals and healthcare providers in connection with the **COVID-19 pandemic**. To this end, advances totalling €2 billion were disbursed to general and psychiatric hospitals. The aim of granting the advances was to assist the hospitals in meeting their financial obligations, i.e. paying active staff members as well as paying invoices from suppliers and service providers on time. Final funding will be determined in 2023 based on the real impact of COVID-19 on each hospital.

Justified beds

In the case of general hospitals, funding is essentially based on patient-related activities. For each hospital, a 'justified activity' is determined, as a means to cover the cost of healthcare staff, nursing staff and the use of medical products.

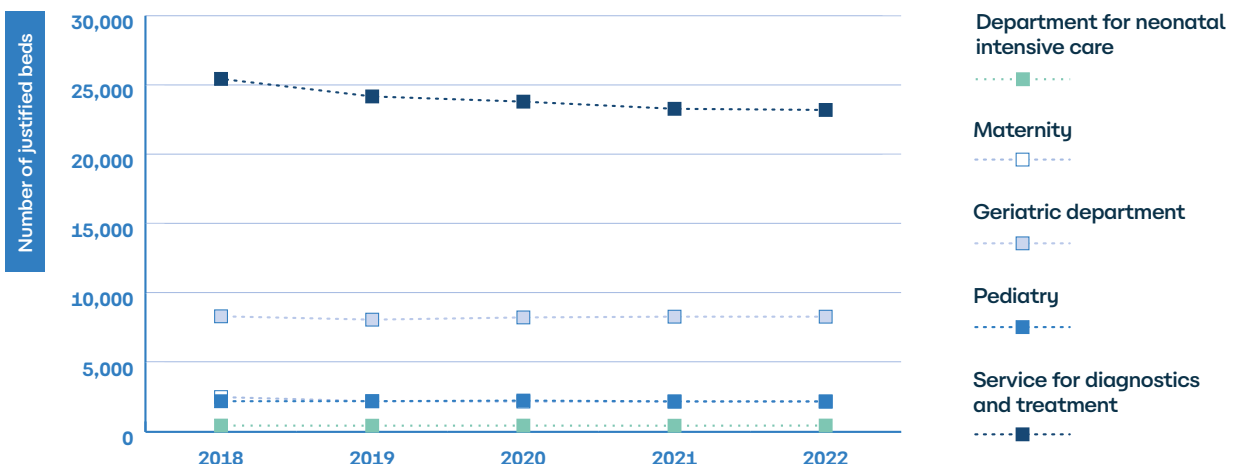
The justified activity is calculated based on the number of admissions in a hospital, weighted in accordance with the national average length of stay by pathology group. The calculation always takes into account the severity level of the patient. If the average length of stay in the hospital for a given patient group is shorter than the national average, it is advantageous to the hospital (because the hospital is funded for more nursing days than it has carried out). If the average length of stay for a patient group is longer than the national average, it is detrimental.

The total number of justified hospital days is divided by a normative occupancy rate multiplied by 365 in order to obtain the **number of justified beds** of a hospital.

The number of justified beds decreased by 6.7% over the past 5 years. The largest decrease can be observed in the case of maternity (-13.3%). This could be attributed to the project about 'Giving birth with a shortened hospital stay', in which the care provided before, during and after the hospital stay has been optimised.

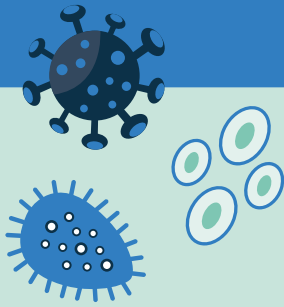


Evolution of the number of justified beds



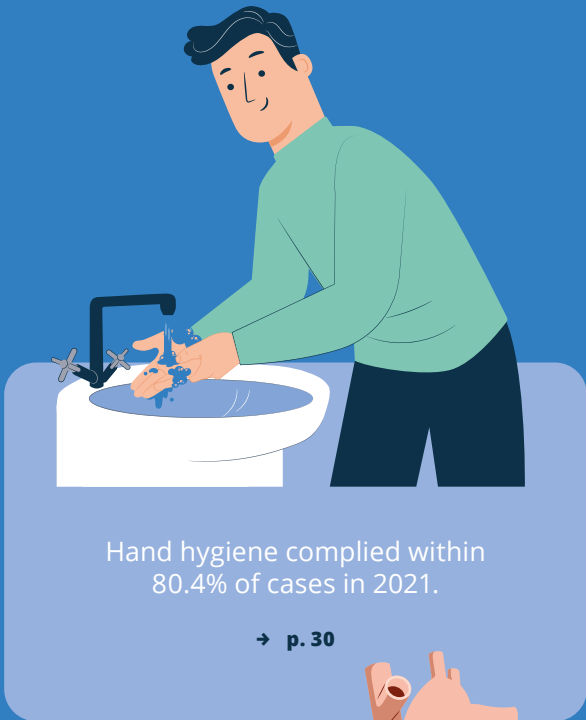
03

QUALITY AND INNOVATION



Avoiding antimicrobial resistance (AMR) through 'Infection prevention and control' (IPC) and 'Antimicrobial stewardship' (AMS).

→ p. 28



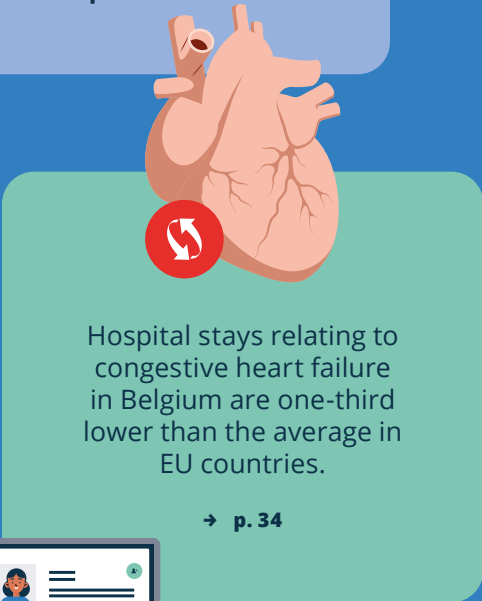
Hand hygiene complied with 80.4% of cases in 2021.

→ p. 30



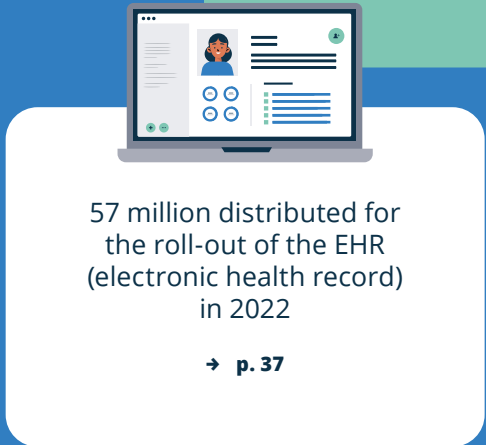
24 HOST teams set up in 2021 and 2022.

→ p. 31



Hospital stays relating to congestive heart failure in Belgium are one-third lower than the average in EU countries.

→ p. 34



57 million distributed for the roll-out of the EHR (electronic health record) in 2022

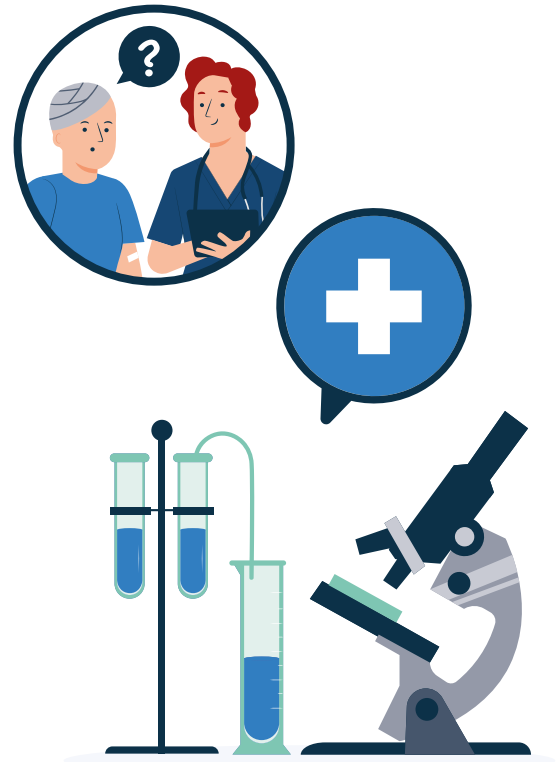
→ p. 37

QUALITY AND INNOVATION

Quality of care covers a wide range of elements: the choice of the most appropriate technologies and treatments for the patient, the efficacy of care, an environment that guarantees patient safety, patient satisfaction, the integrated nature of interventions to ensure better continuity, etc. To act on these different levels, various initiatives are being taken by different federal authorities and scientific institutions (FPS Public Health, NIHDI, KCE, Sciensano, the Superior Health Council and FAMHP, etc.) but also at the level of federated entities within the framework of private initiatives (scientific associations, accreditation bodies, etc.), but also on an international level (OECD, EU, WHO, etc.). These initiatives take various forms, including the creation of guidelines, awareness campaigns, the development of quality indicators and monitoring on the ground, benchmarking, peer review and the provision of a system of financial incentives, namely Pay for Performance.

This chapter highlights, by way of an example, a number of initiatives that have been taken in recent years to measure and improve the quality of healthcare in Belgium.

Innovation and digitisation have also become indispensable factors in the healthcare system of today. They transform processes and improve patient care in unparalleled ways. This chapter added a section on the importance and implementation of the electronic health record (EHR), which is an example of technological innovation in healthcare.



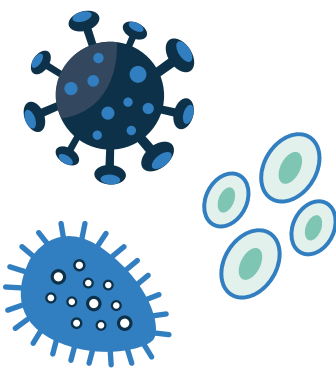
Antimicrobial resistance

Context

Antimicrobial resistance (AMR) is one of the greatest threats to public health today and in the future. Bacteria can become insensitive to antibiotics. The antibiotics can then no longer kill or inhibit bacteria.

The European Antimicrobial Resistance Surveillance Network (EARS-Net)¹² assessed the health burden of infections with antibiotic-resistant bacteria in the EU/EEA. In Belgium, the number of infections with antibiotic-resistant bacteria in 2020 was estimated to be 13,991. The estimated number of deaths due to infections with antibiotic-resistant bacteria in 2020 was estimated at 616.

In the most pessimistic scenario, there will be no effective antibiotics in the future, surgical procedures will become much riskier and treatable infections will once again become deadly.



¹² <https://www.ecdc.europa.eu/en/about-us/networks/disease-networks-and-laboratory-networks/ears-net-data>

That is the reason why, in line with ongoing initiatives on antibiotics, a national 'One World, One Health' action plan was launched to combat AMR. Indeed, an intersectoral and multidisciplinary approach remains necessary to ensure the rational use of antimicrobials. The AMR National Action Plan focuses on judiciously reducing and improving the use of antimicrobials (and antibiotics in particular), in order to prevent the development and spread of resistant microbes in humans, animals, plants and the environment. In hospitals, antimicrobial resistance is being fought by means of programmes such as Infection Prevention and Control (IPC) and Antimicrobial Stewardship (AMS), with the aim of maximising the prevention of infection transmission and supporting and encouraging the judicious use of antibiotics.

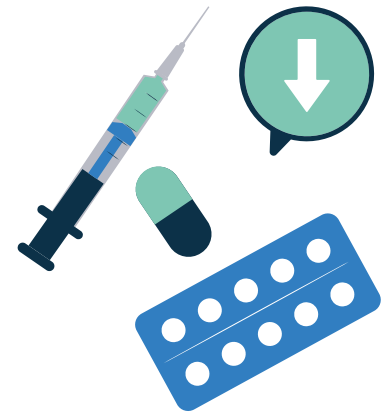


Learn more about the National Action Plan:

<https://www.health.belgium.be/en/belgian-one-health-national-action-plan-fight-against-antimicrobial-resistance-2020-2024>

Monitoring the use of antibiotics

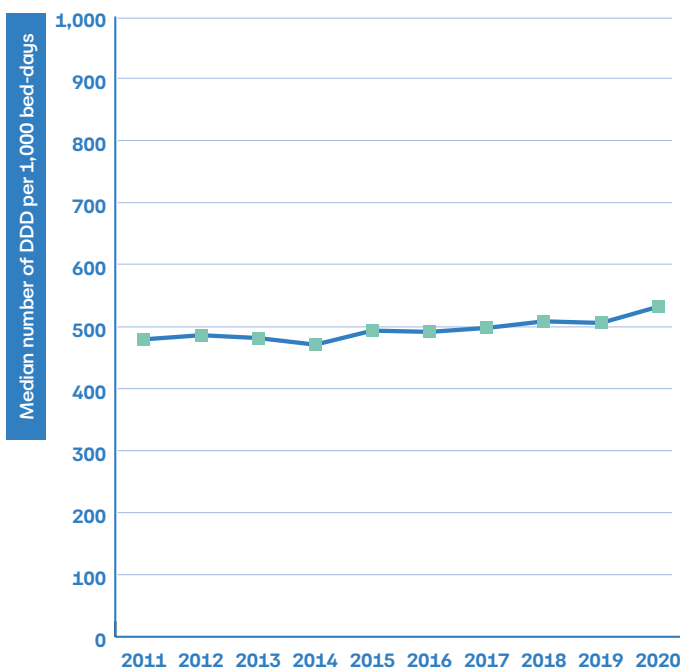
Sciensano has developed an accessible online platform where you can see how the use of antimicrobials, especially the most commonly used ones, is evolving in Belgian general acute hospitals¹³. The consumption of antibacterial agents for systemic use, measured in daily doses (DDD) per 1,000 in-patient days, shows a slightly upward trend, while the use of these agents per 1,000 stays shows a slight decrease until 2019, with an increase in 2020¹⁴.



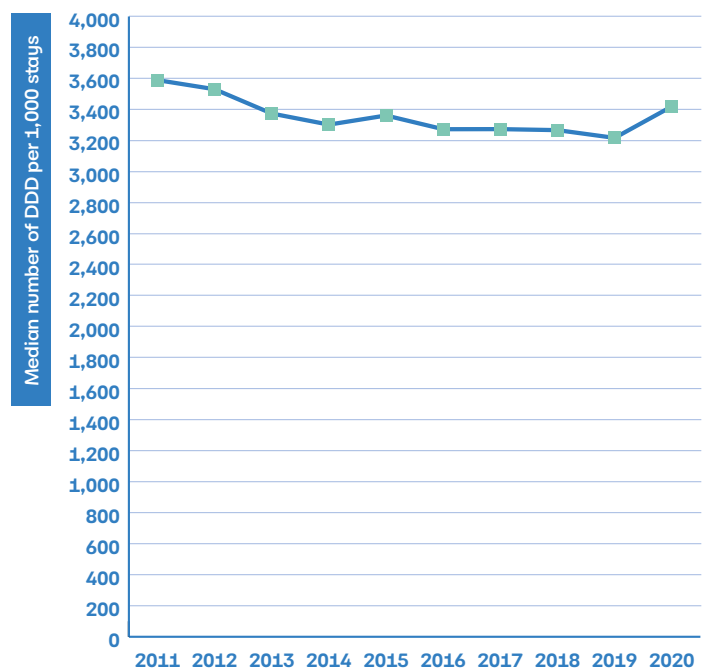
¹³ Source: <https://www.healthstat.be/#/main>

¹⁴ Selection of antibacterial agents for systemic use was performed on the basis of ATC code J01. Only consumption in Belgian acute hospitals excluding psychiatric services and day hospitalisations was taken into account.

Evolution of the consumption of antibacterial agents for systemic use expressed as the number of DDD per 1,000 bed-days



Evolution of the consumption of antibacterial agents for systemic use expressed as the number of DDD per 1,000 stays



The decreasing trend can possibly be explained by a change in the epidemiological situation in which more admissions (and therefore a larger denominator), lead to a decrease when antibiotic use is expressed as DDD per 1,000 admissions. On the other hand, a shorter length of stay (with fewer bed days and therefore a smaller denominator) may contribute towards an upward trend when antibiotic use is expressed as DDD per 1,000 bed days. Although current figures provide a good estimate of antibiotic use in Belgian hospitals, more detailed research is needed.

ESAC-Net's online platform also allows antibiotic use to be compared with that of surrounding countries¹⁵. At 1.4 DDD per 1,000 inhabitants per day, (DID), Belgium scored lower than the European average of 1.5 DID and was below France at 1.7 DID in 2021. From 2012 to 2021, Belgian hospitals reduced the absolute use of antimicrobials by 17%, the largest decrease having taken place between 2019 and 2020. Despite this decrease, the prescription pattern in Belgian hospitals remains higher than in Dutch hospitals (0.7 DID in 2021).

The use of broad-spectrum antibiotics in Belgium accounted for 31% of total antibiotic use in the hospital sector in 2021. However, this percentage varies widely between different hospitals. It is important to maintain the commitment to prescribe antibiotics responsibly, based on guidelines and diagnostic results. This will ensure that broad-spectrum antibiotics are used carefully for complex cases. The role of the infectiologist is crucial in this regard.

15 <https://www.ecdc.europa.eu/en/antimicrobial-consumption/surveillance-and-disease-data/database>



Learn more? Read the BELMAP report!

<https://www.health.belgium.be/en/belmap-2022>

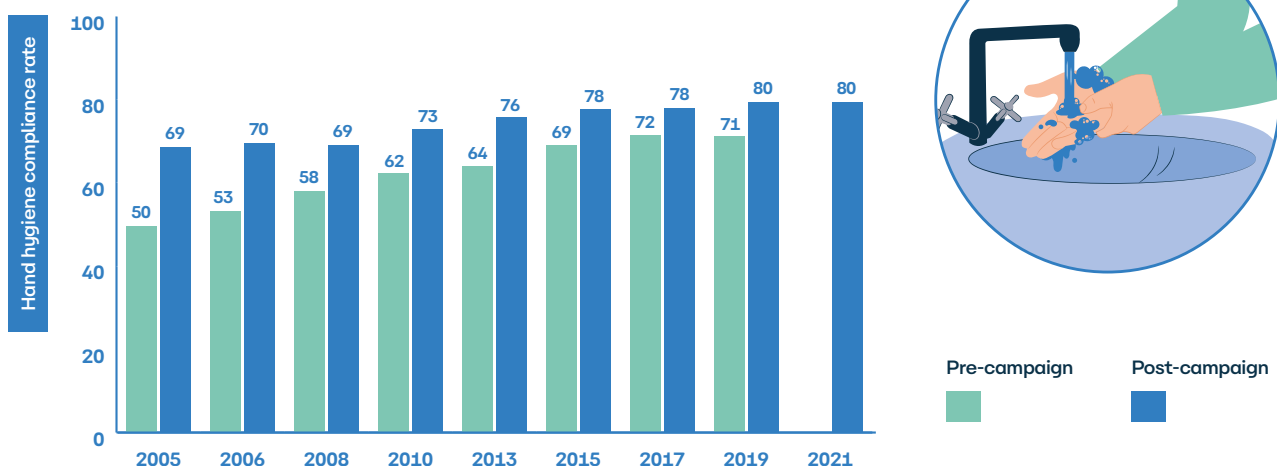
Infection prevention

Compliance with hand hygiene by healthcare providers is considered the most important factor in preventing the transmission of healthcare-associated infections among patients. Since 2005, hand hygiene campaigns have been organised in Belgian hospitals by the FPS Public Health, in collaboration with Sciensano, to raise awareness of good practices among staff, patients and visitors and to promote hand disinfection.

In the period from 2005 up to and including 2019, we can consistently see a clear effect of the campaign to promote hand hygiene compliance. What is more, we can also observe an upward trend over time.

In 2021, the 9th campaign on hand hygiene was launched. That campaign did not involve a pre-campaign measurement. After the campaign, we can see that in 80.4% of measured situations, the rules concerning hand hygiene were followed.

Evolution in following the guidelines on hand hygiene (%)



Pre-campaign



Post-campaign



The ninth campaign focused on improving compliance for the following indications:

- Hand hygiene in venous/arterial contact (79.3% after the campaign in 2021 vs. 80% in 2019)
- Hand hygiene for urinary tract contact (82.7% after the campaign in 2021 vs. 87.9% in 2019)

As with previous campaigns, nurses achieved the best post-campaign results (87%) compared to other healthcare providers.

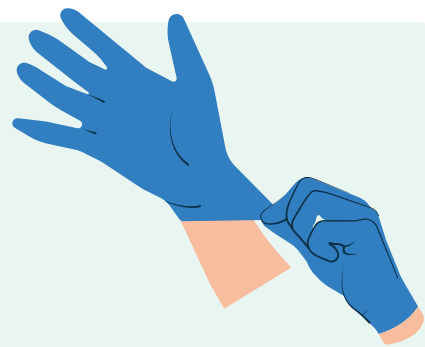


Want to know more about the results?

https://www.health.belgium.be/sites/default/files/sciensano_resultats_9e_campagne_nationale_hdm_2020-2021_version1.0.pdf

“Use gloves rationally – this is essential”

is the theme of the 10th Hospital Hand Hygiene campaign in 2023. The removal of contaminated gloves is a high-risk operation, so the rational and proper use of sterile and non-sterile gloves was chosen as the theme.



Would you like to know more?

<https://www.health.belgium.be/fr/sante/prenez-soin-de-vous/influences-de-lenvironnement/hygiene-des-mains>



Would you like to know more?

www.noso-info.be

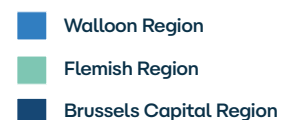
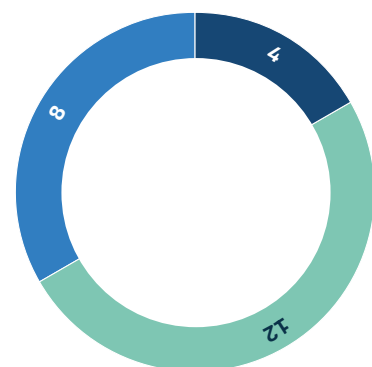
Hospital Outbreak Support Teams (HOST)

The FPS Public Health, Food Chain Safety and Environment has launched Hospital Outbreak Support Teams (HOST) as pilot projects to strengthen Infection Prevention and Control (IPC) and Antimicrobial Stewardship (AMS) teams in hospitals. With these teams, the FPS also aims to increase the availability of IPC and AMS expertise for nursing homes and primary care providers.

The HOST pilot projects operate by means of two complementary axes:

- a local-regional approach focusing on resource sharing and cooperation among hospitals within a locoregional network;
- a cross-cutting approach with knowledge transfer between all partners involved.

Number of HOST projects by region



'24 HOST pilot projects were launched in 2021 and 2022 in Belgium'

24 HOST pilot projects were launched in 2021 and 2022, of which 4 in the Brussels-Capital Region, 12 in the Flemish Region and 8 in the Walloon Region, based on a submitted and approved project proposal. Regional hospital networks designated a coordinating hospital that signed an agreement with the FPS Public Health, Food Chain Safety and Environment.

The hospital networks have established HOST teams consisting of people with expertise in infectious diseases, medical microbiology, clinical pharmacy and infection prevention and control.

The activities of 2022 and beyond will be analysed based on narrative progress reports on the following topics:

- Preparation of local IPC/AMS guidelines, tools and procedures;
- Education and training;
- Surveillance, monitoring and feedback;
- Implementing multimodal strategies to improve IPC and AMS.

Special attention was given to surveillance, with a budget of €120,000 per network allocated in 2022 to improve comprehensive epidemiological surveillance, analysis and feedback of data on antimicrobial use and healthcare-associated infections in participating hospital networks.

The integration of the HOST teams into the existing IPC and AMS structures is accompanied by challenges but is systematically improving thanks to the involvement of key actors in the hospitals, discussions in regional and national platforms and efforts to improve the interoperability of the IPC, AMS and AMR databases within the network.

A key concept of the HOST projects is the cross-fertilisation of experiences and lessons learned from the various HOST projects. In this regard, an intervision day was organised in October 2022. On the occasion of this event, several ongoing projects of the HOST teams were presented and successes, failures and lessons learned were shared among the teams. The step-by-step approach enables teams to grow and progress in the complex landscape and diverse realities of IPC and AMS in our healthcare system. Similar intervision days will also be organised in 2023 and 2024.



Learn more?

<https://organesdeconcertation.sante.belgique.be/fr/projet-pilote-hospital-outbreak-support-teams-host>

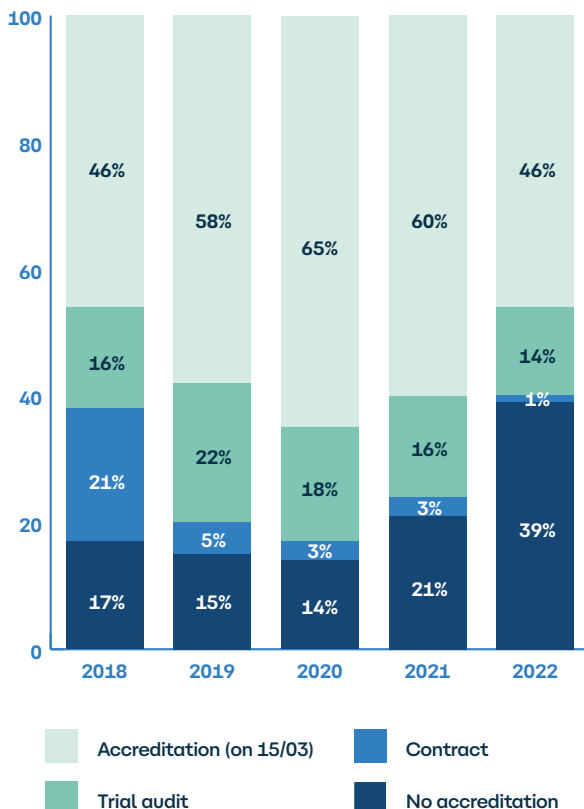
Pay for Performance

The Pay for Performance programme (P4P) was launched in 2018 for general hospitals as part of the hospital financing reform. The goal of this programme is to financially reward hospitals that achieve good results on a set of hospital-wide and pathology-related structure, process and outcome indicators. These indicators include obtaining ISQua accreditation certification and implementing a patient safety management system. It also focused on oncology indicators, such as the correct and complete transmission of data regarding the clinical and pathological stage of tumours, and mortality indicators. In recent years, there has been more of a focus on patient experiences. Hospitals receive a financial incentive based on the scores they achieve for the indicators and for the justified activity (the number of accredited beds).

The ISQua (International Society for Quality in Healthcare) accreditation quality indicator has been part of the P4P programme since its inception in 2018. To achieve ISQua accreditation, the hospital is assessed by an external, independent organisation to determine whether it is providing quality and safe care to patients. Obtaining accreditation certification requires a great deal of effort from the hospital.

Hospitals are financially rewarded in P4P, both for achieving ISQua accreditation certification and for the preparation process for hospital-wide accreditation.

Evolution percentage of hospitals by stage of accreditation



‘Increase from 17 to 39 hospitals without an ISQua accreditation in the period from 2018 to 2022.’

In the P4P programme in 2018, 46 hospitals were ISQua accredited. By 2020, there were 65. Starting in 2021, however, there was a noticeable decline. More and more (Flemish) hospitals are choosing not to reaccredit. Between 2020 and 2021, 4 Flemish hospitals decided to stop their ISQua accreditation process. Between 2021 and 2022, that number rose to 15 hospitals, almost a fourfold increase. In Brussels, between 2020 and 2021, only 1 hospital decided to no longer participate in ISQua accreditation. In Wallonia no hospital has discontinued ISQua accreditation. On the contrary, the number of Walloon hospitals with ISQua accreditation increased from 4 hospitals in 2018 to 13 hospitals in 2022.

Healthcare Quality and Outcomes programme

The OECD's Healthcare Quality and Outcomes programme (HCQO) aims to enable international comparisons of healthcare quality. Indicators are developed and reported for that purpose.

Among other things, this programme examines hospitalisations following four common chronic conditions: asthma, chronic obstructive pulmonary disease (COPD), congestive heart disease and diabetes.

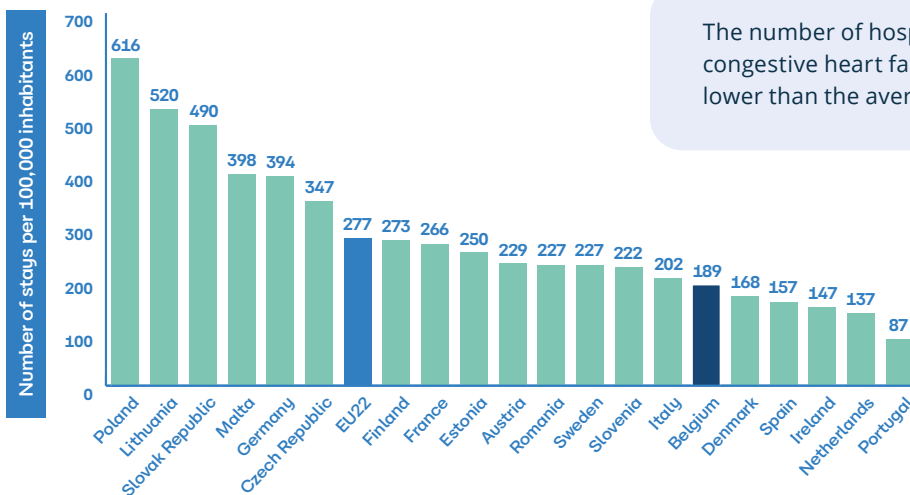
For these conditions, a well-functioning primary care system can avoid costly and undesirable hospitalisations¹⁶.

Below, we compare the number of hospitalisations for congestive heart disease and diabetes across a number of European countries¹⁷. The number of admissions per 100,000 of the population gives an indication of the functioning of the primary care system. For these 2 diseases, a large variation can be observed across European countries.

16 OECD (2020), Realising the Potential of Primary Health Care, OECD Health Policy Studies, OECD Publishing, Paris, <https://doi.org/10.1787/a92adee4-en>.

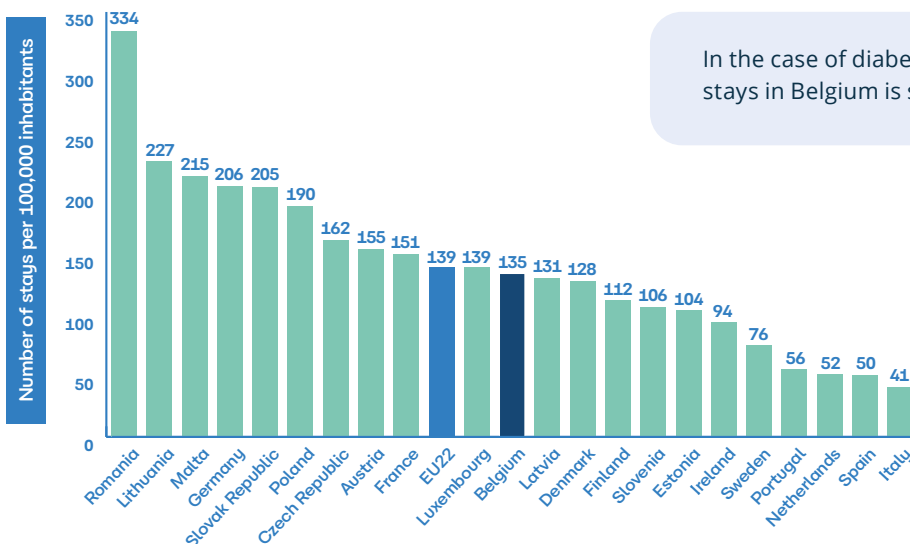
17 Source: OECD, Health Statistics 2022

Number of hospital stays related to congestive heart failure per 100,000 population (2019 or latest year available)



The number of hospital stays relating to congestive heart failure in Belgium are one-third lower than the average in EU countries.

Number of hospital stays related to diabetes per 100,000 population (2019 or latest available year)



In the case of diabetes, the number of hospital stays in Belgium is similar to the EU average.

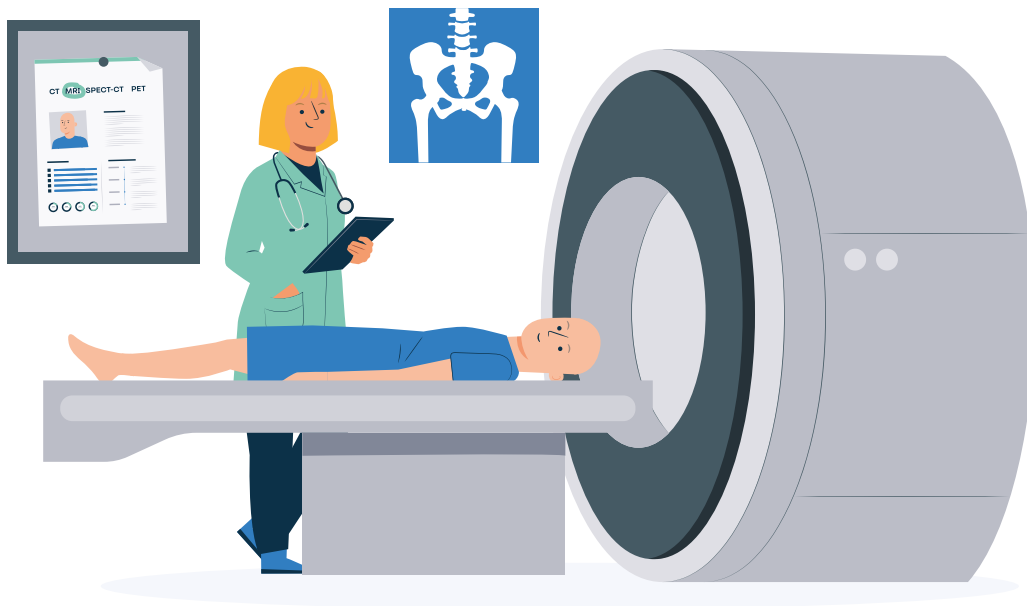
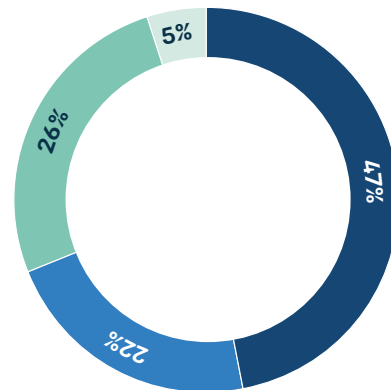
Medical imaging

What is medical imaging?

'Medical imaging' is a collective term for various techniques for obtaining an image of the body. In hospitals, medical imaging is used to diagnose, detect and monitor diseases at an early stage, support medical interventions and evaluate treatments.

We can distinguish the following 'heavy' medical imaging devices: CT, MRI, SPECT-CT and PET. These techniques all have their strengths and weaknesses. There is therefore no generally applicable technique. What is a good imaging technique for one disorder is not always the same for another.

Number of heavy medical imaging devices in Belgium (01/01/2023)



Learn more?

<https://www.health.belgium.be/fr/publications-imagerie-medicale>

Use of medical imaging in Belgium and Europe

Medical imaging has played a major role in the enormous progress made in modern medicine and plays an ever greater role in our healthcare. However, there is also a downside to the frequent use of techniques such as CT scans, namely the increased exposure to ionising radiation. Compared with the average number of examinations per 1,000 inhabitants in EU countries, a large number of CT examinations are performed in our country¹⁸.

Number of examinations per 1,000 inhabitants for CT and MRI scans in the EU in 2019

In 2019, the use of CT examinations was about 40% higher in Austria, France, Luxembourg and Belgium than the average use in EU countries. In the case of MRI, we note that the number of examinations per 1,000 inhabitants in our country (98) is noticeably lower than in France (123), Austria (148) and Germany (150).

Actions for the improved use of medical imaging

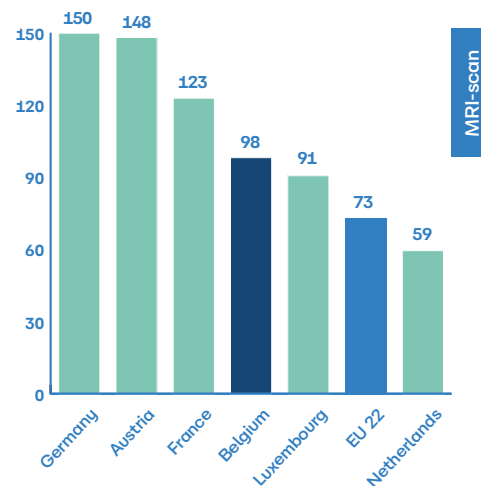
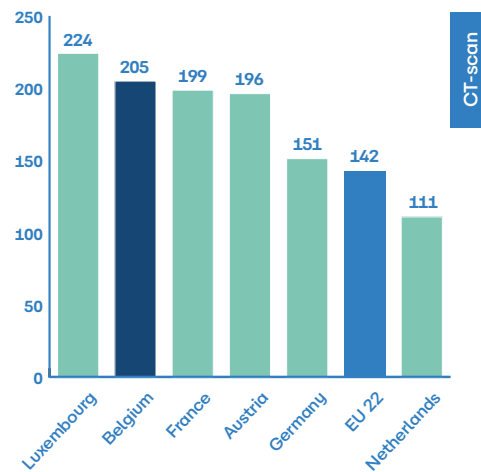
To ensure that medical imaging is used more effectively, the FPS is launching several actions, both for doctors and for the general public.

For example, NIHDI, the FPS Public Health and the Belgian Medical Imaging Platform (BELMIP) are working together on the 'Prescription Search Support for Radiology (PSSR)' project. The goal of this project is to integrate evidence-based decision rules into physicians' electronic prescribing environment so that they are supported in a user-friendly way when choosing whether a radiological examination is necessary and, if so, which imaging technique will best help the patient.

Citizens will also be informed about situations in which a scan is often unnecessarily demanded. An example is back pain. CT scans of the lower back are still too often prescribed when it is not always indicated, which in turn contributes to the high radiation burden on the population and weighs heavily on the healthcare budget.

By means of the campaign 'No scan without a plan' we want to create awareness so that citizens know that in case of lower back pain, it is best not to put unnecessary pressure on their doctor to obtain a radiological examination. Indeed, many patients feel that if no examination is prescribed, their complaint cannot be investigated properly or even taken seriously and this leads to unnecessary examinations. The patient's question stems from anxiety. It is therefore important for citizens to know that even without medical imaging, a plan of action can be created that focuses on what really helps, which is to keep moving. In exceptional cases where a radiological examination is still appropriate, the physician will always frame this examination within a larger plan of action. Hence the campaign's slogan: 'No scan without a plan'.

Number of examinations per 1,000 population CT and MRI in EU in 2019



¹⁸ Source: OECD, Health Statistics 2022; Eurostat Database



Learn more? Check with your doctor or specialist or surf to:

<https://www.pasderayonssansreflexion.be>

Electronic health record

An electronic health record (EHR) is a longitudinal record of a patient's health information that is completed following contact with healthcare actors. The record ideally includes data from all clinicians involved in a patient's care.

For many years, the Belgian government has recognised the need for the widespread deployment of EHRs so that information can be easily shared between healthcare providers and organisations. A Belgian eHealth action plan was launched several years ago. One of the action items relates to the roll-out of EHRs in hospitals.



To learn more about the eHealth Action Plan, visit:

<https://www.ehealth.fgov.be/fr/page/roadmap-4.0>

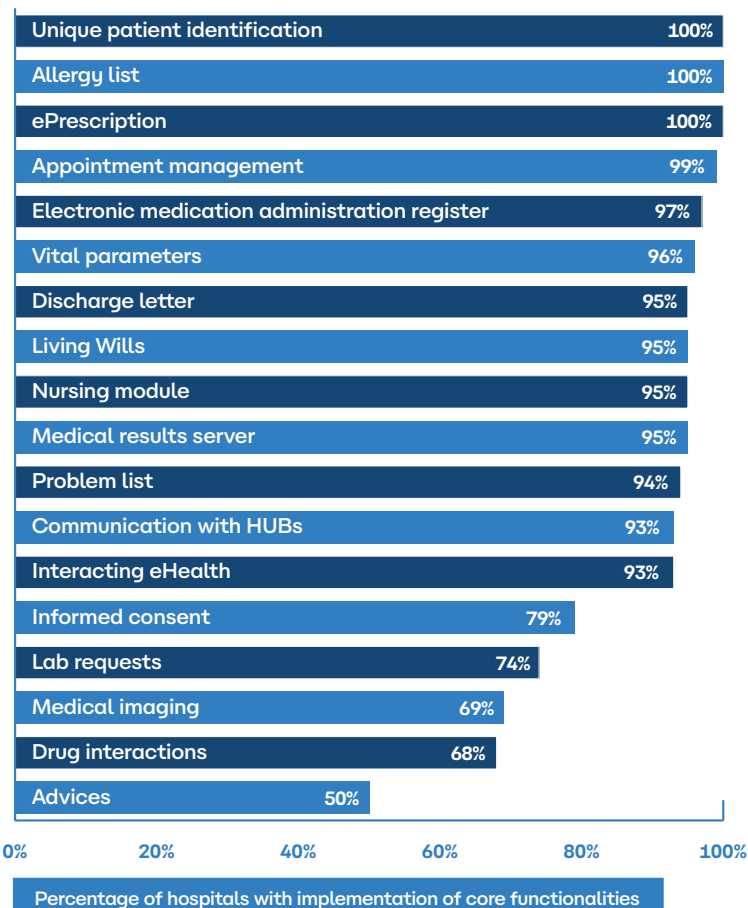
The goal is to achieve an integrated EHR in which:

- messages are exchanged between systems;
- different functions are implemented within one integrated system.

In any case, core functionalities should be integrated and data should be captured and managed according to the Original Source Principle. This means that the information is not duplicated and is retrieved from the original source.

The chart below shows an overview of the core functionalities of an electronic health record and the level of implementation by December 2022 in general hospitals.

Core functionality rollout in general hospitals (%)



Effective data exchange is necessary not only to promote quality of care but also to accelerate the digital transformation of healthcare. This is relevant in order to solve two key bottlenecks:

- the large record-keeping burden of healthcare providers
- a lack of information that healthcare providers and patients now face.

Moreover, the transformation towards a more data-driven organisation is crucial when it comes to enabling innovative solutions based on clinical decision-making support, machine learning and artificial intelligence.

A programme of financial incentives was established to promote the roll-out of EHRs. To that end, a number of Belgian Meaningful Use Criteria were defined in consultation with hospitals. In July 2022, €57 million was distributed amongst the country's general hospitals. The budget was distributed according to the level of use of the various functionalities in the EHR.

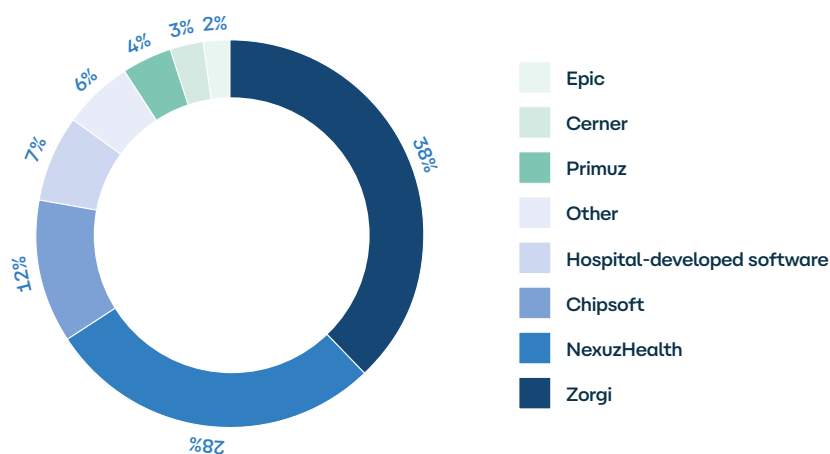
In most areas, retrieving, aggregating and converting information into valuable insights is still a lengthy and manual process. This is due to various obstacles related to data exchange between information systems of different providers. Interoperability is important, partly because, in practice, patients often consult multiple healthcare providers during a care pathway and because information exchange between healthcare providers is crucial for optimal treatment.

The chart below shows the share of software providers for EHR as a function of the size of the hospitals¹⁹. ZORGI and Nexuzhealth are currently the largest providers, providing software to two-thirds of the market.

¹⁹ The size of hospitals is determined by the number of accredited beds.



Share of software providers for EHR retrieval as a function of hospital size



Learn more about quality initiatives:

- [BeCare Magazine](#)
- [Belgian Antibiotic Policy Coordination Committee \(BAPCOC\):](#)
 - <https://consultativebodies.health.belgium.be/en/advisory-and-consultative-bodies/commissions/BAPCOC>
 - <https://www.health.belgium.be/nl/gezondheid/zorg-voor-jezelf/omgevingsinvloeden/handhygiene>
 - <https://www.ubentingoedehanden.be/en>
 - <https://www.gebruikantibioticacorrect.be/en>
- [Development-oriented care](#)
- [Initiative for baby-friendly hospital](#)
- [Patient safety](#)
- [Guidelines for best practices in medical imaging](#)
- [Belgian Quality in Transfusion \(Be-Quint\)](#)

- www.zorgkwaliteit.be
- www.PAQS.be

- [OECD](#)
- [World Health Organization](#)





Health
Food Chain Safety
Environment