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Health system review

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Health Systems in Transition

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Preface

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each profile is produced by country experts in collaboration with the Observatory's research directors and staff. In order to facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a profile.

HiT profiles seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries.

Compiling the profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including the World Health Organization (WHO) Regional Office for Europe European Health for All database, national statistical offices, Eurostat, the

Organisation for Economic Co-operation and Development (OECD) Health Data, the International Monetary Fund (IMF), the World Bank, and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

A standardized profile has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. The HiT profiles can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to: info@obs.euro.who.int.

HiT profiles and HiT summaries are available on the Observatory's web site at www.euro.who.int/observatory. A glossary of terms used in the profiles can be found at the following web page: www.euro.who.int/observatory/glossary/toppage.

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The current series of HiT profiles has been prepared by the research directors and staff of the European Observatory on Health Systems and Policies. The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Greece, Norway, Slovenia, Spain and Sweden, the Veneto Region of Italy, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

The Observatory team working on the HiT profiles is led by Josep Figueras, Director, and Elias Mossialos, Co-Director, and by Reinhard Busse, Martin McKee, Richard Saltman, heads of the Research Hubs. Technical coordination is led by Susanne Grosse-Tebbe.

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The data used in this report are based on information available in January 2007.

List of abbreviations and glossary

Abbreviation	Dutch and French term	English term
AIDS	Verworven immunodeficiëntiesyndroom Syndrome d'immunodéficience acquise	Acquired Immune Deficiency Syndrome
APR-DRG	–	All Patients Refined Diagnosis Related Groups
ATC	Anatomisch Therapeutisch Chemisch Classificatie Systeem Système de Classification Anatomique, Thérapeutique et Chimique	Anatomical Therapeutic Chemical classification
BMI	Indice de masse corporelle	Body Mass Index
CLPS	Centres Locaux de Promotion de la Santé	Local Centres for Health Promotion
CIS	Gemenebest van Onafhankelijke Staten Communauté des États indépendants	Commonwealth of Independent States
CMDS	Minimale Klinische Gegevens Résumé Clinique Minimum	Clinical Minimum Data Set
CSSD	Centres de Coordination de Soins et Services à Domicile	Coordination Centres for Home Care and Services
CT	–	Computer Tomography
CTG-CRM	Commissie Tegemoetkoming Geneesmiddelen Commission de Remboursement des Médicaments	Commission for Reimbursement of Pharmaceuticals
DALE	–	Disability-adjusted life expectancy
DGEC-SECM	Dienst voor Geneeskundige Evaluatie en Controle Service d'évaluation et de contrôle médicaux	Department for Medical Evaluation and Control
DRG	–	Diagnosis Related Groups
EU	Europese Unie Union Européenne	European Union
EU15	–	Fifteen countries of the European Union before the expansion of May 2004

EU25	–	Twenty five countries of the European Union after the expansion of May 2004
EU27	–	Twenty seven countries of the European Union after the expansion of May 2004 and January 2007
FMDS	Minimale Financiële Gegevens (MFG) Résumé Financier Minimum (RFM)	Financial Minimum Data Set
FPS	Federale Overheidsdienst (FOD) Service Public Fédérale (SPF)	Federal Public Service
FAGG-AFMP	Federaal Agentschap voor Geneesmiddelen en Gezondheidsproducten Agence fédérale des Médicaments et des Produits de Santé	Federal Pharmaceuticals and Health Products Agency
GDP	Bruto Binnenlands Product (BBP) Produit Intérieur Brut (PIB)	Gross Domestic Product
GDT-SISD	Geïntegreerde Diensten voor Thuisverzorging Services Intégrés de Soins à Domicile	Integrated Services for Home Care
GMD-DMG	Globaal Medisch Dossier Dossier Médical Global	Global Medical File
GP	Huisarts Médecin généraliste	General Practitioner
HIV	Menselijk immuundeficiëntievirus Virus de l'immunodéficience humaine	Human Immunodeficiency Virus
HTA	–	Health Technology Assessment
IMA-AIM	Intermutualistisch Agentschap Agence Intermutualiste	Common Sickness Funds Agency
KCE	Federaal Kenniscentrum voor de Gezondheidszorg Centre fédéral d'expertise des soins de santé	Belgian Health Care Knowledge Centre
K&G	Kind & Gezin	Child and Family
LOGO	Lokaal Gezondheidsoverleg	Local Health Network
LOK-GLEM	Lokale Kwaliteitsgroep Groupe Locaux d'Evaluation Médicale	Local Quality Group
MAF	Maximale Factuur Maximum à Facturer	Maximum Billing
MRI	Magnetische resonantie tomograaf Tomograph à resonance magnétique	Magnetic Resonance Imaging
MUG-SMUR	Mobiele urgentiegroep Service mobile d'urgence	Mobile Urgency Group
MRSA	–	Methicillin resistant *Staphylococcus aureus*
NMDS	Minimale Verpleegkundige Gegevens (MVG) Résumé Infirmier Minimum (RIM)	Nursing Minimum Data Set

OECD	Organisatie voor Economische Samenwerking en Ontwikkeling Organisation de Coopération et de Développement Economiques	Organisation for Economic Co-operation and Development
OTC	Zelfzorggeneesmiddel Médicaments de comptoir	Over the Counter
ONE	Office de la Naissance et de l'Enfance	Birth and Childhood Organization
PET	Positron emissie tomograaf Caméra à emission de positrons	Positron Emission Tomography
PMDS	Minimale Psychiatrische Gegevens Résumé Psychiatrique Minimum	Psychiatric Minimum Data Set
PPP	Koopkrachtpariteit Parité de pouvoir d'achat	Purchasing Power Parity
RIZIV-INAMI	Rijksinstituut voor Ziekte- en Invaliditeitsverzekering Institut National d'Assurance Maladie-Invalidité	National Institute for Health and Disability Insurance
RSZ-ONSS	Rijksdienst voor Sociale Zekerheid Office National de la Securité Sociale	National Social Security Office
RVV-BIM	Rechthebbende Verhoogde Verzekeringstegemoetkoming Bénéficiaire de l'Intervention Majorée	Preferential Reimbursement Rate Beneficiary
SIT	Samenwerkingsinitiatieven in de Thuisverzorging	Cooperation Initiatives in Home Care
USD	–	United States Dollar
VIG	Vlaams Instituut voor Gezondheidspromotie	Flemish Institute for Health Promotion
WHO	Wereldgezondheidsorganisatie Organisation mondiale de la Santé	World Health Organization
WIV-ISSP	Wetenschappelijk Instituut Volksgezondheid Institut Scientific de Santé Public	Scientific Institute of Public Health

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Abstract

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of policy initiatives in progress or under development. HiTs examine different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems; describe the institutional framework, process, content and implementation of health and health care policies; and highlight challenges and areas that require more in-depth analysis.

The Belgian population enjoys good health and increasing life expectancy of 79.5 years (2004). Most Belgians have access to health care of high quality, financed mainly through social security contributions and taxation. Compulsory health insurance is combined with a mostly private system of health care delivery, based on independent medical practice, free choice of physician and predominantly fee-for-service payment.

Although the Belgian health system has not undergone any major structural reforms since the 1980s, various measures have been taken mainly to improve the performance of the health system. Reform policy in recent years has included: hospital financing reform; the strengthening of primary care; restricting the supply of physicians; promoting generic substitution for pharmaceuticals; increasing the accountability of health care providers and sickness funds; tariff cuts; and more emphasis on quality of care, equity, evidence-based medicine, health care technology, benchmarking with financial consequences and economic evaluations. Among patients and health care consumers there is a high degree of subjective satisfaction with the system. However, there is concern about the significant remaining inequalities in health within the Belgian population, the rise in health care expenditure, the high numbers of health care providers and the limited importance which is attached to preventive health care and health education.

Executive summary

Belgium is a federal state with a parliamentary form of government. There are three levels of government – federal, regional (three regions and three communities) and local (provinces and municipalities). The Belgian population reached 10.5 million in 2006. In 2004, life expectancy at birth was 82.4 years for females and 76.5 years for males. The main causes of death in Belgium are heart and vascular disorders, neoplasms, disorders of the respiratory system and unnatural causes of death (e.g., accidents and suicide).

The Belgian health system is mainly organized on two levels, i.e. federal and regional. Since 1980, part of the responsibility for health care policy has been devolved from the federal Government to the regional governments. Responsibility for health care policy is shared between the federal Government, exercised by the Federal Public Service Health, Food Chain Safety and Environment (former Ministry), the Federal Public Service Social Security, the National Institute for Sickness and Disability Insurance, and the Dutch-, French- and German-speaking community Ministries of Health. The federal Government is responsible for the regulating and financing of the compulsory health insurance; determining accreditation criteria; financing hospitals and so-called heavy medical care units; legislation covering different professional qualifications; and registration of pharmaceuticals and their price control. The regional governments are responsible for health promotion; maternity and child health services; different aspects of elderly care; the implementation of hospital accreditation standards; and the financing of hospital investment.

According to the European Health for All database, in 2004 total health expenditure as a percentage of gross domestic product (GDP) in Belgium was 9.3%. Health care expenditure expressed in US$ PPP per capita was 2922 in 2004, which was the fifth highest health care expenditure among all 27 European Union (EU27) countries. Health expenditure is expected to increase

in the years to come due to low GDP growth and the governments' policy to increase annual public spending on health care by 4.5% in real terms between 2004 and 2007. The Belgian health system is primarily funded through social security contributions and taxation. Public sector funding as a percentage of total expenditure on health care fluctuates around 70%.

The Belgian health system is based on the principles of equal access and freedom of choice, with a Bismarckian-type of compulsory national health insurance, which covers the whole population and has a very broad benefits package. Compulsory health insurance is combined with a private system of health care delivery, based on independent medical practice, free choice of service provider and predominantly fee-for-service payment. All individuals entitled to health insurance must join or register with a sickness fund: either one of the six sickness funds, including the health insurance fund of the Belgian railway company, or a regional service of the public Auxiliary Fund for Sickness and Disability Insurance.

Since 1995, Belgian sickness funds receive a prospective budget from the National Institute for Sickness and Disability Insurance to finance the health care costs of their members. They are held financially accountable for a proportion of any discrepancy between their actual spending and their so-called normative, i.e. risk-adjusted, health care expenditures. The reimbursement of services provided depends on the employment situation of the patient (self-employed or employed, until 2007), the type of service provided, the statute of the person who is socially insured (preferential reimbursement or not) as well as the accumulated amount of user charges already paid.

Patients in Belgium participate in health care financing via co-payments, for which the patient pays a certain fixed amount of the cost of a service, with the third-party payer covering the balance of the amount; and via co-insurance, for which the patient pays a certain fixed proportion of the cost of a service and the third-party payer covers the remaining proportion. There are two systems of payment: (i) a reimbursement system, for which the patient pays the full costs of services and then obtains a refund for part of the expense from the sickness fund, which covers ambulatory care; and (ii) a third-party payer system, for which the sickness fund directly pays the provider while the patient only pays the co-insurance or co-payment, which covers inpatient care and pharmaceuticals.

In real terms, the number of all types of health care professionals has increased continuously since the 1970s, due mainly to a lack of control over the supply side of the market. It is generally accepted that currently there is an oversupply of physicians, dentists and physiotherapists in Belgium. In 2004, the density of practising physicians was 4.0 per 1000 population, clearly above the average of the countries belonging to the EU before January 2007

(EU25) of 3.5 physicians per 1000 population. The federal Government introduced planning for physicians and dentists in 1996, when the Committee for Medical Supply Planning was established to give advice on the numbers of physicians and dentists qualified to practise in Belgium. Later, the remit of this committee was extended to also cover physiotherapists, nurses, midwives and logopaedics. The Committee is responsible for formulating proposals to the Federal Minister of Public Health on the annual number of candidates per community that are eligible to be granted the professional titles of physician, dentist or physiotherapist, after obtaining the relevant diploma. Based on the Committee's work, a proposal was made for a quota mechanism. The quota mechanism is applied immediately after the basic training at the moment of application for recognition as a dentist or physiotherapist and at the application for specialization for a physician (GP or specialist). In order to achieve these objectives, the communities, which are responsible for education policy, were requested to take measures to limit the number of medical and dental students. In 1997, the Flemish community introduced entrance examinations to limit the number of students entering medical schools. The French community has chosen to limit the number of medical students after their third year of medical education on the basis of the first three years' results.

Most physicians – whether GPs or specialists – are paid on a fee-for-service basis. The patient pays the set fee for the consultation directly to the physician, and patients are then directly reimbursed by their sickness funds. Most services are reimbursed at a rate of 75%, so the patient shares 25% of the cost.

In Belgium, hospitals can be classified into two categories: general and psychiatric. In 2005, there were 215 hospitals, of which 146 were general and 69 psychiatric. The general hospital sector consists of acute (116), specialized (23) and geriatric hospitals (7). The basic feature of Belgian hospital financing is its dual remuneration structure according to the type of services provided: services of accommodation (nursing units), emergency admission (accident and emergency services), and nursing activities in the surgical department are financed via a fixed prospective budget system based on diagnosis-related groups (DRGs); while medical and medicotechnical services (consultations, laboratories, medical imaging and technical procedures) and paramedical activities (physiotherapy) are remunerated via a fee-for-service system to the service provider.

Pharmaceuticals are exclusively distributed through community and hospital pharmacies. Only physicians and (to the extent that their profession requires) dentists and midwives can prescribe pharmaceuticals. About 2500 pharmaceutical products are on a positive list and therefore are partly or fully reimbursable. The reimbursable percentage of the cost varies depending

on the therapeutic importance of the pharmaceutical. To advance the use of generic pharmaceuticals, a reference pricing scheme was introduced on 1 June 2001 for products with generic equivalents. A pure reference pricing system sets fixed reimbursement limits for products assigned to the same group of pharmaceuticals that are defined on the basis of chemical, pharmacological or therapeutic equivalence. The Belgian reference pricing scheme is based on the national generic pharmaceutical, i.e. the pharmaceutical with identical active ingredients that has the same form and dosage. The reimbursement level is based on the national generic price, which is fixed at 30% (in 2005) below the price of the original brand.

Although the Belgian health system has not undergone any major structural reforms since the 1980s, various measures have been taken mainly to improve its performance. Reform policy in recent years has included: hospital financing reform; the strengthening of primary care; the restriction of the supply of physicians; the promotion of generic substitution of pharmaceuticals; the increase of accountability of health care providers and sickness funds; tariff cuts; and more emphasis on quality of care, equity, evidence-based medicine, health care technology, benchmarking with financial consequences and economic evaluations.

Future health reforms are likely to build on recent reforms and achievements. Changes in provider payment methods (i.e. DRGs) may improve providers' accountability and increase efficiency. Primary care could be strengthened by the general application of the Global Medical File and the introduction of financial incentives to enable GPs to play a more central role in the health system and to promote other forms of primary health care, such as home care. Physicians could be rewarded for improved prescribing. One area could include prescribing targets for generics; this is an example of not only cost savings but also quality improvements in prescribing practices. Finally, an increased and sustained focus on quality is likely to be a significant element in health policy-making.

1 Introduction

1.1 Overview of the health system

The Belgian health system is based on the principles of equal access and freedom of choice, with a Bismarckian-type of compulsory national health insurance, which covers the whole population and has a very broad benefits package. Compulsory health insurance is combined with a private system of health care delivery, based on independent medical practice, free choice of physician and predominantly fee-for-service payment.

Public authorities play an important role in health care policy. Since 1980, part of the responsibility for health care policy has been devolved from the federal Government to the regional governments. Responsibility for health care policy is shared between the federal Government, exercised by the Federal Public Service of Health, Food Chain Safety and Environment (former Ministry), the Federal Public Service Social Security, the National Institute for Sickness and Disability Insurance, and the Dutch-, French- and German-speaking community Ministries of Health. The federal government is responsible for the regulation and financing of the compulsory health insurance; the determination of accreditation criteria (i.e. minimum standards for the running of hospital services); the financing of hospitals and heavy medical care units;[1] legislation covering different professional qualifications; and the registration of pharmaceuticals and their price control. The regional governments are responsible for health promotion; maternity and child health services; different aspects of elderly care; the implementation of hospital accreditation standards; and the financing of hospital investment.

[1] Units in which expensive medical equipment is installed, or highly-specialized, expensive personnel is employed.

Compulsory health insurance is organized through six private, non-profit sickness funds and one public fund. The major responsibilities of the sickness funds are to reimburse health services and to represent their members in the National Institute for Sickness and Disability Insurance. Private-for-profit health insurance companies accounts for only a small part of the (mainly complementary) health insurance market.

Health care is provided by public health services, independent ambulatory care professionals, independent pharmacists, hospitals and specific facilities for the elderly. Hospital care is provided by either private non-profit or public hospitals. Most medical specialists work independently in hospitals or in private practices on an ambulatory basis. General practitioners (GPs) may only provide ambulatory or primary care. Dentists and pharmacists also work independently. Nursing homes are facilities for elderly people who are chronically ill, but who do not need intensive technical treatment or care.

Fig. 1.1 presents a chart providing an overview of the health system in Belgium.

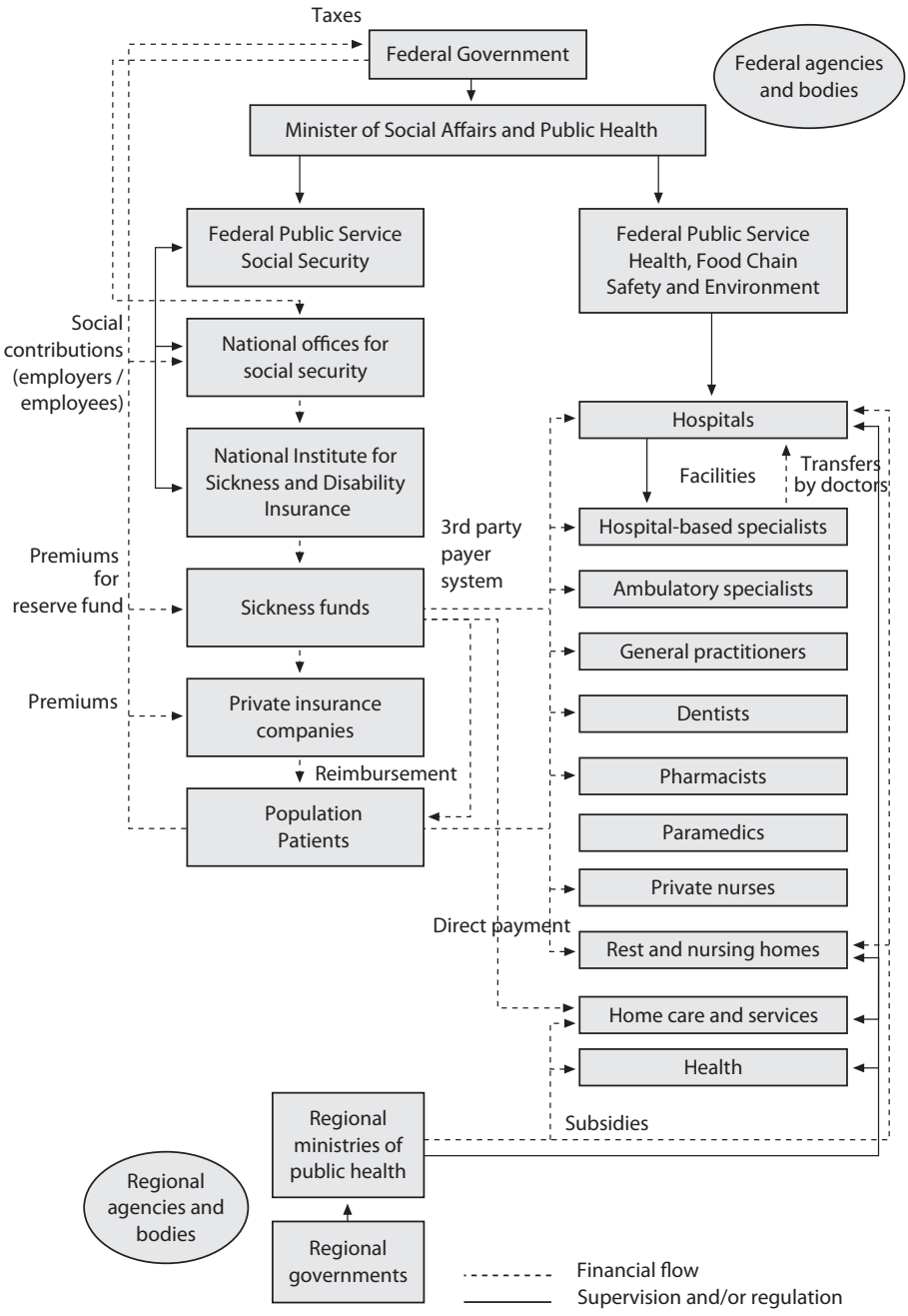
1.2 Geography and sociodemography

Belgium is situated in the west of Europe and shares borders with the Netherlands, Luxembourg, Germany and France (see Fig. 1.2). Belgium is one of the most populated countries in Europe. Its 10 511 382 inhabitants (January 2006 figures, National Statistics 2006) live in a total land area of 30 528 km², which averages 344 people per km². Brussels is the capital and the largest city, with almost 1 million inhabitants. Brussels is also the capital of Europe and the site of the headquarters of the European Commission, the Council of Ministers and the European Parliament. Other major international organizations, such as the North Atlantic Treaty Organisation (NATO), are also located in Brussels.

The geography of Belgium is divided into three major areas: lower Belgium (up to 100 m above sea level), central Belgium (between 100 and 200 m above sea level) and upper Belgium (from 200 to over 600 m above sea level). Belgium has a coastline of 65 km and is crossed by the Meuse and Schelde rivers.

Belgium has three official languages: Dutch, French and German. Dutch is spoken by 59.2% of the population, French by 40.2% and German by less than 1% (Belgium Federal Portal 2005). The country is divided into Dutch-speaking Flanders in the north and French-speaking Wallonia in the south. Brussels is bilingual, but its dominant language is French. German is spoken in areas bordering Germany. About 8.2% of the population are foreigners, mostly from Italy, Morocco, Turkey, France and the Netherlands. The majority of the

Fig. 1.1 Overview chart of the health system



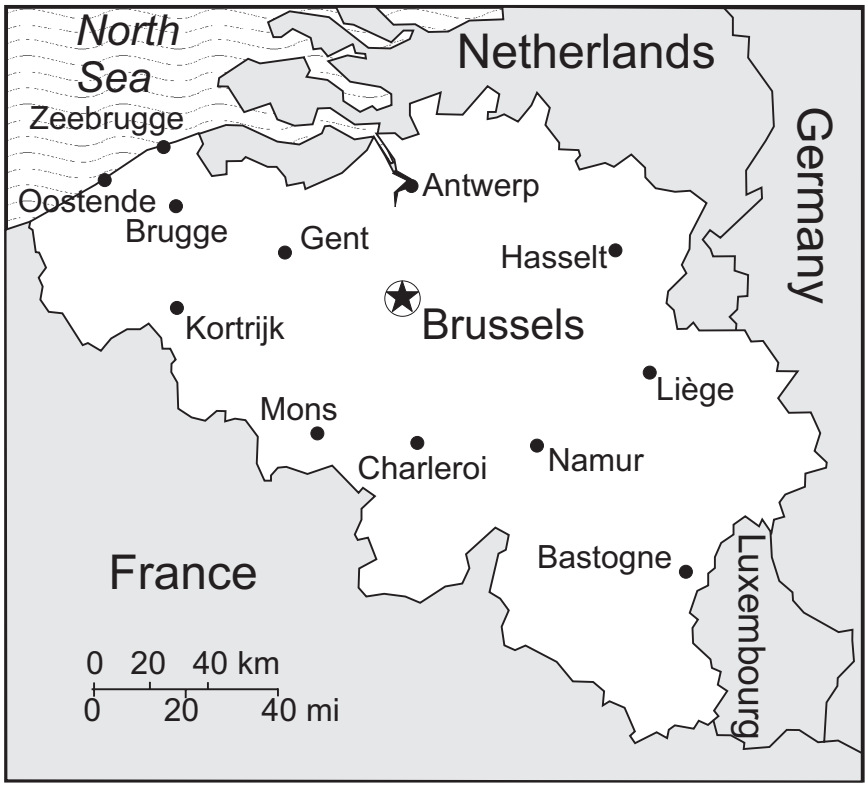
population is Roman Catholic, although most are not practising on a regular basis.

Living standards are among the highest in Europe. Belgium ranked ninth in the 2005 United Nations Human Development Report (United Nations 2006). The gross domestic product (GDP) per capita, measured in US$ and purchasing power parity-adjusted (PPP), amounted to US$ 32 635 in 2005 (National Bank of Belgium 2006).

Belgium has a mixed economy based on services, international trade and manufacturing. The service sector accounts for 71.8% of GDP, whereas the manufacturing sector and agriculture represent 26.8% and 1.4%, respectively (OECD 2006). There are no important natural resources.

Together with 11 other Member States of the European Union, Belgium began circulating Euro currency in January 2002. Belgium has had a real economic annual growth of 2.0% (National Bank of Belgium 2006) since the

Fig. 1.2 Map of Belgium



Source: Central Intelligence Agency, 2006.

mid-1990s. Over the same period, prices have risen modestly, with an average inflation of 1.9%. Belgium is an open economy. In 2005, exports and imports of goods and services accounted for 87.2% and 84.9% of GDP, respectively. Since 1985 Belgium has run a current account surplus, which in 2005 totalled 2.3% of GDP. The situation is less positive in terms of public finances. Although currently decreasing, the public-debt-to-GDP ratio has remained high (94.3% in 2005). Furthermore, it has a low employment rate, with less than 61.1% of the population participating in the labour force.

1.3 Economic context

The Belgian economy depends heavily on the export of a large volume of manufactured goods, and therefore is very dependent on the state of the world market and the European market in particular. Since about three quarters of trade is with other countries in the EU, the Belgian economy is synchronized with the European economic cycle. Economic growth dropped sharply in 2001–2002 owing to the global economic slowdown. The major problems facing the Belgian economy are a low employment rate and significant public debt (OECD 2005).

The slow economic growth is an important reason for both the rising unemployment rate and the low employment rate. The Belgian job market is, however, also characterized by a number of structural weaknesses which cannot be rectified by an improvement in economic growth. The employment rate in Belgium was only 61.1% in 2005, while the average in the countries belonging to the EU before May 2004 (EU15) was 65.2%. In comparison to other Member States in the EU15, the employment rate was only lower in Italy and Greece. Employment rates are particularly low for older workers (at 28% of the population aged 55–64), younger workers (at 27% of the population aged 15–24) and ethnic minorities. By contrast, rates are near international averages for those of prime working age. The low employment rate in Belgium means that there is a high level of an unused potential labour force. Higher employment would contribute to economic growth by helping to alleviate strains on public finances and to sustain the social security system faced with an ageing population.

In 2005, public debt was about 94.3% of GDP. Since 2000, the Government has succeeded in balancing its budget. Although public debt as a percentage of GDP has decreased in recent years (Table 1.1), further debt reduction is necessary to respect stability programmes and the Maastricht Treaty, which calls for gross public debt to be reduced to less than 60% of GDP to prepare

Table 1.1 Macroeconomic indicators, 1980–2005 (selected years)

	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005
GDP per capita, purchasing power parity, current international US$	9 904	13 394	18 065	21 694	26 250	27 498	28 623	29 513	31 400	32 635
GDP growth rate (annual % change)	3.5	0.8	3.1	2.4	3.7	1.2	1.5	0.9	2.4	1.5
Consumer price index (%)	6.6	4.9	3.5	1.5	2.7	2.4	1.6	1.5	1.9	2.5
Public debt (% of GDP)	77.1	120.2	125.7	134.0	109.6	108.0	105.4	98.5	94.7	94.3
Employment rate (%)	58.0	54.3	55.5	56.1	60.5	59.9	59.9	59.6	60.3	61.1
Unemployment (% of labour force)	14.3	17.2	9.7	14.1	10.8	10.7	11.2	12.3	12.8	13.2

Sources: National Bank of Belgium, 2006.

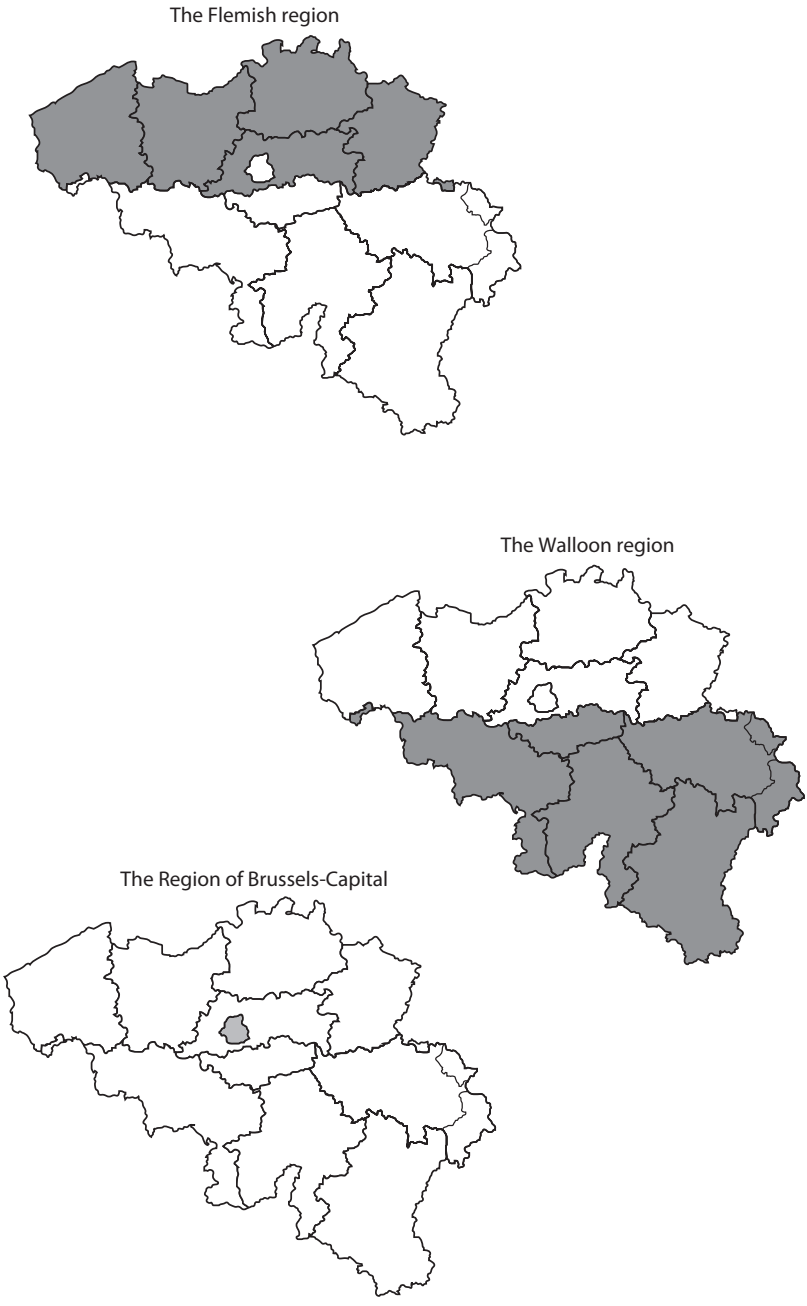
for the future costs of the ageing population. The resulting decrease in interest payments should create financial possibilities to pay for expenses related to ageing such as pensions and health care.

1.4 Political context

Belgium is a federal parliamentary democracy under a constitutional monarch. The King is the head of the State, but in practice the Government is the head of executive power. At the federal level, legislation is passed by a bicameral parliament consisting of a chamber of representatives (150 members) and a senate (71 members). Elections are held every four years, and voting is compulsory for all citizens aged 18 years and over. The federal State is responsible for foreign affairs, national defence, justice, fiscal policy, social security and a major share of public health and domestic affairs.

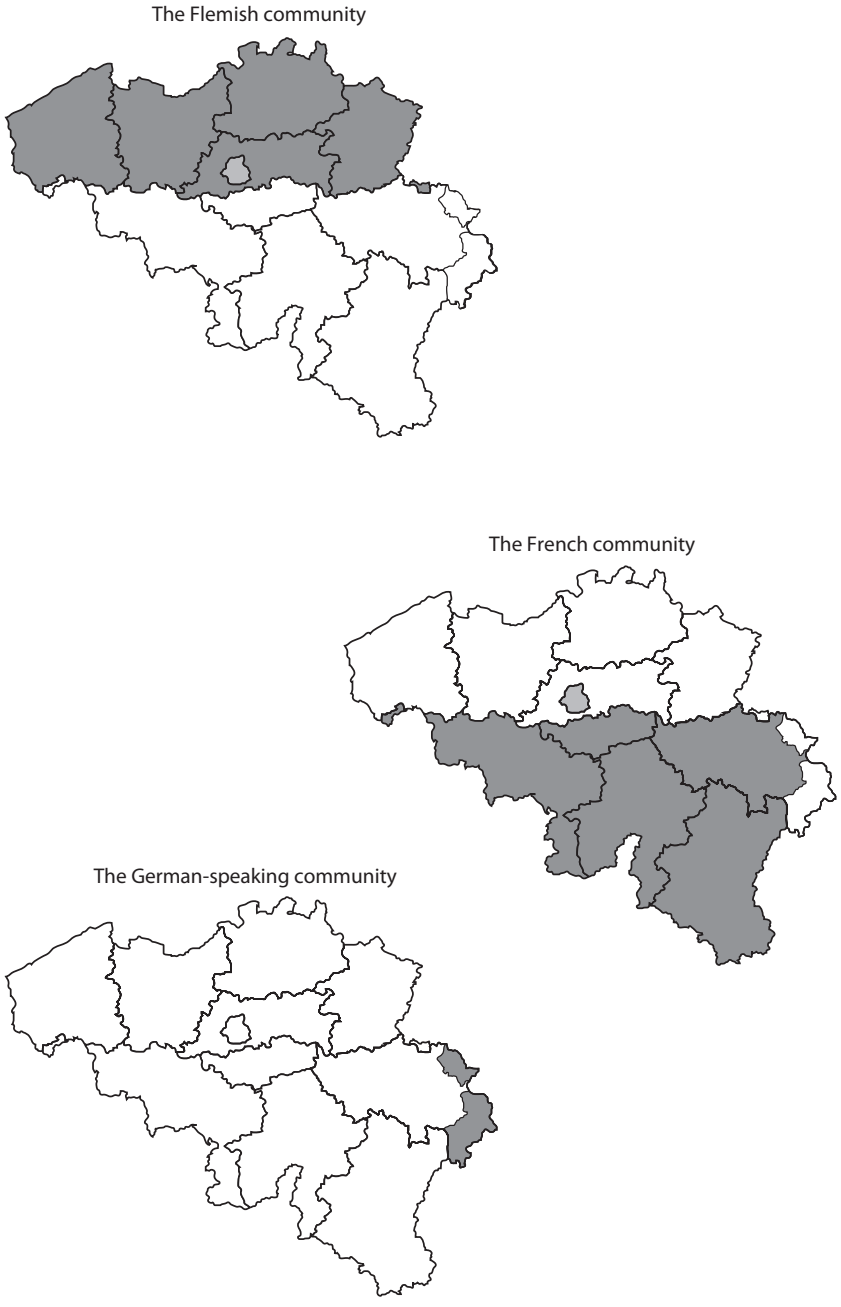
At the regional level, Belgium is divided into three regions and three communities that are based on language and culture (Fig. 1.3 and Fig. 1.4). The devolved structure of regions and communities has developed as a result of several revisions to Belgium's Constitution since it was originally drafted in 1831. Important constitutional reforms were carried out in 1970, 1980, 1988 and 1993. Belgium has evolved from a unitary state towards a federal model composed of three communities with specific cultural identities and different languages, and three regions. The three regions are the Flemish region, the Walloon region and the region of Brussels-Capital. The regions are responsible for "territorial" matters such as policy on the economy, energy, agriculture, environment, urban planning, subordinate authorities, employment, housing, public works and public transport.

Fig. 1.3 Belgian regions



Source: Belgium Federal Portal, 2005.

Fig. 1.4 Belgian language communities



Source: Belgium Federal Portal, 2005.

The three communities, based on language and culture, are the Flemish community, the French community and the German-speaking community. The communities have jurisdiction over matters that are linked to people rather than territory, such as education, cultural affairs, language, fundamental scientific research and health and social support, as far as they are not part of the social security system. The French community exercises its competence throughout the Walloon region, except for the German-speaking area. The German-speaking community covers the German-speaking part of Belgium. The Flemish community is responsible for the citizens living within Flemish Region. As for Brussels, the French and Flemish communities are responsible for their respective language communities.

In 1980, responsibilities were devolved from the federal level to the Flemish, the French and the German-speaking community level for: preventive medicine, including school health but excluding national prevention programmes; the application of hospital accreditation standards and planning measures; and the coordination of home care, medically justified sports practice and health promotion. The aim of the devolution policy was to improve responsiveness of services by bringing decisions that have an impact on the population's health closer to the population level. However, the downside of this measure was the increased potential for coordination problems between the different decision centres.

Each region and community has a legislative body (the parliament) and an executive body (the government). In Flanders, however, institutions merged in 1980 so that a single government and a single parliament are responsible for both the community and the region. Several commissions execute the responsibilities of the Flemish and French communities in the bilingual Region of Brussels-Capital: the French Community Commission, the Flemish Community Commission and the Joint Community Commission.

Regional elections are held every five years. At the local level, there are 10 provinces (Antwerp, Flemish Brabant, Walloon Brabant, West Flanders, East Flanders, Hainaut, Liège, Limburg, Luxembourg and Namur) and 589 municipalities, elected every six years.

The 2003 federal elections were won by the Liberal and Socialist parties. The Liberal and Socialist parties continued to govern with the foreman of the Flemish Liberal party, Guy Verhofstadt, as the Belgian Prime Minister. After being included in Verhofstadt's first government (1999–2003), the Green party's votes declined in the 2003 election. Since June 2004, Flanders is ruled by a five-party coalition (Christian Democratic party, Liberal party, Socialist party and two regional parties). Wallonia is ruled by the Socialist party, the Christian

Table 1.2 Population and demographic indicators, 1960–2005 (selected years)

	1960	1970	1980	1990	2000	2001	2002	2003	2004	2005
Total population (thousands)	9 154	9 656	9 859	9 967	10 239	10 263	10 310	10 356	10 396	10 446
Female population (% of total)	51.0	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
Age dependency ratio (0–14 and 65+ /15–64 years)	55.0	58.7	52.4	49.3	53.0	52.5	52.5	52.5	52.5	52.5
Population 0–14 years (% of total)	23.5	23.6	20.1	18.1	17.6	17.5	17.5	17.3	17.3	17.2
Population 65 and over (% of total)	12.0	13.4	14.3	14.9	16.8	16.9	16.9	17.0	17.1	17.2
Birth rate (crude, per 1000 people)	16.9	14.7	12.6	12.4	11.3	11.1	10.7	10.8	11.1	11.3
Death rate (crude, per 1000 people)	12.6	12.3	11.6	10.4	10.2	10.0	10.3	10.3	9.8	9.9
Fertility rate (births per woman 15–49)	2.56	2.25	1.68	1.62	1.66	1.64	1.62	1.61	1.62	1.64
Population growth (annual %)	+0.3	+0.2	+0.0	+0.4	+0.2	+0.2	+0.5	+0.4	+0.4	+0.5

Sources: OECD 2006 (October 2006); Statistics Belgium, 2006.

Democratic party and the Green party. In June 2007, new federal elections will take place.

1.5 Health status

Individuals aged 65 years and over made up 17.2% of the population in 2005 compared to 12.0% in 1960 (National Bank of Belgium 2006). The fertility rate had been declining from 2.56 children per woman in 1960 to 1.64 in 2005. In recent years, the birth rate has increased slightly to 11.3 per 1000 population, after declining continuously until 2002 (Table 1.2).

In 2004, life expectancy at birth was 82.4 years for females and 76.5 years for males (Table 1.3). Since 1960, life expectancy has increased on average by two months per year. Belgian life expectancy is in line with the European average.

Table 1.3 Life expectancy and causes of mortality, 1960–2004 (selected years)

	1960	1970	1980	1990	2000[a]	2001	2002	2003	2004
Life expectancy at birth, females	73.5	74.2	76.8	79.4	81.4	81.7	81.7	81.7	82.4
Life expectancy at birth, males	67.7	67.8	70.0	72.7	75.1	75.4	75.6	75.9	76.5
Life expectancy at birth, total	70.6	71.0	73.4	76.1	78.3	78.6	78.7	78.8	79.5
Disability-adjusted life expectancy, females	–	–	–	–	71.6	71.8	73.3	–	–
Disability-adjusted life expectancy, males	–	–	–	–	67.5	67.7	68.9	–	–
Disability-adjusted life expectancy, total	–	–	–	–	69.6	69.7	71.1	–	–
Infant mortality (deaths per 1000 live births)	31.2	21.1	12.1	8.0	4.8	4.5	4.4	4.3	4.2
All causes, females (deaths per 100 000, standardized rates)	985	891	741	572	520	–	–	–	–
All causes, males (deaths per 100 000, standardized rates)	1 429	1 382	1 244	1 015	914	–	–	–	–
Diseases of the circulatory system, females (deaths per 100 000, standardized rates)	402	394	321	219	187	–	–	–	–
Diseases of the circulatory system, males (deaths per 100 000, standardized rates)	563	589	506	351	298	–	–	–	–
Malignant neoplasms, females (deaths per 100 000, standardized rates)	174	165	159	145	141	–	–	–	–
Malignant neoplasms, males (deaths per 100 000, standardized rates)	243	273	310	294	278	–	–	–	–
Diseases of the respiratory system, females (deaths per 100 000, standardized rates)	67	52	34	33	40	–	–	–	–
Diseases of the respiratory system, males (deaths per 100 000, standardized rates)	143	134	107	107	109	–	–	–	–
External causes, injury and poisoning, females (deaths per 100 000, standardized rates)	42	56	54	36	31	–	–	–	–
External causes injury and poisoning, males (deaths per 100 000, standardized rates)	98	109	102	80	75	–	–	–	–
Diseases of the digestive system, females (deaths per 100 000, standardized rates)	31	30	29	23	25	–	–	–	–
Diseases of the digestive system, males (deaths per 100 000, standardized rates)	47	44	44	35	36	–	–	–	–

Sources: OECD 2006 (October 2006); WHO Regional Office for Europe, 2006; Statistics Belgium, 2006.

Note: [a]1997 for causes of death.

Table 1.4 Population projections, 2000–2050

	2000	2010	2020	2030	2040	2050
Total population (thousands)	10 239	10 530	10 724	10 894	10 965	10 953
Population 65 and over (% of total)	16.8	17.6	20.6	24.3	26.1	26.5
Life expectancy at birth, females	81.4	83.4	85.0	86.4	87.7	88.9
Life expectancy at birth, males	75.1	77.2	79.2	81.0	82.5	83.9
Fertility rate (births per woman 15–49)	1.66	1.66	1.68	1.70	1.72	1.74

Source: Statistics Belgium, 2006.

Since its World Health Report 2000, the World Health Organization has been encouraging its Member States to collect data on disability-adjusted life expectancy (DALE) in order to compare the extent to which societies are not only lengthening people's lives, but also improving the quality of their lives by assessing the number of years that people live without disabling conditions (WHO 2000). In 2002, DALE at birth was 73.3 years for females and 68.9 years for males.

Infant mortality, which represents the ratio of the number of child deaths under one year of age per 1000 live births, had been on the decline between 1960 and 2004, from 31.2 to 4.2. This declining trend is noted throughout the whole of the EU15. The EU15 average in 2003 was 4.50.

The main causes of death in Belgium are heart and vascular disorders, neoplasms, disorders of the respiratory system and unnatural causes of death (accidents, suicide). The prime causes of death vary according to different age groups. At a younger age (with females up to age 24 and males up age 44) non-natural causes together with cancer are mainly to blame. After this age, cancer and heart and vascular disorders become the principal causes of death. In the senior age groups, heart and vascular diseases are the most prevalent causes of death.

Table 1.4 shows projections up to 2050 for a number of demographic indicators. The fertility of Belgian women should increase somewhat from 1.66 in 2000 to 1.74 in 2050. A possible reason for this is that women should make up for some deferred births later in life. Life expectancy should continue to rise, but less rapidly than during the past decades. In 2050, men should on average live to 83.9 years, while women should reach 88.9 years – an increase of 8.8 and 7.5 years, respectively. In one century, from 1950 to 2050, the average life expectancy of men and women will be likely to increase by 22 years.

The further increase in life expectancy and the expected substantially positive immigration balance should lead to a rise in the Belgian population of 7% between 2000 and 2050. The population aged over 65 will increase from 16.8% of the population in 2000 to 26.5% in 2050.

The results of the latest health interview survey were published in 2006 (Bayingana et al. 2006) and were related to the situation in 2004. Similar surveys were also organized in 1997 (Demarest et al. 1998) and 2001 (Gisle et al. 2002).

In Belgium, 23% of the population regard their health as not satisfactory. This percentage increases up to 47% at the age of 75 years and older. People with low levels of education are relatively more dissatisfied with their health. The survey results on subjective health status for 1997, 2001 and 2004 are very similar, which means that this indicator is very stable in Belgium.

Approximately one quarter (24%) of the population reports having at least one long-term illness, disorder or disabling condition. Although the population between 1997 and 2004 grew older, no important increases in the prevalence of chronic diseases were reported. This may indicate that the demographic ageing of the population goes together with an increase of healthy ageing. However, the greatest increase for chronic diseases was in diabetes.

On the topic of mental health, the results of the health survey indicate that for the population of 15 years and older: one out of four (24%) has to contend with mental discomfort, a little more than half of these individuals (13% of the total) could have a rather serious mental disorder, 8% have depressive feelings, 8% have somatic complaints, 6% have feelings of fear and 20% have sleeping problems. Furthermore, it appears that 12% of the population have thought about suicide and 4% have tried to commit suicide.

Since the mid-1980s, the number of daily smokers has decreased substantially, from 40.5% in 1980 to 20.0% in 2004 (Table 1.5). In 2005, 20% of the population were daily smokers and 4% were occasional smokers (Centre de Recherches et d'Information des Organisations de Consommateurs 2006). Daily smokers have an average of 17 cigarettes per day. The percentage of heavy smokers (>20 cigarettes per day) is 10%. The age when people start to smoke regularly is 17 years, but 10% of the current smokers started smoking at the earlier age of 14

In 2004, 26% of the population aged 15–24 smoked, which is an improvement in comparison to 31% in 2001. The reduction in tobacco use has been achieved thanks to the adoption of nonsmoking campaigns and tax increases on tobacco products (Demotte 2004). However, 34% of current smokers are moderately dependent to very dependent on tobacco, while 68% have already tried in vain to quit the habit.

Table 1.5 Factors influencing health status, 1980–2004 (selected years)

	1980	1985	1990	1995	2000	2001	2002	2003	2004
Daily smokers (% of population, 15+)	40.5	38.4	32.0	28.5	31.0	28.0	29.0	27.0	20.0
Selected smoking-related causes of death (deaths per 100 000, standardized rates)	321.2	297.4	248.4	248.5	---	–	–	–	–
Alcohol consumption (litres per capita, 15+)	14.0	12.9	12.1	11.1	10.3	10.3	10.7	10.7	–
Selected alcohol-related causes of death (deaths per 100 000, standardized rates)	135.8	108.1	101.5	76.3	---	–	–	–	–
Overweight population (% of total population 25<BMI<30kg/m²)	–	–	–	30.9	–	32.7	–	–	31.4
Obese population (% of total population BMI>30kg/m²)	–	–	–	11.1	–	11.7	–	–	12.7

Sources: OECD, 2006 (October 2006); WHO Regional Office for Europe, 2006; Scientific Institute for Public Health – Health Interview Survey, 2006.

Nevertheless, smoking-related mortality has also decreased (from 321.2 per 100 000 inhabitants in 1980 to 248.5 in 1997). Both alcohol consumption and alcohol-related mortality have been decreasing since the mid-1980s.

The average body mass index (BMI) of Belgians aged 18 years and older is 25.1; 44% of the adult population has a BMI above 25, with 31.4% classified as overweight (BMI between 25 and 30) and 12.7% are obese (BMI above 30).

Since the mid-1980s, the dental health status of Belgian children and adolescents has improved significantly. In 2001, the number of decayed, missing or filled teeth (DMFT) was 1.1 among 12-year-olds, in comparison with 3.1 in 1985 (Table 1.6). Epidemiological study data show that Belgian schoolchildren are among those in European countries with moderate-to-low caries prevalence. However, attention should be paid to socioeconomically underprivileged children whose dental health status is significantly worse than privileged ones (Van Nieuwenhuysen & Carvalho 2000).

Table 1.6 Decayed, missing or filled teeth at age 12 years, 1983–2001 (selected years)

	1975	1985	1990	1998	2001
DMFT	3.1	3.1	2.7	1.6	1.1

Source: WHO Regional Office for Europe, 2006.

Note: DMFT: decayed, missing or filled teeth.

2 Organizational structure

2.1 Historical background

2.1.1 Health insurance and sickness funds

The principal characteristics of the Belgian health system result from decisions made after the Second World War to create a compulsory public health insurance system based on independent medical practice, free choice of health care provider by the patient, fee-for-service payment of providers and reimbursement.

The origins of the health insurance system can be traced to the late 19th century when workers created mutual benefit societies to protect affiliated members against the risk of disease, unemployment and incapacity to work. These early voluntary "mutualities" or sickness funds were of small scale, organized according to employment type, and run as private initiatives, without state subsidies.

In 1851, the State officially recognized the sickness funds. In 1894, legislation was passed which served as the sickness funds' legal foundation for about a century. This legislation extended the official scope of the sickness funds' activities and enabled them to benefit from state subsidies.

At the beginning of the 20th century, sickness funds from the same political or ideological background grouped into national associations: the National Alliance of Christian Mutualities (1906); the National Union of Neutral Mutualities (1908); the National Union of Socialist Mutualities (1913); the National Union of Liberal Mutualities (1914); and the Union of the Free and Professional Mutualities (1920) (Engels 1970).

Originally, all cover against social risks was voluntary. The first type of compulsory insurance was created in 1903: insurance against accidents at work. Between the two World Wars, compulsory insurance greatly expanded. Salaried workers were compulsorily insured for old age and survivors' pensions, professional diseases, family benefits and paid leave. The self-employed were only compulsorily insured for family benefits from 1937 onwards. Other social risks such as sickness, disability and unemployment remained within the subsidized private sphere of sickness funds and trade unions (Federal Public Service Social Security 2006). The subsidization of sickness funds encouraged growth in membership so that almost three quarters of the population were protected to some extent by a local sickness fund (Nonneman & Van Dooerslaer 1994).

During the Second World War, important steps were taken towards a compulsory social insurance system. On 7 August 1943, representatives of employers and trade unions signed a draft Agreement on Social Solidarity laying the foundations for the Social Security Act of 28 December 1944 for employed workers. This law advocated universal access to social security and made all social insurance funds, including unemployment, health and disability insurance, compulsory for all salaried employees. It created a central institution, the National Office for Social Security (RSZ-ONSS), to collect the contributions for all social security sectors, and the National Fund for Sickness and Disability to manage health insurance in particular. The Act introduced the principle that social security was controlled with equal representation, i.e. by both the workers' and the employers' organizations, and it was also decided that the individual sickness funds should be retained.

Although Belgium's compulsory health insurance system dates back to 1945, the main turning point in its history was the Health Insurance Act of 9 August 1963. This law extended coverage under the compulsory social health insurance within a private system of medical care based on the principles of independent medical practice, free choice of physician and hospital for the patient, and fee-for-service payment. Other important elements introduced by this law were:

- improved access to insurance coverage for almost the entire population;
- establishment of a list of different medical services which are given a relative value, the "nomenclature";
- introduction of a system of conventions and agreements between sickness funds and health care providers, setting the prices for medical services and regulating their financial and administrative relationship;
- creation of the National Institute for Sickness and Disability Insurance (RIZIV-INAMI) to replace the National Fund for Sickness and Disability;

- separation of the insurance systems for the health care sector and disability sector (incapacity to work) at the administrative and financial levels;
- definition of a new category of beneficiaries, including widows, orphans, pensioners and invalids, with a preferential reimbursement rate for health care costs;
- foundation for sickness funds to be held financially accountable for the expenditure of their affiliated members.

The medical professions found the original formulation of the Health Insurance Act unacceptable and were thus unwilling to associate themselves with it. Physicians argued that financial resources were insufficient to guarantee a modern health system and that the detailed system of billing the sickness funds would endanger professional secrecy. Furthermore, the proposed system would represent an infringement to their therapeutic freedom with fee agreements reached for particular services, as well as to patient choice, because of the more favourable repayment regulation for "conventioned physicians".[2]

The physicians refused to take up their seats in the Management Committee of the RIZIV-INAMI and went on strike in March 1964. Their actions resulted in an important dialogue with the Government and finally a settlement on 25 June 1964. The physicians obtained modifications to the Health Insurance Act. Their representatives agreed to sit in the Management Committee, but only in an advisory role. At the same time, more seats were granted to them in the Technical Medical Council, which formulates proposals to change the nomenclature. Moreover, it was decided that the same reimbursement conditions would apply for both conventioned and non-conventioned physicians and dentists (Van Den Oever 1996).

During the period following the Second World War, up to the 1970s, the entire social security system grew enormously. Gradually, the Belgian social security system evolved from simple insurance against social risks to a guarantee of subsistence security for everybody. On the one hand, the existing benefits were subject to a positive evolution; on the other hand, social security was aimed at new social categories (for example, civil servants, students, disabled people). In 1964, the self-employed were obliged to insure themselves against major risks in medical care. Health insurance coverage was extended to public sector workers for both major and minor risks in 1965; to those physically incapable of working in 1967; to the mentally ill in 1968; and to everyone not yet protected in 1969. Since 1998, all beneficiaries of compulsory health insurance are covered either under the general scheme or the scheme for self-employed workers.

[2] Conventioned physicians are those that have agreed to the set fee schedule, while non-conventioned physicians are free to set their own fees.

These advances in health care coverage, made possible by a period of economic expansion, had to be reconsidered during the economic crisis of the 1970s. This economically lean period highlighted the need for health care reform. Research was initiated to find more efficient ways to allocate resources within the health system. Successive governments, which tried to reduce the large public deficit during the 1980s, re-inforced this process. Rapidly rising health care costs led the Government to implement a series of reforms to contain costs while maintaining as much as possible the basic principles of equity, freedom of choice and quality of care. Two characteristics were key to most Belgian health care reforms in the 1980s and 1990s: first, many reforms attempted to control the supply of health care; and second, much legislation aimed to increase the financial responsibility of the main actors in the system.

In 1991, a fixed budget for each subsector of health care was introduced into the health insurance system. If the budget limits were surpassed, correction mechanisms would be activated. This cost-controlling reform represented a fundamental change in government policy towards health care from the previous demand-led funding strategy. A more extensive reform of the budgetary procedures was introduced in 1993, when the system of compulsory health insurance was thoroughly reformed. This reform created a new management structure for the RIZIV-INAMI, a more strict budgetary procedure and expenditure control, and measures to re-inforce the financial responsibility of the care providers.

In 1994, the sickness funds were made partially financially accountable for their health care expenditure via a new payment system based on expenses and on the risk profile of their members. This measure aimed to contain costs by giving incentives to the sickness funds to limit unnecessary health care consumption by their members.

The legal framework for sickness funds of 1894 was replaced by the 1990 Sickness Funds Act, which stipulates the tasks of the sickness funds within and outside the compulsory health insurance, the basic rules for their functioning as well as their supervision. This Act was introduced because of political demand for stronger democratization of management and more financial transparency. Democratization was implemented by the institution of a general assembly, elected by the members of the sickness funds. More financial transparency was introduced by a better flow of financial data to the general assembly and the installation of a supervising authority of sickness funds by the federal Government. The supervising authority controls both the legal provisions and the sound functioning (in particular, the operational, administrative and accounting functions) of the sickness funds (see also Section 3.1.1 on regulation and governance of third-party payers).

2.1.2 Hospitals

Hospitals had opened in Belgium as early as the 12th century in the case of Saint Jan's Hospital in Bruges and Elisabeth's Hospital in Antwerp, but until 1963 hospital legislation was limited. In the 19th century, the main purpose of hospitals was to accommodate sick people in order to protect the rest of the society from the risk of infection. The law of 10 March 1915 on the regulation of public welfare laid the foundations for present-day public hospital care through the establishment of Committees for Public Welfare. This law emphasized a preference for treatment in special, purpose-built facilities. Between 1850 and 1940, the number of hospital beds increased from 2000 to 27 000. In 1950, the free choice of hospital for patients was legally established with the following conditions: (i) the hospital would have to be made accessible to everyone at the same price; and (ii) the hospital would have to be recognized by the Ministry of Health, which was appointed as the controlling authority for hospitals.

The fundamental reform of compulsory health insurance in 1963 also influenced hospital legislation. The Government decided to regulate the hospital system via specific legislation rather than include hospitals in the Health Insurance Act. It was the intention of the Government to guarantee a free-of-charge hospital stay in a common room. The cost of a hospital stay had increased significantly, so the health insurance could no longer carry these costs by itself. The benefit provided by the health insurance had to be augmented with government subsidies. As a consequence of the insufficient contributions made by compulsory health insurance schemes for their operating costs, hospitals had been experiencing increased financial difficulties over several years. Pursuant to the Hospital Act of 23 December 1963, hospital-related issues were for the first time dealt with as a whole with a set of rules established for the entire hospital sector.

The 1963 Hospital Act had four objectives:

- to provide free hospital care for all citizens;
- to improve the quality of hospital care via the use of norms and accreditation criteria;
- to ensure the financial viability of public and private hospitals via a per diem financing system;
- to introduce planning in the hospital sector.

In 1973, a system of mandatory hospital planning was introduced to remedy the estimated surplus of hospital beds and to reorient hospital provision towards areas which were underserved. It was necessary for hospitals or a particular hospital service to follow the hospital planning framework in order to obtain accreditation.

In 1982, the Hospital Act of 1963 was modified to contain costs by improving the efficiency of hospital bed use, and the National Council for Hospital Facilities was established. This Council gives advice to the federal Government in the field of planning, accreditation and financing of hospitals. Also, a moratorium on the increase in hospital beds was introduced, which stated that the number of beds available as of 1 July 1982 should not be exceeded.

Furthermore, the hospital sector was restructured to create specialized geriatric departments and services in hospitals. Financial incentives were provided to convert acute and chronic hospital beds into geriatric beds and beds in rest and nursing homes. These measures were not intended to have any impact on access to services for the elderly, as beds were not closed but only altered in status. Also in the 1980s, the Government introduced a policy of concentration whereby every hospital had to maintain a minimum of 150 beds spread across at least three departments, or else close or merge with another hospital. Specific financial incentives were created to promote hospital mergers.

Moreover, a national hospital budget was introduced. The budget was divided among the hospitals by determining an individual budget for each hospital. The budget of each individual hospital was fixed on the basis of its structure and activities and no longer on the basis of costs. To allocate the budget, hospitals which were structurally similar and had the same type of activities were compared with each other.

In 1986, hospital financing was significantly reformed with the introduction of prospective financing in the sector. Before the 1980s, hospitals received a fixed per diem payment for each patient day. This method of financing created a financial incentive to produce as many patient days as possible. As of 1982, a patient day quota was imposed on hospitals. This quota was based on the number of beds and a normative rate of occupancy. Below this ceiling all stays were reimbursed, based on a daily rate determined by historical costs and comparisons with other hospitals. Beyond this quota, patient days were only partially reimbursed.

In 1990, an important reform was carried out in the psychiatric sector, aimed at cutting back on psychiatric hospital beds and substituting these with new provisions aiming to stimulate the social integration of patients. The new initiatives arose as a reaction to the increasing tendency to offer chronic patients appropriate care outside of psychiatric hospital. Alternative facilities for mental health care were created, such as psychiatric nursing homes, sheltered accommodation and home care. The reform also aimed to improve the quality of residential care by resisting large-scale operations and developing better regional distribution of the supply of mental health care facilities. In addition, the focus shifted somewhat from prevention to treatment.

Since 1991, the hospital financing system has drastically changed. Different measures have been taken in order to better account for the activities of hospitals and to progressively diminish the historical component of the budget. Moreover, incentives have been created to improve hospital efficiency. In 1994, diagnosis-related groups (DRGs) were introduced in the hospital budget in order to financially reward or penalize those hospitals which make use of their beds in more or less efficient ways. Since 1995, the hospital budget has been based on patient characteristics, such as the type of pathology, the age (more or less than 75 years) and the nature of the stay. Hospital performance with regards to length of stay is measured by the difference between the actual length of stay and the national average according to the three factors mentioned above. Hospitals with an average length of stay for all patients which is greater than that of the sample of all Belgian patients see their budget decrease in favour of those hospitals with a shorter length of stay.

In 1997, a first step was taken in the prospective financing of pharmaceuticals in hospitals through the introduction of a fixed sum for the prophylactic use of antibiotics for surgical interventions. A fixed sum covers 75% of the costs for antibiotics that are administered to hospitalized patients the day before, the day of, and the day after a surgical intervention. For the remaining 25%, the antibiotics remain reimbursed per product. Moreover, since July 2006 a system of lump sum payment per hospital stay applies for pharmaceutical specialties administered in acute hospitals (see also Section 6.6 on pharmaceutical care).

2.1.3 Physicians

Since the 17th century, medical practice has been mainly exercised by two professional groups: the physicians, who are trained at university and competent in internal medicine, and the surgeons, who are more trained by practice. During the French Revolution, all universities, including the medical schools, were abolished. In 1781, the freedom of any person to practise medicine was proclaimed by decree. Supervision of medical practice was abolished, and a new type of practitioner, the officer of health, replaced the pre-Revolution physician. However, the resulting chaotic situation did not last for long and the medical schools soon reopened their doors. In 1816, three medical schools were established in the universities of Ghent, Leuven and Liège. In 1818, the officers of health were abolished and the simultaneous practice of medicine, surgery, obstetrics and pharmacy was restricted. A number of paramedical professions were created in addition to the medical profession. Since the Higher Education Act of 1835, a university diploma is required for the practice of medicine, surgery and obstetrics (Nys 1997).

In 1967, the practice of medicine was regulated by the Practice of Medicine Act, which required the possession of a medical diploma. Before 1996, the only condition for admission to medical school was the possession of a secondary-school diploma. Since 1996, the Practice of Medicine Act empowers the Federal Minister of Public Health to limit the number of physicians that may practise under the national health insurance system. Therefore, the communities, responsible for education, had to take measures to limit the number of students. The Flemish community organizes an annual access examination in order to limit the number of first-year medical students. In the French community, after the first three years (Bachelor), students can reorient their studies if necessary.

Table 2.1 provides an overview of the major health care reforms and policy measures from the introduction of the compulsory health insurance in 1944, to 1998. Further developments and reforms are described in Chapter 6 on health care reforms.

2.2 Organizational overview

Numerous public authorities are responsible for the funding of health care and for overseeing its organization. The division of responsibilities is mirrored by the fragmented structure of the Belgian State. Since the early 1980s, elements of responsibility for health care have been devolved to the communities. However, devolution is limited, especially for curative medicine for which the federal authorities remain responsible.

Fig. 2.1 shows the organizational chart of the health system at the federal and regional levels, with the most important departments, agencies and advisory bodies. Their roles are detailed in the following sections. Only the most important advisory bodies are mentioned here. In reality, there are about 150 official commissions in the Belgian health care sector (Peers et al. 1999).

2.2.1 Federal level

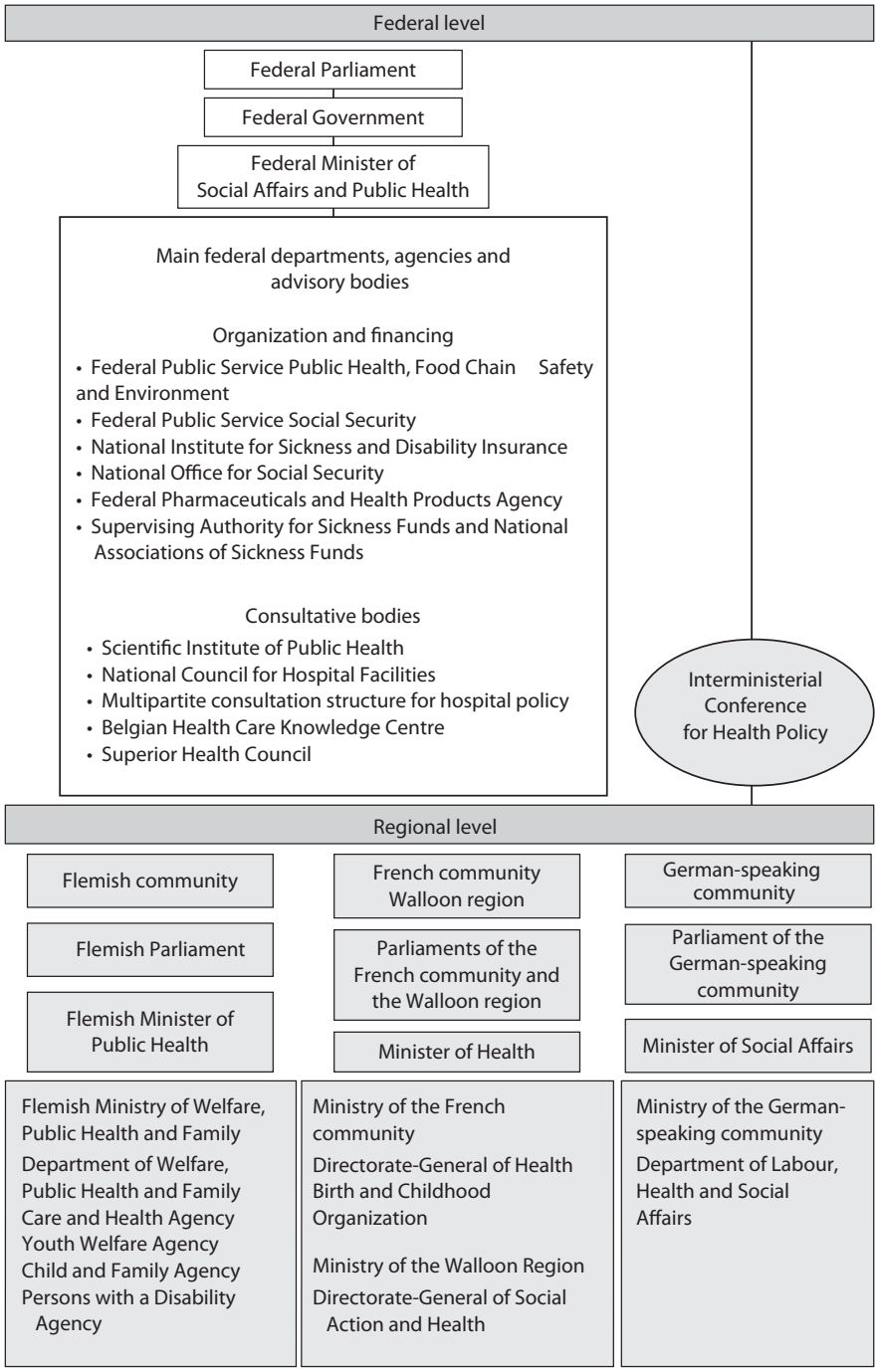
Organization and financing

At the federal level, the Parliament is the legislative body. The federal Government and the Minister of Social Affairs and Public Health are the executive bodies. The federal authorities determine the general legislative framework for the health system by issuing laws and by determining the annual budget. Their duties are listed below.

Table 2.1 Major health care reforms and policy measures, 1944–1998

Year	Reform	Outcome
1944	Social security legislation	Introduction of compulsory social security for salaried workers.
1963	Health Insurance Act	Completion of the compulsory social health insurance combined with a private system of medical care based on independent medical practice, free choice of physician and hospital and reimbursed fee-for-service payment.
1963	Hospital Act	Provision of free hospital care for all insured citizens, improvement of the quality of hospital care via the use of norms and accreditation, insuring financial viability of public and private hospitals via a per diem financing system and the introduction of planning in the hospital sector.
1967	Practice of Medicine (and Other Health Care Professions) Act	Regulation of medical and paramedical professions.
1980	State reform	Devolution of responsibility for preventive health care, health promotion, implementation of hospital accreditation and planning, and coordination of home care from national (federal) level to regional level (see Section 2.3 “Decentralization and centralization”).
1982–1986	Hospital reform	Introduction of moratorium on the increase of hospital beds, creation of specialized geriatric services in hospitals, planned conversion of acute and chronic hospital beds into geriatric beds and beds in rest and nursing homes, introduction of minimum capacity, imposition of bed-day quotas.
1986	Hospital financing reform	Towards the better allocation of resources between hospitals by putting less emphasis on historical costs and more on activities, functions and performance.
1989	Financing reform	Reforming funding for clinical laboratory tests and medical imaging.
1990	Psychiatric care reform	Provision of the most appropriate treatment of psychiatric patients.
1990	Sickness Funds Act	Confirmation of the role of sickness funds as administrators of the national health insurance and implementation of increased control on sickness funds.
1993	Health Insurance Reform Act	Reform of the RIZIV-INAMI management structure, introduction of a more strict budgetary procedure and expenditure control and measures to reinforce the financial responsibility of care providers.
1994	Reform of sickness funds	Increased accountability of sickness funds for health expenditure.
1997	Planning for medical supply	Fixing the number of physicians having access to accreditation for practice in 2004 and subsequent years.
1998	Annual right	Placing all health insurance beneficiaries under either the general scheme or the self-employed scheme. Ensured stability of the health insurance status and entitlements.

Fig. 2.1 Organizational chart of the health system



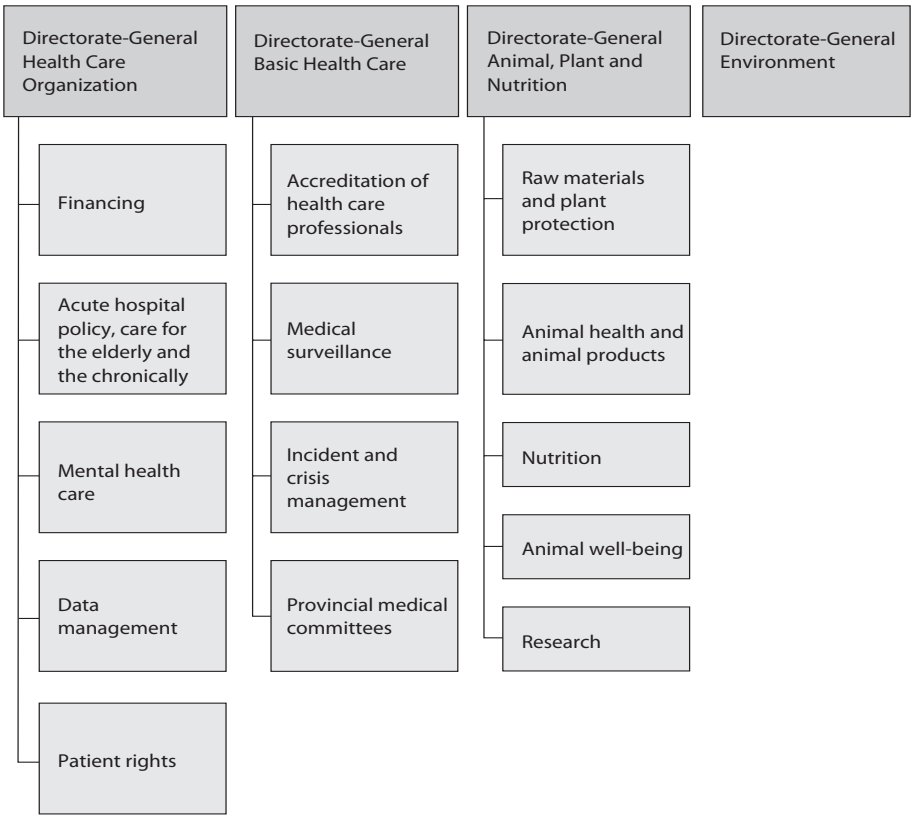
- Enacting sickness and disability insurance law: as the sickness and disability insurance remains part of the social security system, supervision of it has remained the responsibility of the federal Government.
- Enacting hospital law: setting the criteria for granting accreditation to hospitals and heavy medical care units (which allow them to be reimbursed by health insurance), the planning and financing of hospitals and the granting of university hospital status.
- Enacting legislation covering different professional qualifications, the national agreements on wage schedules and labour conditions, and the registration of pharmaceuticals and their price control.
- Determining the overall budget for health care services.
- Controlling health care technology.

The Federal Public Service (FPS) Public Health, Food Chain Safety and Environment consists of four departments: Health Care Organization; Basic Health Care; Animal, Plant and Nutrition; and Environment (see Fig. 2.2). The Health Care Organization Department is in charge of the organization, the planning criteria, the accreditation standards and the financing of inpatient health care facilities as well as the implementation of patients' rights. This covers hospitals (acute, specialized, geriatric, psychiatric and university hospitals), rest and nursing homes, psychiatric care homes and sheltered housing. The responsibilities of the Basic Health Care Department include accreditation and planning activities for health care professionals and designing a policy for the prevention and monitoring of health crises, including crisis scenarios, emergency plans and organization of relief. In addition, this department is also responsible for the organization of emergency medical assistance. Other competencies involve following up on the international health situation and the policy concerning vaccinations and infectious diseases.

The FPS Social Security supervises the National Office for Social Security, which collects social security contributions, and the National Institute for Sickness and Disability Insurance, which manages compulsory health insurance.

The National Institute for Sickness and Disability Insurance (RIZIV-INAMI) is a public body accountable to the Minister of Social Affairs and Public Health. This institute is responsible for the general organization and financial management of the compulsory health insurance. Its most important tasks are: to prepare and implement legislation and regulation, to prepare the budget, to monitor the evolution of health care spending, to control whether legislation and regulation are correctly implemented by health care providers and sickness funds and to organize the consultation between the different actors involved in the compulsory health insurance. It is composed of four departments: the

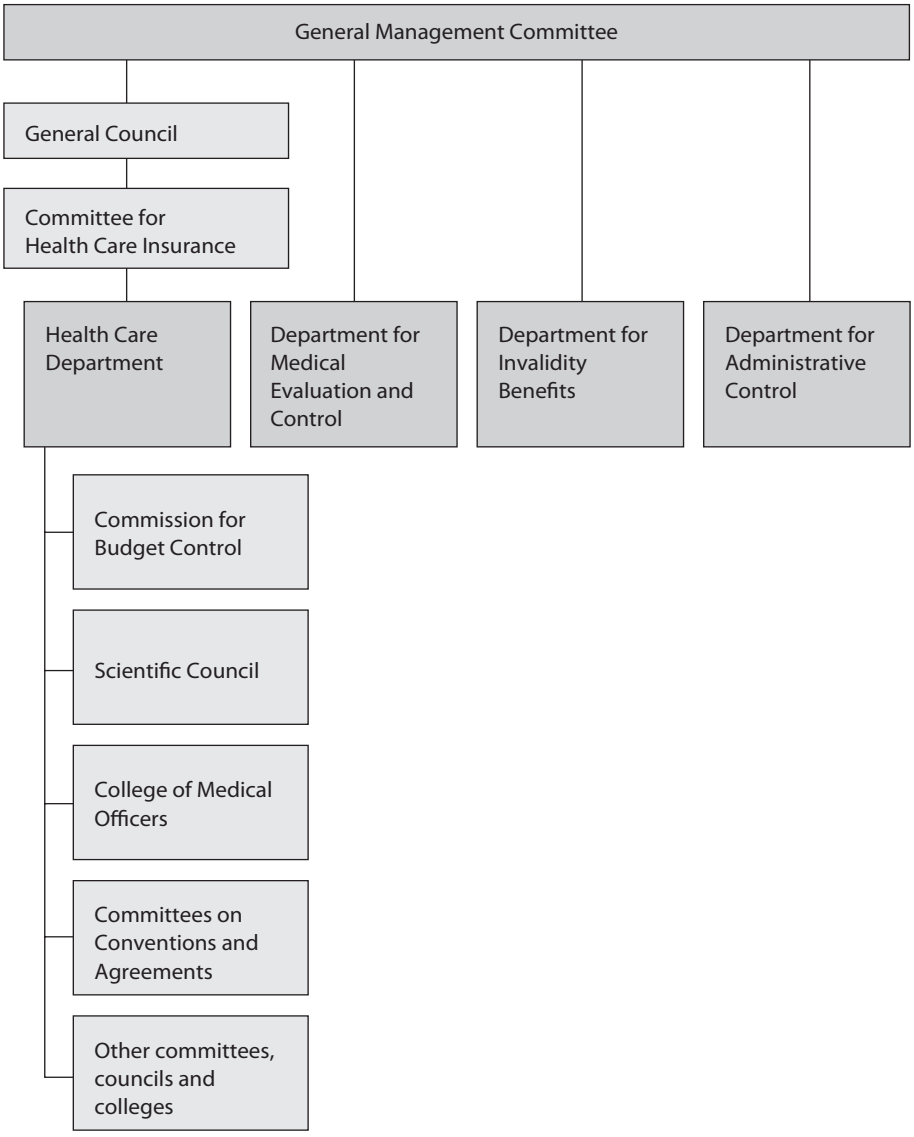
Fig. 2.2 Organizational chart of the Federal Public Service Public Health, Food Chain Safety and Environment



Health Care Department (which administers compulsory health insurance); the Benefits Department (which is in charge of disability insurance); the Medical Evaluation and Control Department; and the Administrative Control Department (see Fig. 2.3).

The Health Care Department is responsible for the administrative and financial management of the national health insurance. This department is managed by three subdepartments: the General Council, the Committee for Health Care Insurance and the Commission for Budget Control. In the General Council, decision-making power is shared between the financial contributors to the system (Government, employers and employees) and the sickness funds. The General Council decides on general policy matters concerning health insurance, fixes the annual global budget for health benefits on the basis of a proposal from the Committee for Health Care Insurance, and monitors the financial balance of the health insurance. The Government has the power of veto over decisions made in the General Council.

Fig. 2.3 Organizational chart of the National Institute for Sickness and Disability Insurance



The Committee for Health Care Insurance reports to the General Council and is made up of an equal number of representatives of sickness funds and health care providers. Representatives from employer and employee organizations have an advisory role. The tasks of the Committee for Health Care Insurance include drafting the annual global budget target for the General Council and

once the global budget has been set, determining the distribution of the budget for the different health care sectors.

The Commission for Budget Control oversees funding and expenditure and alerts the General Council when budget limits are exceeded.

There are various other committees within the Health Care Department, most notably the Conventions and Agreements Committees, which negotiate fees between insurers and health care providers. One example is the National Committee of Physicians and Sickness Funds. These committees are assisted by technical councils that are responsible for helping to define services that should be delivered (for example, the Technical Pharmaceutical Council, the Technical Medical Council and the Technical Dental Council).

The Department for Medical Evaluation and Control is administered by a committee composed of representatives of physicians, dentists, physicians from sickness funds, pharmacists, midwives and hospitals. This committee is responsible for: medical control of the health insurance and disability insurance systems; conflicts between departmental physicians, inspectors and advisory medical physicians from the sickness funds; monitoring medical care provided to patients; and reviewing client claims of work incapacity.

The Department for Administrative Control is responsible for monitoring legal and other regulations of the sickness funds.

The National Office for Social Security (RSZ-ONSS) is the central institution in the social security system for salaried workers. It is managed by a management committee composed of an equal number of representatives of the trade unions and the employers' organizations, under the control of the FPS Social Security. The RSZ-ONSS collects both the employers' and the employees' social security contributions and redistributes the social security budget to the payment institution for each social security sector (i.e. RIZIV-INAMI for the health insurance). The National Institute for the Social Security of the Self-Employed collects the social contributions from the self-employed. The National Social Security Office for the Local and Provincial Administrations does the same for the civil servants of the local and provincial authorities.

The Federal Pharmaceuticals and Health Products Agency (FAGG-AFMP) has to ensure the quality, safety and effectiveness of pharmaceuticals for humans and animals. The main tasks of the Agency are:

- to control the risk to which patients are exposed during the development stage of a pharmaceutical;
- to evaluate the new applications to bring a new pharmaceutical on the market;
- to attribute the licences for trading pharmaceuticals;

- to collect and evaluate all relevant information to trace, diminish and avoid possible side-effects for the user;
- to control the production, distribution and delivery of pharmaceuticals;
- to spread information on the best use of pharmaceuticals;
- to supervise advertising of pharmaceuticals.

General control over the sickness funds and the national associations of sickness funds is exercised by the Supervising Authority for Sickness Funds and National Associations of Sickness Funds. The Supervising Authority is a public agency under the supervision of the FPS Social Security, established in 1990. The Supervising Authority oversees that the services and activities, established by the sickness funds and their associations, are in agreement with the Sickness Funds Act and that administrative, accounting and financial regulation is respected. Furthermore, the authority supervises the valid composition and functioning of the general assemblies and governing boards of the sickness funds and the national associations. The authority submits a report of its control tasks to the General Council of the RIZIV-INAMI as far they are related to the regulations of the compulsory national health insurance. A report is compiled annually concerning the activities and the financial situation of the sickness funds and their national associations (Supervising Authority for Sickness Funds and National Associations of Sickness Funds 2006).

In 1993, the powers of the Supervising Authority were extended as a result of the financial responsibility of the sickness funds. The Supervising Authority was, among other things, charged with the evaluation of the management performance of the sickness funds.

Consultative bodies

The Scientific Institute of Public Health (WIV-ISSP) is a public agency under the FPS Public Health, Food Chain Safety and Environment. It consists of four departments: the Department of Microbiology, the Department of Pharmaco-Bromatology, the Department of Epidemiology and Toxicology and the Pasteur Institute. The main tasks of the WIV-ISSP are health promotion and disease prevention by providing the federal and regional governments with knowledge based on scientific evidence. The main activities are the surveillance of communicable and noncommunicable diseases (AIDS, hepatitis, newly emerging and re-emerging infections); the verification of federal product norms (food, pharmaceuticals and vaccines); risk assessment (chemical products, genetically modified organisms); management of biological resources (collections of strains of microorganisms); gaining insight into the population's health status and its determinants; and coordinating health information. In 1997, the first health interview survey involving 10 000 respondents was organized to

evaluate the health status, lifestyle and use of health care services in Belgium (Van Oyen et al. 1997). The survey has been regularly repeated since then (see also Section 3.2.2 on information systems).

The National Council for Hospital Facilities is composed of stakeholders from the hospital sector. It plays an important role in the formation of Belgian health care policy by advising the Minister of Social Affairs and Public Health on issues related to hospital planning, accreditation and financing. The National Hospital Council consists of two departments: a department for planning and accreditation and a department for hospital financing. The main responsibilities of the planning and accreditation department are: setting up the planning criteria for different types of hospitals, hospital services and hospital groups; authorizing the installation of high technology medical equipment and drawing up the appropriate standards; defining the rules and regulations for reducing a surplus of beds; drawing up the accreditation requirements for hospitals and hospital services; determining the rules for the general planning of hospitals; and organizing and implementing hospital services. The recommendations of the department for hospital financing are primarily related to the budget for financial resources, accounting matters and the financing of hospital construction and renovation.

The multipartite consultation structure for hospital policy has existed since 1996; however, it was reformed in 2002 with clearly defined advising responsibilities. The goal of this consultative structure is to build bridges between the RIZIV-INAMI (providing insurance for inpatient care) and the FPS Public Health, Food Chain Safety and Environment (responsible for the organization and quality regulation of inpatient care) to improve administration in the hospital sector. Within this structure, an equal number of hospital physicians, hospital administrators and sickness fund representatives consult with each other and give advice on matters which concern both the hospital budget and the fee-for-service system for physicians (such as radiotherapy, magnetic resonance imaging (MRI) and positron emission tomography (PET)). They also have an important advisory role in the regulation of the system of reference amounts for standard interventions (see Section 3.2 on performance assessment and health information management), the reimbursement of pharmaceuticals in hospitals, the financing of endoscopic and viscerosynthesis material and the evaluation of hospital admission policy.

The Belgian Health Care Knowledge Centre (KCE) was set up in 2003 to counter a lack of policy-oriented research in health care. The KCE is scientifically and professionally independent but works together with all main stakeholders in the health care sector, the universities, other scientific institutions and international organizations. The Centre is active in producing policy papers, recommendations and research in four main research fields: good

clinical practice, health technology assessment, health services research, and equity and patient behaviour. The KCE makes its results available to policy-makers and must also ensure that feedback is given to health care providers. The KCE has neither authority to develop health policy nor responsibility to implement policies.

The Superior Health Council is the link between government policy and the scientific community in the field of public health. The Council provides independent advice and recommendations to the Minister of Public Health, on the Minister's specific request for information or on its own initiative. The Superior Health Council is competent on all matters related to public health; in particular, it deals with the following areas: mental health (behaviour, addictions, psychosocial factors in public health, training professionals and psychotherapy); physical (ionising radiation, non-ionising radiation and noise pollution); chemical (chemicals, pollutants, biocides and pesticides); environmental; nutrition (healthy eating, additives, safety, packaging, novel foods, contaminants and microbiology); and biological problems (infectious diseases, vaccines and hygiene issues). The Council has 90 members and an indeterminate number of invited members. They are drawn mostly from university and governmental circles and appointed on the basis of their specialist knowledge.

2.2.2 Regional level

The three communities (Flemish, French and German) are autonomous and responsible for health promotion and preventive health care, except for certain national preventive measures, such as compulsory vaccinations (e.g., for polio). With regards to secondary care, the communities are responsible for ensuring the implementation of norms and standards for hospitals and rest and nursing homes that have been set at the federal level, accreditation of hospital beds and medical equipment and authorizing hospital construction and renovation work. Community authorities are also responsible for coordinating and setting accreditation criteria for home care services.

For the Flemish community, the Care and Health Agency of the Department of Welfare, Public Health and Family is responsible for the development, implementation and evaluation of policies concerning regional health care responsibilities. Other agencies responsible for health promotion and prevention are Child and Family (K&G), the Youth Welfare Agency and the Agency for Persons with a Disability. Child and Family is responsible for looking after the well-being and health of children and supporting parents in the care of their children.

For the French community, public health policies are administered by the Directorate-General of Health within the Ministry of the French community.

The following agencies are also involved in public health policy in the French community: the Birth and Childhood Organization Office (ONE) and the Superior Council of Health Promotion. The Superior Council of Health Promotion provides advice to the regional government on health promotion and preventive health care. At the Ministry of the Walloon region, the Directorate-General of Social Action and Health is responsible for policies regarding hospitals and rest and nursing homes.

For the German-speaking community, the Department of Labour, Health and Social Affairs of the Ministry of the German-speaking community is responsible for matters related to public health and health promotion.

2.2.3 Intergovernmental level

Since the devolution of public health policy to the communities in 1980, so-called interministerial conferences have been regularly organized to facilitate cooperation between the federal Government and the communities. The interministerial conferences are composed of the ministers responsible for health policy from the federal and regional governments. The interministerial conferences have no binding decision-making power, but they are the ideal forum for smooth and efficient consultation between the governments, with respect for the autonomy of each of them. Within the framework of the interministerial conferences for health policy, protocol agreements have been made concerning the most divergent problems in the field of public health. The most important protocols are related to long-term care, home care, mental health care, the organization of breast cancer screening, the harmonization of vaccination policy, the food plan, the organization of the health survey, the policy on drug addiction, the hepatitis B prevention policy and the control of the number of hospital beds.

2.2.4 Nongovernmental bodies

Belgian health care organization and policies are highly influenced by a number of nongovernmental stakeholders, including sickness funds, the Order of Physicians, health professionals' associations, hospital associations, pharmacists' associations, the pharmaceutical industry, trade unions, employer organizations, etc. Not only do these stakeholders influence health care policy by traditional lobbying, they are also directly involved in the management of the system, mostly by membership on one or more of the executive councils or committees in the RIZIV-INAMI, and are represented in different advisory

bodies. Some of the larger or more influential of these stakeholders are described below.

The RIZIV-INAMI oversees the general organization of the compulsory health insurance; however, the task of actually providing insurance falls to the sickness funds. Sickness funds receive their financial resources from the RIZIV-INAMI. Sickness funds are private non-profit organizations with a public interest mission. They are active members of both the executive and the advisory committees of the RIZIV-INAMI. They are also in charge of medical auditing: they verify that services have really been carried out and that the fees charged conform to regulations (see also Section 3.1.1 on regulation and governance of third-party payers).

Within the health insurance management bodies, health care providers are represented by different professional associations (for physicians, dentists and physiotherapists). Their representation is determined on the basis of elections which are organized every four years. All health providers can take part in these elections irrespective of whether they are members of a professional organization or not. In 2006, the Committee for Health Care Insurance of the RIZIV-INAMI decided to give public funding to some professional associations.

The Order of Physicians is an organization that regulates the Belgian medical profession. Every Belgian physician must be registered on the list of the council of the Order of Physicians in the province where he/she is a permanent resident. The most important function of the provincial councils is to ensure observance of the rules of professional conduct for physicians and preservation of the reputation, standards of discretion, probity and dignity of the members of the Order. To this end, the councils are responsible for disciplining any misconduct committed by their registered members in, or in connection with, the practice of the profession, as well as serious misconduct committed outside the realm of professional activity, whenever such misconduct is liable to damage the reputation or dignity of the profession. The national council is responsible for establishing the general principles and rules concerning the morality, honour, discretion, honesty, dignity and devotion indispensable to the practice of medicine. Together these principles and rules form the code of professional ethics. This code also stipulates rules concerning continuity of care, medical secrecy, handing over of medical data to colleagues and individual relations between physicians and their patients, colleagues, dentists, pharmacists and allied health professionals. The Order has its own judicial system that can impose various sanctions such as warning, censure, reprimand and suspension of the right to practise medicine.

2.3 Decentralization and centralization

Over the decades, Belgium has become a federal state. The process of devolution has resulted in a shift in responsibilities from the national level to the communities and the regions. Since the Institutional Reform Act of 1980, health care policy is both a responsibility of the federal State and the communities. The communities are responsible for so-called person-related matters, such as health care and welfare. The Institutional Reform Act defines the person-related matters in the sphere of health care policy as intramural and extramural curative health care and the policy regarding health education, health promotion and preventive health care. In both cases, the law provides important exceptions as a result of which the federal Government has kept the most important powers concerning health care policy.

In the field of health care, the federal State remains responsible for organic legislation (i.e. legislation on the organization of health care institutions, such as the Hospital Act), financing of the operational costs of health care institutions when covered by such organic legislation, basic rules for the planning of health care institutions, basic rules for the financing of infrastructure and advanced medical care equipment, national accreditation standards in so far as they affect the areas mentioned above and the conditions governing teaching hospitals, including the licensing of these hospitals. Also, compulsory social health and disability insurance remains a federal competence as an integrated part of the social security system. The current distribution of powers in health care is closely related to the objective of concentrating cost–containment policy under one level of competence. Besides the determination of the broad policy lines and basic rules, the federal Government is explicitly responsible for the three basic instruments of cost–containment: determining the basic rules for planning of medical infrastructure, financing of hospital running costs and reimbursing medical activities. The other responsibilities assigned to the federal level are also closely related to planning and financing (Decoster & Ceuterick 1999). The federal State remains responsible for matters related to the Pharmaceuticals Act, the Practice of Health Care Professions Act and urgent medical assistance.

Regarding inpatient care policy, the communities are responsible for: defining priorities with respect to investments for construction and heavy medical equipment; granting admission and subsidies for the establishment, conversion and equipment of services, as well as for heavy medical equipment; inspection, accreditation and closure of medical facilities; and internal organization and reception, to the extent that this does not affect operating expenses. Regarding outpatient care policy, the communities are responsible for home care, including services for integrated home care, as well as individual

care, rest homes for the elderly providing care and services for mental health care, including after-care.

The most important health competences of the communities lie in the domains of health promotion, health education and preventive health care. This includes different kinds of information and awareness campaigns, the organization of medical screening, and control activities, such as medical school surveillance, medical sports inspections and occupational health control. In the field of preventive health care, the federal State remains responsible for national prophylactic measures, such as mandatory vaccination against poliomyelitis.

The health care responsibilities of the provinces and municipalities are limited. Each of the 10 provinces has a provincial health officer, who represents the Federal Minister of Public Health in the field of public hygiene and whose responsibilities include taking necessary actions in cases of acute communicable diseases and the administration of the provincial medical councils. These councils have a general advisory function and they may take any measure necessary to deal with contagious diseases. Moreover, provincial medical councils are responsible for controlling the authenticity of the diplomas of physicians, pharmacists, dentists, physiotherapists, nurses and paramedical professionals; supervising the practice of medicine, nursing and paramedics; and determining the need for organizing on-call duties for physicians during nights and weekends. Municipalities are responsible for organizing social support for low-income groups, the organization of emergency care and public hospitals.

2.4 Patient empowerment

2.4.1 Patients' rights

In August 2002, Belgium introduced legislation on patients' rights. The purpose of the Patients' Rights Act is to strengthen the legal status of the patient. Prior to this Act, patients' rights could be inferred from general legal principles, international treaties and constitutional and criminal stipulations. The Patients' Rights Act regulates the rights of patients with regard to health care professionals, including physicians, dentists, pharmacists, nurses, midwives, physiotherapists and paramedics. Two national campaigns were organized to raise awareness and make patients' rights better known to the public.

The legislation on patients' rights is in principle not applicable to health care provisions. However, patients' rights refer to the administrative aspects of the legal relationship between patients and health care providers, for which

the communities are responsible. Also, hospital legislation stipulates that every hospital is obliged to comply with the law on patients' rights.

The following rights are established by law:

- right to quality of service provision
- right to free choice of health care professional
- right to patient state of health information
- right to give informed consent
- right to inspect and to have a copy of the patient file
- right to protection of privacy
- right to submit a complaint to the responsible ombudsperson
- right to palliative care and pain relief.

The right to free choice of health care professional gives patients the choice to contact different health care professionals, before choosing a specific one. Patients can always choose to contact another health care professional for a second opinion and may change their choice of health care professional.

With regard to the provision of information by the care provider, the patients have the right to receive all information necessary to gain insight into their state of health. This information should be supplied in clear language and, in principle, verbally. Patients have the right to request information confidentiality. Despite the right not to know, health care professionals can still decide to inform the patient if the patient or third-parties are at risk of serious detriment to health.

The right to give informed consent establishes that the prior consent of patients is required for every intervention by health care professionals. The patient should be given information on the aim of the intervention (e.g., diagnostic or therapeutic), the nature of the intervention (e.g., painful or not), degree of urgency, duration, frequency, contraindications relevant for the patient, side-effects and risks, after-care, possible alternatives, financial consequences and possible consequences in the case of refusal or withdrawal of consent.

Patients also have the right to a patient file that is carefully maintained and secured. Patients are entitled to inspect their patient file and must be offered the possibility to do so. Information exclusions apply to information on a third party; and to the notes provided by the health care professional (unless the patient is assisted by another health care professional appointed by the patient as a confidential adviser). In 2007, a maximum amount will be fixed for the costs which can be charged to the patient for copying his medical file.

Patients are entitled to the respect of privacy for every intervention provided by the health care professional. Other people may be present only if it is required for professional reasons.

The law also grants the patient the right to a complaint procedure. Patients can submit their complaint to an ombudsperson. The ombudsperson should, in the first instance, support the communication between the patient and the health care professional. If the patient and health care professional do not reach a solution, the ombudsperson has to proceed to mediation. If the ombudsperson's mediation does not lead to a solution, the ombudsperson has to inform the patient about the other alternatives for the complaint procedure. On the basis of the information obtained as a mediator, the ombudsperson suggests recommendations to prevent future similar complaints. Under the hospital legislation, and following the set standards, every hospital must appoint an ombudsperson.

Every health care professional must comply with the patients' rights legislation. Hospitals are also obliged to comply with the stipulations of the law on patients' rights with regards to the medical, nursing and other health care professional aspects of the legal relationship with patients. In addition, hospitals must ensure compliance by health care professionals and access to a hospital ombudsperson for patients with complaints.

A federal ombuds service has been established in the FPS Public Health, Food Chain Safety and Environment. This service is responsible for handling complaints of patients concerning the exercise of their rights, granted by the Patients' Rights Act, by referring patients to the appropriate local ombudsperson. The complaint is treated by the federal ombudsservice, if there is no appropriate local ombudperson. It concerns, for example, GPs, dentists, pharmacists, independent nurses and physiotherapists. The federal ombuds service must also deal with complaints concerning the way in which conciliation has taken place by the local ombudsperson. However, the federal ombuds service is not a substantive profession-wide agency for complaints which have been dealt with by local ombudspersons.

2.4.2 Patient safety and compensation

The professional liability of a physician is, with the exception of disciplinary liability, not governed by special laws. This means that both the civil liability and the criminal liability of the physician for damage or injury caused by improper performance of the duties entailed in the discharge of his/her professional functions, are governed by the general rules of civil and criminal law (Nys 1997).

A patient is entitled to recover damages in respect of negligent medical treatment only if he/she has actually suffered damage. In principle, all the damage, moral damage included, has to be compensated. Patients who are faced with a medical fault must overcome many obstacles to get the damages

recovered. Long legal procedures are often necessary, while results are uncertain. Fault is the main basis of a claim for malpractice. Deviation from the professional standard is to be considered as a fault in the practice of medicine. A patient who experiences damage after a medical intervention or treatment can only get compensation if he/she proves that damage has been caused by malpractice or a failure. The plaintiff must prove, not only that the defendant physician was negligent, but also that the defendant's negligence was the cause of the damage the plaintiff has sustained.

New legislation is being drafted to facilitate the procedure. Under this new system all cases of abnormal damage would be compensated for without the patient having to prove the medical fault. The condition for indemnity would no longer be the existence of fault and the causal link between damage and fault, but only the existence of damage which is linked to the delivery of care or to the lack of care attribution. Payment for the damages of medical failure would be entrusted to the insurance companies and to a fund to be established with this aim.

Over the past several years, a patient safety policy within the hospitals is being developed through pilot projects on issues such as incident reporting in the case of medication mistakes and the development of patient safety indicators based upon the Clinical Minimum Data Set. In 2007, committees for quality and patient safety will be created in hospitals involving a coordinator who will set up and follow the incident reporting in order to create a "no shame, no blame" sphere within this institution.

2.4.3 Patient satisfaction

According to the most recent Eurobarometer (OECD 2002) on the public's satisfaction with the health system, a clear majority (65.1%) of the Belgian population is satisfied with the present organization of health care (OECD 2006). The system runs well according to 23.8% of Belgians (compared to 13.2% in the EU15). However, 41.3% of Belgians said that minor changes are needed (30.7% in the EU15), 22.7% felt that fundamental changes are needed (38.2% in the EU15) and 5.2% want to rebuild the health system completely (13.5% in the EU15).

3 Regulation and governance

3.1 Regulation

Three political and administrative levels operate in the Belgian health system: the federal Government, the regional governments and the local governments (provinces and municipalities). All levels play important roles, but with responsibility for social security, compulsory health insurance, pharmaceutical policy and hospital legislation, the main responsibilities are concentrated at the federal level. A typical characteristic of the Belgian health system is the participation of several stakeholders in its management. Besides extensive regulation by the federal and regional governments, an important part of the health system is regulated by national collective agreements made between representatives of health care providers and sickness funds.

The basic right to health care has been set out in the Constitution. Article 23(2) of the Belgian Constitution recognizes the right to social security, protection of health and medical assistance. This constitutional right has been further developed in several laws and decrees.

3.1.1 Regulation and governance of third-party payers

The compulsory health insurance is administered only by sickness funds, which are non-profit, noncommercial organizations.

All individuals entitled to health insurance must join or register with a sickness fund. The choice is free, except for railway workers (1.4% of the insured in the general system), who are automatically covered by the health insurance fund of the Belgian railway company. As mentioned in Chapter 2, sickness funds are mainly organized according to religious or political affiliations into five national alliances: the National Alliance of Christian Mutualities, the National

Union of Neutral Mutualities, the National Union of Socialist Mutualities, the National Union of Liberal Mutualities and the National Union of the Free and Professional Mutualities. The Christian and Socialist Mutualities have the largest share, covering about 45% and 29%, respectively, of the population in 2005. The Auxiliary Fund is an additional neutral public body intended for those patients who do not want to affiliate themselves with any of these groups. It accounts for no more than 0.8% of the insured in the general system and 0.3% in the system of the self-employed.

By means of the Sickness Funds Act, sickness funds are entrusted with a central position in compulsory health insurance. They have to control the conformity of health care expenditure with the legal regulations. Some services are only reimbursed if there has been an a priori approval by the so-called advisory physicians of the sickness funds. These advisory physicians can question the prescription of expensive pharmaceuticals, the length of hospital stays and the ascription of patients to the various classes of the Katz-scale in long-term care financing.

Sickness funds act collectively in their negotiations with health care providers. Individually they lack specific instruments to evaluate and influence the medical expenditures of their members as far as compulsory health insurance is concerned. However, since 1995, Belgian sickness funds receive a prospective budget, adjusted to risk, to finance the health care costs of their members and they are held financially accountable for a proportion of any discrepancy between their actual spending and their so-called normative, i.e. risk-adjusted, health care expenditure (see Section 4.4 on allocation to purchasers).

For their role in compulsory health insurance as well as in the administration of incapacity and disability insurance, sickness funds receive subsidies from the RIZIV-INAMI to cover their administrative costs. This subsidy is based on the number and social characteristics of their members with some corrections for efficiency in the management of the system.

The Sickness Funds Act also requires sickness funds to develop services and activities outside mandatory social security as long as they are related to the health and well-being of their members. In the field of voluntary health insurance, they compete with commercial insurance companies. Contrary to the latter, sickness funds do not operate risk selection.

Competition among sickness funds concentrates mainly on their service to the members and the complementary activities and services they offer. Legally, sickness fund members may change their sickness fund each quarter if they have been enrolled for a period of at least one year. With about 1% of all members switching each year, insurance mobility has been rather low (Schokkaert & Van De Voorde 2003).

3.1.2 Regulation and governance of the budgeting and purchasing process

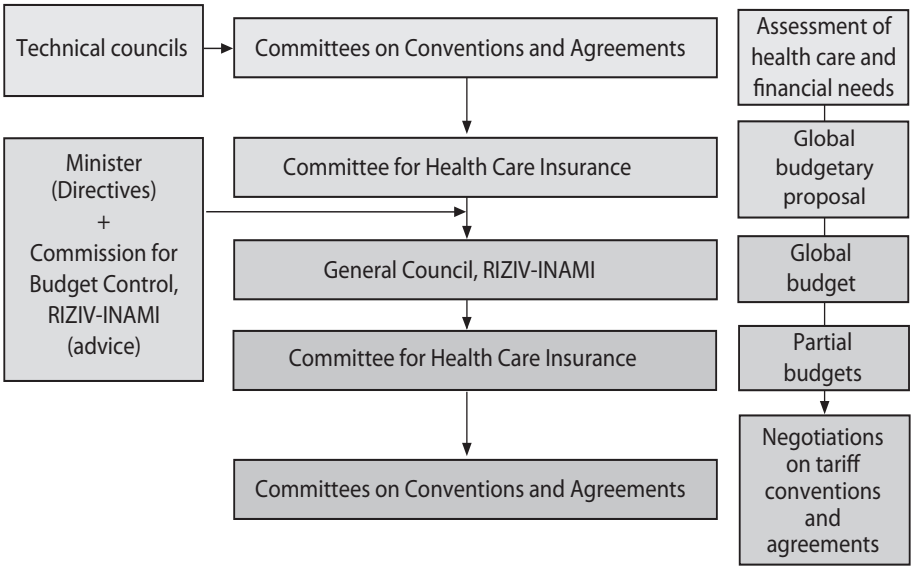
Tariffs and fees for services provided by health professionals, within the context of compulsory social insurance, are fixed collectively within the RIZIV-INAMI between sickness funds and representative organizations of health professionals. These price agreements are embedded within a budgetary process (see Fig. 3.1).

The global budget allocated to compulsory health insurance is set annually by the General Council of the RIZIV-INAMI, and is based on a proposal by the Committee for Health Care Insurance. This committee is charged with the task of drawing up a detailed evaluation of all the population's health care needs and has to decide on the criteria for setting priorities. The specific health care needs are defined by the different Committees on Conventions and Agreements (doctors, dentists, nurses, physiotherapists, etc.). These committees are advised by their relevant technical councils, which suggest changes to the fee schedule in their specific field (e.g., introduction or deletion of reimbursable services). They make estimates of the overall projected expenses based on an extrapolation of the average evolution of expenditure in the last four or five years, taking into account the modifications in the fee schedule and the changes in the consumer price index and in the demographic structure. After the global budget is set and approved by the Minister, the Committee for Health Care Insurance decides on the partial budgets for each subsector. These partial budgets are the basis for starting the negotiations on the tariff conventions and agreements (see also Section 4.6.1 on paying health care professionals).

The budgetary process, as well as development of expenditures, globally and per sector, is closely monitored by the Commission for Budget Control of the RIZIV-INAMI. If a fixed budget in a certain subsector is exceeded or there is a danger of exceeding it, negotiations start between sickness funds and health providers to change the regulatory structure, including, if necessary, the fee schedule and the co-payments. If there is a clear indication that the original estimate of the budget was unrealistically low, it can still be adjusted during these negotiations. In such cases the additional financing comes from the Government.

In 2005, the budgetary procedure was adjusted. It was determined that the system of monitoring expenditure did not function sufficiently and was too static. The existing system was complemented with a permanent audit mechanism. The audit allows for systematic reporting of the evolution of the expenditure for each sector, irrespective of any budget overrun. The audit gives information on: the difference between the fixed budget and the evolution of the expenditure; the saving measures; the initiatives of the Government and the committees on

Fig. 3.1 Scheme of the budgetary process



conventions and agreements; and the evolution of the most important areas of activity within a health care sector.

3.1.3 Regulation and governance of pharmaceuticals

The Federal Minister of Public Health is responsible for the introduction of pharmaceuticals on the market. In order to protect public health, a pharmaceutical must satisfy a number of requirements regarding quality, safety and effectiveness. In order to introduce a product on the market, the pharmaceutical company must submit an application at European level or nationally. The application file contains all relevant information concerning the effectiveness of the product as well as the results of analytical, toxicological, pharmacological and clinical tests. This official registration is a basic condition to introduce a pharmaceutical on the market in Belgium by means of a pharmacy or through a physician (for sample pharmaceuticals).

As of 2007, the national registration procedure is the responsibility of the Federal Pharmaceuticals and Health Products Agency (FAGG-AFMP). The application for registration must be accompanied by a complete file that contains the results of clinical tests from which quality, safety and effectiveness of the product are established for specific indications. In his/her decision, the Minister considers the recommendations of the FAGG-AFMP. For certain applications (vaccines, sera, etc.), the Minister seeks advice from the Superior Health Council. According to an EU Directive, the recording procedure cannot take more than 210 days.

The determination of the maximum price for a pharmaceutical product falls under the responsibility of the Federal Minister of Economic Affairs. For reimbursed products, the Minister considered the recommendations of the Pricing Commission for Pharmaceuticals when setting prices or considering demands for price increases. In the case of non-reimbursable pharmaceuticals, recommendations are given by the Price Regulation Commission.

The Minister of Social Affairs is responsible for reimbursement decisions and considers the proposals of the Commission for Reimbursement of Pharmaceuticals (CTG-CRM). The CTG-CRM was set up at the RIZIV-INAMI and is composed of representatives of the sickness funds, pharmacists, physicians, academics, the pharmaceutical industry, the Government and the RIZIV-INAMI. The latter three stakeholders do not have voting rights. The three most important tasks of the CTG-CRM are:

- to formulate proposals to register pharmaceuticals on the list of reimbursable pharmaceuticals; these proposals are based on expert reports applying methods of health technology assessment;
- to grant recommendations on the request of the Minister about policy matters concerning the reimbursement of pharmaceuticals;
- to formulate proposals for the Committee for Health Care Insurance of the RIZIV-INAMI of interpretation rules concerning the reimbursement of pharmaceuticals.

3.1.4 Regulation and governance of providers

Providers fall into two groups: (i) health institutions such as hospitals, rest and nursing homes, day centres, laboratories and outpatient clinics; and (ii) health professionals, such as physicians, dentists, physiotherapists, pharmacists, nurses, midwives and paramedical practitioners, who are generally organized as self-employed professionals. Both groups are discussed further in the following subsections.

Health institutions

The Government plans global hospital capacity by requiring that hospitals obtain accreditation from the regional ministries of public health to operate a certain number of beds for each service category (e.g., acute care, surgery, maternity). Accreditation is granted only if a proposal for hospital opening, extension or alteration respects national planning. Planning usually takes the form of target figures (e.g., 2.9 beds per 1000 inhabitants for general inpatient services; 32 beds per 1000 births for maternity services). However, the planning has not

been taken into consideration since there was already an overcapacity of beds at the time when planning was established.

There are a variety of accreditation norms for hospitals. Organizational norms relate to staff requirements and responsibilities (e.g., hygiene, ethical requirements); architectural criteria (e.g., the number, size, comfort and hygiene standard of hospital rooms); functional standards (e.g., convenience, accessibility); additional norms relating to minimum activity (e.g., they stipulate that hospitals should have no fewer than 150 beds; diagnosis/surgical units no fewer than 30 beds; intensive neonatal units no fewer than 15 beds), setting minimum facility standards; and expected staff numbers. Accreditation criteria are developed at federal level and implemented at community level.

There are also specific accreditation norms for certain medical services (e.g., radiology with computed tomography (CT) and magnetic resonance imaging (MRI), radiotherapy, renal dialysis, nuclear medicine, non-urgent patient transport, centres for human heredity) and for certain hospital functions (e.g., hospital pharmacy, local neonatal care, regional perinatal care, palliative care, surgical day hospitalization, initial relief of emergency cases, specialized emergency care, intensive care, mobile urgency groups and psychiatric family nursing).

Since 1999, the regulation and accreditation of medical hospital services and functions have gradually been replaced by the accreditation of "care programmes". A care programme is the collection of several hospital activities which are organized around a certain pathology. For each care programme legal criteria are set related to the target group, nature and content of care, minimum activity level, necessary infrastructure, required medical and nonmedical staff and their required expertise, standards concerning quality and quality monitoring, economic standards and geographical accessibility criteria. At present, there are care programmes for reproductive medicine, cardiac pathology, oncology, and geriatric and paediatric activities (see also Section 6.4 on inpatient care).

The communities are responsible for authorizing hospital building, while capital subsidies are shared by the communities and the federal Government. Only the investments listed in the building programme can be paid for from the hospital budget provided by the federal Government. The federal Government managed to reach an agreement with the communities for a building programme just as the merging of hospitals threatened to greatly multiply the level of federal expenditure for hospital building. Hospitals were obliged to merge to work on a larger scale to improve their productivity.

In recent years, the reforming and modernizing of hospital services have been tackled again. A study on hospital needs showed that Belgium's current oversupply of hospital beds would quantitatively suffice to cover the estimated

needs in 2015 (Cannoodt et al. 2005). To tackle the oversupply, current supply needs to be reoriented towards more hospital facilities for elderly care and fewer beds for surgery, internal medicine and paediatrics. Towards this end, incentives were created for hospitals within the hospital financing system to rationalize supply, to create complementarity between different hospital campuses, or to reduce their number of beds. Hospitals are encouraged to adhere to "care areas", which could lead to more complementarity within a region. At the same time, powerful incentives were created to modernize hospital infrastructure by covering, within the hospital financing, a greater part of the construction cost, by increasing the tariffs of construction ceilings and by facilitating reconditioning works.

Health professionals

The practice of most health care professionals is regulated by the Practice of Health Care Professions Act. This law regulates access to professions such as physicians, dentists, physiotherapists, pharmacists, nurses, midwives and practitioners of a paramedical profession (see also Section 5.2.4 on registration/licensing).

In 1996, the federal Government set up the Committee for Medical Supply Planning. The original remit of this committee was to ascertain medical supply needs with regard to physicians and dentists and to take account of the evolving needs of medical care, the quality of care provision, and the demographic and sociological development of the professions concerned. Later, the remit of this committee was extended to also cover physiotherapists (1997), and nurses, midwives and logopaedics (1999) (see also Section 5.2.2 on planning for health care personnel).

3.2 Performance assessment and health information management

3.2.1 Health technology assessment and evaluation of medical practice

Until recently, health technology assessment (introducing only those new technologies that have proved to be effective in improving treatment) had not been implemented in the Belgian health system. However, a number of initiatives were taken to improve the scientific support of health care policy. In 1992, a

scientific council was set up within the Health Care Department of the RIZIV-INAMI. The Scientific Council has been charged to research each scientific aspect concerning the insurance for medical care and examine the quality of health care. It has two departments: the committee for the evaluation of medical practice concerning pharmaceuticals and the committee for recommendation concerning health care with respect to chronic and specific disorders.

With the creation of the Health Care Knowledge Centre (KCE) in 2003, another step was taken in bridging the gap between policy-oriented research on health care and policy-making in this field. The KCE is active in producing policy papers, recommendations and research on health technology assessment, the evaluation of medical practice in hospitals, the development of new reimbursement and financing systems, recommendations for hospital admission policies and the development of evidence-based medicine and policies.

Several electronic databases, such as Pharmanet (see Section 3.2.2 on information systems), provide information on the medical practice of individual physicians. The prescription behaviour of individual GPs and specialists is evaluated against objective scientific standards, for pharmaceuticals, diagnostic and technical services and physiotherapy (see Chapter 7 on health care reforms). Individual physicians receive feedback on their prescription patterns taking into account the pathologies of their patients. These data are peer-reviewed in Local Medical Evaluation Groups (see Section 7.2.2 on making health care providers individually accountable and Section 8.2.2 on accreditation of physicians). Also, hospitals receive feedback on the activities of the physicians practising in their institution, compared with other hospitals. Here again systems of peer review are set up to compare practices and outcomes both among each other and against internationally accepted standards. Information campaigns are also launched towards target groups of physicians. Physicians can be requested to explain and substantiate their deviating prescription behaviours. Procedures are in place to penalize physicians whose profile is not in accordance with the parameters, or to reclaim unjustified amounts from physicians in case of obvious overprescription.

Despite these measures of promoting rational use of medical goods compared to scientific standards, there remains a large variability among professionals and hospitals in the use and prescribing of pharmaceuticals, treatments and diagnostic services for the same types of pathologies. For medical imaging, the intention is to establish internationally validated guidelines. If physicians do not follow these guidelines, then they will be obliged to justify their decision.

In order to address the significant differences in medical practice between hospitals which cannot be explained medically financial disincentives have been tested. In 2002, a system of reference amounts for standard interventions

was introduced. This recuperation system has been applied to admissions since 1 October 2002. With standard interventions, a significantly divergent consumption profile is compared to a national reference amount. The existing mechanisms of linear recuperation (clinical biology and medical imaging) were restructured to take into account medical practice performance. The all patients refined diagnosis-related groups (APR-DRGs) are used for selective recuperation and factors in the severity of the illness (see Section 4.6.2 on paying for hospitals). Severity should be taken into account because average consumption per patient increases systematically with the degree of severity. Selective recuperation will only be applied for severity classes 1 and 2. The number of cases that fall under severity classes 3 and 4 is limited for most pathology groups. It may, for example, involve a (rare) serious complication (also with a commonly performed intervention) or a patient with significant comorbidity.

In the selection of APR-DRGs, the starting point was that medically homogenous and simple pathologies that occur frequently had to be included. Table 3.1 shows the APR-DRGs that were ultimately included in the system of reference amounts, and that qualify for recuperation.

The following groups of provisions are taken into account:

- clinical biology, with the exception of lump sum payments;
- medical imaging, with the exception of lump sum payments and nuclear magnetic resonance tomography;
- internal medicine, physiotherapy, kinesitherapy and various technical medical provisions.

The first evaluation period of this regulation ran until 31 December 2003. Thus, a possible recuperation amount will only be known when linked clinical and financial data for 2003 are available. The first recuperation will be carried out in 2007. In order to inform the hospitals, initial feedback was sent in autumn 2002 on the basis of the linked data for 1997. This was followed in spring 2003 by a second feedback on the basis of the linked data for 2000.

3.2.2 Information systems

The overall responsibility for collecting and analysing databases for epidemiologic surveillance lies with the Scientific Institute of Public Health (WIV-ISSP). The overall objectives of the WIV-ISSP are to collect, analyse and report on the distribution and development of health and diseases and their causes in different population groups within Belgium. The main tools of the WIV-ISSP are surveillance networks to monitor health problems and

Table 3.1 APR-DRGs in the system of reference amounts

APR-DRG	Description
024	Extracranial vascular procedures
045	CVA with infarct
046	Non-specific CVA and precerebral occlusion without infarct
047	Transient ischaemia
072	Extraocular procedures except orbit
073	Lens procedures with or without vitrectomy
097	Tonsillectomy and adenoidectomy procedures
134	Pulmonary embolism
136	Respiratory malignancy
139	Simple pneumonia
171	Permanent cardiac pacemaker implant without AMI, heart failure or shock
176	Cardiac pacemaker and defibrillator device replacement
179	Vein ligation and stripping
190	Circulatory disorders with AMI
202	Angina pectoris
204	Syncope and collapse
225	Appendectomy
228	Inguinal and femoral hernia procedures
244	Diverticulitis and diverticulosis
263	Laparoscopic cholecystectomy
302a	Major joint and limb reattachment procedure of lower extreme except for trauma if nomenclature code 289085 – Arthroplasty of the hip with total prosthesis (acetabulum and femur head) was charged
302b	Major joint and limb reattachment procedure of lower extreme except for trauma if nomenclature code 290286 – Femorotibial arthroplasty with sectional prosthesis was charged
313	Knee and lower leg procedures except food, if nomenclature code 300344 – Therapeutic arthroscopy (partial or total menisectomy) was charged
318	Removal of internal fixation device
445	Minor bladder procedures
464	Urinary stones with ESW lithotripsy
465	Urinary stones without ESW lithotripsy
482	Transurethral prostatectomy
513a	Uterine and adnexa procedures for ca in situ and nonmalignancy, if nomenclature code 431281 – Total hysterectomy by abdominal route was charged
513b	Uterine and adnexa procedures for ca in situ and nonmalignancy, if nomenclature code 431325 – Total hysterectomy by vaginal route including posterior colpoperineorrhaphy was charged
517	Dilation, curettage and conization
516	Laparoscopy and tubal interruption
540	Caesarean delivery
560	Vaginal delivery

Notes: APR-DRGs: all patients refined diagnosis-related groups; CVA: cerebrovascular accident; AMI: acute myocardial infarction; ESW: extra corporeal shock-wave; ca: cancer.

communicable diseases; sentinel networks of GPs and laboratories to analyse the epidemiological situation; registration systems to monitor the incidence of specific diseases (e.g., recording of new cases of HIV infections and AIDS); health services research to support and promote quality improvement in health services (e.g., consultation data of GPs and the National Surveillance of Infections in Hospitals); population surveys to collect health data through population surveys (e.g., health interview survey and national food consumption survey); and the analysis of data and development of public health indicators to express data as useful information to be used in the decision-making process.

The network of sentinel laboratories for microbiology provides weekly surveillance of infectious diseases and antibiotic resistance. This network allows a detection of outbreaks and the estimation of the incidence of infection at both local and national levels. A sentinel network of GPs provides data on specific health problems on a weekly basis. This surveillance network allows the monitoring of diseases, the measuring of their incidence and the study of their most important epidemiological characteristics. The main areas covered are: measles, mumps, cancer screening and requests for HIV tests, which permit impact studies for prevention and vaccination campaigns. The registration of consultation data through a network of GPs makes it possible to compare the health care provided in general medicine with existing guidelines and standards, with a view to promoting and supporting health care quality in general practice.

The National Surveillance of Infections in Hospitals aims to decrease hospital infection rates through surveillance, a confidential feedback system and self-assessment. Participating hospitals are able to monitor local infection and antibiotic resistance rates. These results can be compared with those of other hospitals in Belgium.

Belgium has a number of information systems in place for the collection, reporting and analysis of health data in hospitals. The most important data sets developed for hospital policy since the 1980s are the Clinical Minimum Data Set, the Nursing Minimum Data Set, the Psychiatric Minimum Data Set, the Financial Minimum Data Set and the Mobile Urgency Group Data Set. These data are mainly collected as tools for the measurement of hospital needs, and the evaluation of the effectiveness and quality of hospital care. Other objectives include the possibility to use these data for internal management and to determine population needs by epidemiologic studies (Roger France & Mertens 2001). In 2007, an integrated system for data collection will be launched, covering the Clinical Minimum Data Set, the Nursing Minimum Data Set and the Mobile Urgency Group Data Set.

The Clinical Minimum Data Set (CMDS) for hospitalized patients was developed in the 1980s and recording became compulsory in 1990. This data set contains relevant clinical and other information, such as primary and secondary diagnoses, age, sex, length of stay, operating room and non-operating room procedures, type of admission, type of discharge, destination, and more. The information in the CMDS is anonymous. Patients can neither be identified nor become known through any of the information in the data set. The CMDS is used to group hospitalized patients in DRGs. In 1995, All Patient (AP-)DRGs were chosen as the grouping method to establish hospital comparisons for financial purposes. In 2002, AP-DRGs were replaced by APR-DRGs (refined) to pay more attention to the severity of illness.

The Nursing Minimum Data Set (NMDS) contains information on a whole series of nursing activities, including the numbers of nurses per care unit, their qualifications and some diagnostic elements. The NMDS has been recorded since 1987 and is mainly used for hospital financing and nurse staffing allocation. In 2007, the original NMDS will be replaced by a renewed data set based on the Nursing Intervention Classification (2nd edition). The aim of this revision is to take into account the changes in nursing practice, the international development of nursing languages and classifications and the changes in health care management. Nursing data and the CMDS will be integrated into one overall health care management system (Sermeus et al. 2005).

Psychiatric data have been registered since 1996 by psychiatric hospitals and psychiatric departments of acute care hospitals. In 1998, the psychiatric nursing homes and initiatives for sheltered living started the recording of the Psychiatric Minimum Data Set (PMDS). The PMDS contains socioeconomic characteristics of the patient, diagnosis and preadmission problems, treatment data and diagnosis and residual problems at dismissal.

The Financial Minimum Data Set (FMDS) is based on the billing data for hospitalized patients. By linking the financial data with the clinical data it became possible to compare the cost per DRG between hospitals. These linked data were used to reform the financing of laboratories in hospitals and pharmaceuticals for hospitalized patients (see Chapter 7 on principal health care reforms).

The Mobile Urgency Group (MUG-SMUR) Data Set contains information on mobile urgency services. The MUG-SMUR is a fast intervention vehicle with an emergency physician, who is specialized in the treatment of vital urgencies, but does not transport the patient (see Section 6.5 on emergency care). The aim is to monitor the activities of the MUG-SMUR on a daily (real-time) basis.

In 1996, Pharmanet was created to inform physicians about their prescription behaviour and to allow them to compare their own prescription habits with those

of their colleagues. With Pharmanet, data are collected per prescribing physician and related to the supply of reimbursed pharmaceuticals that are delivered by public pharmacies. The collection of the data is carried out via pharmacies, the pharmacists' tarification services and the sickness funds. The latter transfer the data to the RIZIV-INAMI, assisted by the Committee on the Evaluation of Medical Practice concerning pharmaceuticals. One of this Committee's tasks is to organize regularly, at least two times per year, consensus meetings that are meant to evaluate the medical practice concerning pharmaceuticals in a certain sector and to formulate recommendations for all prescribing physicians. In addition, information campaigns based on Pharmanet data and intended for prescribing physicians are set up regularly (e.g., on the use of non-steroidal anti-inflammatory drugs).

In 2002, the sickness funds created a common health data centre, the Common Sickness Funds Agency (IMA-AIM), entrusted with the task of analysing health data gathered by the health insurance bodies within the framework of their public mission and drawing policy information from them. More specifically, IMA-AIM develops surveys and sample studies based on patient panels, analysing disease-related expenditure and consumption.

A recent KCE study (Van De Sande et al. 2006) concluded that in Belgium many data concerning health and health care are registered, and that they are collected at a rather extensive level of detail. Despite the great potential of these data, there has been a lack of reporting these data in a correct manner and of using international classifications and concepts in data collection, which would make it possible to report reliable data internationally. Furthermore, the following challenges were identified: lack of a unique identification for each patient, which makes the collection of longitudinal data analyses very difficult to gather; lack of data concerning voluntary health insurance; difficulties with diagnosis and treatment data as far as validity is concerned, in particular for comorbidity and complications; lack of data concerning extramural health care; only moderately useful data concerning psychiatry and very limited data concerning rest and nursing homes; lack of data concerning technology used in health care and out-of-pocket payments.

4 Financing

4.1 Health care expenditure

According to the European Health for All database, in 2004 total health expenditure as a percentage of gross domestic product (GDP) in Belgium was 9.3% (Table 4.1). At this percentage of GDP, Belgium ranked seventh among the European Union (EU) Member States, including those acceding to the EU in May 2004 and January 2007 (EU27) (Fig. 4.1). It should be mentioned that OECD, based on different methods, estimated health expenditure at10.1% in 2003 (OECD 2003). Between 1982 and 1994, the evolution of health care spending as a percentage of GDP in Belgium was in line with the evolution of the EU15 average (Member States belonging to the EU before May 2004) (Fig. 4.2). Since 1994, Belgium's total health care expenditure as a proportion of GDP has been above the EU15 average. The growth in health expenditure in Belgium is similar to that in other western European countries and can be explained by several factors, such as the increasing number of elderly people, higher expectations, growth in real GDP and increasing implementation of new technology in the health care sector. Health expenditure is expected to increase in the years after 2004 owing to low GDP growth and government policy to increase annual public spending on health care by 4.5% in real terms between 2004 and 2007.

Belgium had the fifth highest health care expenditure per capita measured in purchasing power parity (PPP) US$ among EU27 countries (Fig. 4.3). Health care expenditure per capita is only higher in Luxembourg, the Netherlands, Germany and France. Public sector funding as percentage of total expenditure on health care fluctuates around 70% in Belgium, clearly below the EU25 average of 75.9% (EU Member States, including the expansion of May 2004) and the EU15 average of 76.2% (Fig. 4.4).

Table 4.1 Trends in health care expenditure, 1970–2004 (selected years)

	1970	1980	1985	1990	1995	2000	2001	2002	2003	2004
Total health expenditure (% of GDP)	3.9	6.3	7.0	7.2	8.2	8.6	8.7	8.9	9.4	9.3
Total health expenditure per capita (purchasing power parity US$)	149	637	960	1 345	1 820	2 282	2 420	2 616	2 828	2 922
Public expenditure on health (% of total expenditure)	–	–	–	–	69.5	70.5	71.4	71.2	71.1	70.9
	1980–1985		1985–1990		1990–1995		1995–2000		2000–2004	
Mean annual real growth in total expenditure on health (in € at 2000 price level)	3.2		3.9		4.1		3.5		4.8	
Mean annual real growth in GDP (in € at 2000 price level)	0.9		3.1		1.6		2.7		1.5	

Sources: OECD, 2006 (October) (for data for 1970 to 1995) and WHO Regional Office for Europe, January 2007 (for data for 2000 to 2004).

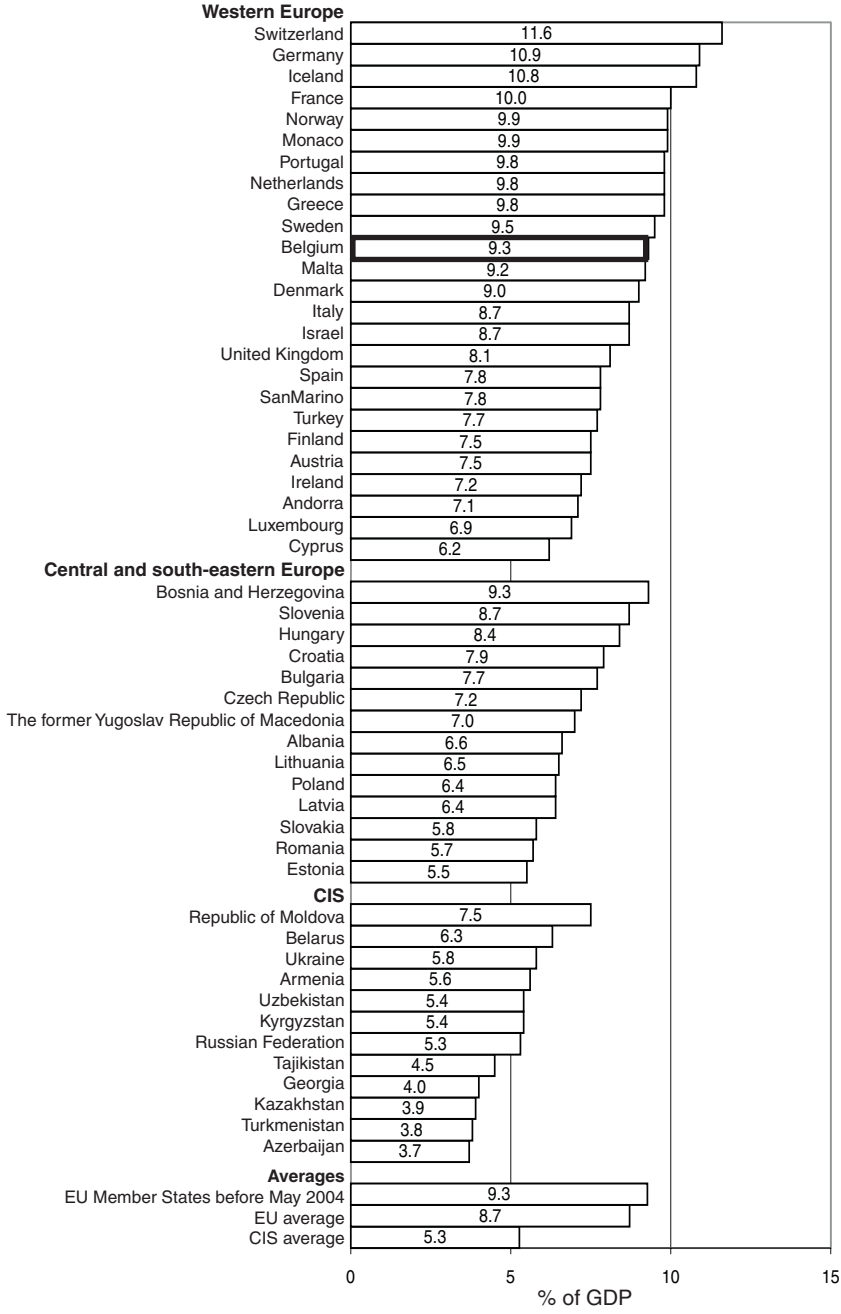
As Table 4.2 indicates, in 2005, the three most costly health care services as a proportion of total public health spending were: the hospital budget (27.9%), which covers mainly the costs of accommodation, nursing care and equipment; physicians' fees (27.8%); and pharmaceuticals (17.6%). From 2000 to 2005, the main factors that contributed to growth in public expenditure were higher spending on care for the elderly (average annual growth of 11.9%), implants, orthopaedist and prosthetist fees (9.1%), rehabilitation, retraining and logopaedics (8.8%) and pharmaceuticals (6.7%).

4.2 Population coverage and basis for entitlement

4.2.1 Population coverage

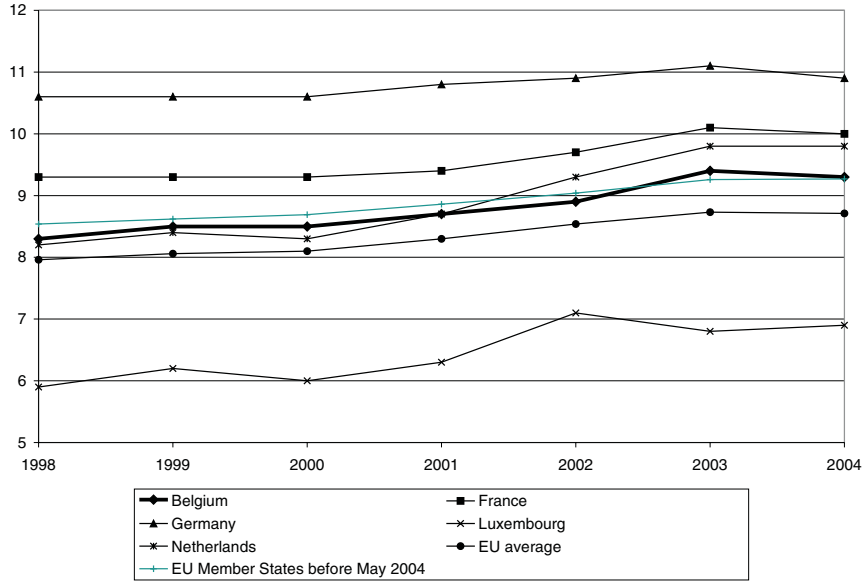
Belgium has a system of compulsory health insurance with a very broad benefits package that covers almost the entire population. Health insurance is one of the six sectors of the social security system, which include old age and

Fig. 4.1 Health expenditure as a share (%) of GDP in the WHO European Region, 2004, WHO estimates



Source: WHO Regional Office for Europe, January 2007.
Note: CIS: Commonwealth of Independent States; EU: European Union.

Fig. 4.2 Trends in health care expenditure as a share of GDP (%) in Belgium, selected countries and EU averages, 1998–2004, WHO estimates



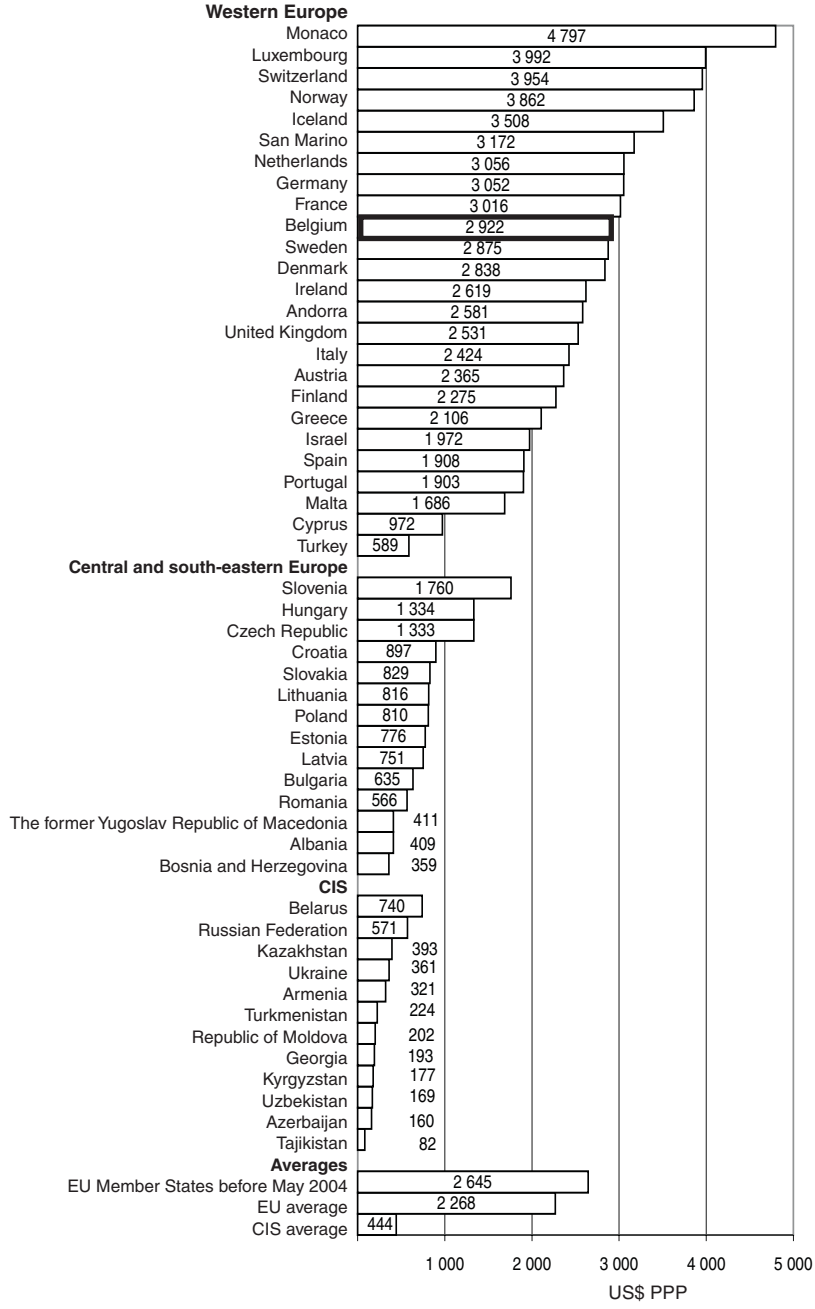
Source: WHO Regional Office for Europe, January 2007.

Table 4.2 Public health care expenditure by type of service (% of total public expenditure and average growth rates), 1990–2005

	1990	1995	2000	2005	1990–1995	1995–2000	2000–2005
Hospital budget	32.3	31.9	29.4	27.9	6.5	3.3	5.2
Physicians' fees	36.5	30.6	29.4	27.8	3.1	4.3	5.1
Pharmaceuticals	14.6	15.6	17.5	17.6	8.2	7.5	6.7
Elderly	3.0	5.4	6.2	8.0	20.5	8.2	11.9
Nurses' fees	3.1	3.5	3.9	3.9	9.1	7.7	5.9
Implants, orthopaedist and prosthetist fees	1.8	2.4	2.6	2.9	13.5	6.8	9.1
Dentists' fees	2.9	3.0	2.9	2.8	8.3	4.0	5.4
Physiotherapists' fees	3.3	2.9	2.8	2.2	4.3	4.3	1.0
Rehabilitation, retraining and logopaedics	0.6	1.6	1.8	2.0	31.4	8.3	8.8
Dialysis	1.5	1.6	1.5	1.5	8.6	4.8	5.8
Other	0.5	1.5	2.1	3.5	98.0	12.3	18.2
Total	100	100	100	100	6.8	5.1	6.2

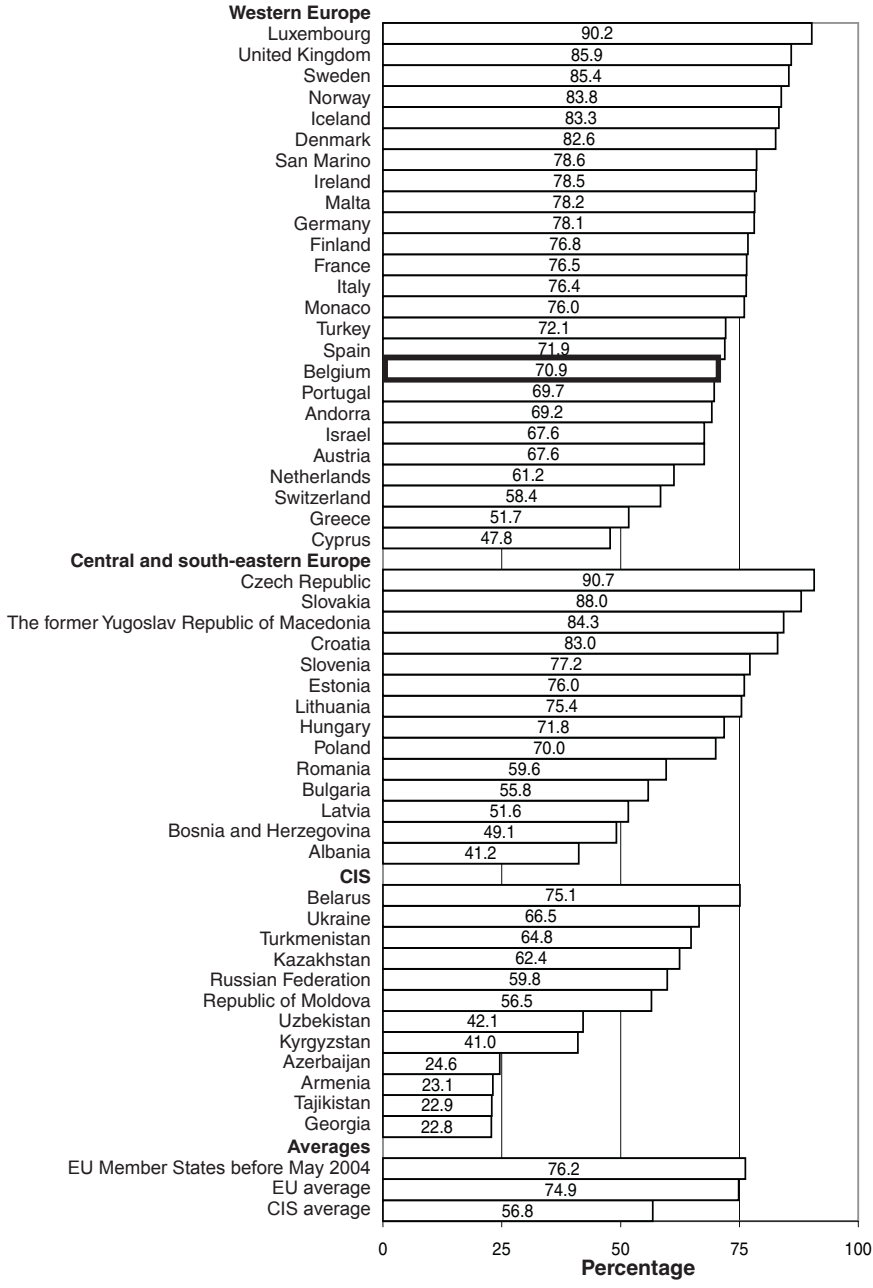
Source: RIZIV-INAMI, Annual reports.

Fig. 4.3 Health expenditure in US$ PPP per capita in the WHO European Region, 2004, WHO estimates



Source: WHO Regional Office for Europe, January 2007.
Note: CIS: Commonwealth of Independent States; EU: European Union.

Fig. 4.4 Health expenditure from public sources as a percentage of total health expenditure in the WHO European Region, 2004, WHO estimates



Source: WHO Regional Office for Europe, January 2007.
Note: CIS: Commonwealth of Independent States; EU: European Union.

invalidity pensions, unemployment insurance, work accident insurance, work-related health and occupational diseases, family allowances, and sickness and disability insurance.

Almost 99% of the population is covered by compulsory health insurance. There are two main schemes: (i) the general scheme, which covers major and minor risks for the whole population (except for the self-employed), and (ii) the scheme for the self-employed, which only covers major risks. Major risks include hospital care, child delivery, elective surgery, dialysis, rehabilitation, implants and specialist care. Minor risks include physicians' visits, dental care, minor surgery, home care and pharmaceuticals for outpatient care. The basic principle for health insurance coverage in both schemes is that people benefit in accordance with their actual or past professional activity. Both schemes cover active and nonactive people and their dependants. The main insured members are entitled to health insurance on the basis of their current or previous profession. Dependants are covered on the basis of their relationship with the main entitled person: a member of the family of the entitled person living in the same main place of residence. In 2005, 9 369 424 people (89.1%) were insured under the general scheme and 983 605 (9.4%) under the scheme for the self-employed (RIZIV-INAMI Annual Report 2005).

Individuals have the right to health care only if contributions have been paid and equal a minimum amount (i.e. contributions paid on a minimum wage of €3559 for employees below 21 years and €4745 for employees of 21 years and over). In 1998, insurability rules were alleviated and the principle of an annual entitlement was introduced. Prior to this, health insurance status was evaluated per quarter. There used to be a waiting period for enrolment in the health insurance system of six months between being affiliated and qualifying for health insurance benefits. This waiting period was abolished in 1997.

In 2001, a working group of government officials was set up to examine the social security status of self-employed people. This group proposed that either compulsory health insurance coverage for the self-employed should be extended to minor risks or that self-employed people should be legally obliged to purchase substitutive voluntary health insurance to cover these risks (Cantillon et al. 2001). In 2004, the Government decided to abolish the distinction between the health insurance scheme for the self-employed and the rest of the population. As a first step, as of 1 July 2006, minor risks are included in the compulsory cover for those starting self-employment and for the self-employed with the lowest pensions. From 1 January 2008, all self-employed will be compulsorily insured against minor risks. Social security contributions of the self-employed will need to be increased in order to finance the extension of the compulsory health insurance.

4.2.2 Benefits

The services that are covered by compulsory health insurance are described in the nationally established fee schedule (the "nomenclature"), which is extremely detailed and lists more than 8000 services. For each service, the identification number, contractual fee and reimbursement rate are specified. Services not included in the fee schedule are not reimbursable. Sickness funds are legally bound to reimburse any claim from their insured members for care delivered by any accredited health care provider at the agreed fee levels. The fee schedule is negotiated yearly or biennially between representatives of the sickness funds and of the health care professionals.

Within the National Institute for Sickness and Disability Insurance (RIZIV-INAMI) there are conventions and agreements for most groups of care providers and institutions: physicians, dentists, physiotherapists, nurses, prosthetists, orthopaedists, hospitals, rest and nursing homes, initiatives for sheltered living for psychiatric patients (see Section 4.6 on payment mechanisms). These conventions and agreements regulate the financial and administrative relationships between the insured, represented by their sickness funds, and health care providers. In addition to fees and reimbursement tariffs, the conventions and agreements also contain a huge array of conditions related to content, quantity and quality of care. Examples of decisions that have been agreed for physicians are: accreditation (see Section 8.2.2 on accreditation of physicians), quality control and the global medical file (i.e. to optimize the quality of primary care provided and avoid unnecessary or duplicated care and contradictory prescriptions) (see Section 7.2.4 on strengthening primary care). The conventions and agreements are only possible if they falls within the budget provided for the sector involved and have been subject to advice from the Commission for Budgetary Control.

At regular intervals, new treatments are introduced into the benefits package and treatments that have become obsolete are removed. Remarks have been made that the fee schedule adapts too slowly to change. Another disadvantage of the fee schedule is that it consists mainly of administrative prices with little or no relation to real production costs. Certain types of health care are excluded from the reimbursement system (e.g., alternative therapies such as acupuncture, homeopathy and osteopathy). Plastic surgery, spectacles and orthodontics are only reimbursable under certain conditions. Some preventive health care costs are borne by the State and thus provided free to patients (e.g., vaccinations for children and breast cancer screening).

4.3 Revenue collection and sources of funds

4.3.1 Social security and taxation

Social security contributions and subsidies from federal Government are the main funding sources for the compulsory health insurance system. In 2005, social contributions accounted for 74.8%, state subsidies for 11.4% and alternative financing (mainly from indirect tax revenues) for 13.8% of the general social security scheme. For the self-employed, shares were 64.5%, 29.1% and 3.4%, respectively.

Both in the general system and in the system for the self-employed, social security contributions are related to income and independent of risk. Contribution rates are fixed by law as a percentage of income. Revenue collection is organized differently in the two systems. In the employed workers' scheme, there is both an employees' and an employers' contribution which is paid to the National Office for Social Security (RSZ-ONSS). Until 1994, the contributions were determined separately for each social security sector. The self-employed pay their own social insurance contributions to the social insurance fund to which they are affiliated, which in turn forwards the funds to the National Office for Social Security for the Self-Employed. The contribution is calculated on the self-employed person's net professional labour income in a reference year. The reference year is the third calendar year preceding the year during which the contributions were paid. The contribution rate is 19.65% on reference income up to €47 830.21 and 14.16% on reference income between €47 830.21 and €70 492.18 (for 2007). The minimum and maximum contributions per quarter are €481.08 and €3151.89, respectively.

Until 1995, the different branches of social security (e.g., the RIZIV-INAMI for compulsory health insurance) were entitled to receive a predefined percentage of total social security contributions. Since 1995, a system of global management was introduced where financial resources are allocated according to need.

For health care expenditure, the federal Government subsidizes the difference between social security contributions and the a priori determined budget with general taxation revenue. Besides the classical mode of financing social security, there is also alternative financing. This third source of financing aims to limit government subsidies and to reduce employers' contributions. Instead of taxing labour, the Government seeks alternative means to finance the whole of social security.

Table 4.3 and Fig. 4.5 present an overview of the most important components of health care expenditure by source of finance. In 2003, the main share of total health expenditure (72.7%) was publicly funded (taxes and social security contributions), mostly through reimbursement taking place within the compulsory health insurance (63.4%) and the Federal Public Service (FPS) Public Health, Food Chain Safety and Environment (4.7%). Regional and local governments represented a modest share in health spending with 1.2% and 2.5%, respectively. Out-of-pocket payments and voluntary health insurance represented 23.0% and 4.3%, respectively.

Table 4.3 Health expenditure by source of finance (in million €), 1998–2003

	1998	%	2000	%	2002	%	2003	%	1998–2003 (%)
Total government	14 310.6	72.5	16 081.8	72.0	17 609.1	71.7	19 306.9	72.7	+7.0
Federal government	**13 686.3**	**69.4**	**15 393.8**	**68.9**	**16.836.7**	**68.5**	**18 236.0**	**68.7**	**+6.6**
RIZIV-INAMI	12 475.6	63.2	14 127.7	63.2	15 477.1	63.0	16 829.0	63.4	+7.0
Health insurance	11 323.6	57.4	12 845.1	57.5	14 188.9	57.7	15 438.2	58.1	+7.3
Administration costs RIZV-INAMI	260.3	1.3	318.0	1.4	217.5	0.9	223.9	0.8	-2.8
Administration costs Sickness funds	554.0	2.8	585.7	2.6	640.8	2.6	666.7	2.5	+4.2
Other	337.7	1.7	378.9	1.7	429.9	1.7	500.2	1.9	+9.6
FPS Public Health	1 045.7	5.3	1 101.6	4.9	1 193.7	4.9	1 246.2	4.7	+3.8
Other	165.0	0.8	164.5	0.7	165.9	0.7	160.8	0.6	-0.5
Regional governments	**257.6**	**1.3**	**258.7**	**1.2**	**282.5**	**1.1**	**311.9**	**1.2**	**+4.2**
Local governments	**266.3**	**1.4**	**332.0**	**1.5**	**388.9**	**1.6**	**656.1**	**2.5**	**+29.3**
Other government	**100.4**	**0.5**	**97.3**	**0.4**	**101.0**	**0.4**	**102.9**	**0.4**	**+0.5**
Out-of-pocket	**4 581.0**	**23.2**	**5 295.2**	**23.7**	**5 890.8**	**24.0**	**6 100.0**	**23.0**	**+6.6**
Voluntary health insurance	**834.2**	**4.2**	**963.6**	**4.3**	**1 073.6**	**4.4**	**1 153.4**	**4.3**	**+7.7**
Sickness funds	550.6	2.8	588.2	2.6	625.0	2.5	660.9	2.5	+4.0
Commercial insurance companies	283.6	1.4	375.4	1.7	448.6	1.8	492.5	1.9	+14.7
Total	**19 725.8**	**100**	**22.349.6**	**100**	**24 573.5**	**100**	**26 560.3**	**100**	**+6.9**

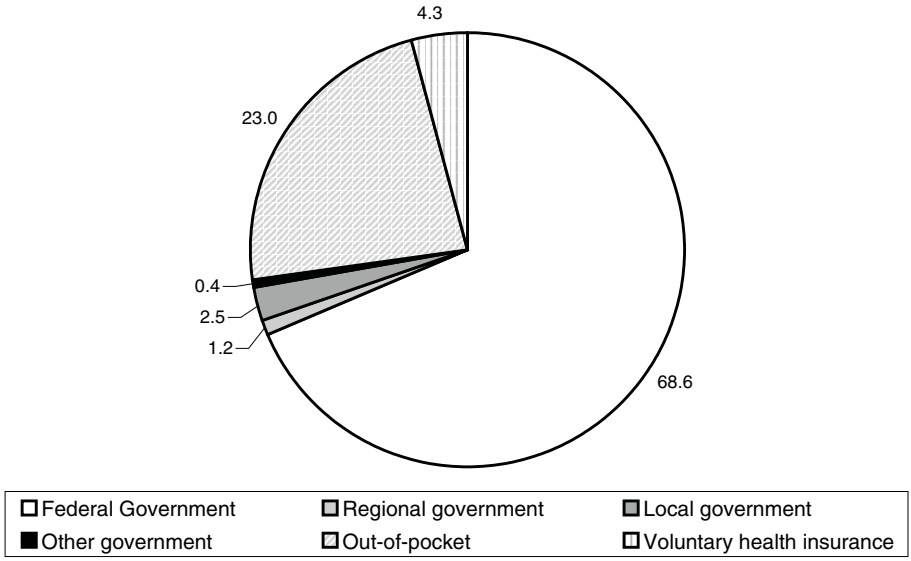
Source: Avalosse & Léonard, 2006.

Note: FPS: Federal Public Service.

4.3.2 Out-of-pocket payments

For outpatient care patients are in principle required to pay up-front the full fee and then claim reimbursement with their sickness fund. For inpatient care and medicines purchased in pharmacies, the third-party payer system applies and patients only pay user charges. User charges can be either official and provided by law, or supplements charged on top of official user charges, which

Fig. 4.5 Health expenditure by source of finance, 2003



are allowed under certain conditions (see in particular the subsection "Hospital supplements" in Section 4.6.2. on paying for hospitals).

Co-insurance and co-payments vary from service to service but are equal for everyone, with the exception of patients with preferential reimbursement who pay reduced co-payments. The reduction depends on the type of service. The co-payment for preferential reimbursement rate beneficiaries amounts to about 10% for a general practitioner (GP) office consultation, 10% for a GP home visit, 15% for a specialist consultation, and more than 20% for physiotherapy. The co-payment rates for patients without preferential reimbursement are 25% for a GP consultation, 35% for a GP home visit and 40% for a consultation with a specialist or a physiotherapist.

To qualify for preferential reimbursement the patient has to belong to a socioeconomically vulnerable group and have an income below a certain limit. The following persons and their dependants are eligible for preferential reimbursement, provided their gross annual taxable income does not exceed €13 313 + €2465 per dependant: pensioners, widowers/widows, orphans, invalids receiving a disability benefit, long-term unemployed aged 50 years and older with at least one year of full unemployment, civil servants who are made redundant because of illness or infirmity for at least one year, disabled children entitled to increased child allowance, and people entitled to one of the

following allowances: integration or income replacement for disabled people, income guarantee for the elderly, disability benefit, subsistence-level income, support from the public municipal welfare centre and allowance for assistance for the elderly. As of 1 July 2007, the socioeconomic group criteria will be abolished and the only criterion to qualify for preferential reimbursement will be the income limit. This extended system of preferential reimbursement will be called the "OMNIO" system.

As far as medicines are concerned, about 2500 pharmaceuticals are reimbursable in Belgium. In the case of pharmaceuticals obtained from a pharmacy, the patient pays co-insurance, the percentage of which is determined

Table 4.4 Co-payments for outpatient pharmaceuticals on 1 January 2007

Reimbursement category	Preferential reimbursement	Nonpreferential reimbursement
A	100% reimbursement No co-payment	100% reimbursement No co-payment
B	85% reimbursement Co-payment: 15% with a maximum of €7.10	75% reimbursement Co-payment: 25% with a maximum of €10.60
B Large package size	85% reimbursement Co-payment: 15% with a maximum of €10.60	75% reimbursement Co-payment: 25% with a maximum of €15.90
B, where a generic alternative exists for branded pharmaceuticals ATC 4th level	85% reimbursement Co-payment: 15% with a maximum of €10.60	75% reimbursement Co-payment: 25% with a maximum of €15.90
B, where a generic alternative exists for branded pharmaceuticals Large package size and ATC 4th level	85% reimbursement Co-payment: 15% with a maximum of €15.90	75% reimbursement Co-payment: 25% with a maximum of €23.90
C	50% reimbursement Co-payment: 50% with a maximum of €10.60	50% reimbursement Co-payment: 50% with a maximum of €17.70
C, where a generic alternative exists for branded pharmaceuticals ATC 4th level	50% reimbursement Co-payment: 50% with a maximum of €15.90	50% reimbursement Co-payment: 50% with a maximum of €26.50
Cs	40% reimbursement Co-payment: 60% without maximum	40% reimbursement Co-payment: 60% without maximum
Cx	20% reimbursement Co-payment: 80% without maximum	20% reimbursement Co-payment: 80% without maximum

Source: RIZIV-INAMI, 2007.

Note: ATC: anatomical therapeutic chemical.

by the pharmaceutical category that reflects the social importance of the pharmaceutical, pharmacotherapeutic criteria and price criteria. A distinction is made between category A (pharmaceuticals for serious and long-term illnesses), B (socially and medically useful pharmaceuticals), and C (socially and medically less useful pharmaceuticals). The different rates are given in Table 4.4.

For inpatient care, a patient's out-of-pocket payments consist of:

- a flat rate per day for hospitalization;
- a room supplement when the patient has requested a single or double room;
- the physician's fee supplements for non-conventioned physicians or for conventioned physicians (conventioned physicians can only ask for a fee supplement when the patient has requested a single room);
- costs of certain nonreimbursable medical products or pharmaceuticals;
- a flat rate charge per day for pharmaceuticals (€0.62), per inpatient stay for diagnostic tests (€7.44), and per inpatient stay for radiology (€6.20).

Although Belgian compulsory health insurance provides significant reimbursement levels and access has been improved through a number of specific measures, such as preferential reimbursement, there are still certain categories of people for whom costs for health care remain a problem. The system did not meet the needs of two high-risk groups in society: people with a chronic illness and people who belong to a family with a low or modest income and who do not belong to a specific social category with protective measures.

For this reason, in 2001, maximum billing (MAF) was introduced. This measure improved the out-of-pocket maximum, already introduced in 1994 under the social and fiscal exemption mechanism for certain vulnerable categories, by extending the scheme to all households and to other types of user charges. MAF ensures that, according to the family's net income, each household has an annual out-of-pocket maximum for all "necessary health care expenses" (see Table 4.5). As soon as expenses reach the set ceiling, any further health care costs are covered in full by the health insurance fund for the remaining part of the year. MAF was introduced alongside the existing preferential reimbursement levels for patients.

There are three types of MAF, as discussed here.

- *Social MAF:* a threshold of €450 is applied at the household level for specific vulnerable groups; it is applicable to households with at least one individual with preferential reimbursement or who is entitled to an allowance for disabled people; as soon as the limit of €450 is exceeded, the co-payments are reimbursed.

Table 4.5 Means-tested annual out-of-pocket maximums in 2006 (in €)

Net family income (€)	Out-of-pocket maximum (€)
Up to 14 878.24	450
14 878.24 – 22 878.24	650
22 872.51 – 30 866.80	1 000
30 866.80 – 38 527.98	1 400
From 38 527.98	1 800

Source: RIZIV-INAMI, 2007.

- *MAF for children*: a threshold of €650 is applied at the level of the child; all children under 19 years with total co-payments of €650 become individually entitled without taking into account family income.
- *MAF according to net family income*: the principle of MAF is applied in a gradual way according to net family income (see Table 4.5).

MAF covers the following health care costs:

- nonrefundable health care expenses, up to the officially agreed fee, relating to physician consultations and visits, and those relating to all technical treatments by GPs and/or specialists, physiotherapists, nursing staff and paramedics;
- nonrefundable health care expenses relating to necessary pharmaceuticals (i.e. categories A, B and C) and personal contributions towards costs for pharmaceutical specialties in hospitals;
- personal contributions towards the per diem rate paid for inpatient care, limited to the first year in a psychiatric hospital;
- nonrefundable medical expenses relating to certain types of expensive medical materials.

4.3.3 Voluntary health insurance

Voluntary health insurance can be provided by either sickness funds or by private profit-making insurance companies.

All sickness funds offer their members voluntary health insurance. Since sickness funds have legally little room to act individually in the context of compulsory health insurance system, competition is directed towards the provision of voluntary health insurance services (see also Section 3.1.1 on regulation and governance of third-party payers).

Until 2008, the coverage for minor risks of the self-employed is not completely integrated into the compulsory health insurance (see also Section 4.2.1. on population coverage). If a self-employed individual wants to be covered for minor risks, they must purchase substitutive voluntary health insurance. They can deduct premiums for substitutive voluntary health insurance from their taxable income. However, many individuals take out minor risk insurance with their sickness fund. Estimates from the end of 2004 indicate that sickness funds provided substitutive voluntary health insurance cover for 718 478 active and non-active self-employed people and their dependants (73.1% of the self-employed and their dependants and 6.9% of the population) (Supervising Authority for Sickness Funds and National Associations of Sickness Funds 2006).

Price competition between sickness funds is possible since differential premiums are allowed. The premiums may be adapted once a year and depend on factors such as age, household size, number of dependants, employment status and length of employment. Sickness funds receive subsidies from the State mainly to alleviate premium differences which are due to differing risk profiles between sickness funds. In return, the sickness funds are obliged to cover the same services and apply the same reimbursement rules as under the general scheme of compulsory health insurance.

Sickness funds also offer complementary hospital insurance to their affiliated members to cover for hospitalization costs which are excluded or not fully covered by compulsory health insurance. This hospital insurance provides two coverage options for hospitalization costs: (i) the insured person receives a fixed daily allowance according to the duration and nature of hospitalization and the social statute of the entitled person; or (ii) the insured individual is compensated for the difference between the final hospitalization costs and the user charges required by the statutory health insurance. This latter type of insurance has grown in popularity since more people want to be hospitalized in single or double rooms for which hospitals and physicians can, within certain legal limits, charge additional fees. The market for hospital insurance provided by sickness funds has grown steadily from €105.7 million in 1998 to €171.4 million in 2004, representing an annual average increase of more than 10% (Supervising Authority for Sickness Funds and National Associations of Sickness Funds 2006).

Mainly on the market of complementary health insurance, sickness funds compete with private profit-making insurance companies. Risk-based private insurers only operate in the field of voluntary health insurance and account for a small market share, although this has risen steadily as statutory insurance coverage has progressively reduced. Employers in Belgium increasingly include private health insurance as a fringe benefit in their salary packages. In 2003,

about 66% of Belgians had additional private health insurance (4.3 million covered by profit-making insurance companies and 2.3 million by sickness funds) (Avalosse & Léonard, 2006). Yet apart from these market niches, it is unlikely that private insurance will pose a real threat to the statutory system since the covered package of benefits in the compulsory health care remains very large and covers almost all necessary care. The turnover of private insurance funds in Belgium rose from €283.6 million in 1998 to €492.5 million in 2003, representing an annual average increase of 14.7%. However, commercial insurance companies represented only 1.9% of total health expenditure in 2003 (see Table 4.3).

4.4 Allocation to purchasers

According to the Health Insurance Act of 1963, sickness funds are financed on a prospective basis from membership contributions and government subsidies. However, in the past, sickness funds' expenditures were systematically reimbursed. Sickness funds with a higher proportion of low-income members and higher health care needs were faced with lower contributions and higher expenditure claims. It was widely agreed that legally forcing sickness funds to break even was inequitable. Instead, sickness funds' surpluses and deficits were pooled at the level of the RIZIV-INAMI. As such, there was less or no incentive for sickness funds to risk select. On the other hand, they had little or no incentive to play an active role in containing health care costs.

Since 1995, Belgian sickness funds have been made more financially accountable for the expenditure of their insured members, while being compensated for differences in risk structure. They receive a prospective budget to finance the health care costs of their members and are held financially responsible for a proportion of any discrepancy between their actual spending and their "normative", i.e. risk-adjusted, health care expenditures. This risk-adjustment system is based on the results of a regression analysis with demographic and socioeconomic variables, such as insurance status (pensioners, disabled, widowers/widows), age, sex, household composition, unemployment rate, income, mortality rate, degree of urbanization and work disability status. The main proclaimed purpose of this system is to increase cost–effectiveness through ensuring a more active role by competing sickness funds while guaranteeing a level playing field.

This reform has been introduced gradually because none of the important players in the system wanted to question the crucial importance of equity and

equal access for all citizens (Schokkaert & Van De Voorde 2003). The gradual process of financial responsibility began in 1995 with the implementation of a risk-based capitation formula as a partial basis of funding for the sickness funds. In the years 1995–1997, 10% of the funds' total budget was allocated on a prospective basis, rising to 20% in 1998–1999 and 30% since 2000. The remaining proportion of the budget is retrospectively allocated on the basis of the share of expenditure of each sickness fund. The proportion of any discrepancy between received budget and actual spending, for which funds were to be held responsible, was limited to 15% in 1995–1997, 20% in 1998–1999 and 25% since 2000. However, their financial accountability for the deficit can never exceed 2% of the total budget. Sickness funds are not to be held responsible for any deficits caused by external factors such as wage increases granted to health care personnel.

In order to cover for potential deficits, social insured members are obliged to pay a nominal premium to the reserve fund, amounting to at least €4.46 per policy-holder. If a sickness fund has incurred a surplus, its individual share is automatically paid into this reserve fund.

4.5 Purchasing and purchaser–provider relationships

The reimbursement of services provided depends on the employment situation (self-employed or employees), the type of service provided, and the statute of the person who is socially insured (preferential reimbursement or not) as well as the accumulated amount of co-payments already paid. Patients in Belgium participate in health care financing via co-payments, for which the patient pays a certain fixed amount of the cost of a service with the third-party payer covering the balance of the amount; and via co-insurance, for which the patient pays a certain fixed proportion of the cost of a service and the third-party payer covers the remaining proportion. There are two systems of payment: (i) a reimbursement system, for which the patient pays first the full costs of services and then obtains a refund for part of the expense from the sickness fund, which covers ambulatory care; and (ii) a third-party payer system, for which the sickness fund directly pays the provider while the patient only pays the co-insurance or co-payment, which covers inpatient care and pharmaceuticals. There is a scheme of higher reimbursement known as the preferential reimbursement for vulnerable socioeconomic groups. As of 1 July 2007, this preferential scheme will be extended to all low-income groups, including the active population (see Section 4.3.2 on out-of-pocket payments).

4.6 Payment mechanisms

In this section payment mechanisms for health care personnel and hospitals are described. Payment mechanisms for pharmaceuticals are discussed in Section 4.3.2 on out-of-pocket payments and Section 6.6 on pharmaceutical care. Payment mechanisms for rest and nursing homes are described in Section 6.8 on long-term care.

4.6.1 Paying health care professionals

Physicians

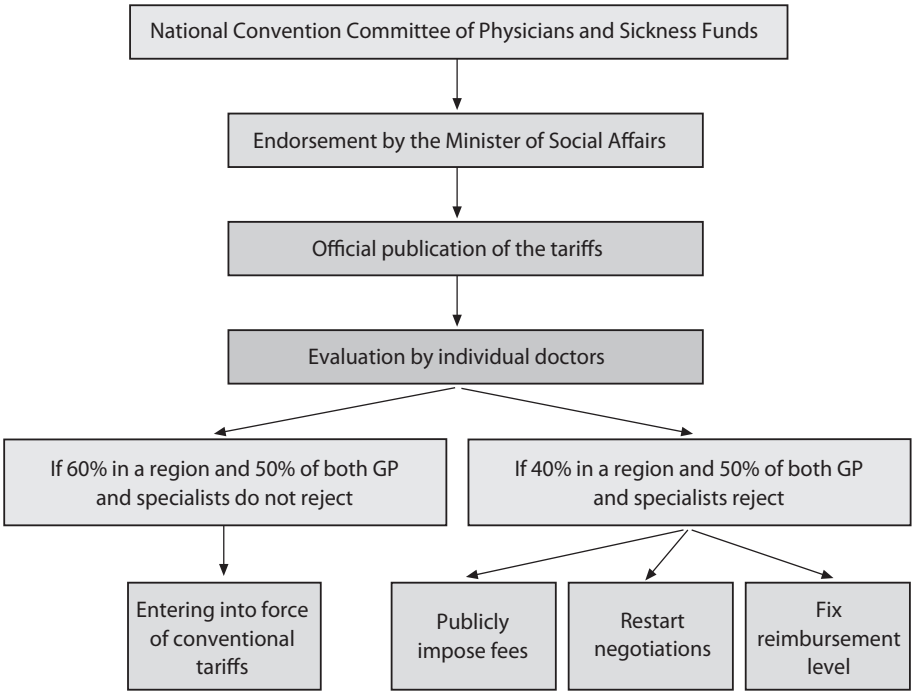
Delivery of health care in Belgium is mainly private. Physicians are self-employed, along with most dentists, pharmacists and physiotherapists. Most physicians – whether GPs or specialists – are paid on a fee-for-service basis. The patient pays the set fee for the consultation directly to the physician, and patients are then directly reimbursed by their sickness funds. Most services are reimbursed at a rate of 75%, so the patient shares 25% of the cost.

Less than 1% of physicians with a clinical practice are salaried. Most of these salaried physicians work in medical practices of integrated health care which are owned and managed by the physicians themselves, and where usually (though not always) the physicians are paid by the RIZIV-INAMI according to a capitation payment. The rest of the salaried physicians provide other medical and social services such as preventive care, and may work in hospitals (mostly university hospitals).

Specialists working in hospitals are also paid on a fee-for-service basis. The fee level for specialists working in hospitals is the same national negotiated fee level as for office-based specialists. In theory, the fees are paid (by a combination of patients and sickness funds) directly to the physicians themselves. However, in practice, specialists sign an agreement with the hospital in which they work, allowing the hospital to retain a significant proportion of the fees as compensation for the space, equipment, staff and overhead services provided to the physician. The extent of fee-sharing between the hospital and the specialist is variable and depends on elements such as relative scarcity/abundance of specialists in that specialty, extent of hospital facilities, the hospital's reputation, the specialist's reputation, experience and renown. A system of pooled fees works in most hospitals too, i.e. all fees received by all physicians working within the hospital are pooled and redistributed monthly.

The fees for GPs, specialists in hospitals and office-based specialists are negotiated at national level in the National Convention Committee of Sickness Funds and Physicians of the RIZIV-INAMI (see Section 3.1.2 on regulation and governance of the budgeting and purchasing process). The resulting agreement (so-called convention) needs the endorsement of the Minister of Social Affairs and is normally concluded for a two-year period. The agreement is then referred to all individual physicians for approval. The convention enters into force except if more than 40% of all physicians within a region have notified their refusal to adhere to it, or if more than 50% of GPs and 50% of specialists have refused to adhere to it. If the agreement is rejected, the Government has three options: unilaterally to impose fees for some or all of the services; to submit an alternative draft agreement; or to set the reimbursement levels, leaving physicians free to set their own fees (see Fig. 4.6). As an incentive for doctors to adhere to the conventional tariffs, the RIZIV-INAMI contributes to a fund for granting additional old-age or disability pensions to providers who respect the conventional tariffs.

Fig. 4.6 Scheme of the collective contracting mechanism for physicians



Source: Palm and Robert, 1995.

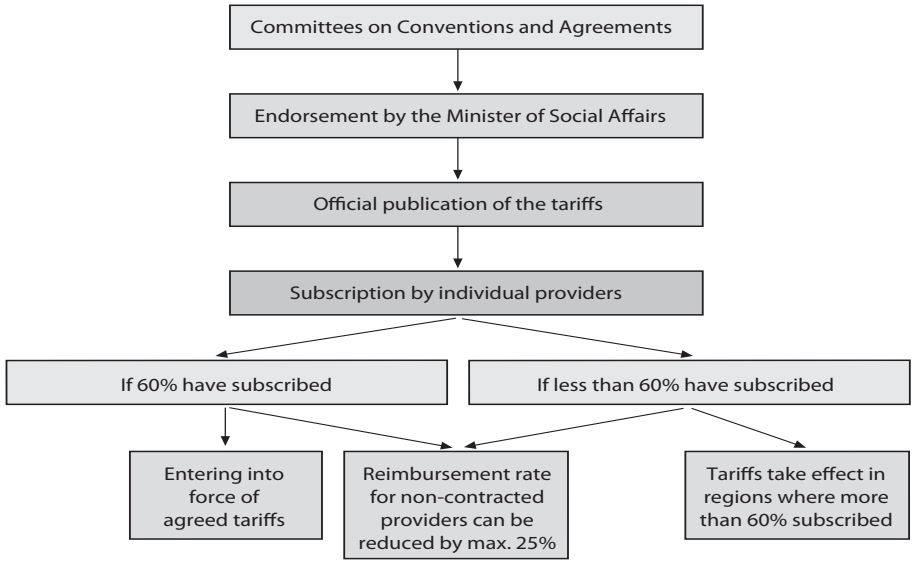
When the agreement comes into force, each physician who has accepted the agreement becomes a conventioned "physician" and is obliged to respect the set fees. Non-conventioned physicians can set their fees freely. However, the agreement will also set certain conditions under which even conventioned physicians can charge higher fees. These depend on the time and place of consultation and the economic situation of the patient. Thus, physicians can limit their activity within the framework of the agreement to certain hours of the day in certain places (e.g., in the hospital, but not in their individual practice). Physicians do not have to respect the fees set in the agreement when the patient decides to be hospitalized in a single room.

Other health care professionals

Dentists' fees are decided similarly to those of physicians, in a committee composed of representatives of sickness funds and dentists, following the same procedure as that for physicians. Preventive dental care and extractions are fully reimbursed, while dental prostheses, orthodontic treatment and other dental care are reimbursed according to the predetermined fee schedule.

For other health care providers, paid by fee-for-service, fees are also determined in the Committees on Conventions and Agreements within the RIZIV-INAMI (see Section 3.1.2 on regulation and governance of the budgeting and purchasing process) following a similar procedure, except that some

Fig. 4.7 Scheme of the collective contracting mechanism for other health care professionals



Source: Palm and Robert, 1995.

formalities about their agreement and implementation differ from dentists' and physicians' agreements. As indicated in Fig. 4.7, the main differences are that in this case no regional counting of rejections to the convention is applied for all providers. Also, these other providers are required to actively report on their adherence to the agreements. Furthermore, the reimbursement of providers who do not adhere to the agreement can be reduced by up to a maximum of 25%.

Pharmacists are reimbursed by means of a margin on the price of pharmaceuticals. The amount of the margin is limited by a maximum of €7.44 for each package (see Section 7.2.3 on ensuring access to innovative pharmaceuticals). This payment system is currently under revision and reform will aim at determining a professional fee for the pharmacist, in order to disconnect the price of a product from the act of dispensing.

Other health care professionals are mainly salaried. Nurses working in hospitals are salaried, while those providing home care are either self-employed or salaried. The salaries of health care professionals are indexed to the cost of living, but the salaries of nurses are seen to be low relative to their workload. In the past, nurses have felt so strongly about this that they have organized strikes, which have sometimes proved successful.

4.6.2 Paying for hospitals

Inpatient care is covered by the third-party payer system. An insured person only pays a co-payment, while the bulk of the cost of treatment is directly paid by the sickness fund to the hospitals.

The basic feature of Belgian hospital financing is its dual remuneration structure according to the type of services provided, as shown below.

- Services of accommodation (nursing units), emergency admission (accident and emergency services), and nursing activities in the surgical department are financed via a fixed prospective budget system based on "justified activities" (see further);
- Medical and medicotechnical services (consultations, laboratories, medical imaging and technical procedures) and paramedical activities (physiotherapy) are reimbursed via a fee-for-service system to the service provider.

Communal costs and services, which are costs and services that utilize both of the services described above (such as administration, maintenance, heating, catering, laundry and other costs such as depreciation and financing of property investments), are divided over both categories on the basis of certain allocation scales and correspondingly charged to the hospital budget and fees. Together, these two remuneration systems account for more than 80% of a hospital's revenue.

Hospitals receive additional funding from:

- the sale of pharmaceutical products (financing per unit or pack);
- a prospective budget for pharmaceuticals for inpatient care;
- specific ambulatory activities, such as day hospitalization, dialysis and rehabilitation, which are reimbursed per patient via lump sums;
- subsidies for investments from the communities;
- personal contributions and supplements charged to patients;
- non-hospital activities, such as commercial operations and rest and nursing homes, cafeteria, newspaper shop, etc.

An added complexity to the system is the distinction made between "net" and "all-in" fees. Net fees only cover activities performed by physicians. They are applicable to the provision of surgical, anaesthesia and emergency services. The remaining costs of nonmedical staff, use of materials and equipment are reimbursed in these sectors via the hospital budget. Therefore, among the services charged to the hospital budget, physicians are still reimbursed via a fee-for-service system. For services other than surgical, anaesthesia and emergency services, the "all-in" fees cover all costs relating to medical provision. This means that each additional provision again results in the integrated financing of all costs (i.e. both fixed and integrated costs).

Hospital budget

The per diem rate paid by patients has assumed different forms throughout the years: a rate based on historical accounting data, a provisional rate based on the expected cost estimates, and a forecast-based provisional rate with adjustable posts.

Before 1982, the "number of days" for an inpatient stay was not subject to restrictions and every bed day attained was reimbursed at the full per diem rate. Therefore, it is not surprising that hospital reimbursed expenditure increased rapidly.

Budgeting was introduced from 1982. The operation was relatively simple; prices and the number of bed days were locked at the existing level. The number of bed days attained was no longer completely reimbursed at the full patient per diem rate; bed days above and below the reference number were reimbursed at only a part of this rate. Hospitals were therefore discouraged from extending inpatient stays for financial reasons. Also, prospective financing was introduced with the "envelope" system to replace the retrospective recalculation method of payment.

Since budgets were set unilaterally on the basis of historical data, they corresponded progressively less to the dynamics of the sector and the specific features of the institutions. Therefore, the challenge from the 1980s onwards was to introduce new criteria to determine hospital budgets. These should give a more appropriate estimation of the objective financial needs of the institutions. This refinement of the financing system has gradually developed with key developments in 1986 (communal services), 1991 (clinical services), 1995 (length of stay performance) and 2002 (justified activity).

Since 1986, a national total budget has been set each year for hospitals' running costs. Legislation on hospital budgets is entirely the responsibility of the Minister of Social Affairs, and the budget is set by the FPS Public Health, Food Chain Safety and Environment. The budget is paid to the hospitals by the compulsory health insurance system via the sickness funds. Once the global budget is approved, the Ministry of Social Affairs, Public Health and the Environment sets a provisional budget for each hospital institution. This budget is composed of three major sections (A, B and C), which are set separately and further divided into subsections.

- Part A consists of investment charges, short-term credit burdens and investment charges for some medicotechnical services, which are exclusively financed via the hospital budget (not via fees).
- Part B mainly covers the operating expenses of communal services (B1); clinical services (B2, personnel and medical materials); radiation therapy; magnetic resonance imaging (MRI) and positron emission tomography (PET) scans (B3); specific costs as a result of legal obligations, e.g., hospital hygiene, quality assessment, palliative care, and recording of hospital data (B4); hospital pharmacy (B5); costs resulting from supplementary benefits granted to hospital personnel (the financing of which is charged completely or partly to fees (B6)); costs with regard to applied scientific research, the development of new technologies and the training of specialists (B7); the costs caused by a socioeconomically weak patient profile (B8); cost of implementing the new social agreement with the nursing profession (B9).
- Part C relates to advance costs for new construction, re-adjustment (positive or negative) of budgets for past financial years and reduction of the per diem according to any extra charges which hospitals have made, e.g., for a single room.

Together, the costs of communal services (part B1) and clinical services (part B2) represent more than 70% of the budget. The overall national budget for these parts is divided among the hospitals according to certain rules and involves a process of continual redistribution of available resources among the hospitals.

Part B1 covers the costs of communal services: general costs (e.g., waste disposal, patient transport, taxes, etc.), maintenance costs, heating costs, administration costs, cost of washing and linen, catering and boarding costs. The distribution of this budget has been amended since 2001. Prior to 2001, distribution was based on a cost comparison. Hospitals were divided into five hospital groups: one group of university hospitals and four other groups according to bed capacity. Within each group, the real costs of each establishment were compared with the average costs of the reference group. The costs were expressed as work units (e.g., maintenance costs per square metre, catering costs per patient day, etc). The costs of the communal services charged to fees were set aside a priori and were to be recovered from physicians by hospital managers. For each hospital and for each type of cost, a performance level was determined, i.e. the efficiency of the operation compared with the average of the group. The budget for each type of cost was set according to the average performance of the reference group.

From 2001, there has been a gradual transition from the old to the new system. The overall available budget is divided over the five groups of hospitals on the basis of percentage shares, which are determined a priori for the different types of costs and hospital groups. Each hospital is allocated the same average cost per work unit of the group to which it belongs. Objectively observable and justifiable cost differences, such as labour costs, are taken into account.

The aim is to make the hospitals accountable for their operations. Hospitals that manage their communal services more efficiently than the group average are thus allowed to release financial resources that can be used for other purposes. The opposite is true for underperforming establishments.

The budget item "clinical services" (B2) covers the costs of nursing, care staff and medical products. The national budget is divided among the hospitals on the basis of a scoring system. Points are awarded for the different activity centres (modules) that are chargeable to the hospital budget. This includes different types of hospital services (surgery, internal medicine, maternity, neonatology, paediatrics and geriatrics), operating theatres and accident and emergency services. The scoring system provides basic financing on the one hand and supplementary financing on the other. Basic financing covers the hospital's basic operations. For the costs of nursing personnel, this financing corresponds to the application of personnel standards per activity centre as laid down by the Government. Basic financing is therefore determined by the structural characteristics of the hospital and is consequently called the "functional" part of the budget. It is expressed as x points per type of bed, per operating theatre, or per type of accident and emergency service. Unusually, the hospital is guaranteed this basic financing so that once a hospital is included in the planning and meets the recognition standards, the Government must also

provide for its minimum financing. The condition to be met is that the hospital performs efficiently with regard to inpatients' length of stay. If the length of stay is too long, the hospital is in fact using surplus capacity that is no longer guaranteed by the Government.

In addition to this basic financing, which accounts for about three quarters of the national budget for clinical services, supplementary financing is granted according to the nature and the intensity of the activities performed. This is the "activity" part of the budget. A distinction is made between hospitals by means of a series of activity parameters (e.g., medical provisions, nursing workload based on minimum nursing data, intensity of care provision).

After the budgets for communal and clinical services have been determined, they are redistributed among the hospitals according to their length of stay performance. The intention is to give hospitals clear signals about admission and discharge policy by means of financial rewards or fines.

In a system of per diem payment by the patient, it is in a hospital's interest to extend the patient days to a maximum. With the introduction of a length of stay quota, the hospitals were encouraged to adjust the production of their bed days to meet the set level. Until 1989, this quota was determined on a historical basis. From 1990, a "standardized" quota was applied based on minimum occupancy percentages per department. In principle, bed days under quota are not reimbursed: underoccupied hospitals should reduce bed capacity. Bed days above quota are reimbursed at 25% of the patient per diem rate, which is regarded as the variable cost of a one-day patient stay. The per diem rate is equal to the hospital budget divided by the bed day quota.

In 1994, a system of length of stay performance was introduced. Maximum lengths of stay for interventions have been set using Clinical Minimum Data Set (recorded since 1990 for all hospitalized patients). Clinical Minimum Data Set data collected per patient include: main diagnosis, secondary diagnoses, surgical interventions, special techniques, age, gender, nature of admission and discharge. On the basis of these data, all patients are put in 355 pathology groups or all patients refined diagnosis-related groups (APR-DRGs). Each APR-DRG is divided into four levels of severity of illness (minor, moderate, major and extreme). The determination of the level of severity of illness takes place in three phases taking into account the main diagnosis, age, the existence of certain nonoperative procedures and the consequences of secondary diagnoses that are not connected with the main diagnosis and which are not mutually linked with other secondary diagnoses. The APR-DRGs are further divided into three age categories: those younger than 75 years old, 75 years old and above, and geriatric patients.

A national average length of stay is calculated per pathology group, which is subsequently applied to the case-mix of each hospital. The term "standardized" or "pathology-weighted" length of stay is used because a weight variable is applied to pathologies treated in the hospital. This pathology-weighted length of stay is compared with the actual length of stay. The positive or negative difference is converted into a number of bed days.

If a hospital's actual length of stay is higher than the standardized length of stay, the hospital is considered to be underperforming with regards to length of stay and thus producing a surplus of bed days. In the reverse case, the hospital is considered to be performing well since bed days are "saved" compared with the number of bed days that the hospital would have attained if it worked according to the national average length of stay per pathology group.

Day hospitalization activities are also taken into account to calculate the surplus of bed days. A day hospitalization is defined as a hospitalization where the patient does not stay overnight. A traditional hospitalization is a hospitalization with at least one stay overnight. According to pathology, a substitution level of traditional hospitalization by day hospitalization is determined nationally and per hospital (i.e. percentage of patients treated in day hospitalizations). This is done per DRG for most surgical interventions, for chemotherapy of oncology patients and for a few internal procedures.

The national substitution level is compared with the hospital's substitution level. If the hospital's substitution effort is greater than that nationally, this means that the hospital has treated more patients in day hospitalizations and avoided traditional hospitalizations compared with the national average. In the reverse case, the hospital is performing too many traditional hospitalizations and using too many bed days.

A hospital that produces a surplus of bed days for the entire length of stay and day hospitalization is not performing efficiently. For performing establishments that are not performing well enough, the surplus activity is deducted in full from the hospital's budget and redistributed among performing hospitals on the basis of the number of "saved days".

This technique of pathology-weighted length of stay was in force until 1 July 2002. Since then, there has been a gradual switch to the notion of "justified activities", whereby pathology-weighted length of stay is given a more prominent role rather than being used as a correction a posteriori. From 1 July 2002, the surgical day hospitalization has been transferred to the financial resources budget.

Since hospital financing is increasingly based on hospital activities, rather than the number and type of patients treated, the current link between the budget and the number of beds accredited by the Government could be abandoned. The

financing system could therefore become more dynamic in character: instead of focusing on structural changes (for example, the number of beds or services used), the budget will be based on the movements of patients between hospitals, and levels of care provided after or instead of hospital admission. Thus, the role of the hospital in the care process should slowly change.

In order to determine a hospital's justified patient days in relation to traditional hospitalization, the case-mix of each individual hospital is multiplied by the national average length of stay per pathology group. For certain services with a special arrangement with regards to accreditation, guaranteed financing is granted irrespective of the level of the activity. To take into account geographic accessibility (i.e. accessibility must be guaranteed for every patient independently of his/her place of residence), a minimum justified activity is guaranteed for these services. Per service or group of services, the number of justified patient days is divided by the normative capacity utilization of the service and then multiplied by 365 to obtain the number of justified beds. The normative capacity utilization is 70% for paediatric and maternity services, 80% for surgery, internal medicine, tuberculosis (TB) treatment, infectious diseases and regular hospitalization, and 90% for geriatric services. The transition to a budget that is completely based on justified activities will gradually take effect.

Capital investment

The federal Government finances 40% of the capital investments for building, alterations and first establishment. Regions and communities decide – within the commonly fixed calendar on hospital construction – on the subsidizing of these investments and intervene directly for 60%. The amortization costs of the other 40% are taken into account by the hospital budget, financed by the federal Government and the national health insurance. In 2007, this 60–40% arrangement is to be complemented by a ratio of 10% subsidy to 90% amortization for "priority" construction works.

Day hospitalization

Since 1987, day hospitalization financing is regulated by means of an agreement between hospitals and sickness funds, along with the RIZIV-INAMI. In this agreement, a day hospitalization is defined as a hospitalization where the patient does not stay overnight. Also, it is organized as a function integrated in the hospital, headed by a medical specialist and with established procedures with regard to patient selection, safety, quality control, continuity, reporting and cooperation with the various medicotechnical departments. A day hospitalization can be either surgical or nonsurgical.

A series of nomenclature provisions were selected, for which the hospital may charge ambulatory patients a lump sum. These lump sum payments were different for each hospital, because they were fixed according to the value of the B2 budget part of the hospital in question: the "mini" lump sum was half of the B2 part, the "maxi" lump sum was equal to the B2 part and the "super" lump sum was double the B2 part. The reason for this financing modality was that if the day hospitalization replaces traditional hospitalization, the lump sum should reflect the per diem amount of traditional hospitalization. The value of each hospital's B2 part is the consequence of the specific characteristics of the hospital in question with regard to the nature and identity of the medical and nursing activity. The starting point for traditional patient day prices – that the average price covers both serious and mild cases – was also adopted for day hospitalizations.

From 1993, these lump sums were supplemented by new lump sums with an identical value for each hospital: the A, B, C and D lump sums. However, remuneration by means of lump sums did not appear to sufficiently promote the day hospitalization as a fully-fledged satisfactory alternative to traditional hospitalization. Therefore, between 1995 and 2001, a substitution length of stay categorization was used for a selection of interventions. This length of stay substitution reflected the number of saved days (non-attained patient days). If a hospital had a higher substitution level for a given intervention than the national average, the hospital saved extra patient days. In exchange for this achievement, the hospital received a day premium per intervention. If the substitution level was smaller than the national substitution level, the penalty was calculated in the same way.

Since 1 July 2002, the financing of the surgical day hospital is included in the financial resources budget. The activities in day hospitalization regarded as justified consist of actually performed surgical day hospitalizations and improper traditional hospitalizations. Actually performed day hospitalizations are based on a list of nomenclature provisions that previously gave entitlement to a "maxi", A, B, C or D lump sum and that meet two criteria, namely they should be an invasive surgical intervention and at least 60% of these interventions must be performed in-house, either during one hospital day or in an outpatient department. All the day stays recorded in the Clinical Minimum Data Set, for which at least one code from this list was recorded, are retained as justified actual day hospitalizations.

Improper traditional hospitalizations include traditional stays which could just as well have been performed in a day hospitalization without loss of quality. A list was drawn up of nomenclature codes with interventions that assign entitlement to a "maxi", A, B, C or D lump sum and meet two criteria. They had to be invasive surgical interventions and the substitution level of the

traditional hospitalization by day hospitalization had to amount to at least 10% of the reference period. The corresponding APR-DRGs are regarded as improper traditional hospitalizations if the following criteria are met at the same time: traditional hospitalization, scheduled admission, maximum hospital stay of three days, mild severity of illness, the patient did not die during the stay, low mortality risk, and the patient is under 75 years of age. Each justified stay in surgical day hospitalization is allotted a justified length of stay of 0.81 days. This is the basis for calculating the number of justified beds for a surgery day hospital.

Medical services within hospitals

Medical services within hospitals are paid for by fees paid to the physician (with the exception of physicians in university hospitals and some public hospitals who are salaried). This largely explains why Belgium never managed to integrate fees into the hospital budget system, which is under the control of the hospital manager.

However, the patient does not pay the fee directly to the physician in the case of inpatient hospital care. Instead, the patient pays a fixed per diem personal contribution to the hospital (plus supplements for treatment of patients that reside in double or private rooms or for physicians that did not subscribe to the tariff agreement), and the rest of the bill is paid by the health insurance system.

The main problem resulting from the fee-for-service system is that it tends to result in overconsumption; the two health sectors that have attracted the most criticism for this are laboratory testing and medical imaging. For this reason, these two sectors have seen their financing system changed. Laboratory testing is now based partly on lump sum payments calculated according to the case-mix of the hospital, and partly on fee-for-service. Since 1991, medical imaging has been financed by a mixed system including reduced fee-for-service payments, a consultancy lump sum based on the number of admissions (which tends to cover costs linked to the assessment of the clinical situation and the choice of the most appropriate medical imaging test), and a lump sum which varies according to the type of imaging service in the hospital.

Hospital supplements

Both hospitals and physicians working in hospitals can receive additional funding from supplements charged to patients. There are room and material supplements requested by the hospital and fee supplements requested by physicians. These supplements have become an important source of revenue for the hospital sector and have therefore been regulated by the Government.

Room supplements can be charged in the case of inpatient and day hospitalization in a single or two-person room and only if the hospital has at least 50% of its beds available for treatment without supplements. In 2005, the maximum room supplement was €20.11 for a two-person room. In a single room, there is no legally determined upper limit. The Hospital Act specifies the circumstances where no supplements can be charged. For patients staying in a single room, no room supplements can be charged in the following instances: (i) the medical condition of the patient, or the technical conditions for investigation, treatment or supervision necessitate a stay in a single room; (ii) when the necessities of the service or the unavailability of a two-person or common room require a stay in a single room; or (iii) when the patient is admitted beyond his/her control to an emergency unit or intensive care unit for the duration of his/her stay. For patients in a two-person room, no supplements can be charged if either (ii) or (iii) applies. Moreover, room supplements can never be charged to the following patients: beneficiaries of preferential reimbursement and their dependants; patients eligible for the lump sum for chronic diseases, incontinence material or palliative treatment at home; or patients admitted in a hospital service for palliative care.

As mentioned earlier, the fee schedules for physicians are determined in agreements between the sickness funds and the representatives of the physicians (see Section 4.6.1 on paying health care personnel). Each physician can accept (conventioned physician) or reject (non-conventioned physician) the agreement. For inpatients and patients in day hospitalization staying in a common room or a two-person room, conventioned physicians cannot charge fee supplements. However, they can request fee supplements from patients staying in a single room. Non-conventioned physicians can charge fee supplements irrespective of the choice of room of the patient, but this has to be announced to the patients and a maximum has to be determined. Also, non-conventioned physicians have to respect agreed fees in two-person or common rooms for specific vulnerable groups, e.g., beneficiaries of preferential reimbursement and their dependants; patients eligible for the lump sum for chronic diseases, incontinence material or palliative treatment at home; or patients admitted in a hospital service for palliative care. A fee supplement can never be charged by either type of physician for patients staying in a single room when conditions (i), (ii) and (iii) (as indicated for room supplements) apply.

There is increasing concern about the recent growth in room, fee and material supplements in the Belgian hospital sector. There is concern that these supplements may become a heavy burden on patients, thus threatening accessibility and leading to postponement of necessary health care. Average hospital supplements are dominated by fee and room supplements. For surgery and gynaecology the former are on average 100% of the convention fee.

Supplements related to an inpatient stay are strongly differentiated according to room type: they amount to more than €800 for a single room, more than € 200 for a two-person room and about €70 for a common room. Some groups of chronically ill (e.g., dialysis patients) have to pay large supplements, as do some psychiatric patients because of their longer average length of stay in hospital (De Graeve et al. 2006).

To evaluate the threat of deteriorated accessibility, a recent Belgian Health Care Knowledge Centre (KCE) study analysed the information from a random sample of 300 000 patients for the year 2003. While the majority of people paid no supplements, approximately 137 000 patients paid more than €1000. Large supplements are mainly related to hospital stays and are often in addition to large co-payments. Supplements are larger for the disabled, chronically ill and those on primary incapacity benefits. After controlling for other confounding factors, supplements are on average smaller for individuals with preferential reimbursement and show no strong relationship with socioeconomic background (De Graeve et al. 2006).

5 Physical and human resources

5.1 Physical resources

5.1.1 Infrastructure and capital investment

In Belgium, hospitals can be classified into two categories: general and psychiatric. In 2005, there were 215 hospitals, of which 146 general and 69 psychiatric (Table 5.1). The general hospital sector consists of acute (116), specialized (23) and geriatric hospitals (7). Specialized hospitals concentrate on one or a few health care specialties, such as cardiopulmonary diseases, locomotive diseases, neurological disorders, palliative care, chronic diseases and psychogeriatric care. Some acute hospitals have psychiatric departments that only treat psychiatric cases for short stays.

The majority of hospitals in Belgium are private hospitals (151, equal to 70%). Most private hospitals are owned by religious charitable orders, while the remaining is owned by universities or sickness funds. Public hospitals are for the most part owned by a municipality, a province, a community or an intermunicipal association (which is a legal form of association that groups together local authorities, public welfare centres and, in some cases, the provincial government or private shareholders). Both private and public hospitals are non-profit organizations. Hospital legislation and financing mechanisms are the same for both the public and private sectors. The only differences are that for public hospitals internal management rules are more tightly defined and their deficits are covered, subject to certain conditions, by local authorities or intermunicipal associations.

The acute hospitals include seven university hospitals, which have special status owing to their teaching and research functions. The “university” label

does not necessarily mean that a university owns the hospital; however, it does mean that a certain proportion of beds are registered as university beds. Each university has a certain number of beds, which are distributed among different hospitals.

Until the early 1980s, the number of hospital beds in Belgium increased by an average of 1000 per year to a record number of 92 686 or 9.4 per 1000 inhabitants in 1981. Since then the Belgian hospital sector has been restructured in order to respond to evolving needs: more geriatric previsions, shorter stays, expansion of day-hospitalization, scaled-up capacity, reduced maternity care, admission of elderly people in need, alternative provisions in the psychiatric sector, etc. The number of acute beds has shown overall decline since the mid-1980s (see Fig. 5.1). This is due to various measures taken since 1982. In that

Table 5.1 Inpatient care facilities, 1980–2005

	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005
Number of hospitals	521	448	374	284	223	222	218	215	215	215
Acute care hospitals	285	266	254	173	123	122	116	115	115	116
Specialized and geriatric hospitals	159	109	48	42	31	33	33	31	31	30
Psychiatric hospitals	76	73	72	69	69	69	69	69	69	69
Number of beds in hospitals (Acute, specialized and psychiatric)	92 436	89 589	79 346	74 476	72 304	71 943	70 833	70 821	70 815	70 795
Per 1000 population	9.4	9.1	7.9	7.3	7.1	7.0	6.9	6.8	6.8	6.8
Number of beds in acute care hospitals	53 960	57 529	56 058	54 486	53 170	53 105	52 192	52 123	52 117	52 127
Per 1000 population	5.5	5.8	5.6	5.3	5.2	5.2	5.1	5.0	5.0	5.0
Number of beds in specialized and geriatric hospitals	14 304	10 875	4 142	3 217	3 128	3 345	3 158	3 078	3 078	3 048
Per 1000 population	1.5	1.1	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Number of beds in psychiatric hospitals	24 172	21 185	19 146	16 773	16 006	15 493	15 483	15 620	15 620	15 620
Per 1000 population	2.5	2.2	1.9	1.6	1.6	1.5	1.5	1.5	1.5	1.5
Number of beds in nursing homes	–	3 837	17 264	19 475	34 136	38 614	39 500	45 730	47 019	47 243
Per 1000 population aged 60 years and older	–	1.9	8.5	9.0	15.2	17.2	17.6	20.3	20.7	20.6
Number of beds in rest homes	69 368	85 708	93 377	96 465	89 846	85 883	84 927	79 038	78 080	–
Per 1000 population aged 60 years and older	34.4	42.5	45.9	44.7	40.1	38.2	37.8	35.1	34.4	–

Source: Federal Public Service Public Health, Food Chain Safety and Environment and RIZIV-INAMI.

year, spending by the compulsory health insurance was reduced substantially by reclassifying nursing-home beds as different from acute and chronic hospital beds, and reimbursing the former at a lower rate than the latter. In July 1982, a moratorium on the number of general hospital beds was introduced. Its effect is that the number of beds reached on 1 July 1982 cannot be exceeded. This meant that the addition of any new bed must be compensated for by the closure of a bed somewhere else in the hospital system. Alongside the moratorium, a compensation scheme was introduced to cover hospitals for closures or non-use of beds. However, the number of hospital beds decreased less than was foreseen by the Government when it introduced the above measures. A process of scaling up the capacity accompanied the measures introduced to reduce the number of beds. In 1989, the minimum bed capacity was fixed at 150 beds for general hospitals. Mergers and closures were supported financially. These measures were successful in reducing the number of hospitals and beds per 1000 population. Between 1980 and 2005, the number of hospitals dropped from 521 to 215, and the average capacity of a Belgian hospital rose from 177 to 329 beds.

Partly as a result of the lack of referral structure between types of hospitals in Belgium (or precise distinction between primary, secondary and tertiary care), the location of hospitals and hospital services is more the result of historical evolution than of well-thought-out geographical planning. The overall density of beds in general hospitals is about the same in the Flemish region (5.0 beds per 1000 inhabitants in 2005) and the Walloon region (4.9 per 1000 inhabitants). However there is greater provision of psychiatric beds in the Flemish region (1.7 beds per 1000 inhabitants, as opposed to 1.3 in the Walloon region). In the Brussels region, the density of general hospital beds is very high (8.1 beds per 1000 inhabitants) because of the presence of three university hospitals. However, the density in Brussels of psychiatric beds is the lowest of all three regions, at 1.0 beds per 1000 inhabitants.

Average length of stay in acute and psychiatric care hospitals has been steadily decreasing since 1980, mainly because long-term patients have been transferred to other infrastructures, and length of stay per diagnosis-related group (DRG) has been taken into account in hospital financing. Admissions per 100 population have been increasing (see Table 5.2). Table 5.3 indicates that for acute hospitals the average length of stay and the number of acute hospital beds per 1000 population are higher in Belgium than the EU15 and EU25 averages (see also Fig. 5.1 and Fig. 5.2). Admissions per 100 population are lower in Belgium than the EU15 and EU25 averages.

Table 5.2 Inpatient care utilization and performance, 1980–2005 (selected years)

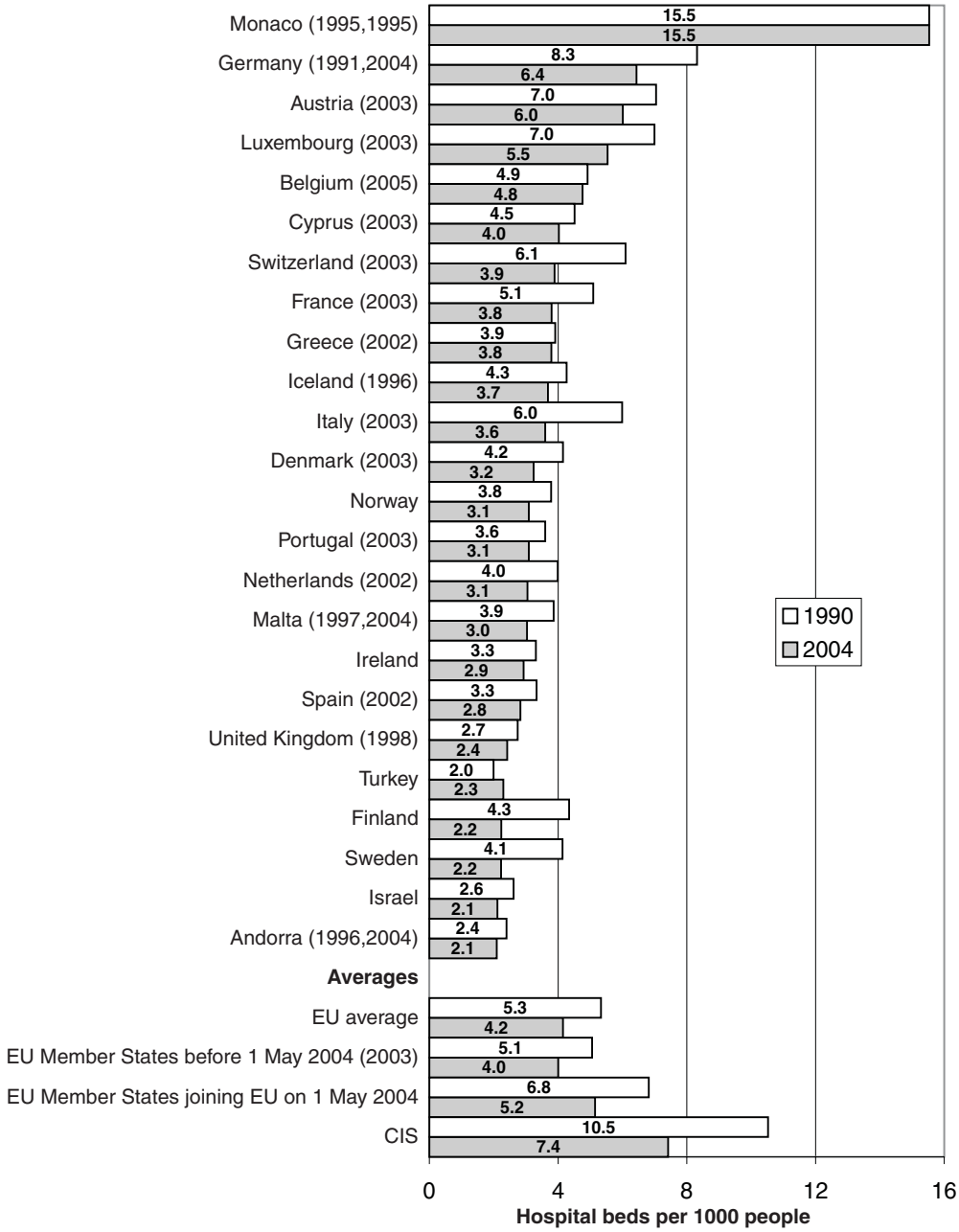
	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005
Admissions per 100 population	13.6	14.9	16.5	17.3	18.1	17.7	17.5	17.3	17.4	17.4
Acute care hospitals	13.1	14.4	15.9	16.4	17.0	17.0	16.8	16.7	16.7	16.7
Psychiatric hospitals	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Average length of stay (days)	21.6	18.8	15.3	12.8	11.5	11.5	11.4	11.3	11.2	11.2
Acute care hospitals	11.9	10.9	10.6	9.0	8.6	8.6	8.6	8.7	8.6	8.3
Psychiatric hospitals	314.3	236.3	184.4	112.9	90.7	91.7	92.9	91.8	89.2	87.2
Occupancy rate	85.7	85.2	86.0	83.1	81.3	80.6	79.9	78.8	78.5	78.4
Acute care hospitals	83.7	81.9	83.1	81.4	81.2	79.9	81.3	78.7	78.2	75.5
Psychiatric hospitals	91.3	95.9	94.6	88.7	86.6	85.6	84.5	77.7	78.6	86.7
Proportion of day care admissions	–	–	–	25.4	34.8	37.2	39.5	41.5	43.1	–

Source: Federal Public Service Public Health, Food Chain Safety and Environment.

5.1.2 Medical equipment, devices and aids

In Belgium, the installation of heavy medical equipment requires approval from the Minister of Public Health of the appropriate community. There are special accreditation norms and criteria for the installation and running of heavy medical hospital units (i.e. units in which expensive medical equipment is installed or highly-specialized, expensive personnel is employed). If a hospital fails to meet these criteria, the National Institute for Sickness and Disability Insurance (RIZIV-INAMI) can refuse to reimburse treatment given with the equipment in question, and the hospital can be penalized by a budget cut of up to 20%. The hospital can also be forced to restart the whole process of accreditation for the equipment. The areas covered by this legislation are: units for medical imaging with CT-scanners; magnetic resonance imaging (MRI) units; Positron emission tomography (PET) units; radiotherapy units; cardiac treatment centres; centres for human genetic work; centres for treatment of end-stage renal disease. Table 5.4 shows that the number of MRI, CT and PET scanners per million inhabitants has increased significantly since 1990.

Fig. 5.1 Hospital beds in acute hospitals per 1000 people in western Europe, 1990 and 2004 or latest available year (in parentheses)



Source: WHO Regional Office for Europe, June 2006.

Note: CIS: Commonwealth of Independent States; EU: European Union; countries without data not included. Please note that minor discrepancies may occur in national versus international data reporting. This is entirely consistent with norms and stems from differences in analytical classifications.

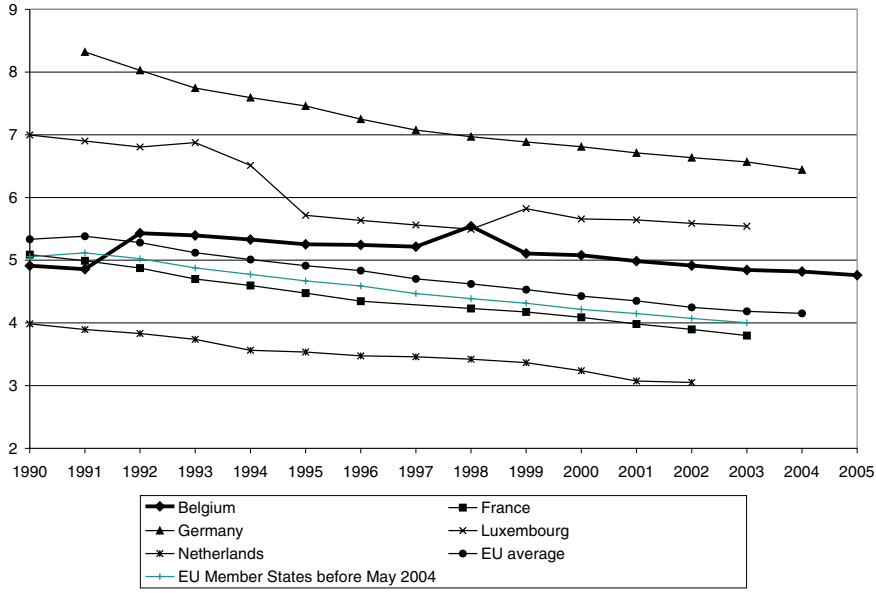
Table 5.3 Inpatient utilization and performance in acute hospitals in the WHO European Region, 2004 or latest available year

	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days	Occupancy rate (%)
Western Europe				
Andorra	2.1	10.0	6.7[e]	70.0[e]
Austria	6.0[a]	28.8[a]	6.4[a]	76.2[a]
Belgium	4.8	16.9[e]	8.3[a]	65.9[a]
Cyprus	4.0[a]	8.1[a]	5.5[a]	72.8[a]
Denmark	3.2[a]	17.8[c]	3.6[a]	84.0[c]
Finland	2.2	19.9	4.2	74.0[j]
France	3.8[a]	16.6[d]	6.1[a]	84.0[a]
Germany	6.4	20.4	8.7	75.5
Greece	3.8[g]	14.5[f]	6.4[f]	66.6[f]
Iceland	3.7[h]	14.7[a]	3.6[a]	–
Ireland	2.9	14.1	6.5	85.4
Israel	2.1	17.3	4.2	98.0
Italy	3.6[a]	15.2[b]	6.8[b]	76.9[b]
Luxembourg	5.5[a]	18.4[j]	7.7[f]	74.3[j]
Malta	3.0	10.7	4.6	85.4
Monaco	15.5[i]	–	–	–
Netherlands	3.1[b]	8.8[c]	7.4[c]	58.4[c]
Norway	3.1	17.3	5.2	86.4
Portugal	3.1[a]	11.2[e]	8.2[e]	85.2[a]
Spain	2.8[b]	11.7[b]	7.0[b]	78.2[b]
Sweden	2.2	15.1	6.1	77.5[h]
Switzerland	3.9[a]	16.3[f]	9.0[a]	85.2[a]
Turkey	2.3	8.1[a]	5.6[a]	64.9
United Kingdom	2.4[f]	21.4[h]	5.0[h]	80.8[f]
Central and south-eastern Europe				
Albania	2.7	–	–	–
Bosnia and Herzegovina	3.3[f]	7.2[f]	9.8[f]	62.6[e]
Bulgaria	7.6[h]	14.8[h]	10.7[h]	64.1[h]
Croatia	3.6	14.6	8.2	89.9
Czech Republic	6.2	20.8	8.2	74.8
Estonia	4.3	17.2	6.2	68.4
Hungary	5.9	23.5	6.5	76.6
Latvia	5.4	18.8	–	–
Lithuania	6.1	21.9	7.9	77.4
Poland	4.7[b]	–	–	–
Romania	4.4	–	–	–
Serbia and Montenegro	–	–	9.7[b]	69.0[b]
Slovakia	6.1	17.8	8.4	68.6
Slovenia	3.9	16.6	6.2	73.2
The former Yugoslav Republic of Macedonia	3.4[c]	8.2[c]	8.0[c]	53.7[c]
CIS				
Armenia	3.9	7.0	8.5	41.8
Azerbaijan	7.6[a]	4.8[a]	15.8[a]	26.1[a]
Belarus	–	–	–	88.7[j]
Georgia	3.7	5.4	6.7	99.3
Kazakhstan	6.2	17.4	10.0	95.6
Kyrgyzstan	4.1	12.3[a]	10.3	90.0
Republic of Moldova	5.2	15.4	7.8	62.9
Russian Federation	8.2	21.3	12.2	87.3
Tajikistan	5.7	10.2	12.0	58.1
Turkmenistan	3.8	13.3	7.9	81.8
Ukraine	7.1	20.0	11.9	91.2
Uzbekistan	4.5	14.2	–	86.5
EU average	4.2	17.5[a]	6.9[a]	77.5[a]
EU Member States before 1 May 2004	4.0[a]	18.0[c]	6.9[a]	77.0[c]
EU Member States joining EU on 1 May 2004	5.2	20.6	7.4	73.8
CIS average	7.4	19.5	11.6	87.1

Source: WHO Regional Office for Europe, June 2006.

Notes: [a] 2003; [b] 2002; [c] 2001; [d] 2000; [e] 1999; [f] 1998; [g] 1997; [h] 1996; [i] 1995; [j] 1994; CIS: Commonwealth of Independent States; EU: European Union. Please note that minor discrepancies may occur in national versus international data reporting. This is entirely consistent with norms and stems from differences in analytical classifications.

Fig. 5.2 Acute hospital beds per 1000 population in Belgium, selected countries and EU averages, 1990–2005



Source: WHO Regional Office for Europe Health for All database, June 2006.

Note: EU: European Union. Please note that minor discrepancies may occur in national versus international data reporting. This is entirely consistent with norms and stems from differences in analytical classifications.

Table 5.4 Medical technology per million inhabitants, 1990 and 2000–2003

	1990	2000	2001	2002	2003
MRI	2.0	6.0	7.0	6.6	6.8
CT	16.1	21.8	23.1	28.8	29.8
Radiotherapy	6.1[a]	6.4[c]	–	–	6.8
Lithotriptors	1.6[b]	4.8	5.0	4.1	4.4
PET	–	–	0.3	1.0	1.3

Sources: OECD, 2006 (October 2006); Federal Public Service Public Health, Food Chain Safety and Environment and RIZIV-INAMI, key figures from 2003.

Notes: [a] 1991; [b] 1992; [c] 1997; MRI: Magnetic resonance imaging; CT: Computerised (Axial) Tomography; PET: Positron Emission Tomography.

A recent Belgian Health Care Knowledge Centre (KCE) study on PET scanners concluded that Belgium is among European countries with the highest number of PET scanners per million people. In addition to the 13 approved PET scanners, a number of non-approved scanners are also operational. The 13 approved are considered sufficient for PET imaging needed in routine clinical practice and for research purposes (Cleemput et al. 2005). A similar study on MRI units concluded that compared to other European countries, Belgium scores

high on the supply of CT-scanners per million population, on CT- and MRI-activity per unit, on the ratio of CT versus MRI (both supply and activity) and on the supply of radiologists. Both for CT and MRI, average waiting times in Belgium tend to be very short compared to some neighbouring countries (less than 2 weeks, versus 2 months or more) (Demaerel et al. 2006). Nevertheless, the number of MRIs increased by 40 in 2006.

5.2 Human resources

5.2.1 Trends in health care personnel

In real terms, the number of almost all health care personnel has increased continuously in the last 30 years (see Table 5.5), owing mainly to a lack of control over the supply side of the market. It is generally accepted that there is an oversupply of physicians, dentists and physiotherapists in Belgium. The number of practising physicians almost doubled in the last 25 years, from 22 763 in 1980 to 42 176 in 2005. The number of dentists more than doubled between 1980 and 2005. The number of physiotherapists increased by 155% between 1980 and 2004. However, this number fell by 11.6% in 2005, as a result of the introduction of a quota mechanism (see Section 5.2.2 on planning for health care personnel).

Fig. 5.3 shows the continuous increase in the physician-per-1000-population ratio since 1970. Compared to its neighbours (France, Germany, Luxembourg and the Netherlands), Belgium had more physicians per 1000 inhabitants in each year between 1970 and 2004 (see Fig. 5.3). Also compared to all EU Member States, Belgium has a high ratio of physicians per 1000 population. With 4 physicians per 1000 population, Belgium ranks third after Italy (6.2) and Greece (4.9). In 2003, the EU25 average was 3.5 physicians per 1000 population (see Fig. 5.4).

5.2.2 Planning for health care personnel

For many health professionals, the excess supply has had serious consequences. Newly-qualified GPs have been able to earn such limited incomes that the rate of return on their education is low, and they have in some cases been forced out of medicine altogether. Although excess supply of health professionals has been an acknowledged problem since the 1970s, only in the late 1990s were attempts made to address it.

Table 5.5 Health care personnel per 1000 population, 1970–2005 (selected years)

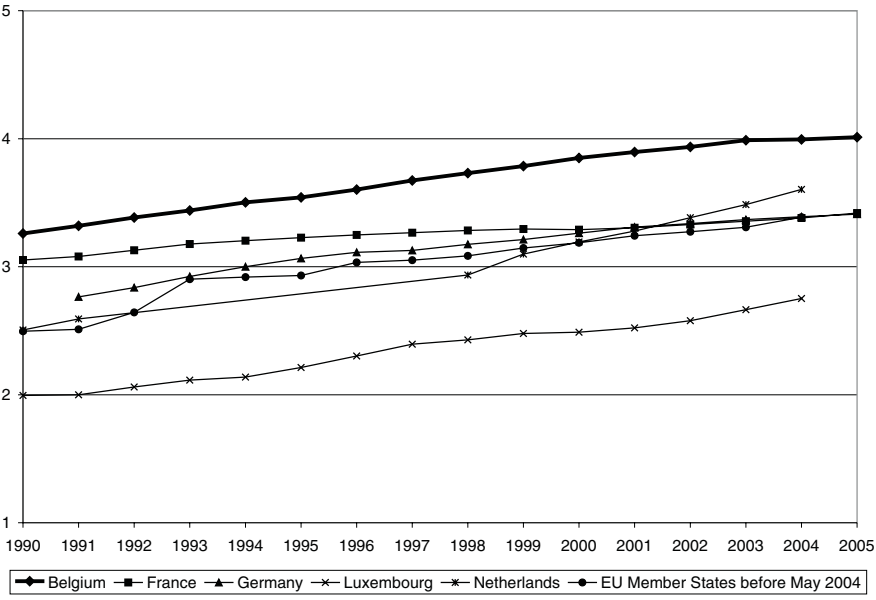
	1970	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005
Practising physicians[a]	14 887	22 763	27 924	31 694	35 917	39 518	40 167	40 763	41 447	41 734	42 176
Per 1000 people	1.5	2.3	2.8	3.2	3.5	3.8	3.9	4.0	4.0	4.0	4.0
General practitioners	–	13 142	16 888	18 751	19 824	21 415	21 614	21 698	22 000	21 898	21 804
Per 1000 people	–	1.1	1.4	1.5	2.0	2.1	2.1	2.1	2.1	2.1	2.1
Specialists	–	9 617	11 101	13 832	16 046	17 639	18 553	19 065	19 447	19 836	20 372
Per 1000 people	–	1.0	1.1	1.4	1.6	1.7	1.8	1.8	1.9	1.9	2.0
Specialists in training	–	2 178	2 876	3 282	3 459	3 484	3 458	3 038	3 349	-	-
Per 1000 people	–	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-	-
Dentists	2 718	4 291	6 214	7 135	7 852	8 465	8 512	8 553	8 597	8 660	8 655
Per 1000 people	0.3	0.4	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Pharmacists	6 735	9 682	10 792	12 335	10 069	10 724	10 939	11 191	11 394	11 818	11 882
Per 1000 people	0.7	1.0	1.1	1.2	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Physiotherapists	–	11 071	14 469	18 108	23 347	27 053	27 362	27 475	28 192	28 252	24 958
Per 1000 people	–	1.1	1.5	1.8	2.3	2.6	2.7	2.7	2.7	2.7	2.4
Nurses[b]	–	17 350	25 005	38 548	48 639	55 406	56 996	58 306	60 142	62 211	64 191
Per 1000 people	–	1.8	2.5	3.9	4.8	5.4	5.5	5.7	5.8	6.0	6.1
Midwives	-	1 636	2 403	3 110	4 026	4 508	4 613	4 734	4 912	5 084	5 300
Per 1000 people	-	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Hospital employment[c]	-	-	-	-	-	164 207	166 175	168 645	-	-	-
Per 1000 people	-	-	-	-	-	16.0	16.2	16.3	-	-	-

Sources: OECD, 2006 (October 2006); RIZIV-INAMI (annual reports, various years); Federal Public Service Public Health, Food Chain Safety and Environment (annual reports, various years).

Notes: [a] Practising physicians can be subdivided into GPs and specialists; part of this number is working in administrative, control or research functions and therefore are not directly providing health care to patients; specialists in training are not counted as practising physicians; [b] only self-employed nurses; [c] salaried personnel in acute, psychiatric and specialized hospitals.

The federal government introduced planning of physicians and dentists in 1996, when the Committee for Medical Supply Planning was established to give advice on the numbers of physicians and dentists qualified to practise in Belgium. Later, the remit of this committee was extended to cover physiotherapists, nurses, midwives and logopedics. The committee is responsible for formulating proposals to the federal minister of public health on the annual number of candidates per community that are eligible for being granted the professional titles of physician, dentist or physiotherapist, after obtaining the relevant

Fig. 5.3 Physicians per 1000 population in Belgium, selected countries and EU averages, 1990–2005



Source: OECD Health Data 2006, October 2006.

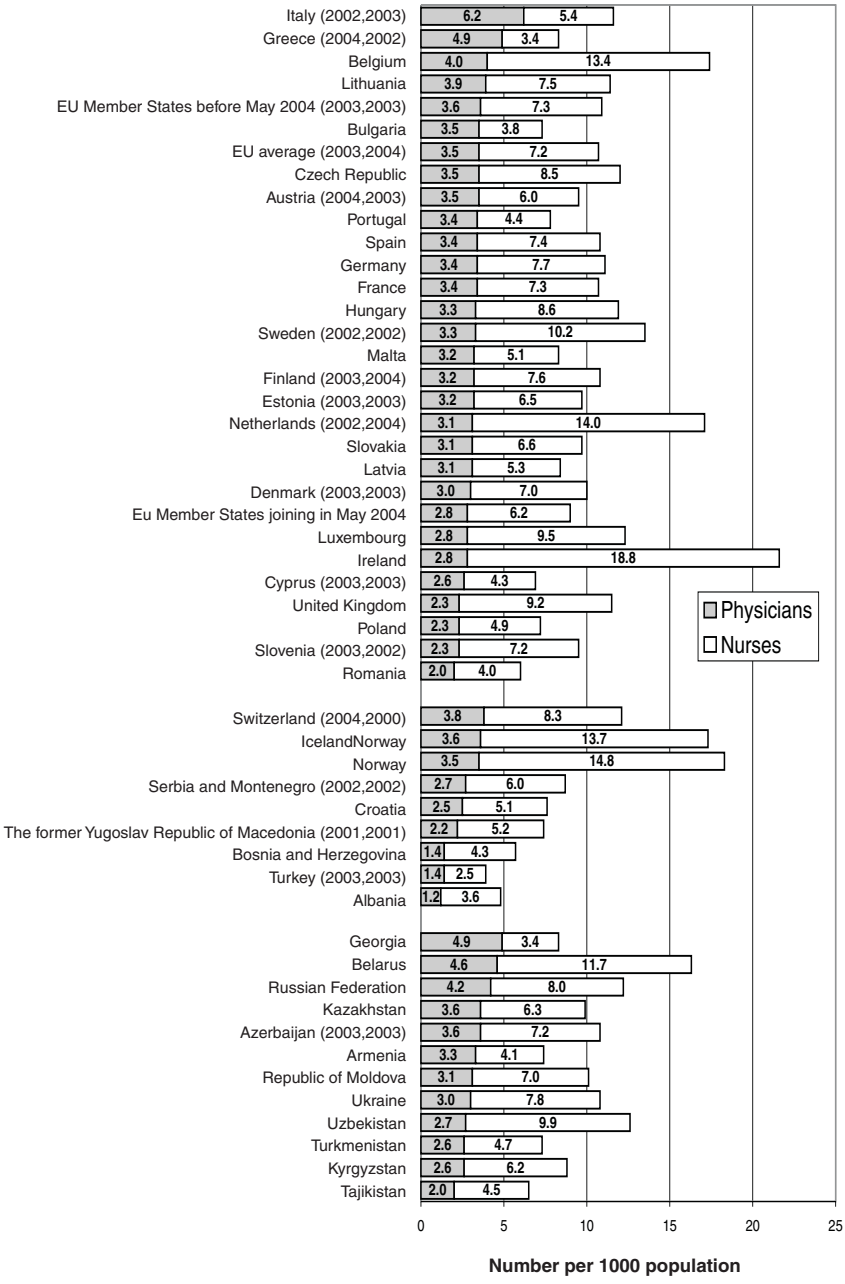
Note: EU: European Union. Please note that minor discrepancies may occur in national versus international data reporting. This is entirely consistent with norms and stems from differences in analytical classifications.

diploma. Furthermore, the committee has to evaluate on an ongoing basis the impact of its proposals on the training for these professionals. An annual report is drawn up on the relationship between needs, studies and moving on to practical training, with a view to obtaining the special professional titles of physician, dentist and physiotherapist.

Based on the committee's work, a proposal was made for a quota mechanism. This is applied immediately after the basic training at the moment of application for recognition as a dentist or physiotherapist, or at the moment of application for specialization as a physician (GP or specialist). The maximum number of medical graduates (already holding a diploma in medicine) who will be accepted for further training leading to practising with accreditation is 700 for the years 2004–2011, 833 for 2012 and 975 for 2013 (in comparison to approximately 1200 accreditations in 1999). Furthermore, these numbers are shared between the Dutch-speaking (60%) and the French-speaking regions[2] (40%), and between GP (43%) and specialist (57%) training. Since 2002, the number of new licences for dentists has been restricted to 140 per year: 84 in the Flemish community and 56 in the French community for the years 2002–2010.

[2] In the area education the German-speaking community is included as part of the Walloon region.

Fig. 5.4 Number of physicians and nurses per 1000 population in the WHO European Region, 2004 or latest available year (in parentheses)



Source: WHO Regional Office for Europe, June 2006; OECD Health Data 2006, October 2006.

Note: Belgium: self-employed nurses, midwives and nurses in hospitals. EU: European Union.

In order to achieve these objectives, the communities, which are responsible for education policy, have had to take measures to limit the number of medical and dental students. In 1997, the Flemish community introduced entrance examinations to limit the number of students entering medical schools. The French community has chosen to limit the number of medical students after their third year of medical education on the basis of the first three years' results.

Similarly, from 1998, the number of physiotherapists that is granted access to the professional title of physiotherapists and that obtains the right to perform within the compulsory health insurance has been restricted to 450 in the years 2003–2008 and 350 in 2009. Again, these numbers convert into 60% for the Dutch-speaking region and 40% for the French-speaking region. Since 2003, each year a national exam is organized by the federal government to select the number of physiotherapists.

5.2.3 Training of health care personnel

Medical training is a seven-year university course. Belgium has seven medical schools with a complete training scheme for physicians. Pharmacists and dentists follow a five-year university course. Medical studies are divided into two cycles: the first, lasting three years, covers basic scientific education (Bachelor's degree); the second cycle, lasting four years, is the Master's training and includes clinical studies and practical training in a hospital or a medical practice. After these seven years, students receive their physician's diplomas. For the last 15 years, the number of students receiving their physician's diplomas is approximately 1100 each year.

However, to be able to practise, a physician needs a licence granted by the federal minister of public health. Further training is needed to obtain this accreditation. Students wishing to become specialists follow training from four to six years, depending on the specialty. Their choice can be constrained by the small number of training posts available at teaching hospitals. Specialization is restricted to a limited number of candidates. To be eligible for specialization, a student has to submit a training plan indicating the name of the supervisor with whom they wants to specialize and the in-service department where they wants to work, together with the agreement of the supervisor and the in-service department. The training plan has to be approved by the licensing commission for the specialty concerned. There are 30 recognized specialties. Those wishing to practise general medicine undergo two years of training.

A variety of qualifications entitle their holders to practise nursing: the diploma of graduate nurse or higher level nurse, the diploma of certified nurse or second level nurse and the certificate of hospital assistant. Graduate nurses are

those who have followed a three-year course after secondary school. Certified nurses have undergone two years of training, which lead to the certificate of hospital assistant; then a further (optional) year after which the diploma of certified nurse is awarded.

5.2.4 Registration/licensing

The authenticity of diplomas is verified by provincial medical committees of the Federal Public Service Public Health, Food Chain Safety and Environment, which register all physicians, dentists, pharmacists, physiotherapists, nurses, midwives, etc. with an authentic diploma. Anyone who is not properly registered is not allowed to practise. The licence is given for an unlimited time – that is, once health care professionals have been given the right to practise, they do not have to apply to keep that right. However, in cases of malpractice, licences can be withdrawn.

In order to practise medicine in Belgium, every physician, whether Belgian or foreign, must be entered on the register of the Order of Physicians (see Section 2.2.4 on nongovernmental bodies). Nationals of an EU Member State who are established as a physician in a Member State are entitled to provide medical services in Belgium without being registered on the list of the Order of Physicians in Belgium. Although in this case the foreign physician is subjected to the jurisdiction of the order for the activities on Belgian territory.

To be accredited for providing health services within the context of the compulsory health insurance, health care professionals need to notify the RIZIV-INAMI. Quality accreditation of physicians is described in Section 8.2.2.

6 Provision of services

6.1 Public health

Public health can be defined as effective interventions to protect communities from health hazards. These efforts include promoting healthy behaviour, screening people early in the course of disease and reducing the number of individuals susceptible to infectious and chronic diseases. In all cases, public health policies and programmes are focused on the population as a whole in contrast to health care policies and programmes that tend to be focused on the individual.

6.1.1 Health education, health promotion and preventive health care

In Belgium, the communities are responsible for health education, health promotion and preventive health care. However, a number of decisions directly related to public health are made by the federal Government. For instance, the level of taxes on cigarettes and alcohol, which are intended to reduce consumption, are determined by the federal authorities. Sometimes the federal Government and the communities agree to coordinate health policies (e.g., vaccinations) or to finance the regional health policy through the national health insurance (e.g., breast cancer screening, vaccinations against poliomyelitis and hepatitis B). Recently, the Federal Minister of Public Health has launched the following national campaigns: the federal plan for the suppression of tobacco use, the action plan in case of a heat wave and, in collaboration with the communities, the national plan concerning dietary habits.

Different public health policies and services are provided in the Flemish community and the French community. These are described in the following sections.

The Flemish community

In the Flemish community the implementation of health promotion and preventive health care policies has been decentralized by establishing local health networks called LOGOs. The implementation of preventive health care activities is facilitated by the cooperation of health workers from different sectors. LOGOs are intended to lead health promotion work at district level, covering a territory with 250 000–300 000 inhabitants. They are composed of local initiatives and structures already in existence, and are meant to include all health and welfare workers such as general practitioners (GPs), pharmacists, dieticians, representatives of the local hospitals and rest homes, medical school management, health centres, etc. Each LOGO is supported and coordinated by a multidisciplinary central team and has to implement evidence-based actions, which aim to reach certain health targets set by the Government. There are 26 LOGOs in Flanders and Brussels.

In 1998, five priorities were formulated by the Flemish Government to orient the preventive action of health workers and to guide them towards specific objectives by 2002. These five objectives were:

- the number of deadly accidents (private and traffic accidents) should decrease by 20%;
- the number of smokers in Flanders, both women and men, and specifically young people, should decrease by 10%;
- the consumption of greasy food should be significantly decreased in favour of low-fat and high-fibre food;
- the prevention of infectious diseases should be significantly improved, in particular by further raising the vaccinations for polio, whooping cough, tetanus, diphtheria, measles, mumps and rubella;
- the increased efficiency in breast cancer screening: the share of the target group (women between 50 and 69 years old) as a percentage of the total number of screenings should increase to 80% and the number of women from that specific target group should increase to 75%.

Most of these objectives were not achieved in 2002, and were therefore taken up again for the period 2002–2006. A sixth health objective has been added concerning prevention of depression and suicide:

- the number of deaths by suicide should be reduced by 8% between 2000 and 2010.

One of the missions of the LOGOs is to implement these health targets. They also organize dialogues between local and regional partners in the health promotion field and formulate health promotion plans for the area.

The preventive health care policy of the Flemish community is supported by so-called partner organizations. Partner organizations are centres of expertise concerning preventive health care. They are experts in the field of sickness prevention, health promotion or supplying data concerning health care. The partner organizations support the LOGOs as well as the individual care providers and organizations which are involved in the preventive health care policy, i.e. centres for breast cancer detection, centres for student accompaniment, the Institute for Tropical Medicine and the sickness funds.

The following partner organizations support the Flemish policy of health promotion: the Consortium of centres for breast cancer screening, Domus Medica, Child and Family, the support cell for LOGOs, Sensoa, the Association for Alcohol and other Drug Problems, the Flemish Scientific Association for Youth Health Care and the Flemish Institute for Health Promotion (VIG).

The Consortium of centres for breast cancer screening is responsible for the processing and transfer of the data within the framework of breast cancer screening. Domus Medica has the task of developing recommendations for good medical practice for GPs. Child and Family is responsible for the preventive family support and preventive health care for young children in the pre-school period. The support cell for LOGOs provides administrative support to the LOGOs concerning their actions on health and the environment and the population study into breast cancer and vaccinations. Sensoa ensures expertise concerning sexual health. The Flemish Scientific Association for Youth Health Care offers scientific expertise in the field of preventive youth health care, and addresses specifically the centres for student accompaniment.

For support with health promotion activities, the Flemish Government appeals to the VIG. The VIG is a centre of expertise that delivers a strategic vision, quality recommendations and training for professionals in health promotion. The Institute focuses on topics such as tobacco, healthy eating, moving and accident prevention. It aims at intermediate target groups such as schools, working environments, local communities and the underprivileged. The Flemish Government formed an agreement with the VIG in which subsidies and result areas were set. The result areas are: disseminating information to the whole population and making recommendations to the Government and scientists; developing a methodology for different organizations which are

responsible for the field work within preventive health policy; helping to introduce this methodology in the functioning of these organizations; evaluating the interventions and organizing the training of professionals. The tasks are developed in an annual plan, which must be approved by the Flemish Care and Health Agency.

The French community

The Government of the French community defines its objectives for health promotion in a five-year programme. In the latest five-year programme (2004–2008), the priority action areas for health promotion are (Ministère de la Communauté française 2004):

- prevention of addiction
- prevention of cancer
- prevention of infectious diseases
- prevention of traumas and promotion of security
- promotion of physical activity
- promotion of dental health
- promotion of cardiovascular health
- promotion of well-being and mental health
- promotion of children's health
- promotion of a clean environment.

Each year, before 31 December, the French community defines the community plan for the next year with short- and medium-term priorities, based on the objectives in the five-year programme. The priorities formulated for 2006 were (Ministère de la Communauté française 2005):

- prevention of cancer
- promotion of vaccination
- prevention of AIDS and sexually transmitted infections
- fight against tuberculosis (TB)
- prevention of traumas and promotion of security
- promotion of cardiovascular health.

In the French community, health promotion is organized by the Local Centres for Health Promotion (CLPS) which coordinate the local implementation of the five-year programme and community plans for health promotion. These centres operate on behalf of all the actors within the competence of their territory. Their responsibilities are: to draft an action plan respecting the objectives of the five-year programme; to coordinate the execution of the action plan along

with the relevant organizations, professionals and people who carry out the mediation with the population or the public, targeted by the objective; to provide methodological help to the organizations and people who develop action plans in the field of health promotion and preventive health care; and to encourage the development of partnerships within the territory, in particular through local conferences on health promotion. There are 14 CLPSs in Wallonia and Brussels.

Health promotion and preventive health care policies in the French community are assisted by the so-called community services. These community services give logistic and methodological assistance (i.e. formation, documentation, communication, research and evaluation) to the Government, the CLPSs, the Superior Council of Health Promotion and the organizations or people who develop actions in the field of health promotion. There are four accredited community services, each with their own specificity: Question Santé, a non-profit organization responsible for communication; RESO (Unité d'Education pour la Santé) of the Catholic University of Louvain (Leuven), responsible for documentation, research and formation; PROMES (Unité de Promotion Education Santé) of the Free University Brussels, responsible for information and evaluation; and APES (Appui en Promotion et Education pour la Santé) of the University of Liège, responsible for intervention and evaluation methodology.

6.1.2 Screening programmes

In 2000, the communities and the federal Government signed a protocol to organize and finance, on a national scale, a campaign of breast cancer screening for women between 50 and 69 years old, based on the directives developed by Europe Against Cancer. The federal Government pays for the radiological costs. The organization's costs are paid for by the communities. The responsibility for the coordination of the campaign is attributed to recognized screening centres. Eleven screening centres were identified: five in Wallonia (one in each province), five in Flanders (in the four Flemish universities and one in Bruges) and one screening centre for Brussels. The screening centres are responsible for the identification of the target group, sending the invitations, the second reading, recording the data and reporting to the referring physician. In Flanders, the campaign started in June 2001, while in Wallonia and Brussels the campaign started in June 2002.

Cervical cancer screening is not compulsory in Belgium. Screening initiatives are only organized in four of the five Flemish provinces. The screening aims at women between 25 and 64 years old, who are invited to have a Pap smear taken once every three years. In Belgium, the participation of women between 25 and

64 years (i.e. minimum a Pap smear taken in the past three years) is only 59%. Also many of these women are screened too frequently (annual smear).

In Belgium, there are seven AIDS reference centres with eight reference laboratories, accredited and financed by the federal Government. One of their tasks is the confirmation of tests of the sera, which were found positive in a detection test. Since only these seven reference centres are competent to carry out these tests, the recording gives a complete picture of the total number of persons with HIV. The reference centres also try to collect epidemiologic basic facts by using a standardized form, which is sent to every physician who diagnoses HIV. Information is collected on the sex, age, nationality, possible manner of contagion and clinical stage at diagnosis. This registration is financed by the federal Government and data are analysed by the Scientific Institute of Public Health (WIV-ISSP).

6.2 Patient pathways

Efforts to develop patient pathways are, so far, mainly related to pathways in hospitals. Generally, these pathways are called clinical pathways. In the context of hospitals, clinical pathways are often defined as schedules of medical and nursing procedures, including diagnostic tests, medications, and consultations designed to result in an efficient, coordinated programme of treatment. Several initiatives have been implemented to stimulate the use of clinical pathways in Belgian hospitals. In 2000, the Centre for Health Services and Nursing Research of the Catholic University Leuven launched the Belgian Dutch Clinical Pathway Network to support hospitals in developing, implementing and evaluating clinical pathways. The first activity of the Network is to provide education on clinical pathways and related concepts such as patient safety, quality control, multidisciplinary teamwork, operations management and evidence-based medicine. A second activity is to support multidisciplinary teamwork, in-hospital projects on pathways and multicentre research projects and benchmarking. A third activity is research and international collaboration.

Some research projects are funded by the federal Government. Since 2003, a joint venture between the Centre for Health Services and Nursing Research of the Catholic University Leuven (KUL), the Dutch Institute for Healthcare Improvement (CBO) and the Université Catholique de Louvain (UCL) has been established. The team incorporates competencies in patient care management, change management, cost accounting, operations research, evidence-based medicine and information and communication technology. In 2005, 82 organizations were members of the Belgian Dutch Clinical Pathway

Network, including acute hospital trusts, rehabilitation centres and home care organizations. Within the Network, a clinical pathway is defined as: a collection of methods and tools to guide the members of a multidisciplinary and interdisciplinary team towards patient-focused collaboration for a specific patient population. It is a way of identifying and defining the different tasks of the different team members, a tool to systematically plan and follow up a patient-focused care programme. The goal is to assure qualitative and efficient care, and more than 400 pathways are under development or have been implemented (Centre for Health Services and Nursing Research 2006).

A recent Belgian Health Care Knowledge Centre (KCE) survey showed that clinical pathways have a higher penetration in predominantly Dutch-speaking acute hospitals and larger acute hospitals. The impact of clinical pathways at present is below 10% in most of the hospitals, but there is great potential for growth, to include up to 40–60% of the patients. A multitude of pathways already exist for a large number of frequent interventions in surgery, obstetrics-gynaecology and, to a lesser extent, internal medicine and neurology. Currently, less than two thirds of the pathways fulfil the three characteristics of clinical pathways: a time line, multidisciplinary work, and a detailed overview of key elements (Devriese et al. 2005).

Apart from specific clinical pathways by pathology, a general pathway can be formulated, for example, for a woman who is in need of a hip replacement. In Belgium, this woman would take the steps outlined here.

- She can contact a GP with whom she can be registered (i.e. the GP that keeps her Global Medical File). She can also contact an orthopaedic specialist directly.
- The GP or the orthopaedic specialist can prescribe any necessary pharmaceuticals.
- The GP refers her to a hospital orthopaedic department for examination and, subsequently, an operation.
- She has free access to any accredited hospital, public or private. Thus, the GP makes the referral in consultation with the patient.
- After consultation with the orthopaedic specialist, the decision is made for admission and surgery. Waiting lists are limited.
- During the hospitalization any necessary medication and physiotherapy is prescribed by the responsible orthopaedic specialist.
- Following surgery and primary rehabilitation at the hospital, the responsible orthopaedic specialist together with staff from the social services in the hospital and the patient and her family develop a plan for further care.

- After discharge from the hospital she can go home, where she might need home care, or, if she is 60 years or older, she can go to a residential home or a rest and nursing home.
- The GP receives a discharge summary from the hospital which will be added to the Global Medical File. The GP is responsible for any further follow-up, such as referral to a physiotherapist.
- A follow-up visit at the hospital outpatient department or with a private specialist is likely to take place to check the treatment's outcome.

6.3 Primary and secondary ambulatory care

Primary health care can be defined as the first point of contact between an individual and the health system. Since there is no referral system in Belgium, specialists often form the first point of contact with the patient in the health system. They are therefore considered in this section, along with GPs.

Delivery of ambulatory care in Belgium is mainly private and based on the principles of independent medical practice, i.e. independent medical practitioners and paramedics are reimbursed via fee-for-service payment and there is free choice of physician by the patient. The vast majority of physicians work as independent self-employed health professionals. Medical specialists can work in institutions (mostly hospitals) and/or on an ambulatory basis, in private practice. GPs mostly work in private practice; they are not allowed to work in hospitals except to perform deliveries in maternity units and in emergency care units. Because there is no referral system between these two different types of physician, every citizen has free access to medical specialists and hospital care, even as the first point of contact with the health system.

Patients in Belgium can visit GPs or specialists in their surgeries; they can also visit a specialist in the hospital or in an outpatient department, usually situated in a hospital. Patients do not often have to wait long, if at all, for access either to GPs or specialists. Also, GPs in Belgium make many visits to patients at their homes. In 2005, there were 50 720 140 visits made by patients to physicians, of which 28 349 483 (56%) were made to GPs and 22 370 657 (44%) to specialists; in addition, 16 384 691 visits were made by physicians to patients at home. The number of outpatient contacts per person per year decreased from 7.8 in 1990 to 7.0 in 2005. In particular, the number of physicians' visits to patients at home has also decreased per person, from 2.4 in 1990 to 1.6 in 2005. The number of visits by patients to GPs and specialists increased to 2.7 and 2.1 respectively in 2005, although in recent years the number of visits per person seems to have stabilized (see Table 6.1).

Table 6.1 Outpatient contacts per person per year, 1990–2005

	1990	1995	2000	2001	2002	2003	2004	2005
Visits by patients to GPs	2.4	2.5	2.7	2.7	2.7	2.7	2.7	2.7
Visits by patients to specialists	1.7	1.9	2.0	2.1	2.1	2.1	2.1	2.1
Physicians' visits to patients at home (mostly GPs)	2.4	2.3	2.1	1.9	1.8	1.8	1.7	1.6
Other	1.3	0.9	0.7	0.7	0.7	0.7	0.6	0.6
Total	**7.7**	**7.6**	**7.5**	**7.4**	**7.3**	**7.3**	**7.1**	**7.0**

Source: RIZIV-INAMI.

Note: GP: General practitioner.

Most physicians (GPs and specialists) operate solo practices, frequently without any staff except perhaps a medical secretary. However, there are centres, known as integrated health care practices, which operate a multidisciplinary team, including (at least) several GPs, administrative and reception staff, nurses, a physiotherapist and a psychotherapist. The number of such practices is growing, although there is still only a small minority of people affiliated to them. Most operate a fee-for-service payment system like other physicians, but a few have moved to capitation.

The provision of many other health care services (e.g., pharmacies and dental services) is also private, but there are exceptions. As women rarely give birth at home, most midwives work within hospitals, although delivery is charged by independent gynaecologists in the hospitals, rather than midwives. Centres for family planning (which have a minimum staff of a physician, a psychiatrist or psychologist, a lawyer and a social assistant) are subsidized by the communities (state funding) to help pay for their equipment and running and personnel costs.

In the Belgian health system, there is no clearly defined gatekeeper function. Belgian patients have free choice of the first physician to contact, can change physician at any time, and get a second opinion or even consult several physicians at a time. Furthermore, they can directly access specialists or enter a hospital. The free choice of physician is an important right granted to patients. It is heavily defended by the stakeholder group of specialists, which is very powerful, but it does lead to patients shopping around for care and leads to overconsumption of medical care and consequent increases in health care expenditure. This, together with the fee-for-service payment element, explains why the average number of physician contacts per person in Belgium is relatively

high at 7.1 outpatient contacts per person in 2004,[3] compared to an average of 6.3 in the 15 Member States belonging to the European Union (EU) prior to 1 May 2004 (EU15) (see Fig. 6.1).

In the most recent national health survey (Bayingana et al. 2006) a large majority of the population (95%) stated that they had a regular GP. Furthermore, it was found that in Belgium there are no significant barriers to access to a GP. The survey indicated that people with elementary schooling contact GPs more often than people with higher education, although this can probably be linked to the poorer state of health of people with elementary schooling. Only 10% of GP contacts result in a patient referral to a specialist for treatment or additional investigation. This low figure could reflect the high proportion of patients that directly seek a specialist consultation.

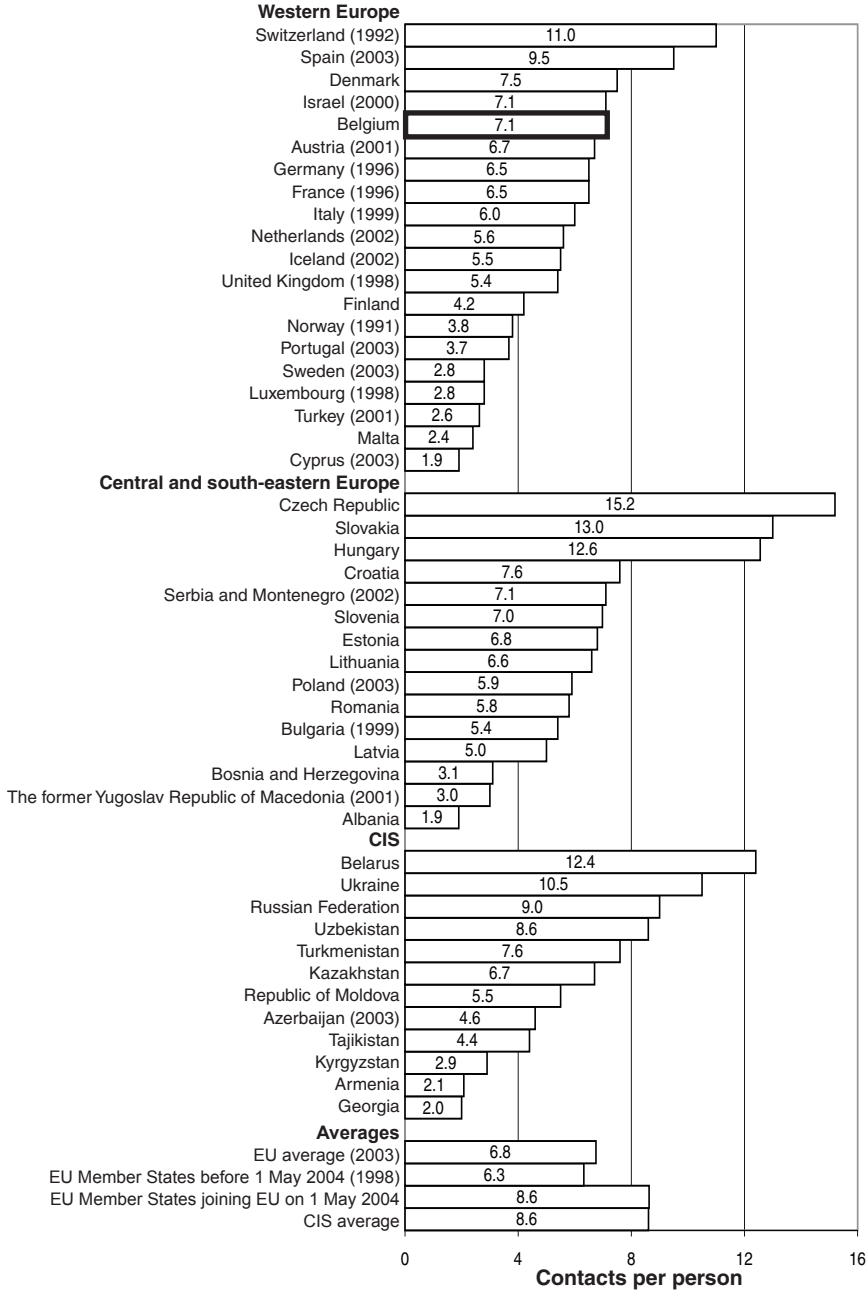
Despite the importance attached to the principle of free choice of provider, measures are being taken to strengthen the position of the GP as the preferred entrance point for health care treatment. However, medical professional stakeholders continue to heavily oppose plans for a GP gatekeeping system.

In 1999, the Government introduced the use of a Global Medical File (GMD-DMG), initially for patients over the age of 60, to increase the access to and availability of patient information. The file gathers a patient's information in one place and develops a patient's loyalty towards one particular GP (only one GP can hold one GMD-DMG for each patient). The GMD-DMG contains patient medical and administrative data. Patients can choose which GP holds and manages their file. The GP charges a fee to his patient for the management of the GMD-DMG. This fee is reimbursed entirely by the patient's sickness fund. The patient with a GMD-DMG obtains a reduction of 30% on his/her out-of-pocket payments. In 2007, a maximum amount will be set for the costs which can be charged to the patient for copying his medical file.

Initially, due to funding limitations, the GMD-DMG was only used for patients over 60 years of age; however, since May 2002, eligibility has been extended to the entire population. Despite registering with one GP practice, patients maintain the right of unrestricted access to all providers without a referral.

[3] The WHO Regional Office for Europe European Health for All database defines outpatient contacts per person per year as: "The total number of primary health care or ambulatory care contacts divided by the population. An outpatient contact is one episode of examination/consultation performed by a physician or by a nurse in the presence of a physician, in relation to one outpatient at one time and location, normally at the physician's office or the patient's home. The number of outpatient contacts includes: patient's visit to physician's office; physician's visit to patient's home or other place; call for ambulance; day-patient cases". For Belgium this number includes advice, patient's visit to physician's office (GPs and specialists); physician's visit to patient's home and medical assistance during urgent transfer to a hospital (in an ambulance); day-patient cases are not included.

Fig. 6.1 Outpatient contacts per person in the WHO European Region, 2004 or latest available year (in parentheses)



Source: WHO Regional Office for Europe, June 2006.
Note: CIS: Commonwealth of Independent States; EU: European Union; countries without data not included.

In order to contain the number of patients relying exclusively on hospital emergency services for more or less urgent questions and problems, GPs' evening duties have been expanded. In 2002, the "on call fee" was introduced to alleviate the strain of high demand for emergency services. GPs are paid this fee for each 24-hour weekend shift that they are on call, irrespective of the number of consultations given. Financial support is also provided for the groups of GPs organizing weekend shifts.

6.4 Inpatient care

6.4.1 Hospitals

The Hospital Act defines a hospital as a health care establishment where specialized examinations and/or treatment are performed specific to the field of medicine, surgery and in certain cases obstetrics. These examinations and/or treatment may be carried out or applied at any time in a multidisciplinary setting, with the necessary and appropriate conditions of care and medical, medicotechnical, allied medical and logistical framework appropriate in relation to the patients being admitted and staying, because their condition requires such care in order to treat or alleviate disease, restore or improve their state of health, or stabilize lesions as quickly as possible.

In Belgium, hospitals are private or public non-profit organizations that are classified into acute, psychiatric, geriatric and specialized hospitals (see also Section 5.1.1 on infrastructure and capital investment).

People are free to choose which hospital they attend and public hospitals are obliged to accept all patients. Thus there is no formal referral system between primary and secondary/tertiary care, but in practice, it is usually the GP or the private specialist who decides to send the patient to a hospital.

Waiting lists that occur in some European health systems are rather rare in Belgian hospitals. For specific interventions waiting lists may occur for external reasons, such as the shortage of donors in the case of organ transplantation. To alleviate the shortage of donated organs (especially kidneys and livers), a campaign was set up among the population and care providers under the name "BELDONOR". Since then, the number of candidate donors has increased steadily from 30 000 in 2005 to 60 000 in 2007. In 2007, the campaign is to continue and will take a particular focus on specific target groups, such as secondary education students. In addition, the GIFT project was set up in intensive care units of 60 hospitals. Under this project, "transplantation

correspondents" can undertake early screening of potential organ and/or tissue donors and can later discuss with family members and providers the importance of donation.

As mentioned before, hospital accreditation is regulated by the federal Government and implemented by the communities (see Section 3.1.4 on regulation and governance of providers). The system of accreditation is primarily concerned with aspects relating to safety, hygiene, quality and continuity of care. In recent years, hospital planning and accreditation are moving away from considering the hospital as an overall infrastructure towards defining it in terms of its various medical and supportive services. They have coined the descriptive terms care programme and function. A programme is a coherent intervention for a well-defined target patient group. The programme is first defined by the case treated and the type of care given. Then norms describing infrastructure, number of personnel, minimum activity level and so on are allocated to this programme. A distinction is made between basic programmes for regular conditions and specialized programmes for more rare conditions, which will not be available in every hospital. A function describes a set of hospital services, which are not aimed at a specific patient group. They are not provided in a defined unit, i.e. they are not directly linked to hospital beds and all the programmes and services of the hospital can use them. The idea is that hospitals would be completely made up of a series of basic programmes and basic functions (which would have to be present in every hospital) as well as some specialized functions and programmes.

At present, there are care programmes for reproductive medicine, cardiac pathology, oncology, paediatric and geriatric activities.

- For oncology, the professional title of medical oncologist was introduced making oncology an exclusive discipline. In addition, a care programme for breast cancer was developed, as a specialized programme with the intention of improving the preventive as well as curative approaches to breast cancer.
- The care programme for children was created with two objectives: reducing the number of paediatric services with a low occupancy rate to the benefit of paediatric services with a higher occupancy rate, and establishing paediatric services that offer the whole range of treatment forms, from consultation about day hospitalization to classical hospitalization.
- The care programme for geriatric patients was developed from the same logic. This programme integrates different treatment modes in the form of different modules: polyclinic treatment, day hospitalization, classic hospitalization, internal and external liaisons. The liaison function should guarantee a transmural approach in the form of care pathways. Also, geriatric

treatment is guaranteed for patients who are treated in hospital units other than the geriatric service.

According to the Hospital Act, a medical council has to be established in every hospital. Through this council, the hospital physicians participate in the decision-making process in the hospital. The medical council gives advice to the hospital manager on five groups of matters: general regulations, medical activities, relations with other hospital staff, financial means and techniques necessary for medical activity. For well-defined matters, this advice obliges the manager to consult an intermediary in case of disagreement on this opinion and the advice of the medical council. The Hospital Act imposes an obligation upon every hospital to determine a so-called general regulation on the legal relationship between the hospital and its physicians, as well as the organizational, working and financial conditions. With reference to this general regulation, the rights and obligations of every hospital physician and the hospital manager, and more specifically, his/her working conditions, have to be laid down in writing, either in an agreement between both parties or in a unilateral act of appointment.

6.4.2 Day care

Day care is defined as a programmed hospitalization of a patient for a surgical intervention or a number of diagnostic or therapeutic tests, which occur within the traditional hospitalization, but can be carried out efficiently and safely in one day. Day care is organized in a specific hospital unit which is a part of an acute hospital with an adapted specialized medical-technical environment. Day care has been introduced for oncology, paediatric and geriatric activities and is being promoted for other nonsurgical interventions. Day care has increased significantly in the last decade, from 25.4% in 1995 to 43.1 in 2004 (see Table 5.2).

6.4.3 Laboratory testing

Every hospital is required to operate a clinical laboratory, and additional laboratory facilities are also found outside the hospital structure. In 2005, there were 267 laboratories in Belgium (53% in Flanders, 34% in Wallonia and 13% in Brussels) of which 59.6% were inside a hospital. Their key organizational and technical features, e.g., management, specialists in laboratory testing, pre-analytic and analytic procedures, assistant personnel and quality control, are specified by law. Hospital laboratories must apply to the Minister of Public Health for approval. Independent laboratories outside the hospital system apply to the appropriate community.

6.5 Emergency care

Emergency care has been regulated in Belgium since 1964. The Emergency Medical Assistance Act aimed to improve medical assistance at public places by introducing a uniform recall scheme and regulating initial on-the-spot care and transport to the hospital.

Emergency care is defined by the Emergency Medical Assistance Act as the immediate supply of adapted aid to all persons who require emergency treatment for medical conditions resulting from an accident, a sudden disorder or a sudden complication of an illness by means of the uniform call scheme as a result of which the assistance, transport and care in an adapted hospital service can be assured.

Emergency medical assistance is seen as a chain which has several links. The first link is the bystander who, in a correct manner, must call the"100" aid centre and if possible, must be able to offer the appropriate first aid on the spot. The following links include the person in charge at the "100" aid centre, the ambulance service, the mobile urgency group (MUG-SMUR) and the emergency department in the hospital.

The organization of the "100" aid centres, including the installation and the functioning of the uniform recall scheme, falls under the responsibility of the Minister of Home Affairs. The Minister of Public Health is responsible for the organization of emergency medical assistance. In 2006, there were 11 aid centres. The costs are paid by the Federal Government.

The main tasks of those responsible in the aid centre are: to inform the nearest ambulance service or a GP, to decide about the possible mediation of a MUG-SMUR and to make sure that the patient is transported to the most suitable hospital.

Recognized ambulance services fall under the responsibility of the Federal Public Service (FPS) Public Health. In 2006, there were 61 services organized by the Government (especially by fire departments), 19 services organized by the Red Cross, 40 hospital services and 31 private services. Non-urgent medical transportation falls within the remit of the communities.

Each patient must be transported to an emergency care department of an acute care hospital. The Federal Government sets the standards that an emergency care department must satisfy. The communities are responsible for the accreditation of these departments. Acute care hospitals which do not have an emergency care department must have the possibility of initial relief for emergency cases.

The MUG-SMUR is a fast intervention vehicle with an emergency physician, who is specialized in the treatment of vital urgencies. The MUG-SMURs have

not been charged with the transport of patients. This intervention only takes place in very specific situations which require a high level of competence. The person in charge at the aid centre decides whether this intervention is needed according to the type of accident and location. The urgency physician is always accompanied by a specialized urgency nurse and has the necessary equipment to provide on-the-spot care to the patient. If the situation is serious, the physician rides with the ambulance and looks after the patient until they reach the hospital. The physician also can recommend the appropriate hospital according to the pathology of the patient.

MUG-SMURs accreditation requires meeting a number of organizational standards. Each mobile urgency and reanimation service is managed by a hospital or an association of hospitals and is linked with the emergency care department of an acute care hospital. The MUG-SMUR provides a 24-hour service. The number of MUG-SMURs is based on of the number of inhabitants and population density. In 2006, there were 79 recognized MUG-SMURs, of which 17 were managed by two or more hospitals. The MUG-SMURs are financed by the federal Government.

Since 2006, the federal Government is also financing experiments with so-called paramedical intervention teams (PITs), composed of a specialized urgency nurse and an ambulance driver. These PITs are also attached to a hospital.

6.6 Pharmaceutical care

Pharmaceuticals are exclusively distributed through community pharmacies and hospital pharmacies. In 2006, Belgium had 5269 community pharmacies. The establishment of new pharmacies has been strictly regulated since 1973, controlling the number of pharmacies opening in new areas. In 1994, a moratorium imposed a limit on the number of pharmacies to their present number. Since 1988, the number of pharmacies per 10 000 citizens has been stable at 5.2. The restriction on the number of pharmacies means that although in theory graduate pharmacists can go straight into practice after their five-year university course, in fact they are sometimes employed in existing practices for very low wages or have to pay exorbitant prices to buy their own pharmacy.

Only physicians and (to the extent that their profession requires) dentists and midwives can prescribe pharmaceuticals. About 2500 pharmaceutical products are on a positive list and therefore are partly or fully reimbursable. The reimbursable percentage of the cost varies depending on the therapeutic

importance of the pharmaceutical. The patient only pays the nonreimbursable percentage as a co-payment to the pharmacy. The sickness funds reimburse the reimbursable percentage directly to the pharmacies through the third-party payment system. An important characteristic of this system is that pharmaceuticals are reimbursable only to patients covered by compulsory health insurance. Under the insurance scheme for the self-employed, ambulatory pharmaceutical costs are entirely borne by the patient. This situation will end in 2008 when both major and minor risks of the self-employed will be covered by the compulsory health insurance.

Pharmaceuticals account for a large proportion of the compulsory health insurance budget, approximately €3.3 billion, representing 17.6% of public health expenditure in 2005. Moreover, the average annual growth of pharmaceutical expenditure was 7.5% in 1990–2000 and 6.7% in 2000–2005, exceeding health expenditure growth, which was 5.1% and 6.2%, respectively (Table 4.2).

Compared to other European countries spending for pharmaceuticals is high in Belgium. In 2004, on average €359 per inhabitant was spent on reimbursed ambulatory pharmaceuticals, compared to €275 in the Netherlands and €278 in the United Kingdom. Only in France (€503), Switzerland (€458) and Germany (€394) expenditure per inhabitant was higher than in Belgium (Stichting Farmaceutische Kerngetallen 2006).

Almost 75% of expenditure for reimbursed ambulatory pharmaceuticals in Belgium is prescribed by GPs (Table 6.2).

To curb pharmaceutical expenditure, a complete range of measures were taken in recent years, of which the most important are listed here. In 2000, the following measures were introduced to modernize pharmaceutical policy (Vandenbroucke 2000):

- simplifying the procedures and structures for the approval of new pharmaceuticals and using scientific research to review products already on the market;
- guaranteeing the supply of pharmacotherapeutic innovations;
- encouraging pharmaceutical use based on evidence and medical guidelines, with attention to the price–quality ratio of the various alternatives and the place of pharmaceutical products in the overall medical care given;
- setting realistic budgetary targets based on objective policy options and with the introduction of recuperation mechanisms when the budget is exceeded;
- ensuring affordability for the patient.

Table 6.2 Expenditure for each anatomical group (compulsory health insurance reimbursement and out-of-pocket payments) prescribed by GPs or specialists for reimbursed ambulatory pharmaceuticals, 2005

	GPs	Specialists (in thousand €)	Total	GPs	Specialists (%)
A Alimentary tract and metabolism	235 251	58 498	293 749	80.1	19.9
B Blood and blood forming organs	105 186	37 265	142 451	73.8	26.2
C Cardiovascular system	644 110	71 126	715 236	90.1	9.9
D Dermatologicals	24 051	16 443	40 494	59.4	40.6
G Genitourinary system and sex hormones	33 639	33 268	66 907	50.3	49.7
H Systemic hormonal preparations, excluding sex hormones and insulins	36 150	28 071	64 221	56.3	43.7
J Anti-infectives for systemic use	178 970	84 392	263 362	68.0	32.0
L Antineoplastic and immunomodulating agents	82 390	142 620	225 010	36.6	63.4
M Musculoskeletal system	112 558	24 120	136 678	82.4	17.6
N Nervous system	339 361	116 861	456 222	74.4	25.6
P Antiparasitic products, insecticides and repellents	435	438	873	49.8	50.2
R Respiratory system	211 629	47 112	258 741	81.8	18.2
S Sensory organs	8 392	26 026	34 418	24.4	75.6
V Various	19 026	5 344	24 370	78.1	21.9
Total	**2 031 148**	**691 584**	**2 722 732**	**74.6**	**25.4**

Source: RIZIV-INAMI, Annual report 2005, published 2006.

Note: GP: General practitioner.

More details on recent reforms in the pharmaceutical field are provided in Section 7.2.3 on ensuring access to innovative pharmaceuticals.

6.7 Rehabilitation/intermediate care

Rehabilitation care concerns supplying medical care after the acute phase of a disorder or an accident with the aim to repair, improve or maintain the functional situation of the patient to the greatest extent possible. Rehabilitation care is supplied in hospitals and specific institutions for rehabilitation, and is

organized on the basis of an agreement between the institution concerned and the National Institute for Sickness and Disability Insurance (RIZIV-INAMI). These agreements are concluded individually with each institution and are related to a well-defined therapeutic project. Such agreements define the target group (i.e. a description of the indications from which the claimant must suffer to be allowed in to the rehabilitation plan), the required framework (i.e. the composition of the team of care providers) and the contents of the packages of care. In general, it concerns type agreements, where the target group, framework, package of care and insurance allowance are identical for all institutions which sign the agreement. Rehabilitation is characterized by its multidisciplinary character. The patient is looked after by care providers of several disciplines, which hold mutual consultations at regulated times concerning the impact of the therapy and the results of the treatment.

In 2005, the RIZIV-INAMI had agreements with 780 institutions (Loix 2005). Agreements were concluded for motorial and neurological rehabilitation, psychosocial rehabilitation, rehabilitation of drug addicts, respiratory disorders, diabetics, hearing loss, patients with serious visual impairments, hearing and speech rehabilitation, mental rehabilitation of children, accompaniment at undesirable pregnancy and reference centres concerning AIDS, mucoviscidose, rare monogenetic hereditary metabolic illnesses, neuromuscular disorders, refractar epilepsy, chronic breeding disorders, chronic fatigue syndrome, chronic pain, autism, brain paralysis or cerebral palsy and spina bifida. Each type of agreement is financed by social health insurance with a lump sum which is the same for each institution and is paid per day, per month or per year. The reimbursement of physician services falls outside the agreement.

6.8 Long-term care, home care and other community care

Concerning long-term care there are four major health services: home care, centres for day care, residential homes and rest and nursing homes. In 2004, 5.1% of people aged 60 years and older stayed in a residential home or a rest and nursing home. Between 1998 and 2004, the number has increased by 11.6%. The number of people receiving home care increased by 18.8% in the same period (5.9% of the people aged 60 years and older in 2004) (Table 6.3).

Home care is a service aimed to keep patients at home while they receive care and can include preventive, curative, palliative or informal care. Key disciplines that are generally involved are informal care, general practice, nursing care, home help and social work. Home care in Belgium is regulated and organized

Table 6.3 Long-term care recipients, 60 years and older, 1996–2004 (selected years)

	1996	1998	2000	2001	2002	2003	2004
Number of recipients in institutions	101 130	104 057	113 464	116 606	108 931	114 227	116 179
% among people aged 60 years and older	4.7	4.7	5.1	5.2	4.8	5.1	5.1
Number of recipients at home	–	112 054	114 622	–	–	–	133 119
% among people aged 60 years and older	–	5.1	5.1	–	–	–	5.9

Source: RIZIV-INAMI, cit. OECD, 2006.

by the communities. In the Flemish community, home care is coordinated by the Cooperation Initiatives in Home Care (SITs). SITs have been officially recognized and subsidized by the Flemish Government since 1991. In 2006, there were 23 accredited SITs in Flanders. In the French community, home care is coordinated by the Coordination Centres for Home Care and Services (CSSDs). Their main task is to guarantee the quality of care and the cooperation between care workers involved in home care, including GPs, home nurses, accredited services for family aid, aid for the elderly and social work, etc. The support and coordination of care are in the first place aimed at people who are in serious need of care in order to enable them to remain as long as possible in their usual medium of life.

In 2002, the federal Government introduced the Integrated Services for Home Care (GDT-SISD). The GDT-SISDs have to coordinate all disciplines involved in home care in a defined geographical area. To stimulate multidisciplinary cooperation instead of competition, each geographical area can only have one GDT-SISD, with the exception of the Brussels region where both the Flemish and the French communities can accredit GDT-SISDs. Each GDT-SISD is composed of representatives of several health professions, with at least one representation of the GPs and the nurses and midwives involved in home care in a specific geographical area. The GDT-SISDs main task is to oversee the practical organization and to support care providers and their activities within the framework of home care. In particular, this includes the evaluation of the patient's ability to do things independently, the development and the monitoring of a health and welfare plan, the assignment of tasks between care providers and multidisciplinary consultation to reach the objectives.

Financial incentives were developed for the multidisciplinary teams, including meetings and the administration of the follow-up of the patient and

his/her care plan. GDT-SISDs, officially recognized by the communities, are financed by the national health insurance. In 2006, there were 23 accredited GDT-SISDs by the Flemish community and seven by the French community. In Flanders, the SITs and GDT-SISDs coincide. Only officially recognized SITs can be accredited as GDT-SISDs by the Flemish Government.

In centres for day care, the elderly can be taken care of during the day, but spend the night at home. This concerns the elderly who do not need intensive medical care, but need care or supervision and aid in the activities of daily living. Centres for day care have been programmed at 1.5 stay entities per 1000 elderly (60 years and older). To be admitted in a centre for day care a resident must be strongly physically or mentally dependent on the aid of others in their daily operations. Dependency is scored on the basis of the Katz-scale. A fixed daily compensation is reimbursed by the compulsory health insurance.

A residential home must be considered as a home-replacing environment. The medical responsibility rests with the GP. Historically, residential homes were intended for the elderly who were still in good general medical condition. With well-organized home care it no longer seems justified to incorporate the elderly in a residential home when their physical and mental situation allows them to stay in their own home situation. The distinction between residential homes and rest and nursing homes has been mainly omitted in practice. Many residential homes admit elderly in need of care. Many institutions have both traditional rest house beds and nursing beds. The cost of stay is financed by the occupant. The cost of care is reimbursed by compulsory health insurance. The size of reimbursement depends on the need of care that is based on the Katz-scale.

The elderly, who are strongly dependent on care, without showing active medical problems which would require permanent medical supervision in a hospital, are admitted in a rest and nursing home. Each rest and nursing home must have a coordinating and advisory physician who is always a GP. This advisory physician is responsible for the coordination of pharmaceutical care, wound care and physiotherapy. Each rest and nursing home must always have a functional link with a hospital. They must cooperate with the geriatric service of the hospital and a specialized service of palliative care. The residents must finance the cost of stay themselves. The care function is reimbursed by compulsory health insurance on the basis of a fixed amount as per the Katz-scale.

Since 2001, the Flemish Government has been providing long-term care insurance with full or partial coverage for costs relating to nonmedical long-term care. These costs include: professional home care, care support provided by family and friends, professional care in care and rest homes, and psychiatric

care homes. This type of compulsory health insurance is organized by the Flemish care assistance centres, which can be created by the sickness funds or commercial insurance companies. The Flemish Care Fund is responsible for subsidizing and managing these centres. In addition, it has also created its own centre, the Flemish Care Assistance Centre. Currently, there are eight centres in operation: the Flemish Care Assistance Centre, five centres created by the sickness funds and two created by insurance companies. Every person over the age of 25 who is a resident in Flanders is required to sign up with a care assistance centre. People who live in the Region of Brussels-Capital are free to sign up on a voluntary basis. The care insurance is financed through government subsidies and a personal (not income-related) contribution from members, which is collected by the care assistance centres.

Supported accommodation structures – so-called service flats for the elderly – are also being developed. These are apartments with extra support facilities for older people who are relatively independent, and are run both by public and private sector operators (although both are equally regulated and controlled by the communities).

Additionally, a special group among the chronically ill are coma patients for whom appropriate care services exist in hospitals, as well as in care homes and at home. In order to ensure a coordinated approach, a liaison function was also created here and regional platforms were established next to a national platform to further shape policy. Public funding for these care forms was provided and accreditation norms were designed.

6.9 Palliative care

The gradual development of palliative care started in 1985. Since 1991, a (limited) subsidy was granted for experiments concerning both ambulatory and residential palliative care. Since the end of the 1990s, many initiatives have been taken at the federal and community levels to enable and support palliative care. In the Palliative Care Act of 2002, palliative care is defined as the totality of care provision for patients whose life-threatening disease no longer responds to curative therapies. For the support of these patients at the end of their lives, multidisciplinary care is of the utmost importance on physical, psychiatric, social and moral level. The major aim of palliative care is to offer the patient and his/her next of kin as much quality of life as possible and maximum autonomy.

Palliative care can be offered in the following forms:

- hospital function of palliative care;

- palliative care in residential home and rest and nursing homes;
- palliative home care.

Since 1997, each hospital must have a palliative care function. The hospital function of palliative care is performed by a multidisciplinary team whose members come from the hospital's medical department, the nursing department and the paramedical services, further complemented by a psychologist and a social worker or a social nurse. The multidisciplinary team is charged with introducing a palliative care structure in the hospital, giving advice concerning palliative care, and ensuring the ongoing training of staff and continuity of care when the patient leaves the hospital.

To develop and to support palliative care in residential homes and rest and nursing homes the coordinating physician and the head nurse are charged with introducing a palliative care culture and giving advice to the staff. A fixed daily compensation is reimbursed by the compulsory health insurance. This compensation is only intended for the training of staff and the evaluation of the training process.

The aim of palliative home care is to keep the terminally ill patient at home for as long as possible. Since 1998, multidisciplinary teams have been set up to support the different forms of palliative home care. The team must offer the same quality of care as the palliative care function in a hospital. This team must have expertise concerning all aspects of palliative care (medical, nursing, relational and psychological). Palliative home care is reimbursed by the compulsory health insurance.

6.10 Mental health care

The mental health care sector consists of specialized provisions where psychiatrists and psychologists work as a team together with other care providers, such as nurses and social workers, to assist people with mental problems.

The five most important provisions in mental health care are:

- psychiatric hospitals
- psychiatric departments in general hospitals
- psychiatric nursing homes
- initiatives for sheltered accommodation
- centres for mental health care.

In 2006, there were 69 psychiatric hospitals that treat exclusively people with psychiatric problems. They offer intensive and specialized treatment that may be short term as well as long term. With the continued expansion of mental health care centres and psychiatric departments within general hospitals as well as the advent of sheltered accommodation initiatives and psychiatric nursing homes, psychiatric hospitals acquired another function. Previously, psychiatric hospitals had an important residential function, but the focus has shifted to active treatment and rehabilitation.

Psychiatric departments in general hospitals provide short-term treatment for patients with mental health problems. Psychiatric nursing homes provide care for patients with a stable condition needing permanent care for a long-term mental health problem and for mentally ill people who do not require hospital treatment.

Sheltered accommodation aims to offer accommodation and support to people with mental health problems who need daily help in order to (learn to) live independently. People who do not require full-time hospital treatment and whose problems have stabilized can find an alternative in sheltered accommodation. Appropriate day activities are organized and support is provided to help residents acquire relevant social skills that are useful in their living environment. Residents are supervised and live with a limited number of other patients in ordinary houses.

People experiencing a mental health problem can also go to a mental health care centre for services including: advice, examination, diagnosis and treatment. This is an ambulant second-line provision of care; clients can go for a consultation or receive a home visit by someone from the centre. Patients carry on living and working in their own environment. Care is offered by a multidisciplinary team able to address the medical, psychiatric, psychological and social aspects of the health problem. The remit of mental health care centres is twofold. On the one hand, their assignment is a curative task and on the other hand, they also have a preventive task for detecting or preventing problems at an early stage to ensure prompt and appropriate support. Mental health care centres are the responsibility of the communities and are financed by taxes, except for psychiatrists who are paid by the health insurance.

In addition to these provisions, the mental health care sector also comprises rehabilitation centres, psychiatric home care, psychiatric annexes in prisons, private practices of (neuro)psychiatrists and private practices of psychotherapists. Rehabilitation centres can be divided into centres that focus on addiction problems (medical-social reception centres, day centres, crisis

intervention centres and therapeutic communities) and centres for psychosocial rehabilitation of children and adults.

The current structure of the mental health care sector is the direct result of two important reforms that took place in 1990 and 1999. The policy reform of 1990 was aimed at cutting back on psychiatric hospital beds and substitution through new provisions aiming to stimulate the social integration of patients. The new initiatives arose as a reaction to the increasing tendency to offer chronic patients in particular appropriate shelter outside the walls of the psychiatric hospital. Alternative reception facilities for mental health care were provided such as: psychiatric nursing homes, sheltered accommodation and home care. These facilities are also financed by the national health insurance, but with a higher financial contribution of the patient. The reform also aimed at improving the quality of residential care by resisting large-scale operations and developing a better regional staggering of the supply of mental health care facilities. In addition, the focus of care was put more on prevention than on treatment.

The policy reform of 1999 included the following objectives: increasing intensive and specialized care in psychiatric hospitals, setting up cooperation between the intramural and extramural sectors, and shifting hospital and rest home beds to psychiatric nursing homes and places of sheltered accommodation.

Since 2003, there exists an agreement which makes it possible to decrease the number of beds in psychiatric hospitals and expand the number of beds in psychiatric nursing homes and the number of places in sheltered accommodation.

Since 2006, special attention has been given to young patients. A bridge function has been developed between the justice department and psychiatric provisions, additional forensic psychiatry beds for delinquent youngsters have been set up, and the overall capacity for young patients have been increased.

A traditional form of accommodation in Belgium for the mentally ill is care within a host family. Patients participate in family life and sleep in the family house, but are still considered the responsibility of the hospital; they spend part of the day or all day in hospital doing various activities and can go back to the hospital for observation or in case of crisis. In 2003, there were 770 family accommodation places available in the Flemish region and 192 in the Walloon region.

Innovation of care in the mental health sector has been on the policy agenda for the past several years. Pilot projects have been launched, for example in home care and for behaviourally disturbed aggressive patients, dismissal management, family care for children and youngsters, and special

accommodation for delinquent youngsters and adolescents. These new forms of care need to feed into a more comprehensive reform of the mental health sector, whereby pathways and networks are created to enable a more integrated approach to guiding patients through the different care arrangements. The basis for this reform is some 60 therapeutic projects for coordinated care of chronically ill psychiatric patients. These projects will be monitored and linked through concerted action at the institutional level and in the long run, could pave the way for care programmes for psychiatric patients.

6.11 Dental health care

Dental care is provided by dentists who are mostly self-employed and publicly financed through compulsory health insurance on a fee-for-service basis. Dentists' fees are decided by the National Commission of Dentists and Sickness Funds at the RIZIV-INAMI. This Commission is composed of representatives of sickness funds and dentists, and follows the same procedure as that for physicians. Every two years an agreement is made in which the financial and administrative relations between dentists and sickness funds are stipulated. Since the mid-1990s more attention has been given to preventive health care, to the affordability of dental care, and to better follow-up for young people. With the exception of orthodontics, dental care for children under 12 years is free for all services mentioned in the fee schedule. Also, for insured people with preferential reimbursement, all dental services are free. Compulsory health insurance reimburses the entire fee charged for these services.

6.12 Complementary and alternative medicine

In Belgium, only individuals who have physician, dentist or midwife diplomas are entitled to make a diagnosis and to prescribe treatment. For making a diagnosis or prescribing a treatment their freedom is absolute. Moreover, only these professionals are entitled to use a non-conventional practice.

According to the Non-Conventional Practices Act, a non-conventional practice is defined as performing actions which aim at improving or monitoring the medical condition of a human being, taking into account certain legal regulations and conditions. Homeopathy, chiropractic, osteopathy and acupuncture are legally considered as non-conventional practices. The number of non-conventional practices can be extended by the Government. Only those

individuals registered for a specific non-conventional practice or operation are allowed to provide it.

The last health interview survey showed that in 2004, 12% of the population had contact with a non-conventional therapist. These contacts were related to, among others, homeopathy (5.8% of the population), osteopathy (3.8%), chiropractics (1.7%) and acupuncture (1.6%). The percentage of the population who had contact with alternative medicine increased slightly between 1997 (8%), 2001 (11%) and 2004 (12%) (Bayingana et al. 2006).

Non-conventional practices are not reimbursed by compulsory health insurance, but several sickness funds incorporate them in their voluntary health insurance.

6.13 Maternal and child health care

In the Flemish community, Child and Family (K&G), an independent agency under the responsibility of the Flemish Minister of Public Health, is responsible for the organization of preventive health care for children. In 2006, there were 330 places in Flanders where families with young children could receive nursing and medical consultations by a team of experts. This team examines the child, is responsible for free vaccinations and gives practical recommendations. K&G also gives accreditation and subsidies to specialized centres in case of child abuse. These centres take care of maltreated children immediately, and coordinate the assistance. Childhood immunization is also controlled by K&G. Vaccination against poliomyelitis is compulsory and vaccination against diphtheria, tetanus, pertussis, *Haemophilus influenzae* type B, hepatitis B, measles, rubella, mumps, meningitis, *Streptococcus pneumoniae* and rotavirus is recommended.

In the French community, the Birth and Childhood Organization Office (ONE), which is supervised by the Ministry of Culture and Social Affairs of the French community, provides antenatal services and consultations for children up to six years old. Services provided by this organization are free of charge. The ONE also oversees the regulation of day nurseries, subsidizes some of them, and plays a part in the prevention of child abuse. Childhood immunization is also controlled by the ONE. The main immunizations are poliomyelitis (compulsory) and diphtheria, pertussis and tetanus (highly recommended). A further vaccination programme (PROVAC), carried out in collaboration with the ONE, covers vaccination for measles, rubella and mumps, hepatitis B and meningitis.

Levels of child immunization against diphtheria, tetanus, pertussis and poliomyelitis have been stable at around 95% in recent decades. Immunization against *Haemophilus influenzae* type b and hepatitis B has increased significantly since 2000, up to 95% and 78%, respectively (Table 6.4).

Both in the Flemish and French communities, school medical inspection is compulsory in every nursery, primary and secondary school (until the age of 18 years). Every two years on average, pupils go to a school medical centre for a preventive medical examination, which includes screening for physical and mental disorders, sight and hearing tests and verification of vaccination dates. In addition, teams composed of a physician and a graduate nurse visit schools for prevention of communicable health problems (e.g., TB, head lice) and health education.

Table 6.4 Levels of child immunization (percentage), 1980–2005 (selected years)

	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005
Diphtheria	95	95	93	94	95	95	95	90	95	97
Tetanus	95	95	93	94	95	95	95	90	95	97
Pertussis	95	95	93	94	95	95	95	90	95	97
Measles	–	82	85	85	82	75	77	80	82	88
Poliomyelitis	99	97	95	92	96	96	96	96	96	97
Haemophilius influenzae type b	–	–	–	–	86	86	86	90	95	95
Hepatitis B	–	–	–	–	60	60	60	65	65	78

Source: WHO Regional Office for Europe, June 2006.

7 Principal health care reforms

7.1 Aims and objectives

Although the Belgian health system has not undergone any major structural reforms over the past couple of decades, various measures have been taken mainly to improve the performance of the health system. Because of the strong emphasis on the principles of equity, freedom of choice for patients and therapeutic freedom for providers that underpin the system, health policy-makers have refrained from targeting microeconomic efficiency and imposing severe quality control (with some exceptions in the hospital sector). Moreover, due to the fact that the Belgian health system is mainly built on a model of consensus and concerted action that involves all stakeholders, rigorous reform options are unlikely. Reform policy has consisted mainly of tariff cuts, supply restrictions and increased cost sharing. However, such reforms only have a limited influence on curbing the growth of health expenditures in a fee-for-service system with a large degree of freedom for both patients and providers. Only in recent years have attempts been made to introduce more prospective financing, evidence-based medicine and benchmarking with financial consequences.

Table 7.1 provides a chronological overview of the most important reforms since 1999. Reforms in the 1980s and 1990s have been discussed in other sections of this report (see also Section 2.1.4, which provides an overview of major reforms between 1944 and 1998). Also, more recent reforms have been discussed in previous sections, such as: regulation of patients' rights (Section 2.4 on patient empowerment), hospital financing reform (Section 4.6 on payment mechanisms), and the Belgian Health Care Knowledge Centre and the reference amounts for standard interventions (Section 3.2 on performance assessment and health information management). In the following sections, some recent

reforms are discussed that provide examples of how attempts have been made to increase the health system's performance and to adapt the system to future needs and challenges. These reforms include: Agenda 2002 for change in health care, making health care providers individually accountable, ensuring access to innovative medicines and strengthening primary care.

Table 7.1 Major health care reforms and policy measures, 1999–2008

Year	Reform	Outcome
1999	Global Medical File	Introduction of a global medical file to strengthen the role of primary care.
2001	Maximum billing	Introduction of a maximum annual ceiling for cost sharing according to social status and the family's net income.
2001–2002	Pharmaceutical policy reform	Introduction of reference pricing for generics, reform of the reimbursement procedure, introduction of new rules for the removal of products from reimbursement.
2002	Hospital financing reform	Hospital budgets are based on the case-mix of the hospital ('justified activity'), surgical day hospitalization is included in the hospital budget, a specific budget for university hospitals is introduced and the hospital budgets are paid each month.
2002	Regulation of patients' rights	Strengthen the legal status of the patient in the health system.
2002	Reference amounts in hospitals	Introduction of reference amounts for standard surgical procedures.
2003	Belgian Health Care Knowledge Centre	Foundation of the Belgian Health Care Knowledge Centre to support health care policy with objective research.
2003	Reform of the Office for Medical Evaluation and Control	Making health care providers individually accountable. Reviewed in 2006.
2005	Pharmaceutical policy reform	Number of reforms to control public spending for pharmaceuticals (e.g. introduction of a pharmaceutical tender process for certain pharmaceuticals and stricter control of prescribing of pharmaceuticals).
2006	Lump sum financing for hospital pharmaceuticals	Introduction of a prospective financing system for hospitalized patients.
2006	Federal Pharmaceuticals and Health Products Agency	Foundation of the Federal Pharmaceuticals and Health Products Agency to insure the quality, safety and effectiveness of pharmaceuticals for humans and animals.
2006	GP Impulse Fund	Special fund to support doctors to start up a practice in a region with an attended shortage of GPs.
2007	Reform of the preferential reimbursement system	Extension of eligibility for preferential reimbursement to all persons under the fixed income limit.
2008	Reform of the health insurance scheme for self-employed	Extension of compulsory cover for self-employed to minor risks.

7.2 Content of reforms

7.2.1 Agenda 2002 for change in health care

After allowing for a real growth rate of 2.5% for expenditure on health care in the period 2000–2003 and financing a number of new initiatives above this level (such as the reimbursement of new services, better access and improved remuneration for personnel), the Government came to the conclusion at the end of 2001 that expenditure systematically continued to exceed the budgetary objective. The Government wanted to continue its commitment to the sustainable growth of financial resources allocated to health care by social security. However, an increase in expenditure could only be justified if there were sufficient guarantees that expenditure would remain within the limits of the agreed budgets and that resources were used efficiently. Progress was unsatisfactory, especially with regard to efficiency. Various studies showed that there were significant differences in medical practice, which could not be explained medically. Thus, health policy faced three major challenges, as follows:

- reducing individual medical practice differences to an acceptable level of variation with respect to scientifically-based objective norms;
- eliminating mechanisms that lead to managers as well as hospital physicians benefiting from the inefficient use of health care;
- developing techniques to make prescribers and providers individually accountable for the resources they use and the costs they generate.

As the Government did not wish to impose the measures, the relevant players (physicians' organizations, sickness funds and hospital managers) were directed to develop concrete proposals within six weeks to answer the set challenges. A task force started work, and proposals were put forward in various areas. Despite the fact that on some contentious issues, such as the relationship between physicians and hospital managers, no overall agreement could be reached, the discussion led to at least two concrete results: (i) the observance of a temporary moratorium on the transfers paid by doctors to the hospital and (ii) the creation of a financial committee between hospital physicians and managers with the task of increasing transparency and alleviating the strain on financial relations.

Based on the proposals of the task force, the Government subsequently developed Agenda 2002 for change in health care (Vandenbroucke 2000), in which proposals were announced in six areas: the individual responsibility of general practitioners (GPs) and specialists; financing of clinical biology; medical imaging; removal of practice differences in renal dialysis; introduction of a

system of reference amounts for standard interventions; and the standardizing and programming of medical activities. In addition, a number of initiatives were announced such as: planning for the future of GP medicine; defining the specific role of university hospitals; aiming for a more balanced relationship between physicians and managers in hospitals; and involving sickness funds in controlling the recording of the basic Clinical Minimum Data Set, the "justified" inpatient admissions policy, and the efficiency of medical policy.

The most important reform in clinical biology was the introduction of a new method for the calculation of the fixed sum per treatment-day for each hospital. The objective of the new method of calculation was to introduce a more transparent system that took into account the hospital's entire case-mix and the significant proportion of fixed costs for laboratories. The permanent presence of laboratory technologists is also supported financially. Since the reform was introduced on 1 November 2002, the available budget for hospitals is distributed as follows: 40% on the basis of pathology data (all patients-refined diagnosis-related groups (APR-DRGs)); 40% on the basis of the national average expenditure per day and per type of bed; 10% on the basis of the number of intensive-care beds; and 10% on the basis of the permanent presence of laboratory technologists.

A change in the nomenclature was announced in the medical imaging sector. The aim of this reform was to make individuals accountable for requesting radiology investigations. The requesting individual must take into account internationally-validated guidelines and justify any divergences from the guidelines. Similar applications of guidelines abroad had led to a reduction in the number of radiology investigations. This reform was introduced on 1 September 2002.

Important differences were observed among hospitals in the proportion of haemodialysis compared with other forms of kidney-replacement treatments. In some centres, all patients with renal problems were treated with the most expensive techniques, whereas other centres used cheaper techniques in more than half of the cases. Under the reform introduced on 1 July 2003, hospitals treating less than 10% of their patients with collective autodialysis and/or peritoneal dialysis received a lower reimbursement for haemodialysis treatment. The reduction in the reimbursement level was doubled for hospitals with less than 5% of their patients treated with collective autodialysis and/or peritoneal dialysis.

The individual accountability of care providers and the system of reference amounts for standard interventions are discussed in the following sections.

7.2.2 Making health care providers individually accountable

In 2001, the Government felt that insufficient progress had been made towards the efficient use of health care resources. Significant differences were noted in the practice of physicians, with no medical explanations accounting for these differences. For the same problem or the same group of patients, considerable differences were observed in the choice of pharmaceuticals, treatments and techniques of medical imaging or clinical biology.

As previously mentioned, the Government asked physicians, sickness funds and managers of hospitals to: (i) formulate proposals for reducing individual differences in practice to an acceptable level of variation with respect to scientifically-based objective standards; and (ii) develop techniques as a result of which prescribers and providers would be held individually accountable for the resources they use and the costs they generate. Drawing from the consultation conclusions, the Government devised a policy to make providers more accountable from 2003 onwards, based upon the following principles:

- quality promotion by encouraging good medical practice on the basis of recommendations and feedback on information that gives physicians the possibility of positioning their medical practice with respect to other physicians;
- preventing and, if necessary, sanctioning divergences from both good medical practice and correct application of the stipulations provided for in the compulsory health insurance.

The National Council for Quality Promotion, set up in 2002 and composed of representatives of the physicians, universities, scientific medical associations, sickness funds and the Minister of Social Affairs and Public Health, is responsible for quality promotion. Data on prescribing behaviour, together with recommendations on good medical practice, are first checked for their relevance in a limited number of local medical evaluation groups. After this evaluation and any modification, all physicians (generalists and specialists) receive feedback. Then, in local medical evaluation groups, physicians test their own individual behaviour against that of their colleagues with the aim of improving quality of care (see also Section 3.2.1 on evaluation of medical practice). Reviews are not compulsory. The recommendations on good medical practice are given to offer physicians a frame of reference.

In 2003, the first feedback in connection with antibiotic-prescribing behaviour was distributed among 13 000 GPs. This was then followed by feedback for urologists, lung specialists, paediatricians and ear, nose and throat (ENT) specialists. Similar feedback with regards to anti-hypertension-prescribing behaviour was distributed in 2004. The change in antibiotic use seems to

indicate a positive effect of such campaigns. In 1998, Belgium was the country with the second highest use of antibiotics in ambulatory care compared with 20 European countries. By 2002, Belgium had dropped to sixth place. These quality promotion initiatives could be extended to other fields such as clinical biology, medical imaging, physiotherapy and specific services by specialists.

The Department for Medical Control of the National Institute for Sickness and Disability Insurance (RIZIV-INAMI) was reformed in 2003 to tackle the issue of divergences with respect to good medical practice. Since 1989, this office already had the task of controlling the misuse of diagnostic and therapeutic freedom, in particular overconsumption. However, the existing legislation for combating overconsumption was considered inadequate due to unrealistic penalties, legal uncertainty and the unwieldy structure.

As a result of the reforms introduced to make health care providers more individually accountable, the Department for Medical Control became the Department for Medical Evaluation and Control (DGEC-SECM) and received two new assignments, as follows:

- evaluating the reimbursement of medical care consumption in light of the measures taken to prevent and detect misuse;
- providing information to health care providers, such as recommendations on good medical practice and indicators of overconsumption.

As a logical result of the recommendations on good medical practice, the National Council for Quality Promotion was given the task of establishing indicators of divergence with respect to normal medical practice. The Commission for Reimbursement of Pharmaceuticals (CTG-CRM) formulates recommendations in connection with the prescribing behaviour of certain proprietary pharmaceuticals. The DGEC-SECM can also submit a proposal of indicators to the National Council for Quality Promotion or the CTG-CRM on the basis of a scientifically-underpinned dossier.

As soon as an indicator of divergence is definitely established, the DGEC-SECM provides information, on an individual, anonymous basis, about the relevant services. Any divergences are reported to the Committee of the DGEC-SECM. Subsequently, all health care providers who score more than the set indicator value are requested, in writing, to account for their behaviour and to justify the divergence in medical practice. If it appears after investigation that the explanation received provides a satisfactory clarification for their divergence from the norm, this is communicated to the care provider in question. If the explanation is unsatisfactory or the request for additional information was not complied with, the care provider is placed under monitoring for six months.

During the monitoring period, the provider's entire practice and/or prescribing behaviour is evaluated for a minimum of six months on the basis of

all useful indicators with variation from the normal medical practice or, in their absence, on the basis of a comparison with the practice of a normally prudent and diligent care provider in similar circumstances. After the monitoring period, the practice is re-evaluated. If it appears that the care providers in question have not modified their behaviour to normal medical practice, they are requested to provide a written explanation. This explanation is either accepted or considered unsatisfactory. If unsatisfactory, the case will be heard by two members of the Committee of the DGEC-SECM. A decision will then be taken and a sanction may be imposed.

Through the reform, it is possible to sanction all establishments or legal persons who organize health care provision, such as hospitals and their managers, for carrying out or having carried out unnecessary or unnecessarily expensive services, at the expense of the compulsory health insurance, with the sole aim of increasing their incomes.

Prior to the reform of 2003, the sanctions against overconsumption consisted of suspension of both the third-party payer arrangement and the reimbursement of unnecessary or unnecessarily expensive services. The problem with the suspension of the third-party payer arrangement was that it did not only affect the physician but also the patient, since the latter had to either change physician or pay the full fee. Furthermore, such a sanction was discriminating. The third-party payer arrangement is mainly applicable in the case of specialists and only for a limited proportion of GP activities.

Consequently, sanctions now consist of administrative fines and withdrawal of the accreditation of the care provider in question. However, the first aim of this reform remains to prevent divergent behaviour by providing information and by monitoring medical practice. If these measures are not successful in bringing the provider's medical practice in line with the guidelines, then fines are imposed. After a first evaluation of this reform at the end of 2006, some changes were introduced to clarify and improve the procedure and the rights of the prescribers. Divergent prescription profiles are not examined case by case, but are to be evaluated in light of the prescriber's overall practice.

Reforms aiming to increase accountability have also been implemented with regards to hospitals (see Section 4.6.2 on payment mechanisms for hospitals). With the reform introduced in 2002, hospital financing was based on justified activities or beds, the number of justified beds being calculated according to the hospital's case-mix, a national average stay per pathology and a performance occupancy rate. Another important reform was the integration in 2002 of the surgical day hospital into the budget. This resulted in the monthly payment of 80% of the hospital budget improving financial stability for hospitals, with the remaining 20% being paid per hospital stay (50%) and per admission (50%).

Furthermore, the impulse programme for hospital construction launched in 2007 incorporates financial incentives for hospitals to rationalize and redeploy their supply as well as to search for complementarity with other existing hospitals within the same care area.

7.2.3 Ensuring access to innovative pharmaceuticals

The high expenditure on pharmaceutical consumption and its rapid growth have been a constant concern for health policy-makers. However, this financial challenge needs to be balanced with the fundamental task of ensuring timely access to the best available pharmacotherapeutic treatment. A series of measures have been taken since 1997 to achieve this.

At the beginning of 2002, a new system of pricing and reimbursement was introduced, with faster and more streamlined procedures. Pricing and reimbursement decision times were, on average, 595 days in 2000, well above the 180 days stipulated in the European Price Transparency Directive. Therefore, the Government's first aim was to bring Belgium in line with the provisions and obligation of the Transparency Directive.

To introduce a new drug on the market, a pharmaceutical company must submit a pricing and reimbursement dossier to the Federal Public Service Economic Affairs, which has 90 days to decide on the price. Simultaneously, the Federal Pharmaceuticals and Health Products Agency will examine the added value of the product compared with existing pharmaceutical products. Pharmaceutical companies have to provide detailed information on the new drug in comparison to pharmaceuticals already on the market in terms of: the degree of innovation; cost savings; the scientific, social and health economic added value; and arguments in support of the requested price.

Taking into account the price and the evaluation of the pharmaceutical's added value, the CTG-CRM has 70 days to issue advice on whether or not the new product should be reimbursed and the level of reimbursement. Then, within 20 days, the Minister of Social Affairs makes a definitive decision. Thus, the total procedure for pharmaceutical approval takes no more than 180 days. If the pharmaceutical company does not receive a reply within 180 days, it can assume that its application for reimbursement has been accepted.

On the other hand, pharmaceutical companies have been forbidden to withdraw a product from reimbursement without due warning to the authorities of at least one year. It is the task of the CTG-CRM to evaluate requests for shorter periods and decide whether or not to approve them.

In order to curtail the steep increase of pharmaceutical expenditure (see Table 4.2) and the constant budget overruns, the pharmaceutical companies

were forced to contribute to the financing of public pharmaceutical expenditure. In 2001, a closed annual budget for pharmaceuticals was established within the compulsory health insurance. If this budget is exceeded, pharmaceutical companies have to reimburse 65% (later increased to 72%) of the budgetary deficit with regards to pharmaceutical expenditure. The remainder is paid by the sickness funds. Although initially planned for one year, this claw-back system has been continued. In 2006, a special provision fund was created, funded by the pharmaceutical industry, to financially intervene in case of overspending.

In order to create headroom for innovation, the use of generic pharmaceuticals was advanced by the introduction of a series of measures. Historically, the generic pharmaceutical market has been relatively small in Belgium. In 1998, generic pharmaceuticals represented only 1.4% of the volume and 0.8% of the value of all pharmaceuticals consumed in Belgium (Simoens et al. 2005).

First of all, a reference pricing scheme was introduced on 1 June 2001 for products with generic equivalents. A pure reference pricing system sets fixed reimbursement limits for products assigned to the same group of pharmaceuticals that are defined on the basis of chemical, pharmacological or therapeutic equivalence. The Belgian reference pricing scheme is based on the national generic pharmaceutical, i.e. the pharmaceutical with identical active ingredients having the same form and dosage. The reimbursement level is based on the national generic price, which is fixed at 30% below the price of the original brand. This percentage has gradually increased from 16% at the introduction of the system in 2001 to 20% on 1 July 2002, to 26% on 1 January 2003, and to 30% on 1 May 2005. The insured patient pays directly for any costs of the prescribed pharmaceutical above the reference price. The difference between the patient co-payment for the branded pharmaceutical and the generic product can be significant. In response to the reference pricing scheme, some pharmaceutical companies have decreased the prices of their products to the level of the generic.

More recently, a pharmaceutical tender process was introduced. This is a system in which the Government organizes for certain pharmaceuticals an invitation to the pharmaceutical companies to tender, which can lead to a differentiated repayment in function of the received propositions (e.g. the cheapest proposed pharmaceutical will receive the most favourable reimbursement). The aim is to incite the pharmaceutical companies placing similar pharmaceuticals on the market to offer the lowest price for their product. In contrast to similar systems abroad, the Belgian model only applies to off-patent drugs. Furthermore, it is not the intention to refund only one selected pharmaceutical. Based on this procedure, similar pharmaceuticals from different companies can be classified in different categories of reimbursement or charged

with a different co-payment. In this way, pharmaceutical companies proposing a higher price for reimbursement will get a lower reimbursement. The first invitation to tender issued at the end of 2006 concerned cholesterol- and blood-pressure-lowering pharmaceuticals.

Equally, price reductions have been imposed on pharmaceuticals which have been reimbursed for more than 12 years. The price of 1400, mainly old, pharmaceuticals was reduced by 2% on average, but much more in some cases.

Furthermore, generic prescribing and dispensing are encouraged. From 1 October 2005, prescription and reimbursement on the basis of the International Nonproprietary Name (INN) of the active ingredient were made possible. Physicians have no obligation to prescribe on the basis of the INN, they can choose whether to allow the pharmacist to substitute the generic for the original product, taking into account the needs of the patient, continuity of the treatment, price and availability.

From 1 April 2006, physicians are obliged to prescribe a certain percentage of "cheaper medicines". For example, GPs have to prescribe at least 27% of "cheaper medicines", compared to dentists (30%), cardiologists (29%), neurosurgeons (15%), paediatrics (14%) and gynaecologists (9%). Physicians who do not reach these minimum targets can lose their supplementary fees within the quality accreditation system. Legally, three types of pharmaceuticals are considered to belong to the category of "cheaper medicines". These include:

- original branded pharmaceuticals without patent whose price has been reduced to the reference price (i.e. price of generic pharmaceuticals);
- generic pharmaceuticals and copies of original pharmaceuticals;
- pharmaceuticals which are prescribed on the basis of the INN, even if they are not "cheaper".

For their role of dispensing and providing advice to patients, pharmacists receive a percentage of the public price of pharmaceuticals (i.e. a maximum of 31% with a limit on the absolute amount of €7.44). As generic pharmaceuticals are considerably cheaper than original products, pharmacists receive less in absolute terms when dispensing a generic pharmaceutical. In 2001, pharmacists' profits on generic pharmaceuticals were set equal to their profits on original pharmaceuticals in absolute terms to neutralize the dispensing of generic pharmaceuticals from a financial perspective.

The measures in support of generic pharmaceuticals have resulted in an increased market share of generics, in terms of both volume and value. In terms of volume, the average market share for generic pharmaceuticals amounted to 2.05% of the total pharmaceutical market from January 1998 to June 2001, compared with 6.11% from July 2001 to December 2003, and 9.1% in the first

half of 2005. A similar increase was observed in terms of average market share by value for generic pharmaceuticals, which grew from 1.16% in January 1998 to June 2001, to 4.05% in July 2001 to December 2003, and 17.9% in the first half of 2005 (Simoens et al. 2005; Léonard 2006).

In an effort to control escalating expenditure for pharmaceuticals for hospitalized patients, a first step towards prospective pharmaceutical budgeting was made in 1997 when a fixed-sum reimbursement was introduced for the prophylactic use of antibiotics for surgical interventions. The fixed sum covers 75% of the costs for antibiotics that are administered to hospitalized patients the day before, the day of and the day after a surgical intervention (peri-operative period). For the remaining 25%, the antibiotics remain reimbursed per product. Each intervention is allocated one of the 10 "prophylaxis fixed sums". These fixed sums are average amounts that are established on the basis of the guidelines of the Sanford Guide and the Supreme Health Council. Physicians have free choice of the prophylactic treatment; however, the fixed sum only covers scientifically-sound prophylaxis. The fixed sum system may be abandoned as it can create financial disincentives leading to lower quality of care and underconsumption of services. Usual reimbursement rates are applied in cases for which the standard prophylaxis fixed sum is insufficient, or if infections occur. Any exceptions (i.e. antibiotics not included in the fixed sums) are itemized in a restrictive list, which was drawn up in consultation with surgeons. Exceptions are thought to occur more often in hospitals with a heavy case-mix.

From 1 July 2006, a prospective budget for all pharmaceuticals administered to patients hospitalized in an acute hospital was introduced. The purpose of a prospective budget is to optimize the use of pharmaceuticals by a permanent and constructive dialogue between hospital pharmacists, physicians, nurses, medical directors and administrators. Most pharmaceuticals are, for 75% of their value, integrated in the prospective budget. The remaining 25% of their value is still reimbursed per product. Each hospital's prospective budget is calculated on its case-mix and the national average cost per APR-DRG, taking into account the severity of illness. These average costs are stipulated once per year based on the linking of the Clinical Minimum Data Set and the Financial Minimum Data Set of the hospital stays in a certain year.

Not all pharmaceuticals have been incorporated into the prospective budget. For example, if an operative component is very important in medical practice, considering therapeutic and social needs, with innovating character, and if the cost can strongly slow down its administration to a hospitalized patient, it may be excluded from prospective budgeting. Also, a range of specific products are excluded from the prospective budget (e.g. orphan pharmaceuticals, cytostatics, immunoglobulines, albumine, retroviral drugs and radioisotopes).

The list of excluded pharmaceuticals is updated monthly. The pharmaceuticals mentioned on the list remain reimbursed entirely per product. The prospective pharmaceutical budget is limited to patients that stay at least one night in an acute hospital. At a later date, this system can be extended to day care in acute hospitals and to hospitalized patients in psychiatric, geriatric and specialized hospitals.

Alongside the measures described above, more rational use of pharmaceuticals and good prescribing practice were encouraged via campaigns and periodical feedback to prescribers (see also under Section 3.2.1 on evaluation of medical practice). As a result of all these measures, pharmaceutical expenditure has stabilized. The growth rate was less than 1% at the end of 2006. This result was obtained without affecting the patient co-payment. Also, the reimbursement of some very costly but really innovative medicines could be secured through an increase of the pharmaceutical budget (i.e. in the treatment of cancer, drugs such trastuzumab (Herceptin) have been integrated on the list of reimbursable medicines and the budget has been revised accordingly).

7.2.4 Strengthening primary care

Although GPs do not have a gatekeeping role in Belgium, a number of decisions were made in past years to reassess and strengthen primary care, as well as to re-appraise and promote the role of GPs. The most important of these are listed below.

In 1999, the GMD-DGM was established to increase the availability and access to information concerning medical, social and administrative patient information. This measure was introduced with the aims of optimizing the quality of primary care provided and avoiding unnecessary or duplicated care and contradictory prescriptions (see also Section 6.3 on primary and secondary ambulatory care). The GP holds the GMD-DMG with the patient's consent and shares relevant information with other providers responsible for the patient. The GMD-DMG was initially only implemented for people aged 60 years and over, from 1999 to 2000. Its use was eventually extended for those over 50 on 1 May 2001, and finally since 1 May 2002, the entire population has been eligible. Only one GP can hold the patient's file. GPs charge a fixed amount per year, fully reimbursed by statutory health insurance, to keep the patient's GMD-DMG. Consequently, for each consultation in that year with the GP holding the patient's file, co-insurance by the patient is reduced by 30%. Similar patient contribution reductions for home visits apply to vulnerable groups such as the chronically ill or patients over 75.

An additional incentive for patients to use their GP as preferential entry point is the increased reimbursement (up to the preferential reimbursement rate) for the first visit to a specialist, if referred by the GP.

Different measures are being tested to discourage ambulatory patients that can be treated by their GP to directly the use the Accident and Emergency (A&E) services in hospitals. As of 1 March 2003, hospitals were allowed to charge patients a fixed amount of €12.50 for using the hospital A&E unit. Since 2005, this user charge has become compulsory for all hospitals and has been reduced to €9.50 (€4.75 for patients with preferential reimbursement). However, an exemption to this co-payment applies for the following cases:

- patients brought into the A&E unit via emergency medical aid or by the police;
- patients admitted to the A&E unit for at least one night, admitted for day hospitalization, or under observation for at least 12 hours;
- patient with a physician's referral;
- consultations between the hours of 21:00 and 06:00;
- patients for whom a cast is charged.

From 2003, GP circles have been established. Within a GP circle, local GPs work in collaboration to reach an agreement with local authorities to organize out-of-hours shifts, improve emergency care, arrange locums for GPs who are ill or on holiday, take measures for GP safety, conclude agreements with domiciliary care providers, inform the population and set up local care programmes in the context of preventive medicine. Funding for GP circles is mainly based on the number of inhabitants in the GP area where the GP circle operates. Additional funds support GP circles with the organization and operation of a central telephone line for out-of-hours calls.

Another more recent initiative taken to promote the use of first-line medical assistance by GPs is the creation of primary care outposts, which are permanently organized on-call services for GPs, disposing of the necessary infrastructure to treat minor urgencies. These new primary care outposts are established in the form of pilot projects.

As the geographical distribution of GPs is in some cases inadequate, an impulse fund was created in 2006 to grant interest-free loans and subsidies to doctors starting a GP practice in an area with a GP shortage.

With the increase of chronic diseases, the primary care level will be required to play an increasingly important role in guiding patients through the complex network of available care levels as well as coordinating and managing care around the patient in a home care setting. Next to the GP, who is a vital link in this context, integrated home care services (GDT-SISD) have been created and

funded since 2003 by compulsory health insurance to support a multidisciplinary approach within primary care (see also under Section 6.8. on long-term care, home care and other community care). These GDT-SISDs support the practical organization and coordination of home care provided by professionals of various disciplines in care zones. In particular, the GDT-SISD evaluates the autonomy of the patient, draws up and follows up on a care plan, divides the tasks between the different care providers and organizes a multidisciplinary consultation, which since 1 January 2006 is reimbursed for patients at home or institutionalized patients who will be returning home.

8 Assessment of the health system

The performance of a health system can be discussed against the overall criteria of equity (distribution), efficiency, accountability, quality and effectiveness (contribution to health improvements). The aim of the Belgian health system is to ensure that all citizens have equal access to high-quality health care. The main strategy to meet this goal has been to offer universal coverage of high-quality health services according to need, with equal access for equal needs, regardless of gender, social background, income and geography. As far as equity is concerned, the overall performance of the Belgian health system is satisfactory, although some problems may remain (see Section 8.1).

Especially in the hospital sector, financial incentives were introduced to increase efficiency. Hospital financing was reformed to create incentives to reduce the length of stay and the number of beds. The average length of stay in acute care hospitals was reduced from 11.9 days in 1980 to 8.3 days in 2005. Furthermore, prospective budgets were introduced for clinical biology, radiology and pharmaceuticals in hospitals. These reforms have contributed to limiting the increase in health care expenditure. Efforts have been made to strengthen the primary care sector, but the health sector can still be described as fragmented, and coordination between different levels of care is still not sufficient. Belgian health care has a long-standing and strong tradition of hospital-based care, which is not easily reformed in favour of primary and preventive care.

In recent years, the Belgian health system has been paying more attention to strengthening the accountability of providers (see Subsection 7.2.2 on making health care providers individually accountable). Much effort is being made through measures in place to collect information on the medical practice of physicians and hospitals, but financial incentives to tackle the important practice differences between physicians and between hospitals remain very modest.

The Government faces strong opposition from providers who consider these incentives as a restriction of their therapeutic freedom.

By international standards, health status in Belgium is good. However, it is not easy to measure the health sector's contribution to the population's general health. Except for some broad indicators, there is no long-term evidence on the development of health outcomes in Belgium. In 1997, the Government started with a comprehensive health survey, which was repeated in 2001 and 2004. However, this period is too short to evaluate the contribution of the health system to health improvement.

After years of a predominant focus on cost-containment and cost–effectiveness, in recent years equity and quality of care have gained more attention.

8.1 Distribution of the health system's costs and benefits across the population

8.1.1 Equity in access to health care

As in most countries, health care policy in Belgium is based on the egalitarian principle of horizontal equity, i.e. the principle that health care ought to be allocated on the basis of need and not the willingness or ability to pay.

Early research by Van Doorslaer et al. (2001) based on the 1997 health interview survey showed that in Belgium, after controlling for need differences, there exists a significant pro-rich inequity in specialist visits or, more simply put, that higher income groups seem to be using more specialist services than expected on the basis of their estimated need for such care. The distribution of the actual utilization of general practitioner (GP) and hospital services appeared to be very much in agreement with the need-expected distribution. The peculiarities of the health system related to health insurance and medical supply might explain the inequity findings. However, after controlling for the level of liability for out-of-pocket payments and the level of medical supply in the location of residence no significant changes in the inequality indices were found. Other possible explanations for a rising preference for specialized care with rising income levels are a perception of higher quality, better communication skills or a stronger preference of higher-income individuals for specialist versus GP services.

Based on data of the 2000 wave of the European Community Household Panel Survey, Van Doorslaer et al. (2006) concluded that there is no violation of the horizontal equity principle as far as physician visits in general are concerned. But the significant pro-rich inequity in the likelihood of contacting a specialist was confirmed. A pro-poor distribution is found for the use of GP visits. The latter finding might be explained by the preferential reimbursement of lower income groups through co-payment reductions or exemptions.

Regarding preventive health care, in 1997, inequity was high and favoured the rich for mammography and cervical screening; inequity was lower for 'flu immunization and cholesterol screening but still favoured the higher socioeconomic groups. In the general practice setting, inequity in prevention was higher than inequity in health care; in the specialty setting, inequity in prevention was not statistically different from inequity in health care, although it was higher than in the general practice setting (Lorant et al. 2002).

8.1.2 Equity in the financing of health care

Among policy-makers and health care stakeholders in Belgium, there is broad concern about equitable funding of health care, based primarily on people's ability to pay and not on need for health care. The intention is not to make access to health care facilities dependent on the ability to pay. Despite the importance that is attributed to the affordability of health care there was, until recently, little information available on this issue. However, an analysis of the distributive characteristics of payments for health care based on the so-called household budget survey was set up in the early 2000s (De Graeve et al. 2003). This research concluded that the Belgian system of funding health care – both public and private funding – is proportional or slightly progressive. On average, all income groups spend a similar proportion of their income on health care. The financing structure of the Belgian health system is among the more progressive in Europe. Still, the out-of-pocket payments of households are distributed more regressively than in most other countries. This is, however, compensated by progressive public funding through social security contributions and taxes. The families whose out-of-pocket payments absorb a large share of their income constitute a particularly vulnerable group. In comparison to the total population, households whose out-of-pocket contributions amount to 5% or more have a lower-than-average income and they are more likely than average to receive an income from social security. These families are, on average, smaller, older and lower-skilled than other families.

In spite of the positive results concerning equity in the financing of the Belgian health system, significant problems still arise. Vanroelen & Louckx (2004) lists a number of bottlenecks that may continue to cause financial accessibility

problems in health care. On an individual basis these bottlenecks do not increase vulnerability, but combined they may make health care costs unbearable. The different bottlenecks are summarized in six broad dimensions:

- problems with access to compulsory health insurance – mainly people who stay illegally in Belgium or who have an administrative problem;
- those who have a structurally less favourable and uncertain financial situation;
- problems as a result of the functioning of the institutions – mainly the complexity of the administrative procedures concerning compulsory health insurance;
- important care needs with substantial nonreimbursed health care expenses;
- lack of unpaid caregiving activities by a family member leads more rapidly to accessing professional and more expensive health care;
- a lack of knowledge and resistance.

Furthermore, as already indicated, there is a growing concern about supplementary payments charged in hospitals. While ambulatory supplements are on average much lower than hospital supplements, they may become sizeable for some patients, especially for paramedical fees and pharmaceuticals. In this respect, the financial situation of chronic patients has raised concern over the years.

Several measures have been implemented to improve accessibility and financial equity. The introduction of Maximum Billing (MAF) (see also Section 4.3.2. on out-of-pocket payments) can be considered as a positive step, which has led to an improvement of the situation for many families. Between 2002 and 2004, the number of families benefiting from MAF increased from €328 543 to €419 431, and expenditure on MAF rose from €121.4 million to €180.8 million. Moreover, MAF is especially successfully when targeted at high-risk groups (Schokkaert et al. 2004). Over the years, different kinds of user charges have been progressively included in the MAF (e.g., co-payments on pharmaceuticals, that have mainly targeted chronic patients).

In 1998, a lump sum payment was introduced for chronic patients to cover extra medical costs as a result of their loss of autonomy. An annual amount of €257.79 (figure for 2007) is granted to patients who had out-of-pocket payments in excess of €450 for two consecutive years (€356 for beneficiaries of preferential reimbursement) and who additionally qualify with specific criteria (e.g., beneficiaries of special reimbursement for home care during the course of at least three months, admission to hospital at least six times or totalling 120 days, fulfilment of the medical conditions for acquiring increased

child benefits, etc.). In 2006, the eligibility rules were tightened. As a result, some 60 000 people lost their entitlement to this lump sum. Also, since 1990 a special solidarity fund exists at the level of the National Institute for Sickness and Disability Insurance (RIZIV-INAMI) that on a discretionary basis can financially support patients affected by rare diseases or those in need of very expensive treatment. In 2005, the criteria for intervention on the part of this fund were reviewed.

The existing system of preferential reimbursement fulfils an important role in the protection of low-income families, and thus it cannot be simply replaced by a further expansion of MAF. However, the extension of MAF to all low-income groups aims to address financial inequities. Also, the extension of compulsory insurance to the self-employed can be regarded as another step to improve financial accessibility. Furthermore, in 2006 the federal Parliament further restricted the charging of fee and room supplements (e.g., to children accompanied by a parent, day hospitalization, urgent hospitalization and intensive care). Another challenge that is being addressed is increased reimbursement for medical devices to reduce existing patient out-of-pocket payments, as well as ensuring good clinical practice in the use and choice of medical implants and other materials.

On the whole, where patient contributions have increased between 2000 and 2005, in nominal terms, this effect was neutralized by the extension of the MAF. Consequently, where overall health insurance expenditure increased by 31% in the same period, the relative share of official user charges by patients reduced from 8.99% to 6.93% (RIZIV-INAMI 2006).

8.1.3 Equity in health

Despite a continuous increase in life expectancy, a decrease in child mortality, and with the majority (77%) of the population reporting good perceived health status, there remain some significant inequalities in health within the Belgian population. These inequalities occur between people according to the socioeconomic gradient and between different regions.

In Belgium, educational attainment, as an indicator of socioeconomic position, has shown to be a factor associated with inequity in health. In particular, life expectancy, healthy life expectancy, disability-free life expectancy and mental life expectancy are consistently lower for people with a lower educational level (Bossuyt & Van Oyen 2001). Further research has revealed that it is possible to observe subcategories of individuals who are generally in a more precarious situation. The first category is that of single women, and especially single women with children. They are more likely to have a bad self-rated

health and mental health. The second category is made up of the unemployed in general and unemployed men in particular. The unemployed are more likely to have bad self-rated health and report more health disorders as well as worse mental health (Louckx et al. 2001), than those in employment.

Based on information of the health interview survey, compared to the Walloon region, people living in the Flemish region not only live longer but also tend to be healthier while doing so: they live more years in good perceived health, more years without functional limitations and more years with good mental well-being (Van Oyen et al. 2002). These findings are of particular interest because both medical supply and medical expenditure tend to be higher in the Walloon region. Socioeconomic differences between the Flemish and Walloon regions explains part of the difference in the mortality rates experienced between the two regions. The health interview survey revealed, however, that negative health behaviour and attitudes such as smoking, lower levels of physical activity and poor nutritional habits are more common in the southern part of the country. These differences in lifestyle potentially contribute to differences in life expectancy, healthy life expectancy and disability-free life expectancy. These findings suggest that more measures in the field of health education, health promotion and preventive health care are necessary to tackle the remaining inequalities in health.

By respecting the division of competencies in these fields through protocol agreements, federal and regional governments have worked together to address these health inequalities. Good examples are the breast cancer screening programmes (see Subsection 6.1.2 on screening programmes), free vaccination for children and adolescents and free vaccines for a range of infectious diseases, including meningitis. Also, in 2006 a 'flu pandemic contingency plan was established and an interministerial commissioner appointed.

A food plan has been agreed between the federal level and the communities to promote healthy eating among the population and to design recommendations around healthy nutrition and obesity prevention. Nutrition teams are to be created within hospitals as well as in elderly care institutions to implement these guidelines and to address the problem of malnutrition.

In recent years, combined actions have been taken to combat smoking and drinking. Besides awareness campaigns to warn against the effects of smoking on people's health, taxes on tobacco products have been increased, and an addiction fund was created to support action against the use of alcohol, tobacco and drugs. Furthermore, a smoking prohibition was introduced for those under 16 years old and a smoking ban was implemented in workplaces (as of 1 January 2006) and restaurants (as of 1 January 2007).

Moreover, campaigns to reduce irrational use of antibiotics and to fight against the increase of microbial resistance have been implemented. In fact, antibiotic consumption has decreased by 8% annually since the campaign started in 2000 (Demotte 2007).

8.2 Quality of care

Since the mid-1990s, increased attention has been given to the quality of health care. The aim of the emphasis on quality is to maximize the health of the population within the limits set by the available financial resources, the score of science and what is acceptable as a risk. Quality is examined from three angles: the input (infrastructure, staff), the applied techniques and procedures, and the output (measuring the health condition before and after treatment).

The Government tries to integrate quality control by means of specific accreditation standards for health care institutions, accreditation of care providers, peer review, audit and visitation. In several laws, such as the Hospital Act and the Health Insurance Act, attention is given to quality. Furthermore, legislation specifically aimed at quality policy has been introduced. Examples concern patient safety (see Subsection 2.4.2) and the creation of a balanced score card for hospitals, which takes into account medical and nonmedical indicators. The aim of the latter is to use benchmarking as a means of stimulating hospitals to increase their performance and improve the quality of care provided.

8.2.1 Health care institutions

The Hospital Act contains several provisions which promote quality of care. Architectural, organizational and functional accreditation standards aim to guarantee a minimal level of quality for inpatient care. However, because of their static character, accreditation standards can guarantee quality only to a limited extent. Moreover, this form of accreditation paves the way to an increased supply of hospital services. Each hospital wishes to receive accreditation for as many services as possible and invests to be able to meet the standards, even when the treated pathology does not necessarily require the type of care for which accreditation is requested (Callens & Peers 2003).

Beside accreditation standards, the Hospital Act contains several requirements which can promote quality of care, such as requirements concerning the organization of medical and nursing activity; the description of the tasks of the medical manager; the obligation to maintain a medical file; the tasks of the Medical Council; and the establishment of an ethical committee, a committee

for hospital hygiene, a medical pharmaceutical committee, a committee for medical material, a committee for blood transfusions, as well as other specialized committees.

Since 1999, the medical manager of each hospital must produce a report concerning the internal evaluation of the quality of medical activity. This report must be transferred to the Colleges of Physicians, established at the Federal Public Service (FPS) Public Health. The objective of these colleges is to promote quality of care by consensually developing indicators of quality and evaluation concerning good medical practice; recording and reporting activities; informing the multipartite consultation structure for hospital policy; and giving feedback to the hospitals and physicians concerned. These Colleges of Physicians were established in several fields: cardiac pathology, specialized emergency care, intensive care, renal dialysis, mother and newborn, radiology and nuclear medicine, radiotherapy, reproductive medicine and oncology. The appointment of the members of the colleges is generally based on the advice of the scientific associations of the respective disciplines.

More recently, the quality requirements for nursing staff were upgraded and the hospital nursing department was defined. To improve the functioning of nurses, a nursing record was designed and recommendations were formulated for an electronic record, which fits with the new registration of nursing activity in hospitals. Furthermore, a new statute for midwives and nursing assistants was established in hospitals, rest and nursing homes and for home care.

In 1997, the Flemish community created a framework to improve quality of care in health care institutions. The decree concerning quality of health and welfare (Decree of the Flemish community of 17 October 2003 concerning the quality of health and welfare provisions) stipulates that the aim of the health system is to supply health care to each patient without distinction of age, gender, ideological, philosophical or religious conviction, race, nature or financial situation. When developing an integrated quality policy, attention must be given to justified care which meets the requirements of effectiveness, efficiency, continuity, social acceptability and user orientation.

Each health care institution in Flanders (general hospital, psychiatric hospital, rest and nursing home and centre for mental health care) must implement a quality policy by establishing a quality manual and quality plan. The quality manual describes the vision and objective of the internal quality policy. This manual is translated into a quality plan that includes a description of the existing situation and operational objectives concerning specific areas, imposed by the Government. Every care institution is expected to set up improvement schemes and to evaluate them periodically. The topics imposed by the Government are:

- clinical performance concerning hospital mortality, unplanned re-admissions, obstetric care, average length of stay, day care and transfusion reactions;
- operational performance defined as ongoing monitoring and improving of the general organization;
- satisfaction of patients;
- satisfaction of employees.

The quality plan also provides details concerning timing and evaluation. Also, a quality coordinator is selected to carry out the policy. Care institutions can only obtain, preserve and extend their accreditation if they fulfil the requirements of the quality decree.

In 2003, it was found that quality of care had improved. There were more satisfied patients, fewer errors in pharmaceutical distribution and fewer hospital infections. Along with the implementation of quality legislation, a new dynamic was created within the Flemish health care institutions. The thinking about quality became more structured and the institutions started to position themselves according to means of measuring results. A dialogue between care institutions and between the Government and care institutions arose. From this dialogue, the focus on quality took the direction of specific, systematic and integrated bottom-up quality control (Valepyn 2005).

The increased interest in clinical pathways (see Section 6.2), especially for certain disease groups such as diabetes and renal failure, has been a way to foster quality of care through better coordination of multidisciplinary teams and by providing incentives and tools for establishing more integrated care, such as linking the hospital with the primary care level.

Furthermore, with regards to the organization of hospital hygiene, the integration of the hygienist physician and nurse team has been emphasized. Additional measures are in place to improve staff compliance and to generalize registration with an obligation to register methicillin resistant Staphylococcus aureus (MRSA) and *clostridium difficile*. Special attention has been given to hand hygiene through two national campaigns. In addition, a committee for antibiotherapy was set up in the hospitals in order to promote better use of antibiotics and to reduce resistance. This was also the subject of national campaigns.

8.2.2 Accreditation of physicians

While the FPS Public Health is responsible for determining whether the deployed resources can have a favourable influence on health and if their use is justified, the RIZIV-INAMI is responsible for the evaluation of medical practice with regard to quality criteria. Specifically, the RIZIV-INAMI oversees the

system of ongoing training of physicians by means of the accreditation system and peer review. This quality accreditation system should be distinguished from normal physician accreditation, i.e. licence to practise within the public health insurance system. The quality accreditation of physicians and dentists was introduced in 1995, and has the following objectives:

- promotion of both the quality and cost-consciousness of care and the quality and efficiency of relations between physicians;
- exchange of patient data to prevent duplication of effort;
- ongoing training of physicians to promote quality of care.

Within the framework of the compulsory health insurance, quality accreditation is granted to a physician when he/she meets following conditions:

- to have followed an acknowledged programme of ongoing training;
- to maintain a medical file for each patient and exchange data with other physicians;
- to achieve a minimum level of activity;
- to collaborate with initiatives for evaluation of quality of care organized by physicians;
- not to have obtained repeated negative feedback during the evaluation of his/her medical profile.

These conditions are related to prescribing and the implementation of diagnostic and therapeutic supplies according to criteria determined by the quality accreditation committee at the RIZIV-INAMI. The efforts are rewarded by granting a fee supplement to the accredited physicians. Patients are encouraged to obtain services from accredited physicians by means of lower out-of-pocket payments.

An important extension of the accreditation was the development of a first form of peer review through the creation of Local Medical Evaluation Groups (LOK-GLEMs). Set up in 1996, LOK-GLEMs are monodisciplinary local or regional groups of 8–25 physicians that meet on an annual basis. The physicians who want to obtain accreditation must join one of these groups and take part in the evaluation of their own practice and those of their peers. Each LOK-GLEM performs the following tasks:

- strives for consensus about subjects chosen by the group concerning medical strategies
- evaluates prescribing profiles
- develops an annual evaluation report.

The National Council for Quality Promotion is responsible for managing the system of peer review, determining recommendations for good medical

practice and supplying feedback data to physicians (see also Subsection 7.2.2 on making health care providers individually accountable).

From an evaluation in 2003, it was observed that as a result of the accreditation process, both the quality of and participation in the extra training has improved. Physicians are more aware of their role regarding ethics, economy and quality, and medical practice has improved due to peer review, a higher level of knowledge and more interdisciplinary discussions (Heyrman et al. 2003).

9 Conclusions

Belgium currently enjoys qualitatively good health care with an internationally comparable level of expenditure. Patients have freedom of choice of sickness fund, health care provider and health care institution. Waiting lists, which occur in some European countries, are rare in Belgian hospitals. Statutory health insurance offers general cover of health risks and guarantees wide access to care. Complementary voluntary health insurance and private insurance have only a limited role. These features explain, to a significant degree, the population's satisfaction with the organization of health care in Belgium.

There has been a sustained growth in total health care expenditure, with a mean annual real growth rate of 4.8% between 2000 and 2004. In more recent years this trend seems to have stabilized with an estimated growth of about 2.5% in 2006. To a large extent, the evolution of expenditure in past years was also due to a conscious choice on the part of the Government. After years of economic limits to meet the budgetary requirements of the EU Treaty of Maastricht, the fixed annual real growth rate of 1.5% was raised to 2.5% in the period 2000–2003. However, a series of new initiatives were deemed necessary over and above this rate. Between 2000–2003, the actual average real growth of health expenditure was 4.2%. In 2003, the Government defined a growth rate of 4.5% for the period 2004–2007.

Factors such as an ageing population, evolution of medical technology and drug innovations, increasing population expectations for new and rapidly available treatments, as well as a desire among health sector employees to receive comparable salary increases as their colleagues in the commercial sector, may stimulate a number of structural changes in the Belgian health system. According to the latest report by the Study Commission on Ageing of the High Council of Finance (Study Group on Ageing 2006) on the basis of the

expected evolution of demographic as well as non-demographic effects, public expenditure on health is expected to rise from 7.1% of GDP in 2005 to 10.8% in 2050, including an increase for long-term care from 0.9% to 2.2%.

The challenge for the future Belgian health system will not only be how to raise funding for growing health care expenditure, but also how to improve efficiency and performance of the health system. There is a tendency to oversupply services, since fee-for-service is an important feature for paying health care providers in Belgium. Despite measures to restrict the supply of hospital beds, big ticket health technology, as well as physicians', dentists' and physiotherapists' supply remains high in Belgium compared to other European countries. The spare capacity may to some extent explain foreign patients' demand for treatment in Belgian hospitals (Baeten et al. 2006). In the future, the challenge will not so much be to further reduce supply (shortages are occurring in some areas), but rather to adapt existing supply to meet the changing population needs. Given the increasing burden of chronic diseases, new models of care delivery (i.e. home care) will need to be developed. This will also imply developing an information technology infrastructure to support communication and data exchange between various health care actors and providers (Demotte 2007).

Prevention and promotion of healthier lifestyles is another challenge. The growth of noncommunicable diseases, as well as the need for pandemic preparedness, also require a more integrated approach between prevention and treatment. Therefore, good coordination and seamless cooperation between the federal and regional levels is necessary. Future health reforms are likely to build on recent reforms and achievements. Changes in provider payment methods (i.e. diagnosis-related groups (DRGs)) may improve providers' accountability and increase efficiency. Primary care could be strengthened by the general application of the Global Medical File and the introduction of financial incentives to enable GPs to play a more central role in the health system and to promote other forms of primary care, such as home care. Physicians could be rewarded for improved prescribing. One area could include prescribing targets for generics; this is an example of not only cost savings but also quality improvements in prescribing practices. Finally, an increased and sustained focus on quality is likely to be a significant element in health policy-making.

10 Appendices

10.1 References and further reading

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10.2 Principal legislation

Below are listed the most important laws and decrees relating to the organization and financing of health care.

Social Security Act for employed workers, adopted in 1944 (Belgian Statute Book of 30 December 1944) and reviewed in 1969 (Belgian Statute Book of 25 July 1969) and completed in 1981 with the Act on General Principles of Social Security for employed workers (Belgian Statute Book of 2 July 1981).

Pharmaceuticals Act of 25 March 1964 (Belgian Statute Book of 17 April 1964).

Emergency Medical Assistance Act of 8 July 1964 (Belgian Statute Book of 25 July 1964).

Royal Decree n°. 38 of 27 July 1967 on Social Security for the self-employed (Belgian Statute Book of 29 July 1967).

Practice of Health Care Professions Act of 10 November 1967 (Belgian Statute Book of 14 November 1967).

Royal Decree n°. 79 of 10 November 1967 on the Order of Physicians (Belgian Statute Book of 14 November 1967).

Institutional Reform Act of 8 August 1980 (Belgian Statute Book of 15 August 1980).

Royal Decree of 14 September 1984 on establishing the fee schedule of the compulsory health insurance (Belgian Statute Book of 29 September 1984).

Hospital Act adopted in 1963 and coordinated on 7 August 1987 (Belgian Statute Book of 7 October 1987).

Decree of the French community of 19 June 1989 concerning accreditation and financing of home care (Belgian Statute Book of 4 August 1989).

Sickness Funds Act of 6 August 1990 (Belgian Statute Book of 28 September 1990).

Health Insurance Act adopted in 1963 and reviewed and coordinated on 14 July 1994 (Belgian Statute Book of 27 August 1994).

Royal Decree of 3 July 1996 on implementation of the law concerning compulsory insurance for medical care and benefits, coordinated on 14 July 1994 (Belgian Statute Book of 31 August 1996).

Decree of the French community of 14 July 1997 concerning the organization of health promotion (Belgian Statue Book of 29 August 1997).

Decree of the Flemish community of 14 July 1998 concerning accreditation and financing of provisions in home care (Belgian Statute Book of 5 September 1998).

Non-Conventional Practices Act of 29 April 1999 (Belgian Statute Book of 24 June 1999).

Royal Decree of 25 April 2002 concerning the determination and settlement of the budget of financial resources of hospitals (Belgian Statute Book of 30 May 2002).

Decree of the Walloon region of 13 June 2002 concerning the organization of care institutions (Belgian Statute Book of 5 July 2002).

Patients' Rights Act of 22 August 2002 (Belgian Statute Book of 26 September 2002).

Decree of the Flemish community of 17 October 2003 concerning quality of health and welfare provisions (Belgian Statute Book of 10 November 2003).

Decree of the Flemish community of 21 November 2003 concerning preventive health policy (Belgian Statute Book of 3 February 2004).

Decree of the Flemish community of 3 March 2004 concerning primary care and cooperation between health care professionals (Belgian Statute Book of 20 April 2004).

Royal Decree of 21 September 2004 on the accreditation of rest and nursing homes and day care centres (Belgian Statute Book of 28 October 2004).

10.3 Useful web sites

Federal Government

Federal Portal: http://www.belgium.be

Federal Public Service Health, Food Chain Safety and Environment: http://www.health.fgov.be

Federal Public Service Social Security: http://www.socialsecurity.fgov.be

National Institute for Sickness and Disability Insurance: http://www.riziv.fgov.be

Scientific Institute of Public Health: http://www.iph.fgov.be

Cabinet of the Minister of Social Affairs and Public Health: http://www.rudydemotte.be

Belgian Health Care Knowledge Centre: http://www.kce.fgov.be

Technical cell for the management of clinical and financial data: https://tct.fgov.be/etct/

Supervising authority for sickness funds and associations of sickness funds: http://users.skynet.be/ocm.cdz.be

Federal Pharmaceuticals and Health Products Agency: http://www.fagg.be

Intermutualistic Agency: http://www.nic-ima.be

High Health Council: http://www.health.fgov.be/CSH_HGR

Statistics Belgium: http://www.statbel.fgov.be

Health Portal Statistics Belgium: http://statbel.fgov.be/port/hea_fr.asp

Belgian Commission for the Coordination of Antibiotic Policy: http://www.health.fgov.be/antibiotics

Federal Parliament: http://www.dekamer.be and http://www.senate.be

National Office of Social Security: http://www.onssrszlss.fgov.be

Federal Public Service Justice: http://www.justice.fgov.be

National Bank of Belgium: http://www.nbb.be

Federal Planning Bureau: http://www.plan.be

Institute of National Accounts: http://www.inr-icn.fgov.be

National Social Economic Database Belgostat: http://www.belgostat.be

Flemish community

Flemish Care and Health Agency: http://www.zorg-en-gezondheid.be

Flemish Health Council: http://www.wvc.vlaanderen.be/vgr

Legislation Flemish community and region: http://www.wvc.vlaanderen.be/juriwel

Information Service from the Flemish Government: http://www.aps.vlaanderen.be

Flemish Institute for Health Promotion: http://www.vig.be

Child and Family, Flemish public institution for well-being of children: http://www.kindengezin.be

Support cell for LOGOs: http://www.ondersteuningscellogos.be

Sensoa: http://www.sensoa.be

Association for Alcohol and other Drug Problems: http///www.vad.be

Flemish Scientific Association for Youth Health Care: http://www.vwvj.be

Flemish Patient Platform: http://www.vlaamspatientenplatform.be

French community

Directorate-General of Health, French community: http://www.sante.cfwb.be

Walloon General Directorate of Social Action and Health: www.mrw.wallonie.be/dgass

Birth and Child Organization: http://www.one.be

Association of Health Service Users (French-speaking): http://www.luss.be

Walloon Institute for Mental Health: http://www.iwsm.be

Legislation French community and Walloon region: http://www.wallex.wallonie.be

Unité de Promotion Education Santé - Université Libre de Bruxelles: http://www.ulb.ac.be/esp/promes

Unité d'Education pour la Santé - Université Catholique de Louvain:

http://www.md.ucl.ac.be/entites/esp/reso

Appui en Promotion et Education pour la Santé - Université de Liège: http://www.apes.be

Question Santé: http://www.questionsante.org

Other

German-speaking community: http://www.dglive.be

Observatory of Health and Welfare Brussels: http://www.observatbru.be

Order of Physicians: http://www.ordomedic.be

Christian Association of Sickness Funds: http://www.cm.be

Socialist Association of Sickness Funds: http://www.fsmb.be

Independent Association of Sickness Funds: http://www.mloz.be

Liberal Association of Sickness Funds: http://www.mut400.be

Neutral Association of Sickness Funds: http://www.mutualites-neutres.be

Belgian Hospital Association: http://www.hospitals.be

French-speaking Association of Care Institutions: http://www.afis.be

Association of Care Institutions: http://www.vvi.be

Association of Public Care Institutions: http://www.vov-info.be

Council of University Hospitals: http://www.univ-hospitals.be

Federation of Centres for Ambulatory Rehabilitation: http://www.revalidatie.be

Belgian Pharmaceutical Industry Association: http://www.pharma.be

Centre for Health Services and Nursing Research: http://www.czv.kuleuven.be

Belgian Dutch Clinical Pathway Network: http://www.nkp.be

Belgian Centre for Evidence-Based Medicine: http://www.cebam.be

Higher Institute of Labour Studies: http://www.hiva.be

Centre for Socioeconomic Studies of Health: http://www.sesa.ucl.ac.be

Psychiatric Minimum Data Set: http://www.uhasselt.be/mpg

Belgian Centre for Farmaco Therapeutic Information: http://www.bcfi.be

Scientific Organization of General Practitioners (French-speaking GPs): http://www.ssmg.be

Domus Medica (Dutch speaking GPs): http://www.wvvh.be

Foundation Against Cancer: http://www.cancer.be

Centre for Independent Information on Pharmaceuticals: http://www.farmaka.be

10.4 HiT methodology and production process

The Health Systems in Transition (HiT) profiles are produced by country experts in collaboration with the Observatory's research directors and staff. The profiles are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources, and examples needed to compile HiTs. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/observatory/Hits/20020525_1.

Authors draw on multiple data sources for the compilation of HiT profiles, ranging from national statistics, national and regional policy documents, and published literature. Furthermore, international data sources may be incorporated, such as those of the Organisation for Economic Co-operation and Development (OECD) and the World Bank. OECD Health Data contain over 1200 indicators for the 30 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All (HFA) database. The HFA database contains more than 600 indicators defined by the World Health Organization (WHO) Regional Office for Europe for the purpose of monitoring Health for All policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard HFA data have been officially approved by national governments. With its January 2007 edition, the HFA database started to take account of the enlarged European Union (EU) of 27 Member States.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT profile consists of 10 chapters.

1 Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.

2 Organizational structure: provides an overview of how the health system in the country is organized and outlines the main actors and their decision-making powers; discusses the historical background for the system; and describes the level of patient empowerment in the areas of information, rights, choice, complaints procedures, safety and involvement.

3 Financing: provides information on the level of expenditure, who is covered, what benefits are covered, the sources of health care finance, how resources are pooled and allocated, the main areas of expenditure, and how providers are paid.

4 Regulation and planning: addresses the process of policy development, establishing goals and priorities; deals with questions about relationships between institutional actors, with specific emphasis on their role in regulation and what aspects are subject to regulation; and describes the process of health technology assessment (HTA) and research and development.

5 Physical and human resources: deals with the planning and distribution of infrastructure and capital stock; the context in which IT systems operate; and human resource input into the health system, including information on registration, training, trends and career paths.

6 Provision of services: concentrates on patient flows, organization and delivery of services, addressing public health, primary and secondary health care, emergency and day care, rehabilitation, pharmaceutical care, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health care for specific populations.

7 Principal health care reforms: reviews reforms, policies and organizational changes that have had a substantial impact on health care.

8 Assessment of the health system: provides an assessment based on the stated objectives of the health system, the distribution of costs and benefits across the population, efficiency of resource allocation, technical efficiency in health care production, quality of care, and contribution of health care to health improvement.

9 Conclusions: highlights the lessons learned from health system changes; summarizes remaining challenges and future prospects.

10 Appendices: includes references, useful web sites, legislation.

Producing a HiT is a complex process. It involves:

- writing and editing the report, often in multiple iterations;
- external review by (inter)national experts and the country's Ministry of Health – the authors are supposed to consider comments provided by the Ministry of Health, but not necessarily include them in the final version;
- external review by the editors and international multidisciplinary editorial board;
- finalizing the profile, including the stages of copy-editing and typesetting;
- dissemination (hard copies, electronic publication, translations and launches).

The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

The Health Systems in Transition profiles

A series of the European Observatory on Health Systems and Policies

The Health Systems in Transition (HiT) country profiles provide an analytical description of each health care system and of reform initiatives in progress or under development. They aim to provide relevant comparative information to support policy-makers and analysts in the development of health systems and reforms in the countries of the European Region and beyond. The HiT profiles are building blocks that can be used:

- to learn in detail about different approaches to the financing, organization and delivery of health care services;
- to describe accurately the process, content and implementation of health care reform programmes;
- to highlight common challenges and areas that require more in-depth analysis; and
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in countries of the WHO European Region.

How to obtain a HiT

All HiT profiles are available in PDF format on ***www.euro.who.int/observatory***, where you can also join our listserve for monthly updates of the activities of the European Observatory on Health Systems and Policies, including new HiTs, books in our co-published series with Open University Press, policy briefs, the ***EuroObserver*** newsletter and the ***Eurohealth*** journal. If you would like to order a paper copy of a HiT, please write to:

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Key

All HiTs are available in English. When noted, they are also available in other languages:

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HiTs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.

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