

Health Systems in Transition

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Czech Republic

Health system review

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Health Systems in Transition

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CZECH REPUBLIC

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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 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;
- to assist other researchers in more in-depth comparative health policy analysis.

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 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 differs 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 site: www.euro.who.int/observatory/glossary/toppage.

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The current series of HiT profiles has been prepared by the 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); Elias Mossialos (Co-director); and Martin McKee, Reinhard Busse and Richard Saltman (heads of the research hubs). The Berlin University of Technology was responsible for the technical coordination of the HiT in close collaboration with the European Observatory on Health Systems and Policies.

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This HiT uses “EU15” to refer to the 15 countries that joined the EU before May 2004; “new EU Member States” to refer to the 12 countries that joined the EU in May 2004 and January 2007; and “EU27” when referring to all 27 Member States of the EU as of 2009.

List of abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AP-DRG	All patient diagnosis-related group
ATC	Anatomical Therapeutic Classification
CEE	Central and eastern European countries
CERD	United Nations Committee on the Elimination of Racial Discrimination
CHC	Comprehensive home care
ČLS JEP	J. E. Purkyně Czech Medical Association
CMÚ	Centre for International Reimbursements
ČSSD	Social Democratic Party
CT	Computed tomography
CVVM	Public Opinion Research Centre
CZK	Czech Crown (currency)
DRG	Diagnosis-related group
EHCI	Euro Health Consumer Index
EHIC	European Health Insurance Card
EIPA	European Institute of Public Administration
EU	European Union
EU15	The 15 countries that joined the European Union before May 2004
EU27	All 27 Member States of the European Union as of 2009
FTE	Full-time equivalent
GDP	Gross domestic product
GP	General practitioner
HIV	Human immunodeficiency virus
ICT	Information and communications technology
IGA	Internal Grant Agency of the Czech Ministry of Health
IOP	Integrated Operational Programme
IR-DRG	International refined diagnosis-related group

IZIP	Internet Access to Patient Healthcare Information project
KDU-ČSL	Christian Democratic Party
MRI	Magnetic resonance imaging
NATO	North Atlantic Treaty Organization
New EU Member States	The 12 countries that joined the European Union in May 2004 and January 2007
NHIS	National Health Information System
NRC	National Reference Center
ODS	Civic Democratic Party
OECD	Organisation for Economic Co-operation and Development
OOP	Out-of-pocket (payments)
OSZP	Open Association of Health Insurance Funds
PET	Positron emission tomography
PPS	Purchasing power standards
PWPQ	Paramedical worker with professional qualifications
SHI	Social health insurance
SÚKL	State Institute for Drug Control
SZ	Green Party
SZP ČR	Czech Association of Health Insurance Funds
SZÚ	National Institute of Public Health
TB	Tuberculosis
ÚSP	Central Social Insurance Fund
ÚZIS	Czech Institute of Health Information and Statistics
VAT	Value-added tax
VHI	Voluntary health insurance
VZP	General Health Insurance Fund
WHO	World Health Organization
ZP Škoda	Škoda Health Insurance Fund

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Abstract

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of health systems 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. They also describe the institutional framework, process, content, and implementation of health and health care policies, highlighting challenges and areas that require more in-depth analysis.

Since the early 1990s, the Czech Republic has had a system of social health insurance (SHI) based on compulsory membership in one of a number of health insurance funds, which are quasi-public, self-governing bodies that act as payers and purchasers of care. Eligible residents may freely choose their health insurance fund and health care providers. The health insurance funds must accept all applicants who have a legal basis for entitlement regardless of age or health status. SHI contributions are mandatory and take the form of a payroll tax split between employers and employees; self employed individuals must contribute a fixed percentage of their profits.

As of 2009, the Czech health system is characterized by relatively low total health care expenditure as a share of gross domestic product (GDP) compared to western Europe; low OOP payments; more than sufficient human resources, albeit with some significant regional disparities; and good results for a number of important health indicators. The population enjoys virtually universal coverage and a broad range of benefits, and some important health indicators are better than the European Union (EU) averages (such as mortality due to respiratory disease) or are even among the best in the world (in terms of infant mortality rates, for example). On the other hand, the standardized death rates for diseases of the circulatory system and malignant neoplasms are well above the average

for all EU Member States (EU27). The same applies to a range of health care utilization rates, such as outpatient contacts and average length of stay in acute care hospitals. In short, there is substantial potential in the Czech Republic for efficiency gains and improved health outcomes. This has been recognized by the Czech Government, which has attempted to reduce inappropriate demand by increasing cost sharing and to improve the quality of specialized care by identifying high-performing health care facilities and allowing for special contractual arrangements between them and the health insurance funds.

Many of the recent reforms to the Czech health system have attempted to address the chronic financial instability that has marked the system since its inception. Others have focused on the issue of hospital ownership and management structures, or on improving purchaser–provider relationships, compliance with EU law, and coordination between the systems of health and social care. The key challenge to health reform in the coming decades will be to keep high-quality care accessible to all inhabitants of the Czech Republic, while taking into account economic development, demographic ageing and the capacity of the SHI system. Future reforms will focus on codifying patient rights, clarifying the purchaser–provider relationship and refining the SHI system. As of 2009, the system for defining and rationing benefits is fragmented, ad hoc and unwieldy. One of the most important pieces of proposed legislation would provide a more explicit definition of SHI benefits and redesignate them as entitlements, thus increasing transparency and strengthening the legal rights of all relevant actors to enforce them.

Executive summary

The Czech Republic is a landlocked country situated in central Europe. It covers an area of approximately 78 867 km² and has a population of 10.33 million, the vast majority of whom are ethnic Czechs. The number of inhabitants decreased between 1994 and 2002, but has risen markedly since 2004. Economically, the country performed well after the Velvet Revolution in 1989 and has one of the most developed industrialized economies among the new European Union (EU) Member States. The Czech Republic is a parliamentary representative democracy and has been a member of the Organisation for Economic Co-operation and Development (OECD) since 1995, the North Atlantic Treaty Organization (NATO) since 1999 and the EU since 2004. Life expectancy at birth is increasing, having reached 73.82 years for men and 80.30 years for women in 2007, which is well above the average for the new EU Member States. The rate of infant mortality in 2007 was among the lowest in the world. That same year, diseases of the circulatory system were the most frequent causes of death, followed by malignant neoplasms, external causes and respiratory disease.

Organization and regulation

The Czech Republic has a system of social health insurance (SHI) based on compulsory membership in a health insurance fund, of which there were 10 as of early 2009. The funds are quasi-public, self-governing bodies that act as payers and purchasers of care. The Ministry of Health's chief responsibilities include setting the health care policy agenda, supervising the health system and preparing health legislation. The Ministry also administers certain health care institutions and bodies, such as the public health network and the State

Institute for Drug Control (SÚKL). The regional authorities and the health insurance funds play an important role in ensuring the accessibility of health care, the former by registering health care providers, the latter by contracting them. Eligible residents may freely choose their health insurance fund and health care providers. The health insurance funds must accept all applicants who have a legal basis for entitlement regardless of age or health status; risk selection is not permitted. Patient empowerment has become increasingly important since 2005 and has been supported by a variety of initiatives.

Financing

Total health expenditure in the Czech Republic has remained relatively low compared to western Europe, amounting to 6.7% of gross domestic product (GDP) in 2007. The majority of expenditure is through the SHI system, which is financed primarily by mandatory SHI contributions and by state SHI contributions on behalf of certain groups of economically inactive people. Mandatory SHI contributions take the form of a payroll tax split between employers and employees; self-employed individuals must contribute a fixed percentage of their profits. Health expenditure from public sources as a share of total health expenditure is among the highest in the World Health Organization (WHO) European Region. Population coverage is virtually universal, and the range and depth of benefits available to insured individuals are unusually broad. Although health expenditure from private sources is low compared to other European countries, amounting to 14.2% of total health expenditure in 2007, it is likely to rise due to a trend towards greater cost sharing. Private sources of expenditure are used mainly to cover the costs of over-the-counter pharmaceuticals, some dental procedures, co-payments on medical aids and certain prescription pharmaceuticals, and user fees for doctor visits and a number of other health services. The health insurance funds serve as the main purchasers of health care services, and their organizational relationship to the various providers is based on long-term contracts. Hospitals have been paid since 2007 using a combination of diagnosis-related groups (DRGs), individual contracts and global budgets. Since 2009, hospital outpatient care has been reimbursed using a capped fee-for-service scheme. General practitioners (GPs) in private practice are paid using a combination of capitation and a system of fee-for-service payments; the latter is applied primarily for preventive care. Non-hospital ambulatory care specialists are also paid using a capped fee-for-service scheme. Importantly, SHI contributions are redistributed among the funds according to a risk-adjustment scheme based on age and gender.

Physical and human resources

During the 1990s changes made to the structure of inpatient facilities in the Czech Republic were driven primarily by an excessive number of beds in acute care and an insufficient number of beds in long-term care. Although this led to a decline in the number of acute beds, their number per capita was still among the highest in the WHO European Region in 2007. In 2008 there were 192 acute care hospitals with 63 622 beds and 154 other inpatient facilities with 22 191 beds. In 2006, inpatient stays averaged eight days in acute care hospitals, which was well above the EU15 average. Not all Czech health care facilities have been able to keep pace with advances in medicine, and some psychiatric, long-term care and nursing facilities are outdated and in need of repair. The condition of most acute care hospitals, however, is comparable to that in other European countries. The use of information and communications technology (ICT) is generally underdeveloped in the Czech Republic, and an infrastructure for using health technology assessment of treatments and procedures is still lacking.

By European standards, the number of physicians in the Czech Republic is high, with 3.6 physicians per 1000 population in 2007. The current age structure of primary care physicians represents a potential human resources problem in the near future. The nurse-to-population ratio is above the averages for the EU15 and the new EU Member States. The number of dentists per capita is slightly above the EU27 average. In 2006 the pharmacist-to-population ratio was high compared to other central and south-eastern European countries, but low compared to many countries in western Europe.

Provision of services

The Czech Republic has an extensive public health network responsible for a range of services, including epidemiological surveillance, immunization logistics, quality analyses for consumer and industrial products, and monitoring the impact of environmental factors on health status. Its main actors are the National Institute of Public Health, the Regional Public Health Authorities, and the Regional Institutes of Public Health.

Regulatory authority for primary care, which includes GPs, paediatricians, gynaecologists, dentists and pharmacists, is divided among the State, the regions, and the health insurance funds. Approximately 95% of primary care services are provided by physicians working in private practice, usually as sole practitioners. Patients register with a primary care physician of their choice, but can switch to

a new one every three months without restriction. Primary care physicians do not play a true gatekeeping role; patients are free to obtain care directly from a specialist and do so frequently. Secondary care services in the Czech Republic are offered mainly by private practice specialists, health centres, polyclinics, hospitals and specialized inpatient facilities. After a variety of reforms in the 1990s, hospitals that formerly belonged to the State are now owned and managed by a range of actors, including government ministries, regions, private entities and churches. Almost all pharmacies in the Czech Republic are run as private enterprises, and at the time of writing there is a trend towards the establishment of pharmacy chains, especially in urban areas.

The SÚKL is responsible for pricing and reimbursement decisions related to registered pharmaceuticals. Pharmaceuticals are assessed based on their efficacy, safety, quality and cost–effectiveness. Other features of the regulatory framework are international price comparisons for setting maximum prices and a reference pricing system to establish reimbursement limits for pharmaceuticals. Furthermore, in 2006 a degressive mark-up system was introduced, setting lower mark-ups on higher ex factory prices.

The systems of long-term health care and long-term social care in the Czech Republic have traditionally been separate in terms of organization and funding, which has led to frequent complications, especially in the reimbursement of services. The 2006 Act on Social Services aims to improve the coordination between the two systems by allowing cross-funding between them, providing individuals with a flexible care allowance, and requiring that providers of long-term care fulfil certain quality criteria before they may receive funding.

Principal reforms

Many of the recent reforms to the Czech health system have attempted to address the chronic financial instability that has marked the system since its inception in the early 1990s. Other recent reforms have focused on the issue of hospital ownership and management structures, or on improving purchaser–provider relationships, compliance with EU law and coordination between the systems of health and social care. The key challenge to health reform in the coming decades will be to keep high-quality care accessible to all inhabitants of the Czech Republic, while taking into account economic development, demographic ageing and the capacity of the SHI system. Future reforms will focus on codifying patient rights, clarifying the purchaser–provider relationship and refining the SHI system. As of 2009 the system for defining and rationing benefits is fragmented, ad hoc and unwieldy. One of the most important pieces of

proposed legislation would provide a more explicit definition of SHI benefits and redesignate them as entitlements, thus increasing transparency and strengthening the legal rights of all relevant actors to enforce them.

Assessment of the health system

The Czech health system is characterized by relatively low total health care expenditure as a share of GDP compared to western Europe; low OOP payments distributed quite evenly across household income deciles; more than sufficient human resources, albeit with some significant regional disparities; and good results for a number of important health indicators. The population enjoys virtually universal coverage and a broad range of benefits, and some important health indicators are better than the EU averages (such as mortality due to respiratory disease) or even among the best in the world (in the case of infant mortality, for example). On the other hand, the standardized death rates for diseases of the circulatory system and malignant neoplasms are well above the EU27 average. The same applies to a range of health care utilization rates, such as outpatient contacts and average length of stay in acute care hospitals. In short, there is substantial potential in the Czech Republic for efficiency gains and improved health outcomes. This has been recognized by the Czech Government, which has attempted to reduce inappropriate demand by increasing cost sharing and to improve the quality of specialized care by identifying high-performing health care facilities and allowing for special contractual arrangements between them and the health insurance funds.

1. Introduction

1.1 Geography and sociodemography

The Czech Republic is a landlocked country situated in central Europe, bordered to the west by Germany, to the north-east by Poland, to the east by Slovakia, and to the south by Austria (Fig. 1.1). The country covers an area of approximately 78 867 km², which is slightly smaller than Austria but almost twice the size of Switzerland (Czech Statistical Office 2009c). It has a temperate continental climate, with warm summers and cold and often snowy winters. The Czech Republic is composed of the historic regions of Bohemia in the west, Moravia in the east, and part of Silesia in the north-east.

In mid-2007 the Czech Republic had a population of 10.33 million, some 73.5% of whom lived in urban areas. There were 5.07 million men and 5.26 million women; the density of the population was 133.8 people per km² (Table 1.1). The vast majority of Czech citizens are ethnic Czechs, who make up approximately 94% of the population. Traditional national minorities include Slovaks and Roma, as well as Bulgarians, Croatians, Hungarians, Germans, Poles, Ruthenians, Russians, Greeks, Serbs and Ukrainians (CERD 2006). In the 2001 census, 26.8% of inhabitants responded that they were Roman Catholic, at least 2.3% that they were Protestant, and 59% that they were agnostic, atheist, non-believers or non-organized believers (Czech Statistical Office 2003).

Following an uninterrupted decline between 1994 and 2002, the number of inhabitants in the Czech Republic has increased markedly and rapidly since 2004 (WHO Regional Office for Europe 2009). According to a 2008 estimate by the Czech Institute of Health Information and Statistics (*Ústav zdravotnických informací a statistiky ČR; ÚZIS*), the total population had reached 10.38 million by the end of 2007, thus reversing a decade of steadily negative population

Fig. 1.1 Map of the Czech Republic



Source: United Nations Cartographic Section 2004.

growth within a 4-year period (ÚZIS 2008b). This development is due primarily to an increase in immigration, although the natural growth rate has risen as well. Indeed, in 2006 the birth rate in the Czech Republic exceeded the mortality rate for the first time since 1993 and continued this trend into 2007 (WHO Regional Office for Europe 2009). It remains to be seen whether these developments will persist and have a significant impact on the ageing of the Czech population. Since 1995 the fertility rate in the Czech Republic has remained well below the European Union (EU) average and at 1.44 in 2007 was still below the fertility replacement level of 2.1 per 1000 population (Table 1.1).

1.2 Economic context

The Czech Republic has one of the most developed industrialized economies among the new EU Member States. Its strong industrial tradition dates back to the 19th century, when Bohemia and Moravia were the economic heartland of the Austro-Hungarian Empire. After four decades of communist rule following

Table 1.1 Demographic indicators, 1970–2007 (selected years)

Indicator	1970	1980	1990	2000	2004	2005	2006	2007
Population, total (millions)	9.775	10.232	10.363	10.273	10.207	10.234	10.269	10.334
Population, female (% of total)	51.6	51.5	51.5	51.0	50.8	50.8	50.8	50.9
Population ages 0–14 (% of total)	21.3	23.5	21.4	16.5	15.1	14.8	14.5	14.2
Population ages 15–64 (% of total)	66.6	63.2	66.0	69.7	70.9	71.1	71.2	71.3
Population ages 65 and above (% of total)	12.1	13.4	12.6	13.8	14.0	14.2	14.3	14.6
Population growth (annual %)	-0.65	0.00	0.01	-0.09	0.05	0.27	0.34	0.63
Population density (people per km ²)	126.5	132.4	134.1	133.0	132.1	132.5	132.9	133.8
Fertility rate, total (births per woman) ^a	1.93	2.10	1.89	1.16	1.23	1.28	1.33	1.44
Live births (per 1000 population) ^a	15.1	15.0	12.6	8.9	9.6	10.0	10.3	11.1
Death rate, crude (per 1000 population) ^a	12.6	13.1	12.5	10.6	10.5	10.6	10.2	10.1
Age-dependency ratio (dependants to working-age population)	0.50	0.58	0.51	0.43	0.41	0.41	0.40	0.40
Rural population (% of total population)	35.6	24.8	24.8	26.0	26.4	26.5	26.5	26.5

Sources: World Bank 2008; ^a WHO Regional Office for Europe 2009.

the Second World War, the Velvet Revolution in 1989 offered a chance for political and economic reform. Government priorities included strict fiscal policies, market liberalization, and the creation of an attractive climate for foreign investment. After an initial economic decline, the gross domestic product (GDP) began to increase again as of 1993. This initial success, however, was followed by a financial crisis in 1997, which emphasized the necessity of further economic reforms, such as completing industrial restructuring, increasing the transparency of capital markets and fully privatizing the banking sector. In 1999 the economy started to grow again, fuelled by strong domestic and foreign demand, as well as by increased foreign direct investment.

Manufacturing remains a major economic activity in the Czech Republic, accounting for 39% of value added in 2006 (Table 1.2). The main manufacturing industries are the automotive sector (including a supplier network), heavy machinery and engineering products. Iron and steel industries are important in the north-east of the country. As shown in Table 1.2, the agricultural sector accounted for only 3% of value added in 2006; the principal crops were maize, sugar beet, potatoes, wheat, barley and rye (European Commission 2009b).

The Czech Republic belongs to the group of countries that is most stable and prosperous among the post-communist states of central and eastern Europe. This is reflected in a 10% at-risk-of-poverty rate, which is among the lowest in Europe, as well as in steady economic growth (3.6% per year between 1998 and 2007), combined with increasing purchasing power (Table 1.2). In 1995, GDP per capita reached 10 800 purchasing power standards (PPS), or 70% of the EU25 average. This number increased steadily over the next 12 years, reaching 20 000 PPS in 2007. As a share of GDP per capita, this was approximately 77% of that in the EU25 countries and 71% of that in the EU15. Unemployment fell from a high of 8.7% in the year 2000 to 5.3% in 2007 (European Commission 2009a).

However, at the time of writing (early 2009), forecasts for all economic indicators are grim due to the global economic crisis. As the Czech Ministry of Finance writes in its 2009 economic forecast, “With available knowledge it is very difficult (if not impossible) to estimate [the] depth and duration of global problems, not [to mention] the extent and intensity of impacts on the Czech economy” (Ministry of Finance 2009a). To relax monetary policy, the Czech National Bank began cutting interest rates in August 2008.

**Table 1.2 Macroeconomic indicators for the Czech Republic, 2007
(or latest available year)**

Macroeconomic indicator	2007 (or latest available year)
GDP (millions of €)	127 142
GDP (millions, PPS)	206 107
GDP per capita (€)	12 300
GDP per capita (PPS)	20 000
GDP average annual growth, 1998–2007 (%)	3.6
Income inequality**	3.5
General government debt (% of GDP)	28.9
Value added in industry (% of GDP)*	39.0
Value added in agriculture (% of GDP)*	3.0
Value added in services (% of GDP)*	58.0
State budget balance (% of GDP)***	–1.9
Labour force, total (domestic concept)	5 207 000
Unemployment, total (% of labour force)	5.3
Official exchange rate (CZK per €1)	27.766
At-risk-of-poverty rate (after social transfers) (%)	10.0

Sources: European Commission 2009a; * World Bank 2008 (data from 2006);

*** Czech Statistical Office 2009b.

Notes: GDP: Gross domestic product; PPS: Purchasing power standards;

** Ratio of total income received by the 20% of the population with the highest income to that received by the 20% with the lowest income.

1.3 Political context

Until 1918 the Czech lands were part of the Austro-Hungarian Empire. Following the collapse of the Empire at the end of the First World War, these territories joined with Slovakia and Carpathian Ruthenia to form the Czechoslovak Republic. The Republic continued to exist until 1938, when it was divided as a result of the Munich Agreement. Bohemia and Moravia were occupied by Germany; Slovakia lost territory to Poland and Hungary and acted as a German client state until it was occupied by German forces after the Slovak National Uprising of August 1944; and Carpathian Ruthenia was annexed by Hungary (Bideleux & Jeffries 2007). Restored in 1945 after the end of the Second World War, the Czechoslovak State was forced to cede Carpathian Ruthenia to the Soviet Union that same year and came under complete communist control after the coup d'état of 1948. Four decades of authoritarian rule followed; a brief

period of political liberalization in the late 1960s, known as the Prague Spring, was put to an end by Warsaw Pact forces in 1968. With the Velvet Revolution and the removal from power of the communist government in 1989, a process of democratization ensued, culminating in democratic elections in 1990. The peaceful dissolution of Czechoslovakia into the Czech and Slovak Republics took effect on 1 January 1993. The Czech Republic has been a member of the Organisation for Economic Co-operation and Development (OECD) since December 1995, of the North Atlantic Treaty Organization (NATO) since February 1999 and of the EU since May 2004. In January 2009 the Czech Republic assumed the Presidency of the Council of the European Union for the first half of that year.

The Czech Republic is a parliamentary representative democratic republic headed by a President, who is elected by a joint session of Parliament for a 5-year term, with a limit of two consecutive terms. The President is the formal head of state and Commander-in-Chief of the armed forces. The Constitution vests him or her with certain specific powers, including those to appoint and dissolve the Government; to veto bills (with the exception of constitutional acts) and thus return them to Parliament; to appoint judges to the Supreme and Constitutional Courts, as well as members to the board of the Czech National Bank; to grant amnesty (subject to government approval); and to dissolve the Chamber of Deputies under exceptional circumstances. The President's role as Commander-in-Chief of the armed forces is ceremonial, as all substantive authority regarding the use of the military is vested by the Constitution in the Parliament. The President at the time of writing is Václav Klaus, co-founder of the Civic Democratic Party (ODS) and a former Prime Minister of Czechoslovakia (and subsequently the Czech Republic) between 1992 and 1997.

The Czech Constitution provides for a bicameral Parliament that is responsible for final decision-making to approve new legislation. The 200 members of the Chamber of Deputies (*Poslanecká sněmovna*) are elected for 4-year terms, while the 81 members of the Senate (*Senát*) are elected for 6-year terms. As the head of government, the Prime Minister is the Government's chief representative and is responsible, among other duties, for organizing the activities of government and choosing government ministers.

At the time of writing, the Government is a centre-right coalition of the Civic Democratic Party (ODS), Christian Democratic Party (KDU-ČSL) and the Green Party (SZ). Mirek Topolánek, head of the ODS, has been Prime Minister since 2006. There are four vice prime ministers, who are responsible for interministerial coordination. The Government proposes new legislation for the health sector to the Parliament, usually through the Minister of Health. There have been 15 ministers of health since 1989.

As part of a far-reaching process of modernization and decentralization in public administration, executive power was devolved on 1 January 2000 from state-administered districts to 14 newly formed regions (that is, the 13 *kraje* and the capital city of Prague) (Fig. 1.2). These have been delegated authority in various matters related to health care, social services, education, transport, communications, environmental protection and the provision of information to the general public.

Each region has its own parliament (known as an assembly), government (known as a council), and a governor (or, in the case of Prague, a mayor). The assemblies are elected for four years, based on a system of proportional representation. The councils are, within the scope of their delegated authority, the executive bodies of the regions and report to their respective assembly. The council members include the governor, his or her deputies, and the councillors. The governors represent their regions externally and are elected by the assemblies. Some of the governors' acts may be performed only upon approval

Fig. 1.2 Regions from 1 January 2000



- | | |
|----------------|----------------------|
| 1. Karlovarský | 8. Královéhradecký |
| 2. Plzeňský | 9. Pardubický |
| 3. Ústecký | 10. Vysočina |
| 4. Středočeský | 11. Olomoucký |
| 5. Praha | 12. Jihomoravský |
| 6. Jihočeský | 13. Moravskokolezský |
| 7. Liberecký | 14. Zlínský |

by the respective assembly or council (Středočeský kraj 2007). The first regional elections took place in 2000. In 2003, ownership of approximately half of the hospitals and some of the other health care facilities that had previously been owned by the State was transferred to the regional authorities (see Subsection *The role of the regional governments/decentralization*, within Section 2.3 *Organizational overview*).

Perhaps the most important historical and political development for the Czech Republic since the late 1990s has been its accession to the EU on 1 May 2004. The process leading up to this event had been a driver for political and economic change since at least 1997, when the European Commission agreed to talks regarding the country's accession and outlined rules for its entry into the EU. The Czech legal system, in particular, was modernized to ensure full compliance with the *acquis communautaire*, the body of common rights and obligations that bind all of the Member States within the EU. A referendum on the country's entry to the EU was held on 13 and 14 June 2003; of the 55.2% of eligible voters who turned out, 77.3% voted in favour of accession (Fawn 2004). The Czech Republic has not yet adopted the euro; its currency is the *koruna česká*, or Czech crown (CZK).

Another important political moment was the acceptance of the Czech Republic into NATO in February 1999; the Czech armed forces have participated in a number of NATO missions to date.

The Czech Republic has signed a range of international conventions, including the Convention on the Rights of the Child and the International Convention on Civil and Political Rights. In 1998 the Czech Republic signed the European Convention on Human Rights and Biomedicine, and in 1995 it signed the Framework Convention of National Minorities. A number of international conventions and regulations were ratified as a condition for accession to the EU.

1.4 Health status

Life expectancy at birth in the Czech Republic is increasing, having reached 73.82 years for men and 80.30 years for women in 2007 (Table 1.3). This was well above the average for the new EU Member States (70.41 years for men and 78.53 years for women). Since at least 1990 the increase seen for this indicator has been more rapid than that observed in the EU27 countries as a whole (WHO Regional Office for Europe 2009).

At 3.14 deaths per 1000 live births in 2007, the rate of infant mortality in the Czech Republic was among the lowest in the world, continuing a downward

Table 1.3 Mortality and health indicators, 1970–2007 (selected years)

Indicator	1970	1980	1990	1995	2000	2005	2006	2007
Life expectancy at birth, female (years)	73.33 ^a	73.92	75.54	76.81	78.61	79.32	80.00	80.30
Life expectancy at birth, male (years)	66.18 ^a	66.84	67.63	69.76	71.75	72.97	73.55	73.82
Life expectancy at birth, total (years)	69.67 ^a	70.30	71.53	73.31	75.21	76.19	76.82	77.10
Crude death rate per 1000 population, female	11.50	12.56	11.77	11.11	10.26	10.27	9.85	9.84
Crude death rate per 1000 population, male	13.70	13.73	13.2	11.74	10.98	10.83	10.51	10.44
Infant deaths (per 1000 live births)	20.20	16.90	10.80	7.70	4.10	3.39	3.33	3.14
Probability of dying before age 5 years (per 1000 live births)	n/a	n/a	12.42	9.14	5.19	4.13	4.12	3.98

Source: WHO Regional Office for Europe 2009.

Notes: ^a 1971 data; n/a: Not available.

trend that has lasted for decades (Table 1.3). Indeed, infant mortality in the Czech Republic has remained consistently below the EU15 average since 1999. In 2006, the latest year for which complete data were available, the only countries in the WHO European Region to have lower infant mortality rates were Iceland, Cyprus, Sweden, Finland and Norway. Moreover the probability of dying before the age of 5 years in the Czech Republic has remained slightly lower than the EU15 average since 1999 (WHO Regional Office for Europe 2009).

As in other developed countries, circulatory system disease was the most frequent cause of death in the Czech Republic in 2007 (Table 1.4). The standardized death rate from this cause (all ages) has decreased almost continually since 1990 and more rapidly than in the EU27. Nevertheless, at 370.66 deaths per 100 000 in 2007, it remained well above the EU27 average of 251.95 (WHO Regional Office for Europe 2009).

Malignant neoplasms were the second most common cause of death in the Czech Republic in 2007. Since the 1970s the standardized rate of mortality due to malignant neoplasms has been markedly higher compared not only to the EU and Scandinavian countries, but also to the other central European

Table 1.4 Main causes of death in the Czech Republic, 1970–2007 (selected years)

Indicator	1970	1980	1990	1995	2000	2005	2006	2007
SDR, all causes, all ages, per 100 000	1299.00	1269.71	1171.17	1024.82	891.51	837.61	789.26	767.48
SDR, all causes, all ages, per 100 000, male	1656.24	1641.82	1565.40	1335.63	1161.59	1076.74	1024.12	991.20
SDR, all causes, all ages, per 100 000, female	1037.02	1003.43	888.37	798.84	690.50	657.22	613.24	595.40
SDR, diseases of the circulatory system, all ages, per 100 000	659.60	660.03	645.01	559.62	462.52	419.02	386.33	370.66
SDR, diseases of the circulatory system, all ages, per 100 000, male	795.00	819.14	834.23	708.14	576.89	508.12	477.84	453.69
SDR, diseases of the circulatory system, all ages, per 100 000, female	559.02	543.06	512.55	454.88	378.98	351.08	318.18	306.82
SDR, malignant neoplasms, all ages, per 100 000	240.76	244.08	258.59	252.19	237.83	217.46	212.59	204.17
SDR, malignant neoplasms, all ages, per 100 000, male	326.79	336.15	358.67	343.57	325.26	294.61	284.14	274.30
SDR, malignant neoplasms, all ages, per 100 000, female	181.05	180.87	189.24	189.94	177.37	164.85	163.15	154.76
SDR, external causes (injury and poisoning), all ages, per 100 000	95.24	85.66	84.82	76.85	62.35	55.02	50.46	51.66
SDR, external causes (injury and poisoning), all ages, per 100 000, male	135.09	114.76	117.45	106.38	92.96	82.82	78.10	78.73
SDR, external causes (injury and poisoning), all ages, per 100 000, female	58.22	57.44	54.13	47.92	34.17	29.34	25.53	26.31
SDR, diseases of the respiratory system, all ages, per 100 000	122.18	106.71	49.16	43.46	40.20	46.27	42.05	41.21
SDR, diseases of the respiratory system, all ages, per 100 000, male	183.95	155.35	81.35	62.40	56.91	65.91	60.23	59.44
SDR, diseases of the respiratory system, all ages, per 100 000, female	82.47	78.47	29.74	31.61	29.07	33.51	30.32	29.31

Source: WHO Regional Office for Europe 2009.

Note: SDR: Standardized death rate.

countries (WHO Regional Office for Europe 2009). Starting in 1990, however, neoplasm-related mortality decreased rapidly, dropping from 258.59 deaths during that year to 204.17 deaths (all ages, per 100 000) in 2007 (Table 1.4). The latter number is only slightly higher than the average for the new EU Member States (200.06), but is still far higher than in the EU27 as a whole (175.62) (WHO Regional Office for Europe 2009).

Although the standardized rate of mortality attributable to external causes (injury or poisoning) has fallen markedly since at least 1970, these as a group have remained the third largest cause of death in the Czech Republic (2007). The downward trend for this indicator is roughly in line with that observed in the EU27 as a whole (WHO Regional Office for Europe 2009).

Respiratory system disease was the fourth most common cause of death in the Czech Republic in 2007. After a decade of strong annual fluctuations in the 1970s, the standardized rate of mortality due to this cause decreased from 1980 until the late 1990s. Since then, a slight upward trend has been observed. Nevertheless, at 41.21 deaths per 100 000 population, this indicator was lower in the Czech Republic in 2007 than both the EU27 average for that year (43.67) and the 2006 average for the EU15 (46.03) (WHO Regional Office for Europe 2009).

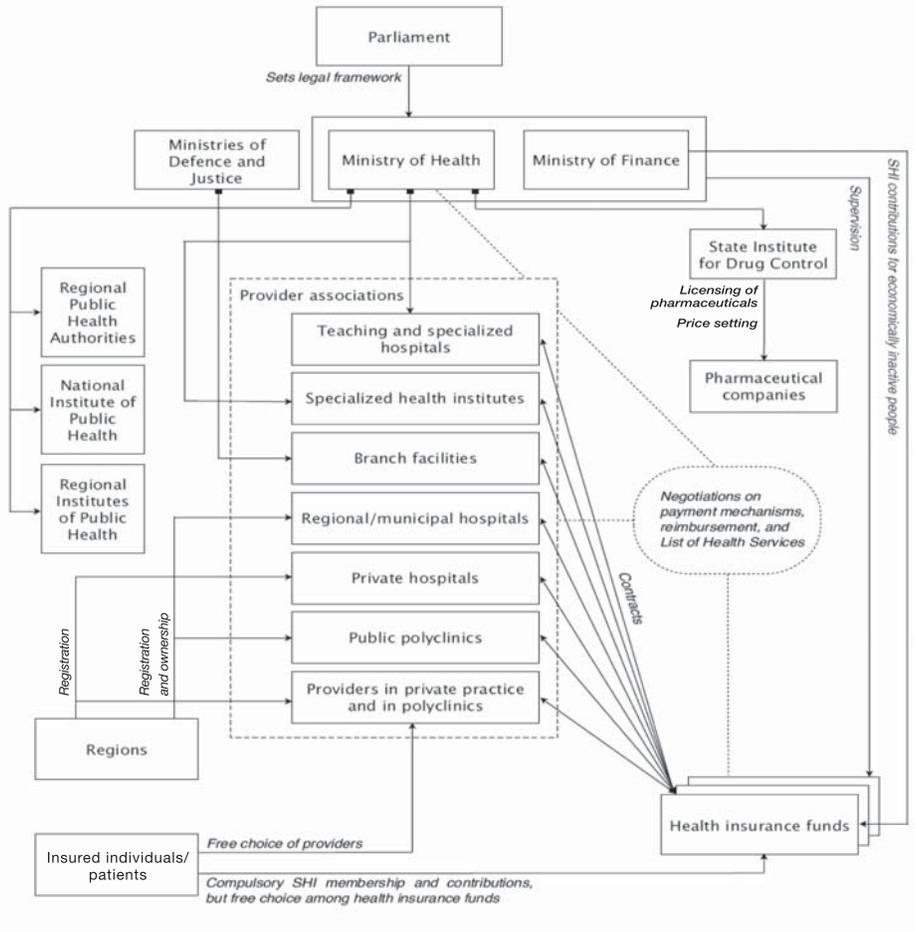
Vaccination coverage in the Czech Republic is very high, with uptake rates greater than 97% in all relevant immunization categories in 2006 (WHO Regional Office for Europe 2009; World Bank 2008). Vaccines against tuberculosis (TB), diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella are part of the compulsory childhood vaccination schedule. Vaccines against hepatitis B and *Haemophilus influenzae* type B were added to the schedule in 2001. For more details on vaccination programmes and other preventive services in the Czech Republic, see Section 6.1 *Public health*.

2. Organizational structure

2.1 Overview of the health system

The Czech Republic has a system of social health insurance (SHI) based on compulsory membership in a health insurance fund. The funds, of which there were 10 as of early 2009, are quasi-public self-governing bodies that act as payers and purchasers of health care. The system is financed primarily through mandatory SHI contributions which are administered by the health insurance funds and take the form of a payroll tax split between employers and employees; self-employed individuals must contribute a fixed percentage of their profits. Other sources of financing include general taxation and OOP payments. The Ministry of Health's responsibilities include setting the health care policy agenda and supervising the health system. The regional authorities and the health insurance funds play an important role in ensuring the accessibility of health care, the former by registering health care providers and the latter by contracting them. Sick pay and other cash benefits are not covered by SHI, but are part of the social security system, which is administered by the Ministry of Labour and Social Affairs and financed through separate social security contributions. The area of patient empowerment has undergone important changes since the late 1990s and is actively supported by a range of policy instruments (see Section 2.4 *Patient empowerment*). An overview of the Czech health system is presented in Fig. 2.1.

Fig. 2.1 Organizational structure of the Czech health system



Source: Authors' own compilation.

Notes: Branch facilities are health care facilities that serve employees of the respective ministry, as well as soldiers and prisoners, but are sometimes open to other individuals as well; SHI: Social health insurance; An arrow with a square indicates that a health care facility or institution is directly subordinate to the respective ministry.

2.2 Historical background

1887–1939

In the late 19th century, the Czech lands were still part of the Austro-Hungarian Empire and were strongly influenced by the Bismarckian model of social security and sickness insurance. Compulsory accident insurance and sickness

insurance schemes for blue-collar workers were introduced in 1887 and 1888, respectively. These included disability and survivor pensions, as well as medical benefits and sick pay (Murray et al. 2007; Niklíček 1994). In general, sickness insurance was provided by autonomous sickness funds, which were governed by a board of directors based on a system of bipartite representation (Niklíček 1994). By the end of the First World War in 1918, a fragmented system was in place in Austria-Hungary, with hundreds of institutions offering social security benefits and sickness insurance; the various schemes were organized according to professional, regional or other criteria.

After Czechoslovakia's independence in 1918, the Bismarckian health system inherited from the Empire was expanded and refined. In 1919, legislation was adopted that extended compulsory sickness insurance coverage to the family members of blue-collar workers and to all wage earners, thus including agricultural workers for the first time. In 1924, landmark social insurance legislation led to the creation of the Central Social Insurance Fund (*Ústřední sociální pojišťovna; ÚSP*), which consolidated the hitherto fragmented system of social insurance into a single institution. The ÚSP was responsible both for administering a new old-age and invalidity insurance scheme for workers and for supervising the sickness funds. The 1924 legislation also limited the number of sickness funds to approximately 300 and increased the depth of benefits, particularly with regard to sick pay. At the same time, the sickness funds were reclassified as health insurance funds, a change in nomenclature that reflected a shift in expenditure from an emphasis on sick pay to one on health care benefits. Although they remained self-governing in character, the health insurance funds were required by law to perform a range of duties on behalf of the ÚSP, such as collecting contributions for old-age and invalidity insurance. In 1925, sickness insurance, which included medical benefits, was introduced for public employees. By 1938 more than half of the population of the Czechoslovak Republic was covered by compulsory health insurance (Niklíček 1994; Nečas 1938).

1945–1989

After the Second World War, Czechoslovakia fell within the Soviet sphere of influence. In 1948 the country was declared a so-called people's democracy and began to be governed according to communist principles. As a result, the proportion of nationalized property, including various forms of collective ownership, reached nearly 100%. These developments had important repercussions for the health system.

In 1948 social and health insurance were unified into a compulsory system of insurance for all citizens. The Central National Insurance Fund (*Ústřední*

národní pojišťovna) was founded, which covered all health care and sickness benefits. The insurance, amounting to 6.8% of wages, was paid entirely by the employer.¹ Only four years later, however, in January 1952, a Soviet-style centralist system of unified state health care was introduced, based on the Semashko model. The State assumed responsibility for health care coverage and financed it through general taxation. Health care was generally provided free of charge at the point of delivery. Moreover, all health care providers were nationalized and incorporated into Regional and District Institutes of National Health. The Czech part of Czechoslovakia had 7 regions and 76 districts. Every district had a District Institute of National Health, and every region had a Regional Institute of National Health. District Institutes of National Health consisted of small or mid-sized hospitals, polyclinics and health care centres for outpatient care, along with pharmacies, centres of hygiene, health care centres for the workplace, divisions of emergency and first-aid services, and nurseries. Regional Institutes of National Health consisted of larger hospitals, regional health care centres and – in most cases – blood transfusion centres.

The new system proved reasonably effective in dealing with the post-war problems of the early 1950s. During that time, rapid improvements were seen in what had previously been a high infant mortality rate, as well as in efforts to reduce the prevalence of TB, other serious infections and malnutrition. By the early 1960s the health status of the general public was very good in international terms.

In the late 1960s, however, the health system reached a turning point. Centralist in design and rigid in many respects, it proved unable to respond flexibly to new health problems stemming from lifestyle changes and environmental factors. As a consequence, both the health system and most health status indicators stagnated from the late 1960s to the late 1980s. Temporary political reforms in 1968 – when the Federation of the Czech and Slovak Republics was proclaimed – affected the health system only inasmuch as they separated it into a Czech and a Slovak part, creating two separate ministries of health. The system of health care delivery, itself, remained unchanged.

After 1989

The Velvet Revolution in 1989 led to a process of reform and democratization that had far-reaching effects on health care in Czechoslovakia and, later, the Czech Republic. The principle of free choice of health care provider was introduced, and the huge Regional and District Institutes of National Health that had been established during the communist era were dismantled. During

¹ National Insurance Act (1948). Act No. 99/1948 Coll., on National Insurance.

the early 1990s the Czech Medical Chamber, the Czech Dental Chamber and the Czech Chamber of Pharmacists, as well as other professional medical associations, were re-established or newly founded. A new system of home care was also adopted. At the same time, primary care, non-hospital ambulatory specialist care, the pharmaceutical industry, pharmacies and spa facilities were almost completely privatized.

In the early 1990s several key laws relating to the new health system were approved, including the General Health Insurance Act (1991), the Act on the General Health Insurance Fund (1991), and the Act on Departmental, Professional, Corporate, and Other Health Insurance Funds (1992). These shifted the health system towards an SHI model, with a number of quasi-public, self-governing health insurance funds acting as payers and purchasers of care, financed through mandatory SHI contributions. The first such entity to be established was the General Health Insurance Fund (*Všeobecná zdravotní pojišťovna; VZP*), which has remained the largest health insurance fund in the Czech Republic since it began operating in early 1992. It also has the most influence due to its market share and its function as a safety net for members of health insurance funds that close or go bankrupt (see Subsection *Pooling agencies* within Section 3.4 *Pooling of funds*, as well as Subsection *Regulation and governance of the health insurance funds*, within Section 4.1 *Regulation*). In late 1992, the first of many other health insurance funds was founded. Up to 27 funds were operating at one period in the mid-1990s, but their number had decreased to 10 by 2009.

In the five years following these initial reforms, the health insurance funds contracted an increasing number of state and private health care facilities on a fee-for-service basis. These arrangements, however, led to unsustainable increases in costs. In 1997, fee-for-service payments were replaced by capitation fees as the chief means of payment in primary care, and by fixed, prospective budgets for hospitals. The fee-for-service scheme was also modified for ambulatory care providers by introducing pharmaceutical budgets and limits on the volume of services that could be reimbursed at the full rate (see Section 3.6 *Payment mechanisms*).

An important development in public administration took place in 2003, when the ownership of approximately half of the hospitals in the Czech Republic was transferred from the State to 14 newly formed, self-governing regions. In the wake of this process of decentralization, some regions decided to change the legal form under which most of these hospitals operated, transforming them from entities directly subordinate to the regional authorities to joint stock companies (see Subsection *The role of the regional governments/decentralization*, within Section 2.3 *Organizational overview*, as well as Subsection *Infrastructure*, within Section 5.1 *Physical resources*).

The Czech health system has undergone a number of important changes since 2005. Although a detailed overview of recent reforms is provided in Chapter 7, five examples deserve brief mention here:

1. The implementation between 2005 and 2006 of a new risk-adjustment scheme for redistributing SHI contributions among the health insurance funds. The scheme aims to ease the financial burden of funds with higher-risk portfolios and to lower the potential for risk selection (see Subsection *Mechanisms for allocating funds among pooling/purchasing agencies*, within Section 3.4 *Pooling of funds*).
2. The introduction in 2008 of (a) user fees for doctor visits, hospital stays, prescription pharmaceuticals and the use of ambulatory services outside of regular office hours; and (b) an OOP maximum (see Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/sources of funds*).
3. The inclusion in 2008 of the State Institute for Drug Control (*Státní ústav pro kontrolu léčiv*; SÚKL) in the process of setting maximum prices and reimbursement rates for pharmaceuticals, with the goal of ensuring transparency of price setting (see Section 6.5 *Pharmaceutical care*).
4. The introduction in 2008 of a programme to supply accredited providers with additional financial support for training specialized nurses and physicians in medical specialties, thus addressing shortages in particular fields and allowing the Ministry of Health to set priorities in the planning of health care personnel (see Subsection *Planning of health care personnel*, within Section 5.2 *Human resources*).
5. An initiative to improve the quality of highly specialized care by identifying high-performing health care facilities and allowing for special contractual conditions between these facilities and the health insurance funds. These conditions might include, for example, exclusive permission to use particularly costly pharmaceutical agents, such as biologics or the latest oncological treatments.

2.3 Organizational overview

The health system in the Czech Republic has three main organizational features:

1. SHI with virtually universal membership, funded primarily through mandatory SHI contributions in the form of a payroll tax split between employers and employees;
2. diversity of provision, with ambulatory care providers (mainly private) and hospitals (mainly public) entering into contractual arrangements with the health insurance funds;

3. joint negotiations by key actors on coverage and reimbursement issues, supervised by the Government.

The role of the State and its agencies

The State itself plays many roles, including that of legislator (Parliament); the source of funding in the case of SHI contributions for certain groups of economically inactive people (Ministry of Finance); owner of health care facilities (Ministry of Health, Ministry of Defence and Ministry of Justice); and regulator (Ministry of Health and Ministry of Finance).

The Ministry of Health is a central administrative body, and its responsibilities include ensuring the protection of public health; supporting scientific research in health care; licensing health professionals; administering and regulating the health care facilities under its direct management; exploring and regulating natural curative sources (for example spas and natural mineral waters); ensuring access to, and supervising, pharmaceuticals and health care technology for disease prevention, diagnosis and cure; supervising the health insurance funds jointly with the Ministry of Finance; and managing the health care information system. The Ministry of Health itself is managed, and its responsibilities carried out, by the Minister of Health, who may delegate some of his or her powers to the ministry leadership staff. The Ministry of Health directly administers large hospitals with supraregional spheres of influence, including teaching hospitals and some highly specialized tertiary care facilities. The Ministry of Health also administers and regulates certain health care institutions and bodies charged with protecting public health, such as the Regional Public Health Authorities, the Regional Institutes of Public Health, the National Institute of Public Health (*Státní zdravotní ústav, SZÚ*) (see Section 6.1 *Public health*), and the SÚKL.

The Ministry of Finance collects taxes and pays SHI contributions for certain groups of economically inactive people (see Subsection *Compulsory sources of financing*, within Section 3.3 *Revenue collection/sources of funds*) and, in joint collaboration with the Ministry of Health, supervises the health insurance funds (see Subsection *Regulation and governance of the health insurance funds*, within Section 4.1 *Regulation*). The Ministries of Defence and Justice are owners and operators of health care facilities that serve their respective employees, as well as soldiers and prisoners, but these facilities are sometimes open to other individuals as well.

The role of the regional governments/decentralization

Before 2003 most hospitals in the Czech Republic were owned by the State and operated by state-administered districts. State administration at the district level

was abolished, however, at the end of 2002 and replaced by a system of regional governments (see Section 1.3 *Political context*). As part of this decentralization process, the ownership of emergency units, institutions of long-term care (except for psychiatric facilities) and approximately half of the hospitals in the country was subsequently transferred to the regions. Some smaller hospitals came to be owned and operated by municipalities, and several dozen others have been privatized. In an attempt to improve transparency and efficiency in operational and budget management, the majority of hospitals belonging to the regions have been converted from entities directly subordinate to the regional authorities into joint stock companies. At the time of writing, these joint stock companies are still owned entirely by the regions and continue to be financed primarily through contracts with the health insurance funds (see Subsection *Infrastructure*, within Section 5.1 *Physical resources*). It should be noted, however, that the legal form and ownership structure of hospitals in the Czech Republic have remained the subject of considerable political controversy. Since 2006, hospitals may also exist as public non-profit-making organizations (see Subsection *Organizational reforms in the hospital sector*, within Section 7.1 *Analysis of recent reforms* for more details).

Regional authorities also play an important regulatory role in the Czech health system, as they are responsible for registering private health care facilities, including providers of ambulatory care. After passing the standardized state licensing exam (*státní atestační zkouška*), a physician must apply for registration with the respective regional authority before he or she may open a private practice (see Subsection *Registration/licensing*, within Section 5.2 *Human resources*).

The role of the health insurance funds

Health care in the Czech Republic is financed primarily through mandatory SHI contributions, which at the time of writing are administered by 10 health insurance funds. The health insurance funds are quasi-public, self-governing bodies that act as payers and purchasers of health care. They collect the SHI contributions from employers, employees and self-employed individuals, among others. The largest health insurance fund, the VZP, also manages a special central account used for pooling and redistributing SHI contributions according to a risk-adjustment scheme. The SHI contributions for certain groups of economically inactive people are paid by the State and transferred directly to this central account by the Ministry of Finance (see Section 3.4 *Pooling of funds*).

The State Institute for Drug Control

The SÚKL is an administrative body supervised by the Ministry of Health and financed from the state budget. The Minister of Health approves the Institute's statute and has the power to appoint and dismiss its director. The Institute is charged with ensuring the safety, quality and rational use of pharmaceuticals and medical aids in the Czech Republic. It is also responsible for approving and licensing pharmaceuticals and medical aids, as well as for monitoring them once they have been marketed. A predecessor of the SÚKL, known as the Institute for the Examination of Pharmaceuticals, was established in 1918.² Since 2008 the SÚKL has also been responsible for setting maximum prices and reimbursement rates for pharmaceuticals covered by SHI. Previously, the maximum prices of pharmaceuticals and reimbursement rates had been defined by the Ministry of Finance and the Ministry of Health, respectively (see Section 6.5 *Pharmaceutical care*).

The role of professional and patient organizations

In the Czech Republic there are three professional medical organizations established by law: the Czech Medical Chamber, the Czech Dental Chamber and the Czech Chamber of Pharmacists. Membership within a chamber is compulsory for every practising physician, dentist and pharmacist. The chambers represent the interests of their respective professions and are responsible for ensuring the ethical behaviour of their members, including the provision of due care. Until the end of 2007 the Czech Medical Chamber and the Czech Dental Chamber participated in annual negotiations with other stakeholders to modify a fee schedule known as the List of Health Services (*Seznam zdravotních výkonů*), which specifies which services will be covered by SHI during the following year (see Subsection *Definition of benefits*, within Section 3.2 *Population coverage and basis for entitlement*). In 2008 this system of negotiation was abandoned in favour of a Health Services Working Group that excluded the chambers; the Working Group is based at the Ministry of Health and consists of several stakeholders without veto power (see Section 3.5 *Purchasing and purchaser-provider relations*).

There are also a range of associations representing providers of inpatient and ambulatory care, such as the Association of General Practitioners (*Sdružení praktických lékařů ČR*) and the Association of Ambulatory Care Specialists (*Sdružení ambulantních specialistů ČR*). Both participate in the Health Services Working Group and in annual negotiations with the health insurance funds on reimbursement rates for health services. They also represent the interests of their respective professional clientele throughout the Czech Republic.

² The current name and organizational structure date from 1952.

Another participant in the Health Services Working Group is the J. E. Purkyně Czech Medical Association (*Česká lékařská společnost Jana Evangelisty Purkyně, ČLS JEP*). This is a voluntary umbrella association of physicians, pharmacists and other health care and health-related professionals, with 34 001 members organized in 107 professional medical associations and 34 medical societies as of December 2008. Its main aims are to support the development and distribution of evidence-based medical knowledge and to promote the use of such knowledge in the provision of health care (ČLS JEP 2009). To further these goals, the Association participates in a range of projects throughout the country and cooperates with the Ministry of Health.

The most important trade unions in the Czech health system are the Union for Health Care and Social Care (*Odborový svaz zdravotnictví a sociální péče*), the Physicians Union Club/Association of Czech Doctors (*Lékařský odborový klub – Svaz českých lékařů*), and the Professional Sector Union of Health Care Staff (*Profesní a odborová unie zdravotnických pracovníků*). These groups play an important advocacy role in negotiations regarding the wages of health care workers.

Most of the many patient organizations in the Czech Republic focus on supporting patients suffering from a specific disease, either through advocacy and organization, or by providing health or social services. Some are funded partly by state grants. Although not an umbrella association per se, the Coalition for Health (*Koalice pro zdraví*), which was founded in 2004, collaborates with 50 patient organizations (Koalice pro zdraví 2009). It is a member of the Ministerial Patient Board (an advisory body to the Minister of Health) and a participant in the Health Services Working Group, but not in a decision-making capacity. One of the most politically active organizations is the Czech Association of Patients (*Svaz pacientů ČR*).

2.4 Patient empowerment

Patients have many rights and some important obligations within the Czech health system. They have, for example, free choice of health care provider and health insurance fund. At the same time, they are part of the SHI system and are thus obliged to pay contributions towards it, along with their employers, on a monthly basis. Patient empowerment has become an increasingly important issue in the Czech health system and, as detailed in the subsections that follow, has been supported by a variety of initiatives.

Patient information

The Czech Republic lacks a unified system to assess the quality of health services and facilities. There are, however, many ongoing initiatives in place to make such information available and accessible to the public. Several of these are spearheaded by the state or regional governments (see Subsection *Regulating quality of care*, within Section 4.1 *Regulation*), whereas others are run by professional or civic organizations, such as the National Reference Center (*Národní Referenční Centrum*, NRC) or the Czech Oncological Society ČLS JEP.³ Some attempts have been made in recent years to address the information needs of minority populations. For example, general information about the Czech health system – and, in particular, the health insurance funds – has been published in Vietnamese and Ukrainian. In addition, manufacturers have been required by law to include Braille text on consumer pharmaceutical packaging since 2007.

Based on a legislative amendment passed in 2007, patients now have full access to their own medical records. Before 2007 patients could obtain data on individual items from their medical records through a health care professional, but were unable to view their records directly or in full.

Finally, because some prescription pharmaceuticals are not covered fully by SHI, patients have the right to be informed by their doctors and pharmacists if other pharmaceuticals are available that have similar therapeutic effects and are fully covered by insurance or have a smaller co-payment.

Patient rights

The first Charter of Patients' Rights in the Czech Republic was drafted by the Central Ethics Committee of the Ministry of Health two years before the World Health Organization (WHO) launched the Declaration on the Promotion of Patients' Rights in Europe in 1994. In addition to the Charter of Patients' Rights, a number of other charters have been adopted, including the Charter for Children in Hospital in 1993. Professional associations in the Czech Republic have also drafted codes of ethics for their respective fields; these include the Code of Ethics for Physicians, drafted by the Czech Medical Chamber in 1992, which outlines the ethical duties of physicians with regard to their patients. The 1997 Council of Europe Convention on Human Rights and Biomedicine was signed by the Czech Republic in 1998 and ratified by Parliament in 2001.

³ Projects accessible online at www.jaksekteleci.cz and www.linkos.cz.

Patient choice

Health insurance in the Czech Republic is compulsory, and there is no provision to allow individuals to opt out of the system. Insured individuals do, however, have the right to choose their health insurance fund and may switch to a new fund once every 12 months. All health insurance funds are obliged to accept any applicant; risk selection is not permitted. Patients also have the right to choose their primary health care provider every three months. General practitioners (GPs) can refer patients to ambulatory care specialists, but patients are also free to obtain this care from a provider of their choice without a referral, and do so frequently (see Section 6.2 *Primary/ambulatory care*).

Patients and cross-border care

Because the Czech Republic is a Member State of the EU, members of a Czech health insurance fund are entitled to receive services that are covered by statutory insurance in other European countries. Based on EC Regulation 1408/71, Czech policy holders can use the European Health Insurance Card (EHIC) to receive health services abroad, paid for by the Czech system, when on a temporary stay (for example, as tourists). Furthermore, Czech policy holders may ask their health insurance fund for pre-authorization when planning to receive treatment abroad.

The Centre for International Reimbursements (*Centrum mezinárodních úhrad*, CMÚ) represents the Czech health system in cross-border health care issues with 35 European countries, including the EU Member States. One of the CMÚ's main tasks is to reimburse the costs of in-kind benefits provided to Czech policy holders while abroad and to collect the costs from other Member States for people treated in the Czech Republic; in both roles, the CMÚ serves as a mediator for the Czech health insurance funds.

As can be seen in Table 2.1, more than 70 000 Czech policy holders were treated while abroad in 2007. Approximately half of them were Slovak citizens, many of whom were living and working in the Czech Republic but received treatment in the Slovak Republic. Of the Czech policy holders who accessed health care services while abroad on a temporary stay (primarily tourists), most did so in Slovakia, Germany or Croatia. Furthermore, 435 patients were pre-authorized to receive medical treatment abroad in 2007. Approximately half (56%) of the total costs incurred by Czech policy holders while receiving health care abroad in 2007 were associated with hospitalization, one fifth with pharmaceuticals, and only 9% with non-hospital medical care.

A total of 60 277 foreign patients received treatment in the Czech Republic in 2007 (CMÚ 2008). These patients were mainly from the neighbouring countries of Germany, Slovakia and Austria.

Table 2.1 Use of health services abroad by Czech policy holders in 2007 (selected countries)

Country	Tourists	Cross-border workers	Planned care	Total
Slovakia	21 679	36 455	390	58 524
Germany	4 244	326	14	4 584
Poland	557	1 261	0	1 818
Austria	1 498	138	4	1 640
Croatia	1 532	0	20	1 552
Italy	417	0	0	417
Belgium	359	17	2	378
France	306	20	1	327
Total	31 952	38 260	435	70 647

Source: CMÚ 2008

These figures must be interpreted carefully as they may underestimate the true number of people seeking cross-border care. Indeed, they include only those who were treated within the public legal framework provided by EU law or bilateral international agreements. People paying for health care abroad with travel insurance or OOP payments are not included.

Complaints procedures

In 2006 the Ministry of Health published a leaflet depicting standard complaints procedures. The leaflet, which is also available on the Ministry's web site, shows which authorities are responsible for processing complaints in various situations. Patients who have a complaint about a physician's behaviour, for example, are provided with clear instructions on how to contact the Czech Medical Chamber and which information they need to provide.

Patient advocates are usually not employed by health providers or other institutions. However, the Public Defender of Rights has extensive authority to conduct independent inquiries into individual issues, including those related to complaints procedures in the field of health care.

Patient involvement

A number of mechanisms are in place in the Czech Republic at the time of writing to ensure patient involvement in health care. A delegate from the patient advocacy group Coalition for Health takes part in the Health Services Working Group, but without participating in decision-making (see Subsection *The role*

of professional and patient organizations, within Section 2.3 *Organizational overview*). In addition, a Ministerial Patient Board was established in 2006 as an advisory body to the Minister of Health; its aim is to communicate the needs of patients – and their views on health care matters – to the Minister. Surveys on patient satisfaction with providers' services are conducted by many health care facilities as part of their quality management procedures.

National surveys on patient satisfaction with the health system are carried out at least once a year. Since 2002 the surveys have been conducted by an independent, nongovernmental public opinion agency known as the Public Opinion Research Centre (*Centrum pro výzkum veřejného mínění, CVVM*). As can be seen in Table 2.2, the results of the latest survey show growing dissatisfaction with the Czech health system. Although this may be attributable in part to popular and political opposition to the user fees introduced in 2008, it may also reflect an increase in patient expectations.

Physical access

The first legislation aimed at improving physical access to health care and other public facilities for disabled people in the Czech Republic dates back to the 1980s. Because the law in question allowed many exceptions, accessibility norms were rarely followed in practice. The situation has improved since 2006, when access to public facilities was defined by law as a matter of public interest. In particular, almost all new public buildings have full disabled access.

Table 2.2 Satisfaction with the health system in the Czech Republic (%)

Year	Completely satisfied	Rather satisfied	Neither satisfied nor dissatisfied	Rather dissatisfied	Completely dissatisfied	Do not know
2008	3	24	28	27	17	1
2007	3	27	30	27	12	1
2006	4	28	37	21	8	2
2005	2	29	34	23	9	3
2004	3	33	36	21	6	1
2003	3	32	28	23	11	3
2002	3	38	38	14	5	2

Source: CVVM 2009.

Note: Survey conducted from 1 to 8 December 2008 with a representative group of 1152 Czech citizens over the age of 15 years.

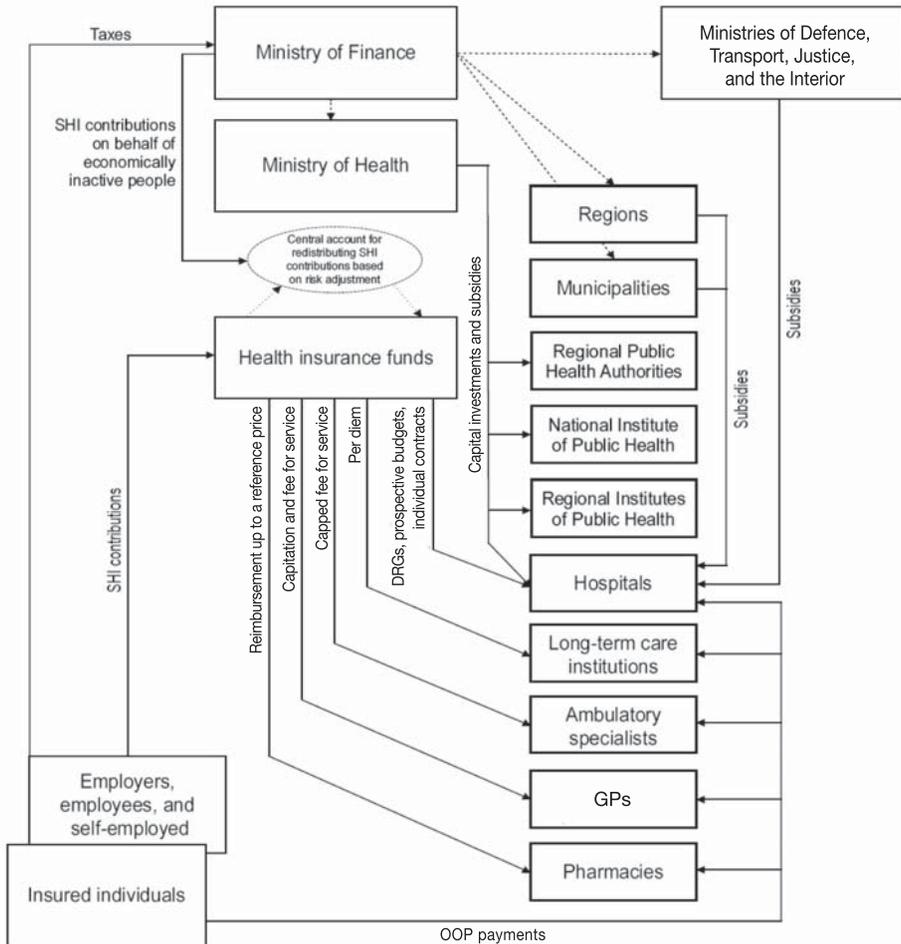
3 Financing

Following a rapid increase in the early 1990s, total health expenditure in the Czech Republic as a share of GDP has remained relatively low (6.7% in 2007) compared to western Europe (see Table 3.1 in Section 3.1 *Health expenditure*). The vast majority of health expenditure is through the SHI system, which is financed primarily by mandatory SHI contributions and by state SHI contributions on behalf of certain groups of economically inactive people. Health expenditure from public sources as a share of total health expenditure is among the highest in the WHO European Region. Population coverage is virtually universal, and the range and depth of benefits available to insured individuals are unusually broad. It is perhaps for this reason that health expenditure from private sources is low compared to other European countries (only 14.2% in 2007), although it is likely to rise due to a trend towards greater cost sharing (ÚZIS 2008b). Private sources of expenditure are used to cover (a) the costs of over-the-counter pharmaceuticals and some dental procedures; (b) co-payments on medical aids and prescription pharmaceuticals whose actual price exceeds the reference price in a particular pharmaceutical group; and (c) user fees for doctor visits, prescription pharmaceuticals, hospital stays, and the use of ambulatory care services outside of standard office hours.

Mandatory SHI contributions are the main source of health care financing in the Czech Republic and take the form of a payroll tax split between employers and employees; self-employed individuals must contribute a fixed percentage of their profits. The contributions are collected by the individual health insurance funds and subsequently re-allocated among them based on a risk-adjustment scheme. The SHI contributions made by the State for certain groups of economically inactive people are also included in the re-allocation process. Capital investments in facilities managed by the State and the regions are financed primarily through state and regional budgets, and thus through general taxation.

The health insurance funds serve as the main purchasers of health care services in the Czech SHI system, and their organizational relationship to the various providers is based on long-term contracts. Since 2007, hospitals have been paid using a combination of a diagnosis-related group (DRG) system, individual contracts and global budgets. Since 2009, hospital outpatient care has been reimbursed using a capped fee-for-service scheme. GPs in private practice are paid using a combination of capitation and a fee-for-service payment system, the latter of which is applied mostly for preventive care. Non-hospital

Fig. 3.1 Overview of financial flows in the Czech health system



Source: Compiled by the authors.

Notes: SHI: social health insurance; GP: General practitioner; OOP: Out-of-pocket (payment); DRG: Diagnosis-related group payments.

ambulatory care specialists are paid using a capped fee-for-service scheme. A broad overview of the financial flows in the Czech health system is provided in Fig. 3.1.

3.1 Health expenditure

Health expenditure in the Czech Republic increased rapidly in the early 1990s after the Semashko model of health care organization was replaced with the SHI system in use today. Between 1990 and 1995 total expenditure on health as a percentage of GDP rose from 4.7% to 7% (Fig. 3.3). Over the eight years that followed, total health expenditure as a share of GDP showed a slightly upward trend, but decreased by almost a full percentage point between 2003 and 2007 (Table 3.1). This latter development, however, is attributable more to the high growth of GDP than to any of the cost-containment measures pursued during this period.

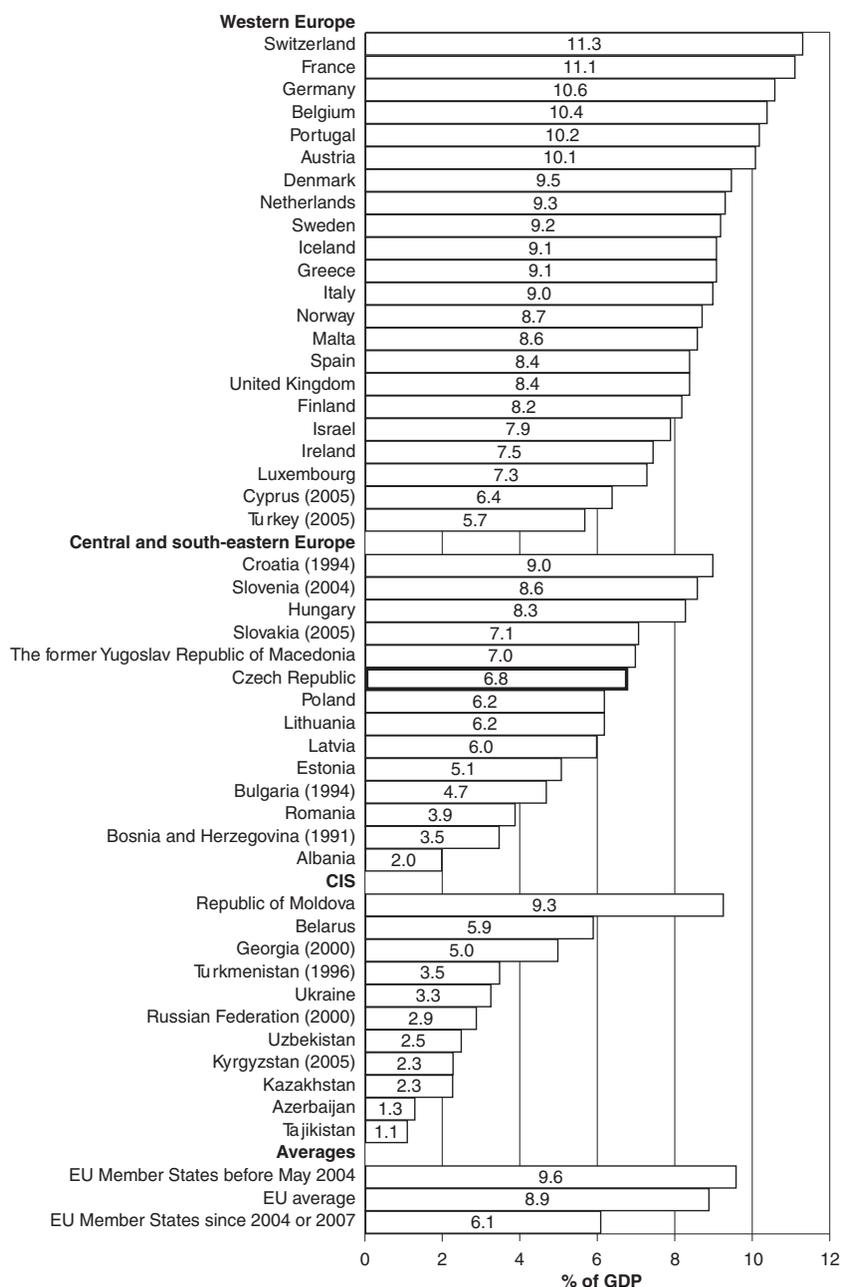
Table 3.1 Trends in health expenditure in the Czech Republic, 1995–2007 (selected years)

	1995	2000	2003	2004	2005	2006	2007
Total health expenditure (million PPS)	7 792	8 982	11 754	12 189	12 668	12 984	13 813
Per capita (PPS)	754	874	1 152	1 194	1 238	1 265	1 338
As a share (%) of GDP	7.0	6.7	7.6	7.3	7.2	6.9	6.7
Public expenditure on health (million PPS)	7 082	8 134	10 576	10 896	11 245	11 425	11 858
Per capita (PPS)	685	792	1 037	1 068	1 099	1 113	1 149
As a share (%) of total health expenditure	90.9	90.6	90.0	89.4	88.8	88.0	85.8
Private expenditure on health (million PPS)	710	849	1 178	1 293	1 424	1 560	1 955
Per capita (PPS)	69	83	116	127	139	152	189
As a share (%) of total health expenditure	9.1	9.4	10.0	10.6	11.2	12.0	14.2

Source: ÚZIS 2008b.

Notes: PPS: purchasing power standards; GDP: Gross domestic product; Expenditure data from ÚZIS for the years shown above differ slightly from those presented in the subsequent figures in this section, which are drawn from WHO 2009.

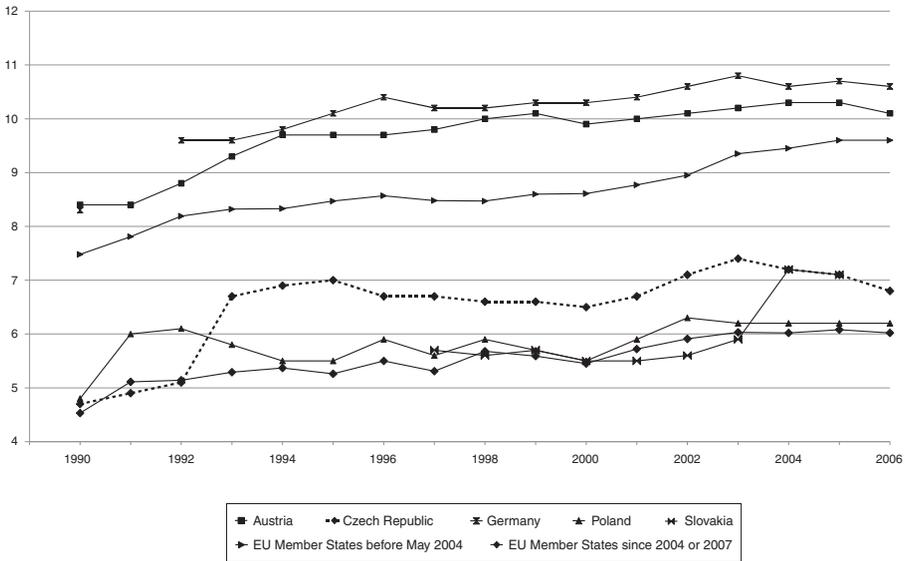
Fig. 3.2 Total expenditure on health as a share (%) of GDP in the WHO European Region, 2006 (or latest available year)



Source: WHO Regional Office for Europe 2009.

Notes: GDP: Gross domestic product; EU: European Union; TFYR Macedonia: The former Yugoslav Republic of Macedonia; CIS: Commonwealth of Independent States.

Fig. 3.3 Trends in health expenditure as a share (%) of GDP in the Czech Republic and selected countries and averages, 1990 to latest available year



Source: WHO Regional Office for Europe 2009.

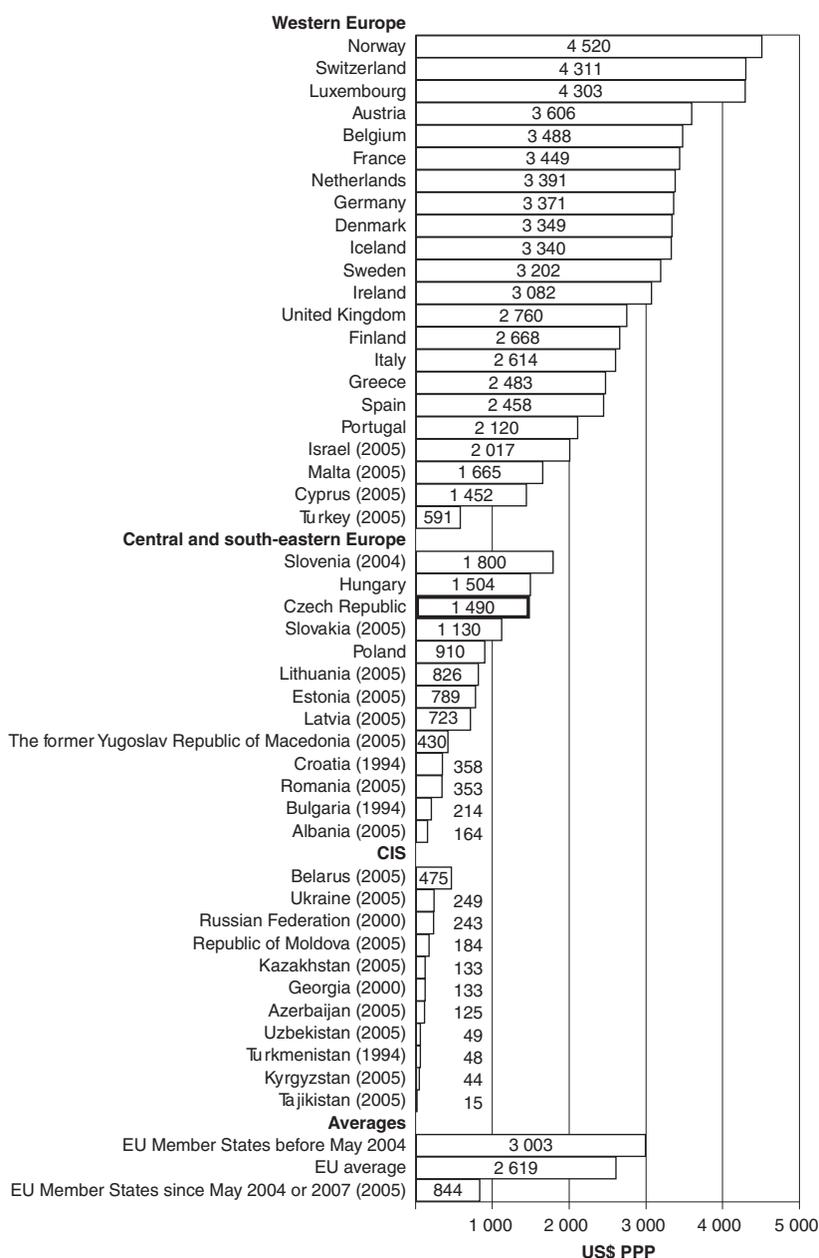
Notes: GDP: Gross domestic product; EU: European Union.

In 2006 total health expenditure as a share of GDP in the Czech Republic was low compared to western European countries, but above the central and south-eastern European average (Fig. 3.2). Indeed, as can be seen in Fig. 3.3, it has lagged well behind the EU15 average since at least 1990, despite the strong increase observed from 1992 to 1993. This gap has only widened since 2003. Low total health expenditure in the Czech Republic has been the subject of frequent criticism by various stakeholders in the health system, including physicians and other health care personnel.

As shown in Fig. 3.4, health expenditure per capita in the Czech Republic in US\$ purchasing power parities (PPP) is low compared to the EU15, but among the highest in the central and south-eastern European countries. The level of health expenditure in US\$ PPP is highly correlated with the level of GDP per capita.

Health expenditure from public sources as a share of total health expenditure in the Czech Republic is among the highest in the WHO European Region, surpassed in 2005 only by Luxembourg (Fig. 3.5). This is attributable to the broad nature of the benefits package offered by the SHI system and to virtually universal coverage (see Subsection *Definition of benefits*, within Section 3.2 *Population coverage and basis for entitlement*). In total, 50.9% of expenditure

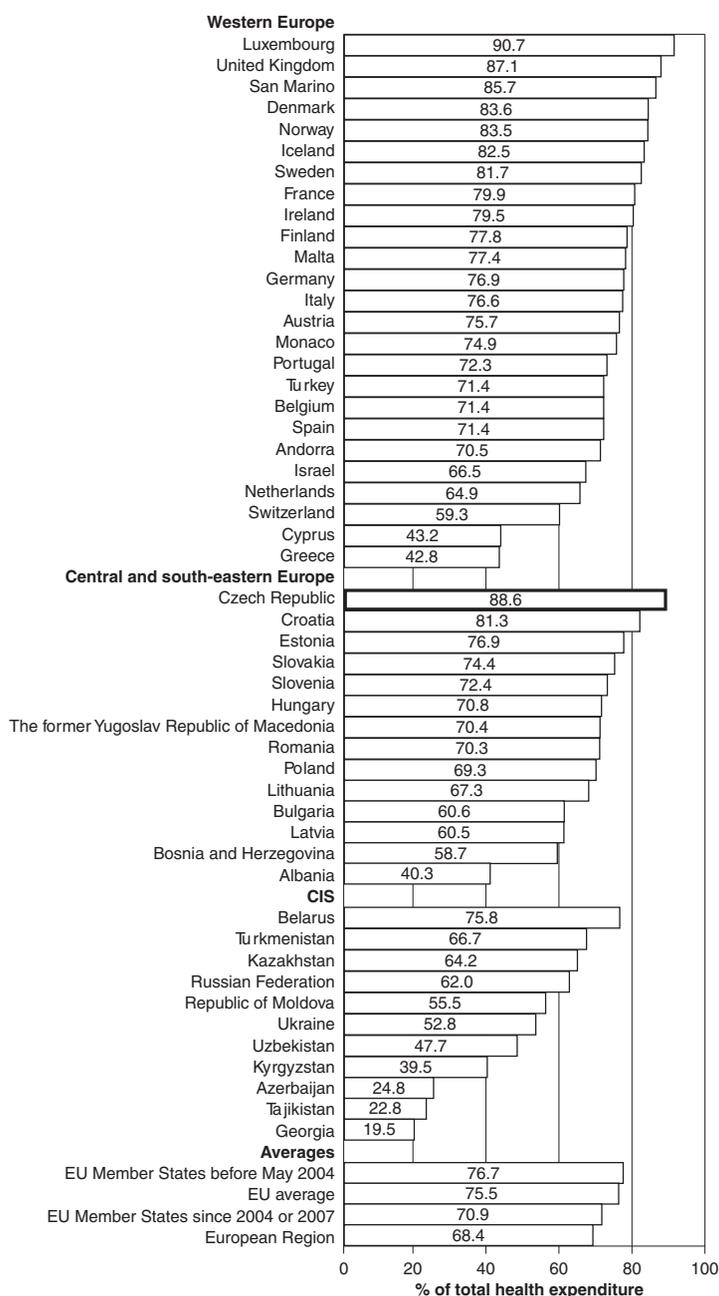
Fig. 3.4 Total health expenditure in US\$ PPP per capita in the WHO European Region, 2006 (or latest available year)



Source: WHO Regional Office for Europe 2009.

Notes: PPP: Purchasing power parity; TFYR Macedonia: The former Yugoslav Republic of Macedonia; CIS: Commonwealth of Independent States; EU: European Union; Countries for which data were not available have not been included.

Fig. 3.5 Public sector expenditure on health as a share (%) of total health expenditure in the WHO European Region, 2005 (WHO estimates)



Source: WHO Regional Office for Europe 2009.

Notes: TFYR Macedonia: The former Yugoslav Republic of Macedonia;
CIS: Commonwealth of Independent States; EU: European Union.

of the health insurance funds in 2008 was devoted to hospital inpatient and outpatient care. As shown in Table 3.2, this share has risen by 4.4 percentage points since 2004. The proportion of total costs dedicated to ambulatory care, which accounted for 25.5% of expenditure in 2008, has also risen slightly since the early 2000s. In contrast, spending on pharmaceuticals has decreased markedly over this same period, falling 5.7 percentage points to 17.3% in 2008.

Although private sources of funding play only a minor role in financing the Czech health system at the time of writing, there has been a slow but steady increase in their share of total health expenditure since the end of the communist period. Whereas only 3.6% of total health expenditure in 1989 was financed through private sources, this share had risen to 9.1% by 1995 and to 14.2% by 2007 (ÚZIS 2008; OECD 2008a). The main private source of funding in the Czech health system is OOP spending, which accounted for virtually 100% of funding for private health expenditure in 2007. Because a variety of user fees were introduced in 2008, the share of health expenditure from private sources is likely to rise in the coming years (see Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/sources of funds*).

3.2 Population coverage and basis for entitlement

Entitlement to coverage in the Czech Republic is based on permanent residence rather than SHI contributions. Individuals who are not permanent residents are also covered if they are working for an employer based in the Czech Republic. Because health insurance is compulsory, non-EU nationals who do not fulfil these conditions must purchase private health insurance if they wish to remain in the country. EU nationals who do not fulfil these conditions and who stay for longer than 90 days in the Czech Republic have the option of participating in the Czech SHI system; if they choose not to participate, they must be insured through their own national insurance company or system, or have private health insurance. It should be noted, however, that virtually 100% of the population is covered by SHI at the time of writing.

For individuals with permanent residence or those who are not permanent residents but are working for an employer based in the Czech Republic, opting out of the SHI system is not possible. Similarly, the health insurance funds must accept all applicants who have a legal basis for entitlement; risk selection is not permitted. Individuals may choose freely among the health insurance funds and may exercise their right to this choice once every 12 months. In reality, however, the percentage of insured individuals who opt for this is very low (2.11% of insured people in 2008), as there is little true competition between

Table 3.2 Trends in expenditure of the health insurance funds in the Czech Republic, 1998–2008

Indicator	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	
Ambulatory care	%	22.5	22.7	23.1	22.5	22.7	23.5	23.3	23.2	23.7	24.0	25.5
Dental services	%	6.6	6.6	6.3	6.0	5.7	5.6	5.5	5.3	5.1	5.0	5.1
GPs	%	5.2	5.2	5.2	5.1	5.0	5.1	4.8	4.7	4.9	4.8	5.3
Rehabilitation	%	1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	1.0
Diagnostics	%	2.7	3.4	3.5	3.3	3.4	3.7	4.0	4.1	3.9	3.7	3.8
Home care	%	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.6
Specialized ambulatory care	%	6.7	6.2	6.3	6.4	6.8	7.0	7.1	7.1	7.8	7.4	7.8
Other	%	0.0	0.0	0.4	0.4	0.5	0.5	0.5	0.5	0.6	1.7	2.0
Hospital care	%	47.4	47.5	47.6	48.3	48.4	46.9	46.5	46.9	50.1	51.2	50.9
Hospitals (including hospital outpatient care)	%	43.5	43.5	43.2	43.6	43.2	41.6	41.3	41.8	44.5	45.4	45.4
Long-term care hospitals	%	1.1	1.5	1.9	2.1	2.0	2.1	2.0	2.0	2.1	2.2	2.0
Spa	%	2.5	2.4	2.4	2.3	2.3	2.3	2.1	1.9	1.7	1.7	1.5
Other	%	0.3	0.1	0.1	0.3	1.0	0.9	1.0	1.2	1.8	1.9	2.0
Transport	%	0.9	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.8
Emergency	%	0.5	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.8	0.8
Pharmaceuticals	%	22.5	22.5	21.9	21.8	21.6	22.3	23.0	22.8	20.3	18.6	17.3
Medical aids	%	2.4	2.6	2.7	2.7	2.7	2.7	2.7	2.8	2.7	2.9	2.9
Health care abroad	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Other	%	3.6	3.1	3.1	3.0	3.1	3.2	3.1	2.9	1.7	1.7	1.7

Source: Ministry of Health 2009e.

Note: GP: General practitioner.

the funds (Ministry of Health 2009a). Children and pensioners may register with any health insurance fund, but for historical reasons most pensioners are registered with the VZP, the largest health insurance fund.

Definition of benefits

The range of benefits available to individuals covered by SHI in the Czech Republic is very broad and includes inpatient and outpatient care, prescription pharmaceuticals, rehabilitation, some dental procedures, spa treatment and even over-the-counter pharmaceuticals (if prescribed by a physician). This is in accordance with Czech law, which stipulates that insured individuals are entitled to any medical treatment delivered with the aim of maintaining or improving their health status. In practice, however, benefits are rationed by a combination of means, including (a) legislation, (b) formularies, (c) an annual negotiation process between the health insurance funds and providers aimed at defining specific conditions of reimbursement and (d) a fee schedule known as the List of Health Services (see Section 3.5 *Purchasing and purchaser-provider relations*).

The first mechanism by which benefits are rationed is the 1997 Act on Public Health Insurance, which excludes a range of procedures and services either implicitly or explicitly. Examples of implicitly excluded services are voluntary abortions, examinations requested by employers and various medical certificates, as these do not meet the requirements of maintaining or improving an individual's health status. Examples of explicitly excluded services are cosmetic surgery and some dental treatments, which are specified in a negative list contained within an amendment to the 1997 Act. This amendment also defines exceptional cases in which items on the negative list may be covered by SHI. Other amendments to the 1997 Act contain lists of (a) substances for which at least one pharmaceutical should always be fully covered and (b) medical and dental aids that are covered. Both lists are quite general and thus complemented by formularies.

Formularies are the second mechanism by which benefits are rationed. In essence, these are positive lists of approved pharmaceuticals, medical aids and dental aids that may be reimbursed under the SHI system. The list of pharmaceuticals covered by SHI and the depth of coverage are set by the SÚKL (see Section 6.5 *Pharmaceutical care*), whereas lists of medical and dental aids covered by SHI are defined by the VZP. Items that are not included in the formularies may still be reimbursed depending on the needs of individual patients.

The third means by which benefits are rationed is an annual negotiation process between the health insurance funds and health care providers. The negotiations are directed by the Ministry of Health and result in the issuing of

a so-called Reimbursement Directive, which serves as a guideline for defining specific conditions of reimbursement, such as payment mechanisms. These conditions are drawn up each year as amendments to the existing long-term contracts between health insurance funds and providers (see Section 3.5 *Purchasing and purchaser-provider relations*).

Finally, the fourth mechanism by which benefits are rationed is a fee schedule known as the List of Health Services (*Seznam zdravotních výkonů*). The list is updated annually by the Health Services Working Group, which is based at the Ministry of Health (see also Subsection *The role of professional and patient organizations*, within Section 2.3 *Organizational overview*, as well as Section 3.5 *Purchasing and purchaser-provider relations*). Although the list functions in everyday practice as a positive list of benefits, services that are not specified in it may still be reimbursed, depending on the needs of individual patients. In 2008 the List of Health Services numbered more than 3600 items across 688 pages.⁴ The following list is an excerpt detailing the most important services that are fully or partially covered by the health insurance funds.

- Preventive services (such as examinations, screening, vaccinations).
- Diagnostic procedures.
- Curative ambulatory and hospital care, including rehabilitation and care of the chronically ill.
- Some dental treatments.
- Pharmaceuticals and medical aids.
- Psychotherapy.
- In vitro fertilization (limited to three procedures per lifetime).
- Medical transportation services.
- Spa treatment (if indicated and prescribed by a physician).
- Emergency health services.

For a number of treatments, such as spa therapy and some types of dental and cosmetic procedures, patients must obtain permission from a review doctor working for their health insurance fund in order to qualify for coverage. With the exception of pharmaceuticals and medical aids, partial coverage is not permitted – that is, patients cannot top up their statutory coverage by choosing a treatment that is more expensive than that normally covered and paying only for the difference. In such cases, the more expensive treatment must be paid for in full. However, a proposal under debate in Parliament in early 2009 would define as a standard treatment any therapy that has been shown to be

⁴ Ministry of Health Directive No. 134/1998 Coll. on the List of Health Services and Point Values, as subsequently amended (2008).

effective, cost-effective and appropriate for the patient, and would allow for partial coverage of more expensive treatments.

The pharmaceutical reimbursement system is based on reference pricing. In practice, 57% of prescribed pharmaceuticals (in terms of the number of packs distributed) do not require any co-payment beyond the CZK 30 (€1.20) user fee introduced in January 2008 (see Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/sources of funds*).⁵ In 2008, new legislation concerning prices for pharmaceuticals came into force; maximum prices are now based on international benchmarking (see Section 6.5 *Pharmaceutical care*).

Until 1997, health insurance funds were allowed to offer additional services over and above the basic benefits package. Since then, extra benefits may be offered only in the field of prevention (such as safety helmets for children, vitamins, and health promotion activities). Because the use of health care resources has risen markedly since the communist period, the range of benefits covered by SHI is unlikely to be further broadened in the future, and some consideration is being given to offering a more limited set of services.

Sick pay and maternity benefits are not covered by SHI, but are part of the state social security system, which is also responsible for pensions, unemployment compensation, and other social benefits. This system is financed through social security contributions. Some proposals exist for merging sick pay with SHI, but these are unlikely to be implemented in the short term. Community care services for the elderly and other forms of social care are not included in the SHI system and are paid for partly by clients and partly by the Ministry of Labour and Social Affairs.

3.3 Revenue collection/sources of funds

Compulsory sources of financing

Social health insurance

Mandatory SHI contributions are the main source of health care financing in the Czech Republic, accounting for 76% of revenue within the SHI system in 2007 (Ministry of Health 2009e). The remaining 24% of revenue that year came from the State in the form of SHI contributions for certain groups of economically inactive people. The SHI system accounted for 78.4% of total health expenditure in the Czech Republic in 2007 (ÚZIS 2008b).

⁵ Euro values based on the average 2008 €/CZK exchange rate (rounded to €1 = CZK 25, for practical reasons). This is the case throughout the report, unless otherwise stated.

The individual health insurance funds collect the monthly SHI contributions from employers and employees, from self-employed people, and from individuals without taxable income who are not insured by the State. The VZP manages the redistribution of funds within the system based on a risk-adjustment scheme (see Subsection *Mechanisms for allocating funds among pooling/purchasing agencies*, within Section 3.4 *Pooling of funds*). SHI contributions are defined by law at 13.5% of gross monthly wages, with employees paying a 4.5% share and employers a 9.0% share. There is an annual ceiling on contributions, which is set each year at 48 times the average monthly wage in the Czech Republic two years prior to the current year. This makes the funding system mildly regressive. Self-employed individuals pay the same total percentage (13.5%), but only on 50% of their profits. There is also a legally defined minimum contribution, which for employees and for individuals without taxable income whose SHI contributions are not covered by the State is equal to 13.5% of the minimum monthly wage and for self-employed individuals is 13.5% of 50% of the average monthly wage one year prior to the current year.

The Ministry of Finance pays monthly SHI contributions for certain groups of economically inactive people, referred to in this context as “state insurees”. This contribution is equal to 13.5% of 25% of the average monthly wage two years prior to the current year. State insurees are defined by law and include groups such as children, students, women or men on parental leave, pensioners, unemployed individuals, the prison population and asylum seekers. The contributions that the Ministry of Finance makes on their behalf are financed through general taxation.

State budget

Spending from state, regional and municipal budgets accounted for 7.4% of total health expenditure in 2007 (ÚZIS 2008b). These budgets are financed through general taxation, of which 32% was raised as value-added tax (VAT) in 2006, 21% as income and wealth taxes, and 18% as excise duties (OECD 2008b). Taxes are used to cover expenditure at both the national and regional levels. At the national level, the Ministry of Health finances capital investments in facilities that it manages directly, such as teaching hospitals, specialized health care facilities and specialized institutions for research and postgraduate education. At the regional level, capital investments in regional and municipal hospitals are financed by the regional authorities; it is important to note, however, that all hospitals may also apply for subsidies from the Ministry of Health.

The Ministry of Health provides direct financing for public health services, covering some of the costs of training medical personnel, running a variety of

specialized health programmes (for example, in AIDS prevention and drug control), conducting medical research, and providing postgraduate education.

Voluntary health insurance

Due to the broad range of benefits available in the Czech SHI system, there is only a very small market for voluntary health insurance (VHI) at the time of writing. VHI in the Czech Republic typically provides health care coverage when travelling abroad; sickness benefits over and above those afforded by the social security system; coverage of foreign nationals who are not eligible for care under SHI; and coverage of certain services not catered for under the SHI system, such as cosmetic surgery and some types of dental care.

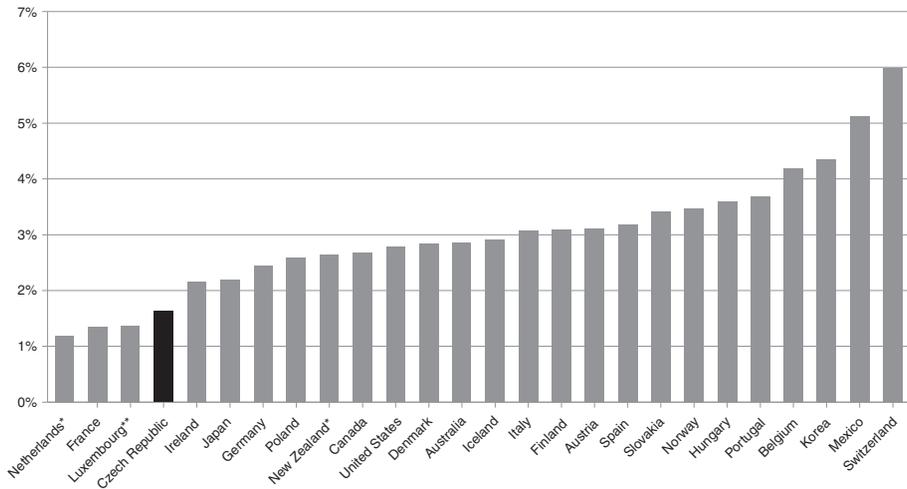
Out-of-pocket payments

The main private sources of financing in the Czech Republic are (a) OOP payments for over-the-counter pharmaceuticals and some dental procedures; (b) co-payments on medical aids and prescription pharmaceuticals whose actual price exceeds the reference price in a particular pharmaceutical group; and (c) user fees for prescription pharmaceuticals and various health services. These three categories accounted for virtually 100% of all private sources of health expenditure and for 14.2% of total health expenditure in 2007 (ÚZIS 2008b). As shown in Fig. 3.6, OOP payments as a percentage of final household expenditure in the Czech Republic remain among the lowest among the OECD countries.

Until the end of 2007, inpatient and ambulatory care services were free of charge at the point of use, with the exception of some prescription pharmaceuticals and medical aids. For these two categories, a system of reference pricing has been in effect since the mid-1990s. Starting in January 2008, flat user fees of CZK 30 (€1.20) per doctor visit, CZK 60 (€2.40) per hospital day, and CZK 90 (€3.60) per use of ambulatory services outside of standard office hours were introduced as a method of containing costs by reducing inappropriate demand. A flat user fee of CZK 30 (€1.20) was also introduced for prescription pharmaceuticals. Starting on 1 April 2009, for pharmaceuticals whose actual price exceeds the reference price in a particular pharmaceutical group, patients must pay the difference in price between the two or pay CZK 30 (€1.20), whichever is greater.

Some groups are exempt from the fees, including people living below the poverty line, neonates, chronically ill children, pregnant women, patients with infectious diseases, organ and tissue donors, and individuals receiving

Fig. 3.6 Out-of-pocket payments as a share (%) of final household expenditure in 2006, selected OECD countries



Source: OECD 2008a.

Notes: * Differences in methodology; ** Estimate.

preventive services. Moreover, an annual ceiling of CZK 5000 (€200) per insured individual was established for selected user fees (that is, user fees for hospital stays and the use of ambulatory services outside of standard office hours are not included), as well as for co-payments on prescription pharmaceuticals whose actual price exceeds the reference price in a particular pharmaceutical group. Patients who exceed this limit are reimbursed for the additional user fees and prescription pharmaceutical co-payments by their health insurance fund. In 2008 this ceiling was reached by only approximately 0.2% of insured individuals (Ministry of Health 2009a). Nevertheless, due to popular and political opposition to the user fees, the annual ceiling was lowered, starting from 1 April 2009, to CZK 2500 (€100) for children and adolescents up to the age of 18, and for people older than 65 years. Moreover, children up to the age of 18 years are now exempted from user fees for doctor visits.

Approximately 25% of total expenditure on dental care is funded privately through OOP payments, as the range of dental treatments covered by SHI is limited and restricted to the least expensive options. Most insured individuals choose to pay in full for higher-quality dental treatments. OOP payments on dental care account for 13% of total OOP expenditure on health care in the Czech Republic (Czech Statistical Office 2008a; Ministry of Health 2009a).

Other sources of financing

Between 1997 and 2006, the State provided a number of extraordinary subsidies to the health care sector, including financial assistance for the health insurance funds and cash injections for indebted hospitals to ensure their solvency. In the 1990s high rates of payment delinquency among insured individuals and their employers left many of the health insurance funds saddled with bad debt. The Czech Consolidation Agency, created in 2001 to address fiscal problems stemming from the transformation period, purchased debt from the health insurance funds amounting to PPS 652 million between 2001 and 2005 (ÚZIS 2001; ÚZIS 2002; ÚZIS 2003; ÚZIS 2004; ÚZIS 2005). To assist indebted hospitals, the State provided financial support either directly (for example, to teaching hospitals managed directly by the Ministry of Health) or indirectly (that is, to the regions to help in relieving the debts of regional hospitals).

3.4 Pooling of funds

Pooling agencies

All health care revenue in the Czech SHI system is managed by the health insurance funds. The VZP is by far the largest fund, covering approximately 63% of the population in 2007 (VZP 2008). Its solvency is explicitly guaranteed by the State. Several of the health insurance funds evolved from parallel health care systems that existed during the communist era; the Ministry of Defence and the Ministry of the Interior, for example, founded two of the existing health insurance funds. Other health insurance funds were generally founded by large companies or revolving around certain categories of employees, such as miners or bank employees. All of the funds are open to any applicant who has a legal basis for entitlement, and risk selection/cream-skimming is not permitted.

There were up to 27 health insurance funds operating at one point in the mid-1990s, but by the end of the decade, 18 had disappeared from the market. Some of them closed or went bankrupt, others merged and some were shut down by the Government for not meeting legal requirements. Members of an insurance fund that closes or goes bankrupt are automatically reinsured with the VZP. By the year 2000 the number of health insurance funds had stabilized at 9; in 2008 a new fund entered the market, bringing the total number of funds up to 10. At the time of writing (early 2009), the Ministry of Health had initiated a dialogue with the Ministry of the Interior and the Ministry of Defence to promote a merger of the two health insurance funds originally founded by these two ministries. The position taken by the Ministry of Health is based on

the argument that a larger entity, with an approximately 15% market share, could be a more efficient player and promote competition between the health insurance funds.

When the current system of compulsory SHI was introduced in the early 1990s, the different funds competed for clients by offering a variety of services, such as free travel health insurance or subsidies for wellness activities, in addition to the standard benefits. It soon became evident, however, that many of the health insurance funds did not have sufficient money to cover even the standard benefits and were accumulating unsustainable levels of debt. In response, law-makers restricted the ability of health insurance funds to reimburse services above and beyond the basic package of benefits in 1994 and eliminated this practice almost completely in 1997.

The health insurance funds are not permitted to make any profit. After providing for the required reserves, the funds must use any surplus to finance health care (that is, through payments to providers and for pharmaceuticals). In the event that a fund experiences financial difficulties, the State is able to provide only limited assistance. If a fund goes bankrupt, its members are automatically registered for insurance with the VZP, which serves as a safety net because its solvency is guaranteed by the State.

All of the individual health insurance funds have their own revenue collection system. On a monthly basis, they collect SHI contributions from employers and employees, from self-employed people, and from individuals without taxable income who are not state insurees (see Subsection *Compulsory sources of financing*, within Section 3.3 *Revenue collection/sources of funds*). Self-employed individuals make advance payments, which are accounted for annually. In the 1990s high rates of payment delinquency among insured people and employers led to an accumulation of bad debt, some of which was purchased from the health insurance funds by the Czech Consolidation Agency between 2001 and 2005 (see Subsection *Other sources of financing*, within Section 3.3 *Revenue collection/sources of funds*).

Mechanisms for allocating funds among pooling/ purchasing agencies

The distribution of revenue and expenditure among the health insurance funds is unequal due to the different structure of their risk portfolios. Although this has a variety of causes, one of the most important of these can be traced back to the history of the Czech SHI system itself. The VZP was created in January 1992 and had a 100% market share until the first of many new health insurance funds began to operate in January of the following year. Between 1993 and 1997, the

health insurance funds were still permitted to offer additional services over and above the standard package of benefits, and the individuals who switched funds tended to be young people attracted by special benefits such as free travel health insurance or subsidies for wellness activities. As a result, older individuals with more complex health needs came to be overrepresented in the VZP.

To ease the financial burden of health insurance funds with higher-risk beneficiaries and to lower the potential for risk selection, SHI contributions are redistributed among the funds according to a risk-adjustment scheme. The first redistribution system was established in 1993, with 50% of non-state SHI contributions (that is, from employees, employers and self-employed individuals), as well as 100% of state SHI contributions (on behalf of state insurees), being subject to redistribution (approximately 60% of all SHI contributions). The proportion later rose to 60% of non-state SHI contributions and 100% of state SHI contributions (that is, 70% of all SHI contributions) (Kutzin et al., forthcoming). Until 2004, SHI contributions were redistributed among the health insurance funds based on the number of state insurees and using a simple capitation formula. State insurees over the age of 60 years were allocated three times the standard capitation rate available to those under the age of 60. No other adjustments were made. This approach proved ineffective, as the per capita revenues of the smaller insurance funds were disproportionately large and 30% of all SHI contributions remained outside of the redistribution scheme (Kutzin et al., forthcoming).

Between 2005 and 2007, the proportion of non-state SHI contributions subject to redistribution was gradually increased to 100%, the capitation formula was modified and partial ex post compensation for high-cost treatments was introduced. The new capitation formula is based on age (grouped according to 5-year categories) and on gender, forming a total of 36 groups. Moreover, if a health insurance fund's expenditure on any insured individual is greater than 25 times that of the average annual expenditure per client in the entire SHI system, the health insurance fund receives ex post compensation for 80% of the expenditure above this threshold. This is intended to protect the health insurance funds from unexpected fluctuations in expenditure.

The re-allocation process is managed by the VZP through a special central account. Each month, the health insurance funds report the total amount of SHI contributions they have collected, as well as the age and gender structure of their insured individuals, to the VZP. Health insurance funds with a net surplus according to the risk-adjustment scheme described earlier are required to transfer this surplus to the central account, where it is pooled with the contributions made by the State on behalf of certain groups of economically inactive people. The total amount is subsequently redistributed by the VZP among the remaining health insurance funds according to their net deficit, again

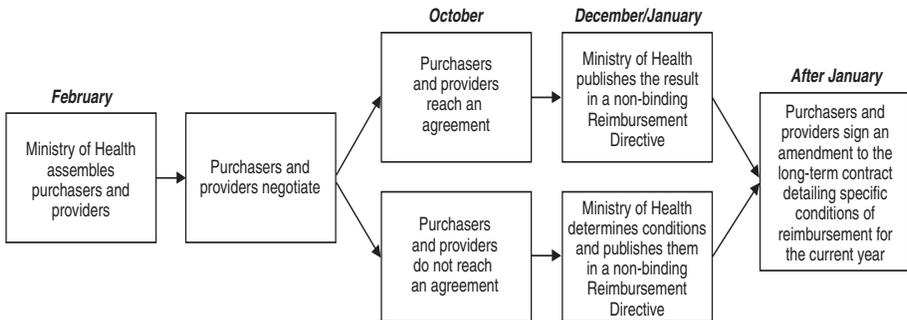
as calculated according to the risk-adjustment scheme. The central account has its own supervisory board, which is composed of representatives of each of the health insurance funds and of the Ministry of Health, the Ministry of Finance and the Ministry of Labour and Social Affairs.

3.5 Purchasing and purchaser–provider relations

The health insurance funds serve as the main purchasers of health care services in the Czech SHI system. Long-term contracts with individual providers are agreed for five or eight years, depending on the type of provider. Virtually all existing providers that meet the legal requirements for registration are contracted. The default contract for each category of provider is obligatory and specified in a Directive on Long-term Contracts issued by the Ministry of Health. The contracts include descriptions of the necessary conditions for providing health care (regarding personnel and technical equipment, for example), general payment mechanisms, conditions for ending the contract, and other rights and obligations of the purchasers and providers. They do not, however, include the specific conditions of reimbursement, which are subject to annual negotiations.

Annual negotiations on the Reimbursement Directive

The negotiation process begins when the Ministry of Health assembles representatives of the health insurance funds and health care providers in February of a given year. An agreement should ideally be reached by the beginning of October, when the Ministry of Health assembles the representatives of the negotiating parties for a final meeting. If an agreement is reached and the Ministry is satisfied that the agreement will serve the public interest, it publishes the results in a so-called Reimbursement Directive, with an effective date of 1 January of the following year. If an agreement is not reached, then the Ministry determines the details of the Reimbursement Directive and publishes it without reference to the health insurance funds and health care providers. Before 2008 this directive was binding for all health insurance funds and providers; as a result, an agreement was generally not reached before the October deadline, because both the health insurance funds and the providers hoped that the Ministry would set financial conditions that would be more favourable than those that could be achieved in negotiations. Since 2008, however, the Reimbursement Directive is no longer binding. Using the Reimbursement Directive as a guideline, individual health insurance funds and individual providers subsequently draw

Fig. 3.7 Annual negotiations on the Reimbursement Directive

Source: Authors' own compilation.

up amendments to the long-term contracts described earlier. These amendments contain the specific conditions for reimbursement for the current year. Fig. 3.7 provides a schematic overview of this process.

Modifying the List of Health Services

Until 2007 a range of stakeholders participated in a separate set of annual negotiations to modify a fee schedule known as the List of Health Services (*Seznam zdravotních výkonů*), which specifies the services that will be covered by SHI and assigns point values to each of them. As described in Subsection *Definition of benefits*, within Section 3.2 *Population coverage and basis for entitlement*, this list functions in practice as a positive list of benefits, although services not included in the list may still be reimbursed based on the needs of individual patients. The stakeholders in these negotiations included representatives of the health insurance funds, providers, professional organizations and patients, each of whom had veto power. A unanimous decision had to be reached by the final meeting. Because of increasing difficulties in reaching a consensus, and due to the unsystematic nature of the negotiations, this system was abandoned in 2008 and replaced by a Health Services Working Group, based at the Ministry of Health. In addition to the applicant who requests a change to the List of Health Services, the Working Group in each case includes representatives of the Ministry of Health, the ČLS JEP, the Association of Ambulatory Care Specialists, the Czech Association of Health Insurance Funds (SZP ČR), the Open Association of Health Insurance Funds (OSZP), the Association of Hospitals, the Association of General Practitioners, the Czech Association of Nurses and, finally – as a member that is present but does not participate in the decision-making – a patient representative (such as

the Coalition for Health). The group meets on a continuous basis throughout the year and decides, within the framework of a consensus procedure, which items will be added or removed from the List of Health Services. At the end of each year, the list is issued as a directive by the Ministry of Health.

3.6 Payment mechanisms

Payment of hospitals

Between 1993 and mid-1997, hospitals were paid using a points-based fee-for-service system of reimbursement. Under this system, invoices containing a patient identification code and a list of the procedures performed were submitted to the contracting health insurance funds. A list of up to approximately 4500 procedures was reimbursable, with points that were based – in theory – on the amount of time taken to carry out a procedure. Hospitals also invoiced a per diem charge and received a lump-sum payment for pharmaceuticals. The value of points was calculated as follows: direct charges for materials were reimbursed first, and the remaining funds were divided by the total number of points. This system had serious shortcomings: it stimulated considerable growth in services provided by hospitals, as well as in ambulatory care facilities, and it overvalued certain specialties relative to others (for example, invasive specialties such as orthopaedics and ophthalmology). In addition, there was no allowance for the higher labour costs faced by some providers, especially those located in Prague, and the use of per diem charges encouraged longer hospital stays.

As a result of these shortcomings, the use of per diem charges was replaced, starting in 1994, by a sliding scale and the fee-for-service system was replaced in mid-1997 by a system of prospective global budgets. These budgets were based on the relevant period of the previous calendar year and took account of the inflation rate. The points from the List of Health Services were used to determine the volume of care delivered by the hospitals. In 2001 a system of flat fees was added to the global budgets in an attempt to reflect hospital production more accurately.

Although the regulations were changed frequently, the flat fees were applied, in essence, as detailed here:

- If, in a given year, a hospital treated fewer than 101% of the cases treated during the same period in the previous year, the flat fee per insured person was paid in full.
- If a hospital treated more than 101% of the cases treated during the same period in the previous year, the flat fee per insured person was paid in full

up to the 101% threshold and was reduced by 50% for all cases up to a second threshold of 105%.

- If a hospital treated more than 105% of the cases treated during the same period in the previous year, the flat fee was paid in full up to the 101% threshold, reduced by 50% for all cases up to the 105% threshold, and reduced by 80% for all cases thereafter.

Higher thresholds were introduced in 2003, but the system led to unacceptable increases in the costs of care and was abandoned in 2004. Between 2005 and 2006, hospitals continued to be paid using global budgets. The volume of care provided by hospitals was reported (in terms of points) from the fee schedule. The typical contract specified a global budget based on historical payment levels; the budget was increased between 3% and 5%, in relation to the annual rate of inflation. To be granted this full budget, the hospital had to report a certain threshold amount of points for medical services. This threshold was usually set at 90% to 95% of the previous year's production. The result of this regulation was a much easier system of cost-containment, mainly because this kind of prospective contract shifted all of the financial risk to the providers. On the other hand, it also led to a rationing of health services and may have had a negative effect on patient access to health care.

Since 2007 the typical purchaser–provider contract for inpatient care has consisted of three or four different reimbursement mechanisms, including case payments based on DRGs, individual contracts, global budgets and, since 2009, capped fee-for-service payments for hospital outpatient care.

Diagnosis-related groups

The VZP played a major role in the initial phases of DRG implementation in the Czech Republic, testing an adapted version of the All Patient (AP)-DRG system as early as 1996. An important pilot project involving 19 health care facilities took place between 1997 and 1999 and a second, much larger project was to begin in 2000, but its results were never fully applied in practice due to a failure to reach an agreement on a list of relative weights (NRC 2007).

In 2002 the Ministry of Health selected by tender the International Refined (IR)-DRG system (Version 1.2), which was adapted from the AP-DRG. The system was subsequently localized, and the grouper was created by the NRC. Since 2007, case payments based on this system have accounted for an increasing share of total hospital revenue (22% in 2008 and an estimated 40% in 2009) (NRC 2009). Each year, an updated version of the relative weights list is published by the NRC. A base rate is also set annually and the reimbursement for a given case is determined by multiplying the relative weight of the case

by the base rate. Because DRG-based payments have come to account for a significant share of hospital revenue, risk corridors were established in 2008 to avoid dramatic fluctuations in annual global budgets. As of March 2009 the IR-DRG system (Version 006.2009), which contains 1007 groups, was being used for reporting and reimbursement.

Individual contracts

For certain types of medical services the health insurance funds may negotiate contracts with individual providers. These include hip replacement therapy, the implantation of defibrillators or artificial heart pacemakers and cataract treatment. The services to be reimbursed in this manner are listed in the Reimbursement Directive published on an annual basis by the Ministry of Health (see Section 3.5 *Purchasing and purchaser-provider relations*). Although payments based on individual contracts accounted for only 1.5% of total hospital revenue in 2008 (NRC 2009), this share is expected to rise to approximately 3.9% of total hospital revenue in 2009.

The individual contracts usually cover a package of services including the surgical procedure itself, all of the pre- and post-operative examinations, and early rehabilitative measures. The number of procedures and their cost are defined individually in each provider-purchaser contract and are regulated only in so far as the health insurance funds must spend at least the same amount of money on these services and cover at least the same number of services as in the previous year.

Global budgets

Global budgets are used for reimbursing inpatient hospital services that are not covered by DRGs or individual contracts. In 2009 they are still due to account for an estimated 56% of total hospital revenue, although it should be noted that the percentages vary considerably from hospital to hospital (NRC 2009). For example, in a hospital that focuses primarily on hip replacement surgery, payments based on individual contracts may account for 50% of total revenue.

Capped fee-for-service payments for hospital outpatient care

Since 2009, hospital outpatient services are reimbursed in the same manner as those offered by providers of non-hospital ambulatory care. This generally means that capped fee-for-service contracts or capitation are used.

Payment of physicians

Until 1997, physicians in private practice were paid on a fee-for-service basis. The lack of a cap on reimbursement, however, led to overproduction – especially among specialists – and to a strong rise in public expenditure on non-hospital ambulatory care. This is reflected in the per capita expenditure of the VZP, which increased by 31% for GPs and by 258% for non-hospital ambulatory specialists between 1993 and 1997. These increases cannot be explained by the provision of fewer outpatient services by hospitals, as these also rose by 67% during the same period (VZP 1994; VZP 1995; VZP 1996; VZP 1997; VZP 1998).

To address this issue, the Ministry of Health introduced a system of risk-adjusted capitation fees for the reimbursement of GPs in 1997, with 18 groups differentiated by age, but not by gender (for example, an index value of 3.8 is assigned to children between 0 and 4 years of age, 0.9 to individuals between 20 and 24 years of age, and 3.4 to elderly people 85 years and older). The total number of patients per physician is also subject to a limit, beyond which the physician receives smaller per capita payments. In addition, some services provided by GPs (such as preventive examinations and visits to patients' homes) continue to be paid under the fee-for-service system, which still accounted for approximately 30% of a physician's income in 2008 (Ministry of Health 2009a). In 2009 several health insurance funds began testing a pharmacy-based cost group model to ensure that capitation fees are adjusted more accurately for risk. According to this model, specific types of pharmaceuticals prescribed to insured individuals during a base year are interpreted as markers for chronic conditions. These markers are subsequently used to adjust the capitation fees paid by the health insurance funds during the following year.

Since 2001, non-hospital ambulatory care specialists, as well as outpatient laboratory services, have been reimbursed using a capped fee-for-service scheme. Initially, a strict cap was placed on the volume of services, but this led to an excessive rationing of care for some specialties. As a result, a system of degressive fees was introduced in 2007. Up to a pre-defined threshold, care provided is reimbursed on a fee-for-service basis according to the List of Health Services (see Section 3.5 *Purchasing and purchaser-provider relations*). Care provided beyond this threshold is also reimbursed on a fee-for-service basis, but using a lower point value.

4 Regulation and planning

4.1 Regulation

The Czech health system is based on compulsory SHI, and the organizational relationship between health insurance funds and health care providers is based on long-term contracts. In terms of regulation, the three main actors in the health system are the health insurance funds, the central Government and the regional authorities. The health insurance funds collect SHI contributions and purchase health services; the largest health insurance fund, VZP, also manages a special central account used for re-allocating SHI contributions among the health insurance funds according to a risk-adjustment scheme. The central Government plays a key role in the regulation and governance of the health insurance funds; to a lesser degree, it also participates in their managerial decisions through the funds' boards of trustees. Finally, the regional authorities play an important role in the health system by registering and supervising all health care facilities other than the teaching hospitals and specialized health care centres directly subordinate to the Ministry of Health or other ministries. The Ministry of Health is also responsible for the licensing of health professionals. At the same time, the regions own a considerable number of inpatient health care facilities.

Regulation and governance of the health insurance funds

The health insurance funds in the Czech Republic are quasi-public, self-governing bodies that operate primarily under public law. The VZP was created in January 1992 by the Act on the General Health Insurance Fund (1991); during the 12 months that followed, it was the only health insurance fund in the country. In 1992, the Act on the Departmental, Professional, Corporate,

and Other Health Insurance Funds paved the way for the creation of additional health insurance funds, the first of which began to operate at the beginning of 1993 (see Section 2.2 *Historical background* and Section 3.4 *Pooling of funds*) (ÚZIS 1994). Although all of the health insurance funds serve fundamentally the same purpose (that is, functioning as purchasers and payers of care), the VZP differs from the others in terms of its role and, to a certain extent, its organizational structure and governance.

Two important features distinguish the role of the VZP from that of the other funds. First, its solvency is explicitly guaranteed by the State; as such, it functions as a safety net for members of health insurance funds that close or go bankrupt (see Subsection *Pooling agencies*, within Section 3.4 *Pooling of funds*). Second, the VZP manages the special central account used for re-allocating SHI contributions according to a risk-adjustment scheme (see Subsection *Mechanisms for allocating funds among pooling/purchasing agencies*, within Section 3.4 *Pooling of funds*).

The VZP also differs from the other health insurance funds in terms of its organizational structure. Because of its size, it has 14 regional branches, or one in each region of the Czech Republic. In contrast, some of the other health insurance funds are quite small and do not operate on a nationwide basis, although they are free to expand if they so choose. An example of one of the smaller funds is the Škoda Health Insurance Fund (*Zdravotní pojišťovna Škoda*) which, as of January 2009, had some 132 000 insured individuals (Ministry of Health 2009a).

In terms of governance, the VZP and the other health insurance funds are managed by a director, who is appointed by a board of trustees (*správní rada*). The board provides oversight of the director's decisions, and the decisions for which explicit agreement by the board is required are defined by law. In the case of the VZP, the board of trustees has 30 members, 10 of whom are nominated by the Ministry of Health and appointed by the Government and 20 of whom are elected by the Chamber of Deputies in proportion to the numerical strength of the political parties in the Chamber. The members of the board of trustees are not personally liable for decisions made by the board as a whole or for the performance of the VZP.

In the case of the other health insurance funds, the composition of the board is based on a system of tripartite representation. Like their counterparts at the VZP, the members of the board have no personal liability for decisions made by the board as a whole or for the performance of the health insurance fund. One third of the members are nominated by the Ministry of Health and appointed by the Government; another third consists of elected representatives of the largest payers of employer contributions (usually from industry, but in some cases also

from a ministry); and the remaining third are elected representatives of trade unions. Voting procedures for the latter two groups are defined in a directive. Altogether, there are usually 15 trustees represented on the board.

All of the health insurance funds also have a supervisory board (*dozorčí rada*) at the highest level of governance. The narrow scope of its regulatory oversight means, however, that its role is rather limited. Its main tasks are to ensure that the health insurance fund follows its own internal rules, as well as its financial and operating plan (*zdravotně-pojistný plán*). The supervisory board of the VZP consists of 13 members, three of whom are nominated by the Ministry of Health, the Ministry of Finance and the Ministry of Labour and Social Affairs and are appointed by the Government, and 10 of whom are elected by the Chamber of Deputies, again using a proportional method. The supervisory board of the other health insurance funds usually consists of nine members and is formed based on a system of tripartite representation similar to that used to constitute the board of trustees. The three members appointed by the Government are nominated by the Ministry of Health, the Ministry of Finance and the Ministry of Labour and Social Affairs.

To help ensure that the health insurance funds are held accountable for their performance, they are obliged every autumn to submit their financial and operating plan for the next year. This serves as a business plan per se, and also contains information concerning contracting and purchasing policies, the use of resources, and planned developments in organizational structure and information systems. After the financial and operating plan has been approved by a health insurance fund's board of trustees, it is submitted to the Ministry of Health, which reviews the document in joint collaboration with the Ministry of Finance. Subsequently, the plan is sent to the central Government, which submits it for final approval to the Chamber of Deputies. If the plan is not approved by the Chamber before the start of the new year, a provisional arrangement is sought. A similar procedure is used for approving the final accounts and annual reports of the health insurance funds.

On a biannual basis, the health insurance funds submit their financial results and other requested information to the Ministry of Health and the Ministry of Finance, which audit these reports and carry out regular inspections and spot checks. If irregularities or errors are identified, the Ministry of Health may call for correction. In more serious cases, the Ministry can place a health insurance fund under forced administration or, as a measure of last resort, revoke its operating licence. This may happen, for example, in cases of poor economic performance, if a fund is in serious debt, or as a result of inability to meet liabilities or failure to comply with the public interest. Members of a health insurance fund whose licence has been revoked are automatically insured with the VZP.

With regard to the health insurance funds' internal accounting systems, the Ministry of Finance publishes a directive that (a) specifies the different accounts that health insurance funds must create and (b) limits transfers between these accounts. Examples of obligatory internal accounts include a reserve account; an account for financing health promotion programmes; an account for financing investments; an account to cover operating expenses; and, of course, an account for reimbursing providers for health services.

Finally, to start a new health insurance fund, applicants must apply for a licence from the Ministry of Health. Applicants are required to set aside a financial reserve (in the reserve account described earlier) before permission to start the new fund may be granted; after the fund has been established, the reserve functions as a financial buffer in case of a temporary lack of liquidity. Within one year of being founded, a new fund must furnish proof that it has at least 50 000 insured individuals.

During the licensing process, the application is reviewed by the Ministry of Health and the Ministry of Finance. Both ministries can request to review additional information or supporting documents. The Ministry of Health must decide on the application within 180 days of receiving it. If all conditions are fulfilled, the applicant is legally entitled to a licence, but only legal entities residing in the Czech Republic may submit an application.

Regulation and governance of providers

The Ministry of Health is responsible for licensing health professionals, including physicians, dentists, nurses, pharmacists and paramedical personnel. The licensing procedure takes into account the professional qualifications of the applicants, as well as their performance in a standardized state licensing exam (*státní atestační zkouška*). For more information on the training and licensing of health professionals, see Section 5.2 *Human resources*. To open a private practice, licensed physicians must apply for registration with the respective regional authority.

The regional authorities are responsible for registering hospitals and other health care facilities that are not owned or operated by the State (that is, the private practices of nearly all providers of ambulatory care, as well as the majority of inpatient care providers). A variety of laws and directives define the technical, staffing and hygienic requirements that all providers must fulfil in order to be permitted to supply health care services. Non-state providers may offer health services only after they have been registered by the relevant regional authority.

As part of the registration process, the type and scale of services that a provider is permitted to offer are defined. If there are any major changes in a provider's services or technical equipment, they must report these changes to the regional authority. Upon successful registration, the provider usually concludes a contract with the health insurance funds. In theory, the provider could refrain from signing a contract and receive direct reimbursement from patients for any services provided. With the exception of dental services, however, this does not occur in everyday practice.

Regulation and governance of the purchasing process

The purchasing of health services by the health insurance funds is regulated by the State, as is the relationship between the health insurance funds and providers. The Ministry of Health acts as an arbiter in the purchasing process; it hosts and supervises annual negotiations between the health insurance funds and the providers to determine the specific conditions of reimbursement – including payment mechanisms – for specific groups of providers, such as acute care hospitals, GPs or ambulatory care specialists. The results are published in a Reimbursement Directive, which serves as a guideline for the annual contractual amendments drawn up between the individual health insurance funds and providers. For a detailed description of the process, see Section 3.5 *Purchasing and purchaser–provider relations*.

Both the central Government and the regional authorities play an important role in the contracting process between health care providers and the health insurance funds. Whenever a provider of inpatient care requests a contract with a health insurance fund, or a health insurance fund itself wishes to contract new inpatient providers, the Ministry of Health is responsible for assembling a committee consisting of representatives of health insurance funds, providers of care, professional medical associations and other interest groups (such as the Czech Medical Chamber). The committee then makes a non-binding recommendation as to whether the health insurance funds should contract the provider in question. The same procedure is initiated by the regional authorities whenever a new contract with an ambulatory care provider is requested. Here, too, the recommendation of the committee is not binding. No contract can be signed between a health insurance fund and a provider unless this sometimes lengthy recommendation process (*výběrové řízení*) has taken place. In practice, the health insurance funds follow the recommendations made by the committees.

Regulating quality of care

The Czech Republic still lacks a unified system for assessing the quality of health services. As of 2009, a national set of health care quality indicators is being developed as part of an ongoing project by the Ministry of Health.

To aid in assessing the quality of inpatient facilities, the Ministry of Health developed – and in 2008 published – a method for designing and conducting patient satisfaction surveys. The method was tested in a pilot survey carried out in 2006 and is based on an internationally recognized approach to structured questionnaires on patient satisfaction (Quality and Safety Portal 2009). In 2008 the acute care hospitals and psychiatric inpatient facilities directly subordinate to the Ministry of Health were assessed by the Ministry using this method (Quality and Safety Portal 2009). Some regions, such as Středočeský and Ústecký, have also assessed their hospitals using this method, and other regions are considering doing so at the time of writing.

In 2008 the Ministry of Health began to implement an initiative to improve the quality of highly specialized care in areas such as traumatology, oncology and cardiology. As part of this initiative, highly qualified and high-performing health care facilities in these areas may apply to be designated as a Specialized Care Centre, which allows for special contractual conditions with the health insurance funds (such as exclusive permission to use – and extra funding for – very costly pharmaceutical agents such as biologics or the latest oncological treatments). For an application to be accepted, a health care facility must satisfy a range of criteria defined by the Professional Forum (*Odborné fórum*), an advisory body both to the Ministry of Health and to the health insurance funds. The chief aim of the initiative is to improve patient safety and the quality of care by ensuring that specialized treatment is delivered only in health care facilities in which the medical staff have the appropriate qualifications and medical technology to treat complicated cases. Another important aim is to create a network of centres that will ensure sufficient capacity and geographic accessibility.

An important future task of the Professional Forum will be to work together with the various Czech medical associations to develop standards for the provision of health services. Methodology for standards development, as well as a processing model for document management, has already been developed as part of a pilot project launched in 2008; work on the publication of a range of sample standards is ongoing. The goal is to develop comprehensive sets of standards on clinical treatment, quality indicators, reimbursement, personnel and technical matters, and patient impact analyses. The Professional Forum was founded by the NRC and is financed by the Ministry of Health. Health insurance funds, health care providers, the Ministry of Health, the Czech Medical Chamber and patient organizations participate in its supervisory board.

4.2 Planning and health information management

Health technology assessment

Health technology assessments have yet to be used widely or systematically in the Czech Republic when reaching decisions on SHI coverage or reimbursement rates. This is not to say, however, that evidence-based criteria are not taken into consideration. Applicants requesting a change to the List of Health Services, for example, are required to submit a range of evidence along with the other materials in their application dossier, including an evidence-based assessment of the efficacy of the medical procedure or technology in question; a comparison to the medical impact of existing treatments for identical or similar indications, if possible; a projection of expected costs to the SHI system; and a description of the mechanisms of reimbursement employed in foreign countries, including citations of the relevant sources. In practice, however, formal and transparent procedures for weighing these data within the decision-making process are lacking. The process of setting reimbursement rates for pharmaceuticals, which is managed by the SÚKL, also requires that applicants supply evidence of the clinical effectiveness and cost-effectiveness of a pharmaceutical, as well as an analysis of the impact a positive reimbursement decision would have on the SHI system (see Section 6.5 *Pharmaceutical care*).

Information systems

Almost every health care provider in the Czech Republic uses a computerized information system to charge the health insurance funds for goods and services provided. Due to their structure, however, these data are largely unsuitable for uses other than reimbursement, such as health economic analysis or disease management.

Data for health policy and research purposes are collected, instead, by the Czech Institute of Health Information and Statistics (ÚZIS), which was founded in 1960 by the Ministry of Health. The main task of the ÚZIS is to manage and refine the National Health Information System (NHIS). The functions of the NHIS include collecting and processing information concerning health status and health care; managing national health registries; and providing information for health research purposes while ensuring compliance with data privacy laws. The NHIS maintains 15 registries, including the National Oncological Registry, the National Registry of Congenital Malformations and the National Registry of Hospitalized Patients. All health care providers are required to send data reports to the ÚZIS on an annual basis. Several special registries are maintained by the Institute of Biostatistics and Analysis at Masaryk University in Brno. Finally, public health data are collected by the Regional Public Health

Authorities (*krajské hygienické stanice*) and the National Institute of Public Health (see Section 6.1 *Public health*).

Research and development

The Ministry of Health supports science and research projects related to health and health care through its Internal Grant Agency (*Interní grantová agentura*, IGA). In 2007 approved research projects and programmes amounted to CZK 1.34 billion (€49 million) spent on research projects and programmes through the IGA (Rada vlády pro výzkum a vývoj 2007).⁶ The IGA supports clinically applied research and, to a lesser extent, institutional research.

In the area of clinically applied research, projects are usually scheduled for three to four years. Interested parties apply for grant subsidies in a legally defined competition process. In 2007 the IGA provided full funding to 523 projects with a total of 2394 participating university researchers. Institutional support was granted to 21 institutions for the period from 1991 to 2004, and to 10 institutions out of 27 applicants for the period from 2004 to 2009; the institutions include teaching hospitals, specialized health care facilities and other research institutions. In 2009, financing and institutional support for research projects are expected to amount to more than CZK 1.1 billion (€40 million), or approximately 12% of the Ministry of Health's annual budget (Ministry of Health 2009f).⁷

As of early 2009, the Strategic Plan for Applied Research and Development in Health Care until the Year 2015 (*Koncepce zdravotnického aplikovaného výzkumu a vývoje do roku 2015*) was being prepared by the Ministry of Health in collaboration with the Expert Advisory Board (*Odborné kolegium*), which consists of leading Czech researchers and academics. The chief aim of the new plan is to ensure that the results of health care research conducted in the Czech Republic are both internationally comparable and meet the current needs of the Czech health sector. The plan focuses on ways to improve diagnostics, therapy and disease prevention; it also focuses on issues related to health systems, long-term care, nursing and the development and implementation of information and communications technology (ICT). Emphasis is placed on clinically applied research with the aim of developing new clinical standards and recommended procedures for the provision of health services.

Health care research is also encouraged by the Grant Agency of the Czech Republic (*Grantová agentura České republiky*), which supports projects and research in all domains of science and the humanities.

⁶ Billion is defined as a thousand million (10⁹) throughout this document; the euro value in this instance is based on the average 2007 €/CZK exchange rate (€1 = CZK 27).

⁷ In this instance, the euro value is based on average exchange rate for January 2009.

5 Physical and human resources

5.1 Physical resources

Infrastructure

In 2008 the Czech Republic had 192 acute care hospitals with 63 622 beds, 10.3% of which were dedicated to long-term patients. There were also 154 other inpatient facilities with 22 191 beds, 42% of which were in psychiatric care and 32% of which were in the long-term care sector. Of the 192 acute care hospitals, 25 were owned by the State (30% of beds), 66 were owned by the regions (46% of beds) and 28 were owned by the municipalities (7.5% of beds). There were 12 hospitals with over 1000 beds and 30 hospitals with less than 100 beds (ÚZIS 2009).

Approximately one third of all hospitals in the country in 2008 were organized as joint stock companies, a considerable number of which were owned entirely by the regions. Indeed, the majority of inpatient facilities were still owned by public authorities, including the regional governments, the municipalities and the Ministry of Health (see Table 5.1). In contrast, almost all providers of ambulatory care belong to the private sector. In 2007 approximately 22 140 physicians and dentists were working in the ambulatory care sector, 47% of whom were providing primary care services for children and adults. Moreover, a total of 105 400 nurses and other non-physician staff were working in the ambulatory care sector that same year (ÚZIS 2008b).

During the 1990s, changes made to the structure of inpatient facilities in the Czech Republic were driven primarily by an excessive number of beds in acute care and an insufficient number of beds in long-term care. In 1990 the number of acute beds per capita in the Czech Republic was one of the highest in Europe, surpassed only by Estonia among the countries that would later form the EU27

Table 5.1 Structure of inpatient facilities in the Czech Republic, 2008

Owner	Number of hospitals	Share of beds (%)	Number of other inpatient facilities	Share of beds (%)
Hospitals organized as public-law entities	67	51.5	73	73.4
<i>including those owned by the:</i>				
Ministry of Health	20	28.0	26	52.8
Ministries of Defence and Justice	5	2.3	3	1.0
Regions	24	14.9	33	14.7
Municipalities	18	6.3	11	4.9
Hospitals organized as private-law entities	125	48.5	81	26.6
<i>including:</i>				
JSCs owned by a region	41	31.0	14	23.0
Ltd. owned by a region	1	0.2	1	2.4
JSCs owned by a municipality	3	0.8	1	0.4
Ltd. owned by a municipality	6	1.4	1	0.5
JSCs owned by a private entity	24	7.6	10	14.2
Associations	1	0.2	7	2.9
Ltd. owned by a private entity	44	6.6	33	44.3
Owned by physical persons	0	0.0	1	0.7
Owned by churches	3	0.6	8	6.2
Other ^a	2	0.1	5	5.5
Total	192	100.0%	154	100.0%

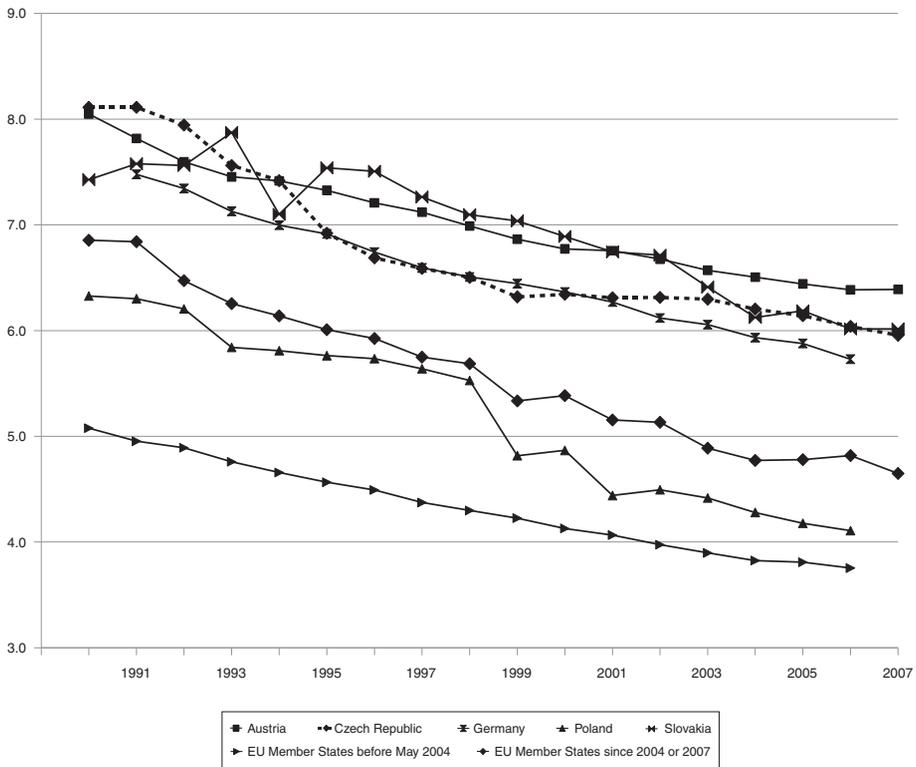
Source: ÚZIS 2009.

Notes: JSC: Joint stock company; Ltd.: Limited company; ^a One hospital in this category is owned by a municipality.

(WHO Regional Office for Europe 2009). At the same time, the occupancy rate for acute beds was well below the EU27 and EU15 averages, as shown in Fig. 5.2. A variety of measures were taken by the central Government in the first half of the 1990s to address this situation, such as restructuring smaller acute care hospitals into long-term care facilities, merging small hospitals and closing small, redundant inpatient facilities. These early measures were generally successful, leading between 1992 and 1996 to a rapid drop in the number of acute care beds per capita (Fig. 5.1), as well as to a significant increase in the acute bed occupancy rate (Fig. 5.2).

Between 1996 and 2000, the number of acute care beds per capita continued to decrease for the most part, albeit at a considerably slower rate and primarily

Fig. 5.1 Acute care hospital beds per 1000 population in the Czech Republic and selected countries, 1990–2007 (or latest available year)



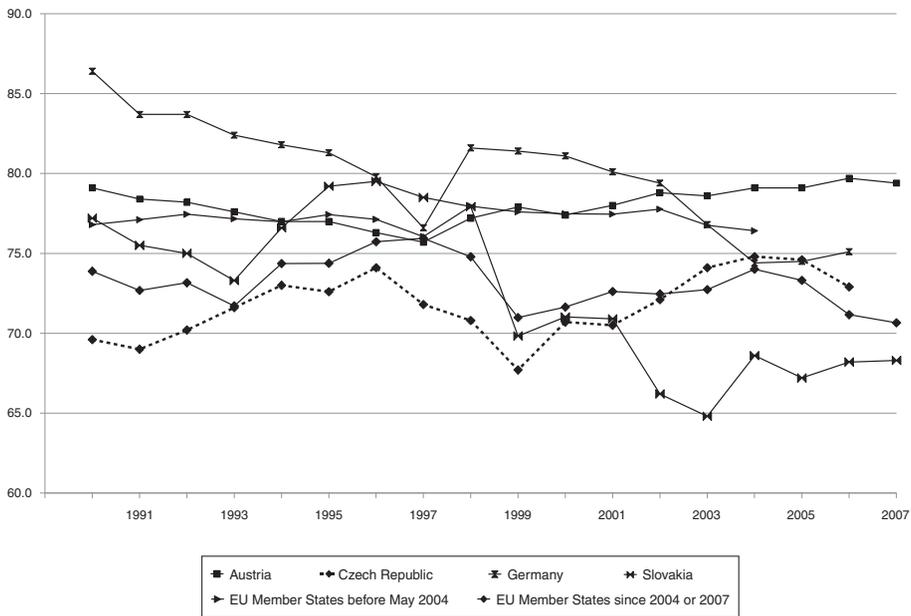
Source: WHO Regional Office for Europe 2009.

Note: EU: European Union.

in response to market forces. Acute care hospitals continued to replace some of their acute care beds with long-term beds, and a number of smaller facilities merged into larger entities (ÚZIS 2000b). Nevertheless, there were still far more acute care beds than needed, as evidenced by the sharp drop in the acute care bed occupancy rate during this same period (Fig. 5.2). In fact, by 1999 this rate had fallen to 67.6%, one of the lowest percentages in the WHO European Region that year (WHO Regional Office for Europe 2009). The sharp drop in the acute care bed occupancy rate after 1996 is attributable to a change in the hospital payment mechanism, as part of which fee-for-service payments and per diem charges were replaced by a system of prospective global budgets (see Subsection *Payment of hospitals*, within Section 3.6 *Payment mechanisms*).

After the year 2000 the restructuring of hospitals focused more on their specialization. Instead of closing entire hospitals, hospital owners began to

Fig. 5.2 Bed occupancy rate (%) in acute care hospitals in the Czech Republic and selected countries, 1990–2007 (or latest available year)



Source: WHO Regional Office for Europe 2009.

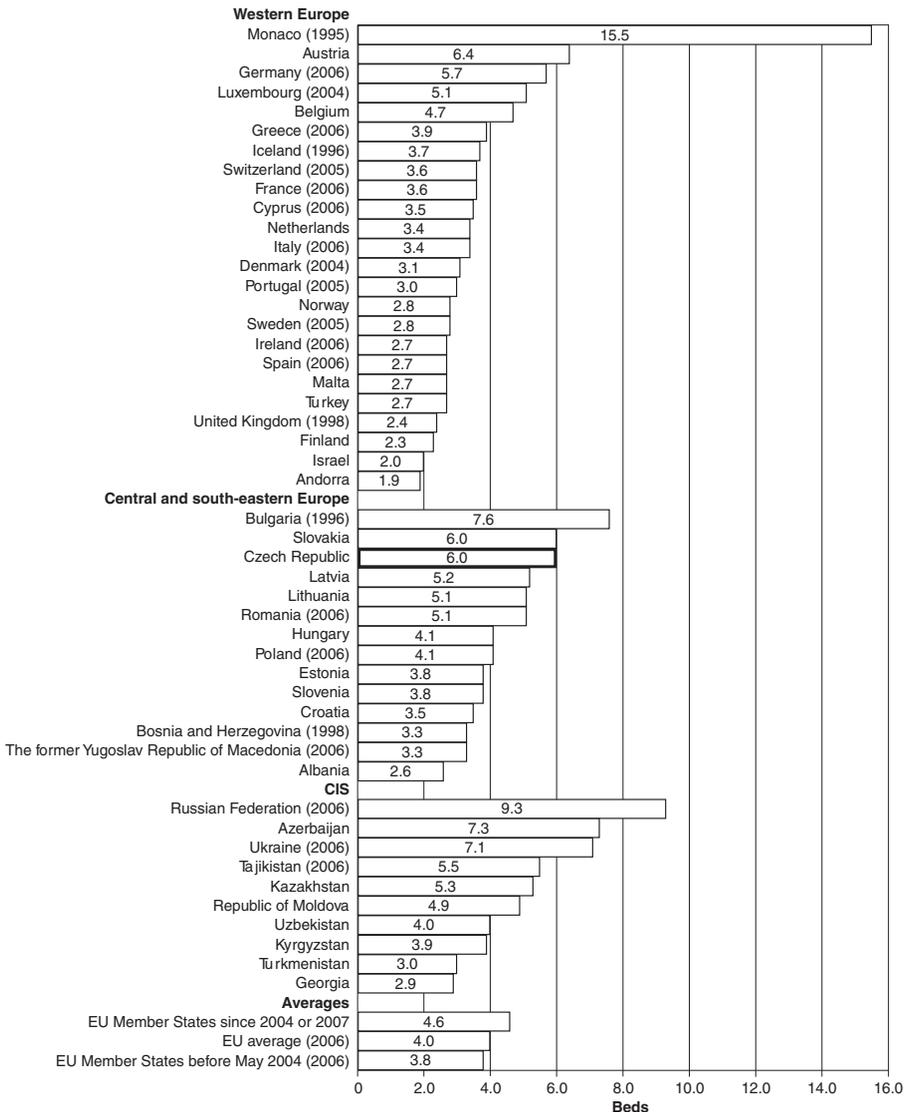
Note: EU: European Union.

close individual departments. Meanwhile, the process of transforming smaller acute care hospitals into long-term nursing care and rehabilitation facilities continued (ÚZIS 2000a). Again, these developments resulted primarily from the decisions made by the owners of these facilities and were not of an explicitly political nature. With the exception of inpatient facilities directly subordinate to the Ministry of Health, a considerable number of hospitals, including some in regional ownership, underwent this process of rationalization.

In 2003 the ownership of approximately half of the hospitals in the Czech Republic was transferred from the State to 14 newly formed, self-governing regions. In the wake of this process of decentralization, some regions decided to change the legal form of most of these hospitals, transforming them from entities directly subordinate to the regional authorities to joint stock companies which were still owned entirely by the regions as of early 2009. These changes do not appear to have had any measurable impact on the number of acute care beds in the country, nor was it their aim to do so (see Subsection *The role of regional governments/decentralization* within Section 2.3 *Organizational overview*, and Subsection *Organizational reforms in the hospital sector* within Section 7.1 *Analysis of recent reforms*).

In 2007 the ratio of acute care beds to population in the Czech Republic was still among the highest in the WHO European Region, surpassed among the countries for which recent data were available only by the Russian Federation, Azerbaijan, Ukraine and Austria (Fig. 5.3). At the time of writing there is no

Fig. 5.3 Acute care hospital beds per 1000 population in the WHO European Region, 2007 (or latest available year)



Source: WHO Regional Office for Europe 2009.

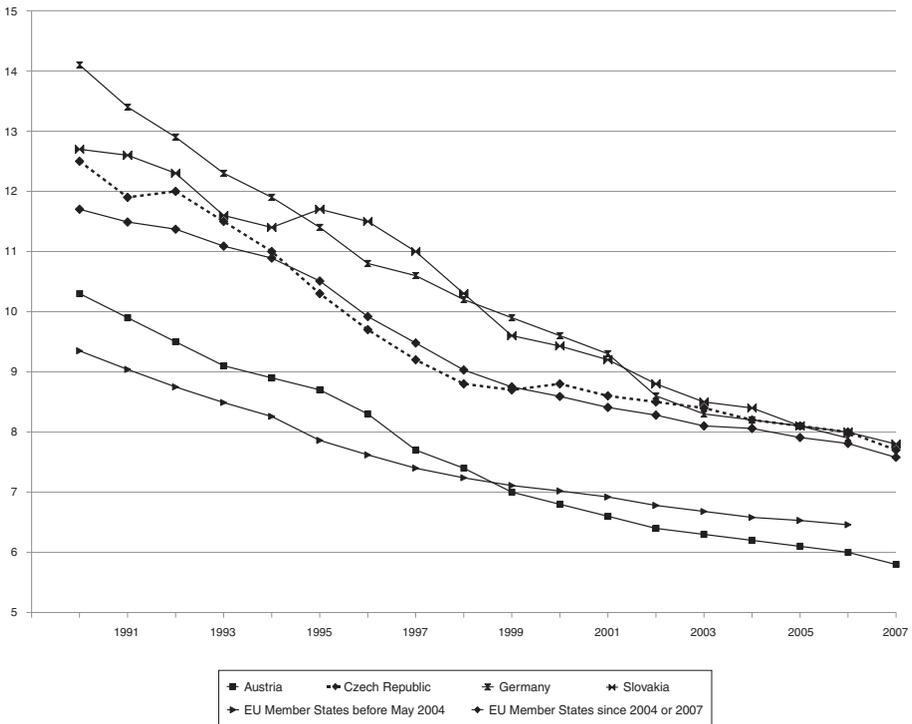
Notes: TFYR Macedonia: The former Yugoslav Republic of Macedonia; CIS: Commonwealth of Independent States; EU: European Union.

capacity-related regulation in the Czech health sector; individual providers are free to reduce or expand their capacity as they see fit. Any changes in reimbursement necessitated by such adjustments must be negotiated with the health insurance funds.

The strong and almost continual decrease in the average length of stay in acute care hospitals in the Czech Republic since 1990 has closely followed the trend observed in the new EU Member States (Fig. 5.4). In 2006, inpatients in the Czech Republic stayed an average of 8 days in acute care hospitals, which was similar to the length of stay seen in Germany and Slovakia, but still well above the EU15 average.

One of the key problems in the area of inpatient care in the Czech Republic is the separation between the health and social care systems, both in terms of organization and financing. According to a survey conducted by the VZP in 2003, one third of patients occupying non-acute beds had applied for, but not

Fig. 5.4 Average length of stay in acute care hospitals in the Czech Republic and selected countries, 1990–2007 (or latest available year)



Source: WHO Regional Office for Europe 2009.

Note: EU: European Union.

yet received, a place in a social care facility (VZP 2004). In other words, tens of thousands of hospital stays were being lengthened beyond medical necessity due to the lack of capacity in the social care system. Since the publication of these findings in 2004, the regional authorities have come under increasing pressure to expand the capacity of the social care network. However, until this occurs, the high demand for beds in long-term care will continue to create a bottleneck in the system of inpatient treatment, artificially increasing the occupancy rate for costly acute care beds.

The lack of capacity in the social care system also differs according to region. Indeed, the average length of stay for diagnoses that generally require more nursing care (such as dementia, Alzheimer's disease and cerebrovascular diseases) can be as much as four times greater in some regions compared to others. A study conducted in 2008 as part of the Round Table Project on the Future Path of Health Care Financing in the Czech Republic (*Kulatý stůl k budoucnosti financování zdravotnictví v ČR*) showed that these discrepancies can be attributed to marked differences in the availability of social care facilities between the regions (Kulatý stůl 2008).

Capital stock and investments

Amortization costs for the renovation of hospital infrastructure are, in theory, financed by the health insurance funds through the reimbursement of hospital services. The owner of a facility (usually the State, region or municipality) is responsible for capital investment, which is financed primarily through the state or regional budgets, and thus through general taxation. However, the Ministry of Health also provides subsidies for capital investment in health care facilities; these subsidies amounted to CZK 3.5 billion (€140 million) in 2008, or approximately 31.5% of the Ministry of Health's budget for that year (Ministry of Finance 2009b).

The field of medicine has made considerable advances since 1990, but not all Czech health care facilities have been able to keep pace with these changes. In particular, many psychiatric and long-term care and nursing facilities for the elderly are outdated and in need of repair. The condition of most acute care hospitals, however, is comparable to that in other European countries. Investments in ICT are funded mostly from the budget of the Ministry of Health. Oversight of the investment process is in line with that required for public investments in other sectors.

More than CZK 20 billion (€800 million) from the EU Structural Funds are planned for investments in health care for the period from 2007 to 2013 (Ministry of Health 2006). Some of these investments are being made through

the Integrated Operational Programme (IOP), which was approved by the European Commission on 20 December 2007. The IOP focuses on modernizing the public sector and increasing the quality of public services, and the European Commission finances up to 85% of its total expenses. Over CZK 12 billion (€480 million) is to be invested in the health care sector through the IOP between 2007 and 2013 (Ministry of Health 2006), including CZK 2 billion (€80 million) of spending on Specialized Care Centres and their equipment as part of this programme (Ministry of Health 2009b). Similar programmes involving investments in areas such as palliative care, HIV management and psychiatric care are funded by European Economic Area Grants and Norway Grants.

Medical equipment, devices and aids

Investments from the State are fully managed by the Ministry of Health, which has developed several programmes for investing in areas such as physical capital, equipment and ICT. Any health care facility may obtain support from these programmes upon successful application. Table 5.2 provides an overview of high-cost diagnostic imaging equipment available in the Czech Republic as of 2007.

Information technology

The use of ICT in the Czech health system is still generally underdeveloped. The information potential of the health insurance funds has not been fully realized, and as of yet there is no infrastructure in place for conducting health technology assessments for treatments or procedures. Since 2008, however, the SÚKL has used a form of pharmacoeconomic analysis to assess pharmaceuticals (see Section 6.5 *Pharmaceutical care*).

Several autonomous projects allow physicians in the Czech Republic to share information about patients through electronic medical records. One example is the Internet Access to Patient Health Care Information (IZIP) project, which was selected by the European Institute of Public Administration (EIPA) as one of the 12 best projects in the area of eHealth administrative support tools and services for citizens in 2004. The project allows patients (and, with their permission, physicians) to access their electronic medical records from any Internet-enabled computer. The database contains information such as medical histories, laboratory test results and prescription data. Over 1 million patients were participating in the project as of 2007 (Mladek et al. 2007).

Table 5.2 High-cost diagnostic imaging equipment in the Czech Republic, 2007

Equipment type	Total number of units	Number of units per 1 million inhabitants	Number of services per 1000 inhabitants
MRI units	45	4.4	25.3
CT scanners	133	12.9	77.5
PET	5	0.48	7.2

Source: ÚZIS 2008b.

Notes: MRI: Magnetic resonance imaging; CT: Computed tomography; PET: Positron emission tomography.

Almost all health care facilities in the Czech Republic use information systems for reimbursement and accounting purposes, and the majority of large health care facilities have their own web sites to provide patients with an overview of their services. Of the small number of physician practices (approximately 10%) that have their own web sites, approximately one third use these sites for online consultations and appointments (Czech Statistical Office 2008b).

All of the health insurance funds have web sites for communicating with their insured members and other payers of SHI contributions. Moreover, six of the smaller health insurance funds have a common web site for communicating with contracted health care providers, reducing the administrative burden for all parties involved. Advancing the field of eHealth through investments from the EU Structural Funds is one of the Czech Republic's key priorities.

5.2 Human resources

The total number of individuals working in the Czech health sector at the end of 2007 was 240 313 in full-time equivalents (FTEs), 43 700 of whom were physicians and 105 400 of whom were paramedical workers with professional qualifications (PWPQs). Of these PWPQs, 81 260 were general nurses, 7281 were medical laboratory technicians, 4032 were dental technicians, 4680 were pharmacy laboratory technicians and 8147 were other auxiliary personnel (ÚZIS 2008b).

At the end of 2007, outpatient care was provided by approximately 71% of all physicians (31 056 physicians in FTEs) and by 50% of all PWPQs (52 689 PWPQs in FTEs). Of all physicians working in outpatient care, 47.5% provided primary care (GPs, paediatricians, gynaecologists or dentists) and

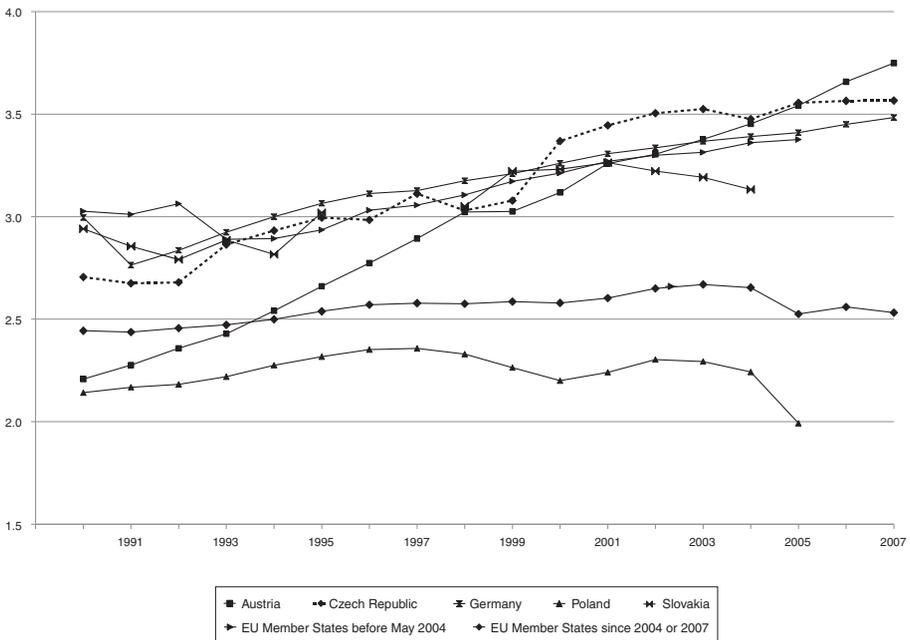
52.5% were specialists. More than half of these specialists were working in the outpatient department of hospitals or other inpatient facilities (ÚZIS 2008b).

In 2007 there were 30 public health authorities and institutes, which employed 227 physicians and 1080 nurses (FTEs) (ÚZIS 2008b).

Trends in health care personnel

By European standards, the number of physicians in the Czech Republic is high, with 3.6 physicians per 1000 population in 2007. This was well above the average for the new EU Member States and was surpassed among neighbouring countries only by Austria (Fig. 5.5). It should be noted, however, that the physician-to-population ratio varies considerably between the Czech Republic’s 14 regions, with a high physician density in Prague (5.9 physicians per 1000 inhabitants) and a low density in the regions around the country’s borders (approximately 2.7 physicians per 1000 inhabitants) (ÚZIS 2008b). The increase in the Czech Republic’s physician-to-population ratio since 1990 is

Fig. 5.5 Number of physicians per 1000 population in the Czech Republic and selected countries, 1990–2007 (or latest available year)



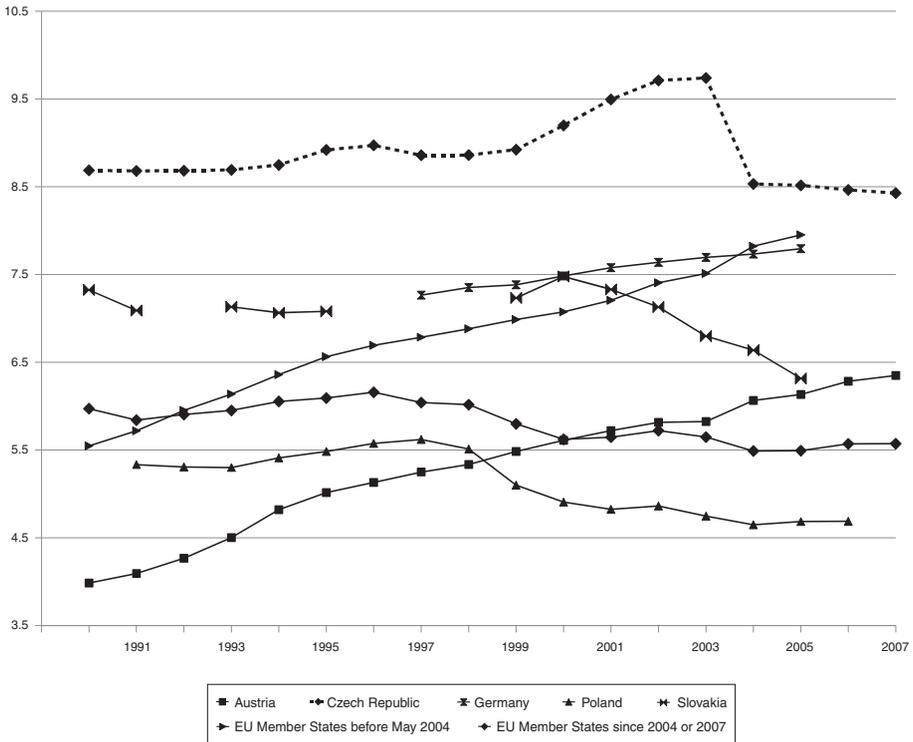
Source: WHO Regional Office for Europe 2009.

Note: EU: European Union.

in line with the general development within the EU and is very similar to that in neighbouring Member States, with the exception of Poland (Fig. 5.5).

As evidenced in Fig. 5.6, the nurse-to-population ratio in the Czech Republic is notably higher than that in all neighbouring countries and, since at least 1990, has remained well above both the EU15 average and the average for the new EU Member States. The apparent decrease in the nurse-to-population ratio seen after 2003 is a statistical artefact, resulting from a change in the method used by the ÚZIS to count nurses, as well as a reform in the system of nurse training and qualification in the Czech Republic (see Subsection *Training of nurses and other non-physician health professionals*, later in this section). In 2007 there were 6.46 hospital beds per general nurse and 1.94 intensive care beds per specialized nurse (ÚZIS 2008b). At the time of writing there is a shortage of

Fig. 5.6 Number of nurses per 1000 population in the Czech Republic and selected countries, 1990–2007 (or latest available year)



Source: WHO Regional Office for Europe 2009.

Note: EU: European Union.

approximately 1000 nurses in Czech hospitals, mainly in the cities of Prague and Brno (Ministry of Health 2009c).

The ratio of dentists to population in the Czech Republic is slightly above the EU27 average (Fig. 5.7). The distribution of dentists within the country is uneven, however, with a higher-than-proportional share of dentists in urban areas.

Planning of health care personnel

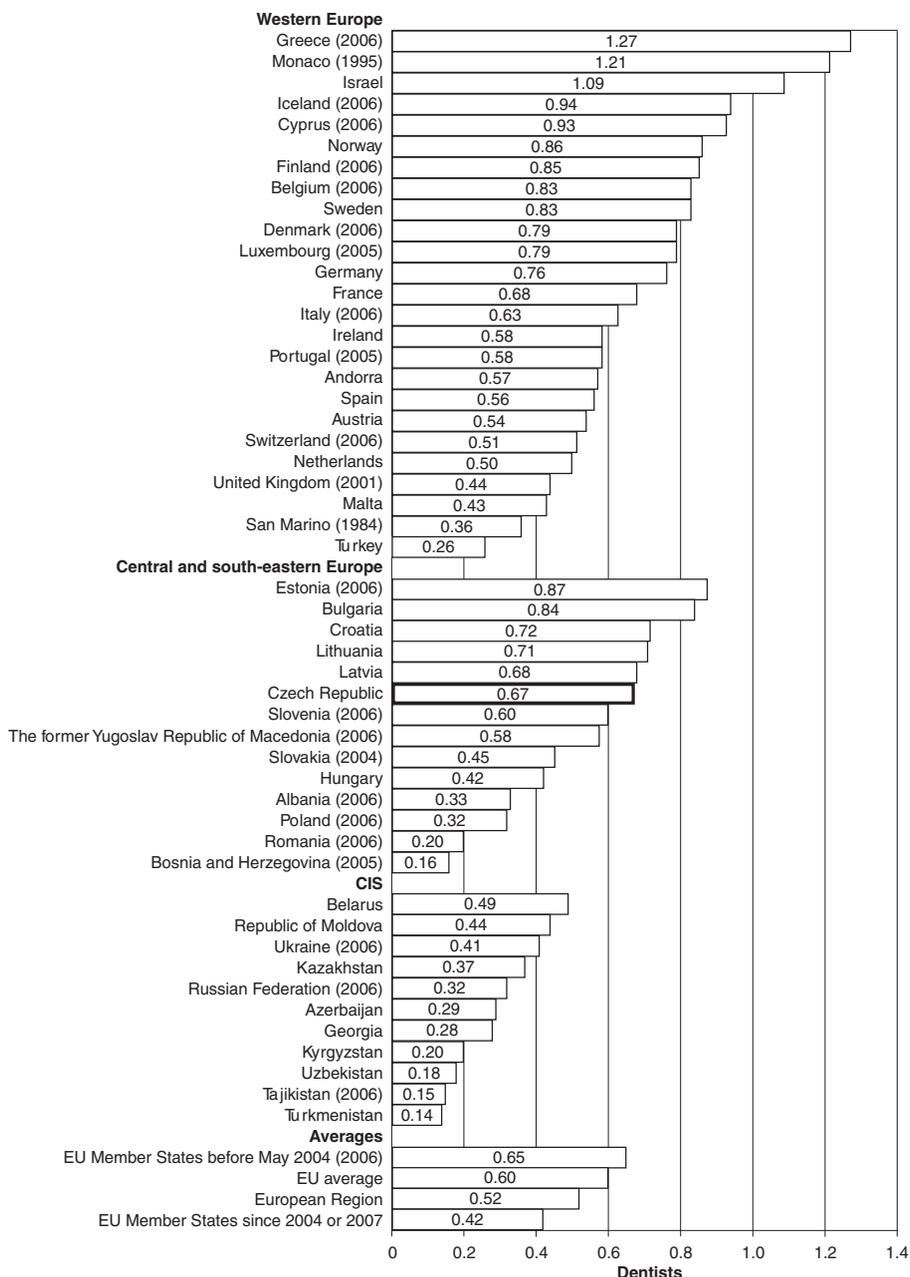
The current age structure of primary care physicians in the Czech Republic represents a potential human resources problem (Fig. 5.8). In 2007 more than 11% of GPs were 65 years or older, and more than 5% were 70 years or older. A similar situation was visible among gynaecologists (8% older than 65), paediatricians (6.8% older than 65) and dentists (6.1% older than 65) (ÚZIS 2008a). The Ministry of Health has reacted to this situation by supplying accredited providers with exceptional financial support for training medical graduates in specialty fields. This arrangement allows the Ministry of Health to set priorities by defining the number of subsidized postgraduate training positions within each specialty. The subsidy covers the costs of postgraduate training and part of the trainee salary. As of 2009 a total of 749 trainee physician positions had been subsidized in this manner, including 149 new trainee positions for GPs (Ministry of Health 2009g).

An unrelated shortage of specialized nurses was caused unintentionally by a law introduced in 2004 to comply with the *acquis communautaire*. The new law obliged nurses in training to obtain a Bachelor's degree, which had not been previously required to become a general nurse. In many cases, the law even created incentives for nurses in training to change their course of studies entirely. In 2009 the Ministry of Health began to provide exceptional financial support to hospitals with accredited postgraduate training programmes for specialized nurses, similar to the programme for physicians described earlier. At the time of writing, a total of 1925 positions for specialized nurses had been subsidized in this manner (Ministry of Health 2009g).

Training of physicians

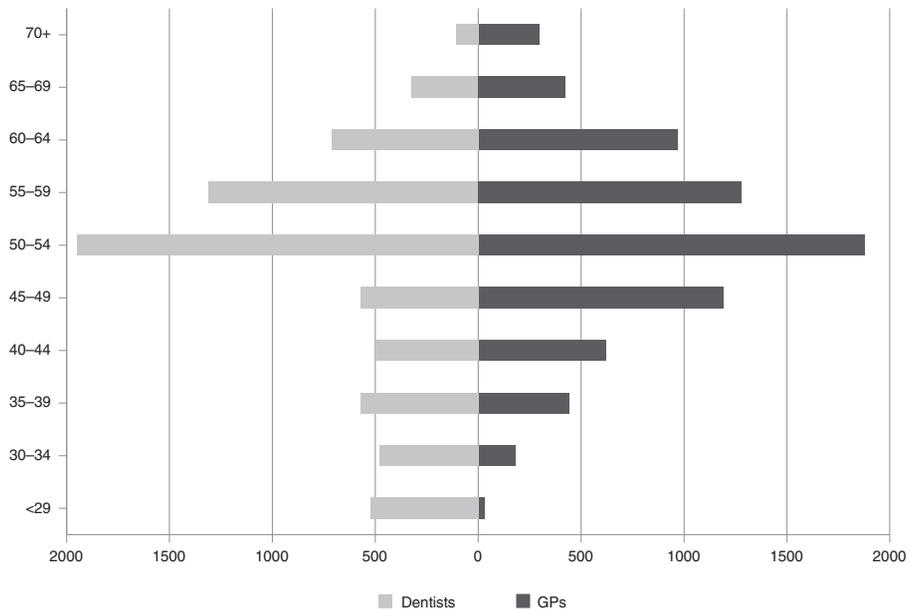
There are seven medical schools in the Czech Republic at the time of writing, three of which are located at Charles University in Prague. There are also two pharmacy schools, one of which is located in Hradec Králové and the other in Brno. Limits on the number of applicants who may be accepted to medical,

Fig. 5.7 Number of dentists per 1000 population in the WHO European Region, 2007 (or latest available year)



Source: WHO Regional Office for Europe 2009.

Notes: TFYR Macedonia: The former Yugoslav Republic of Macedonia; CIS: Commonwealth of Independent States; EU: European Union.

Fig. 5.8 Age structure of dentists and general practitioners in the Czech Republic, 2007

Source: ÚZIS 2008b.

Note: GP: General practitioner.

nursing or pharmacy programmes are set by the schools themselves, not by the Government.

The Ministry of Education, Youth and Sports is responsible for setting standards for educating and training physicians towards their first degrees. University medical studies consist of six years of study; dentistry and pharmacy studies require five years.

To comply with European Directive 36/2005/EC, two laws enacted in 2004 established new conditions for obtaining and recognizing medical degrees and specialized postgraduate training for physicians and non-physician health professionals, including nurses. According to this legislation, graduates from medical schools must complete a training programme in a selected medical specialty and pass the state licensing exam (*státní atestační zkouška*) in order to be allowed to work independently (that is, without supervision) as a physician. A wide range of providers throughout the country offer the programmes, each of which must be accredited by the Ministry of Health. The programmes generally take five years to complete.

At the time of writing, new legislation is being prepared that would define 39 basic postgraduate medical specialties, as well as 40 additional subspecialties, which will be optional and require an additional 1 to 3 years of training.

The Czech Medical Chamber requires that its members participate in continuous, lifelong education. As such, each physician must acquire a certain number of points every five years through publishing activities or further education (such as seminars, workshops, symposia, congresses). Active participation, such as giving a lecture, is awarded a higher number of points. The Czech Dental Chamber and the Czech Chamber of Pharmacists have analogous requirements.

Training of nurses and other non-physician health professionals

The Ministry of Education, Youth and Sports is responsible for the graduate education of nurses and other non-physician health professionals and assists in developing curricula in collaboration with the Ministry of Health, which sets minimum standards for various study programmes. Since 2004, when new conditions for obtaining and recognizing first degrees and specialized postgraduate training were established, nurses have been required to complete an accredited Bachelor's degree programme (ISCED 5) that consists of 2300 hours of theoretical education and 2300 hours of practical training. Nurses may also pursue a specialization by taking part in courses accredited by the Ministry of Health and passing the state licensing exam; the courses are offered at universities and other educational facilities, and the state licensing exams are administered by the Ministry of Health.

After becoming a general nurse (with or without a specialization), an individual must prove every six years that he or she has received a certain number of credits in further education courses accredited by the Ministry of Health. The quality of the courses offered is also monitored by the Ministry.

Registration/licensing

In accordance with EU legislation, physicians graduating from medical schools in the Czech Republic must complete a postgraduate training programme in a selected medical specialty if they desire to practise without supervision. The Ministry of Health is responsible for accrediting these programmes, as well as for administering the standardized state licensing exam (*státní atestační zkouška*), which physicians take at the end of their specialized postgraduate training. A diploma in the respective medical specialty is awarded based both on the results obtained in this exam and the professional qualifications of

the applicants. To open a private practice, physicians must also apply for registration with the respective regional authority.

The Ministry of Health also accredits similar postgraduate training programmes for dentists, pharmacists, nurses and paramedical personnel. Nurses may work as qualified general nurses without supervision even if they have not taken the state licensing exam. Passing the exam, however, is necessary if they wish to pursue a specialized qualification.

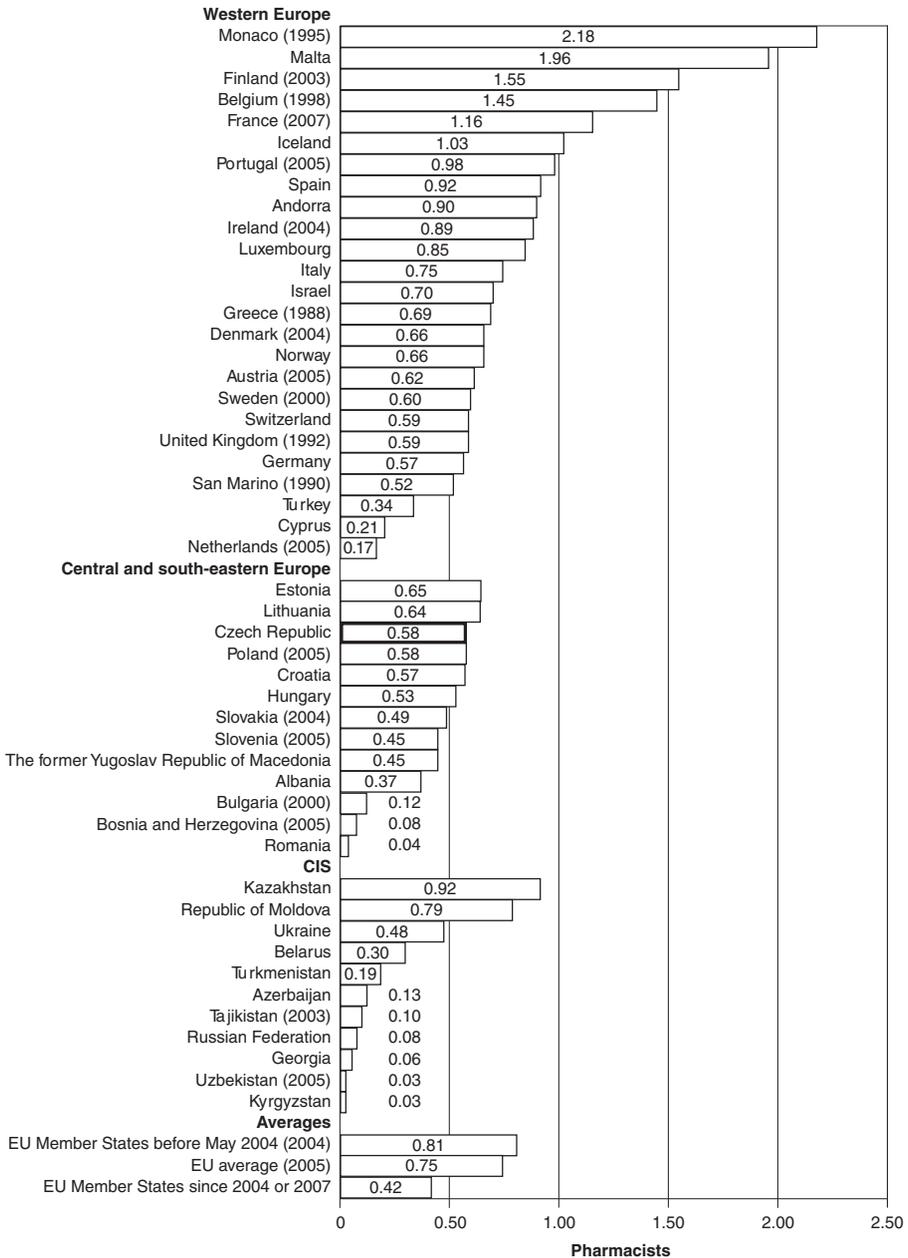
A parallel process involves recognizing the professional qualifications of medical doctors and other health care professionals educated in other EU Member States. This process is in line with Directive 36/2005/EC and is conducted by the Ministry of Health. Medical doctors and health care professionals from non-EU countries must pass additional exams, and the process of obtaining recognition of their professional qualifications is more complicated and demanding.

The Czech Medical Chamber, the Czech Chamber of Dentists and the Czech Chamber of Pharmacists may determine the conditions under which their members engage in private practice. They set out the professional requirements for the provision of care and also supervise the content and quality of lifelong education. Within this context, the Czech Medical Chamber grants licences to its members based on their medical specialties. Although the requirements for obtaining these licences generally go above and beyond those specified by law, they do not replace the diploma granted upon passing the state licensing exam. The chambers are non-profit-making organizations and their expenses are covered exclusively by membership fees, donations and proceeds from any penalties against members (for example, for violating a chamber's ethical codex). Membership in a chamber is compulsory for all practising physicians, dentists and pharmacists.

Pharmacists

In 2007 there were 2520 pharmacies in the Czech Republic, or one pharmacy per 4119 people. Almost all (99% in 2007) are privately owned, with the only exception being those belonging to publicly owned hospitals (ÚZIS 2008b). The latter are also open to the general public. Although the ratio of pharmacies to population has remained stable since the early 2000s, there is a trend at the time of writing towards the formation of pharmacy chains. In 2008 the largest of these was Dr. Max (with 100 pharmacies), followed by Europharm (80 pharmacies) and Lékárny Lloyds (40 pharmacies) (Chamber of Pharmacists 2009). The owner of the pharmacy does not need to be a pharmacist, but a pharmacist must

Fig. 5.9 Number of pharmacists per 1000 population in the WHO European Region, 2006 (or latest available year)



Source: WHO Regional Office for Europe 2008.

Notes: TFYR Macedonia: The former Yugoslav Republic of Macedonia; CIS: Commonwealth of Independent States; EU: European Union.

be present in any context in which prescription pharmaceuticals are sold. There are no geographical criteria for opening a new pharmacy.

Fig. 5.9 shows that the number of pharmacists per 1000 population in the Czech Republic in 2006 was high among the central and south-eastern European nations, but low compared to many western European countries. It should be noted that there are considerable regional disparities in the density of pharmacies in the Czech Republic, with most being concentrated in larger cities. As of 2007, a total of 6270 pharmacists were registered in the Czech Republic, 8% of whom were temporarily inactive (ÚZIS 2008b).

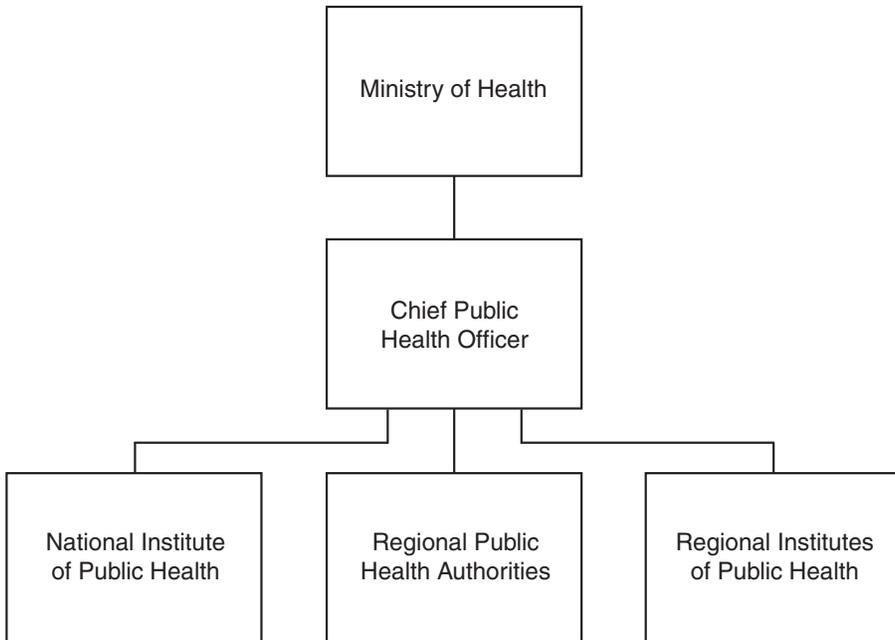
6 Provision of services

6.1 Public health

The main actors in the Czech system of public health are the National Institute of Public Health (SZÚ), the Regional Public Health Authorities and the Regional Institutes of Public Health, all of which are directly subordinate to, and managed by, the Ministry of Health and its chief public health officer, who is also a deputy minister of health (Fig. 6.1).

The SZÚ was founded in 1925. It conducts science and research, provides advice on methodology and drafts expert opinions on the safety of various products, such as cosmetics, food supplements and other items of daily use. It also systematically monitors the impact of environmental factors on the health status of the population and helps prepare legislation in the field of health protection, including the harmonization of Czech legislation with EU norms. In the areas of disease prevention and health promotion, the SZÚ focuses on the epidemiological surveillance of important communicable diseases and on promoting healthy lifestyles. The SZÚ coordinates between the different actors in the public health system and supports their activities in a variety of ways, such as through the publication of educational materials.

A network of district and regional public health offices – also known as the Hygiene Service – was established in the early 1950s. As detailed in Section 2.2 *Historical background*, the Czech part of Czechoslovakia had 7 regions and 76 districts at the time. Each district institute provided public health services to approximately 100 000 inhabitants. New health protection legislation was passed in 2001, coming into force in 2003. It redefined the rights and duties of various actors in public health and health promotion, dividing the responsibilities of the Hygiene Service among two new groups of institutions:

Fig. 6.1 Organizational structure of public health services in the Czech Republic

Source: Authors' own compilation.

(a) the Regional Public Health Authorities (based on the 14 regions established on 1 January 2000) and (b) the Regional Institutes of Public Health.

The Regional Public Health Authorities (*krajské hygienické stanice*) are responsible for a range of public health services, including epidemiological surveillance, immunization logistics, and certifications and authorizations. In the area of epidemiological surveillance, the Regional Public Health Authorities share duties with the SZÚ and the Ministry of Health. At the time of writing, the Czech Republic has a system of surveillance for some 50 diseases and public health hazards. Any physician who diagnoses a communicable disease must inform the relevant Regional Public Health Authority. This office subsequently reports total incidence levels to the Ministry of Health using the EPIDAT information system, which is part of the NHIS, operated by the SZÚ. Patients with certain communicable diseases, such as tuberculosis or viral hepatitis, must obtain treatment from hospital departments specially designated for this purpose. In the area of immunization logistics, the Regional Public Health Authorities collaborate with primary care facilities, which are responsible for providing vaccination and antenatal services.

The Regional Institutes of Public Health (*krajské zdravotní ústavy*) are health facilities, whose chief domains are science and research. They also evaluate living and working conditions, and the quality of consumer and industrial products. The institutes are permitted to provide these services on a commercial basis and thus compete with private laboratories.

The Ministry of Health and the Ministry of Labour and Social Affairs are jointly responsible for the areas of occupational health and injury prevention. Occupational diseases are investigated by occupational medicine departments within the Regional Public Health Authorities. Any measurements that need to be carried out as part of an investigation are conducted by accredited laboratories, usually run by the Regional Institutes of Public Health. The National Register of Occupational Diseases is administered by the SZÚ.

Preventive care services covered by SHI include:

- compulsory vaccination and preventive examinations for children of specific age groups;
- compulsory vaccination and periodic examinations by GPs (every two years), dentists (every 6 months) and gynaecologists (every year) for adults;
- cancer screening programmes (for example, for cervical cancer, breast cancer and colorectal cancer).

Women aged 45 to 69 are entitled to a mammography every two years in specialized centres. Cancelling this upper age limit is under consideration at the time of writing, and some health insurance funds already cover this service for younger and older women. Preventive gynaecological examinations include cytology to diagnose cervical cancer and are available to women aged 15 and over.

Vaccination rates for major immunizable diseases vary from 95% to 99% (WHO Regional Office for Europe 2009). The compulsory child vaccination programme covers tuberculosis, diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps and rubella. Vaccination against hepatitis B and *Haemophilus influenzae* type B was added in 2001. Vaccination against hepatitis A, tick-borne encephalitis, meningococcal disease and cervical cancer is available upon request and generally requires full payment; some health insurance funds offer full or partial reimbursement for these vaccinations as part of their own prevention programmes. Vaccination for some vulnerable groups of patients is covered by SHI (for example, vaccination against influenza for patients aged 65 years and over or for patients recovering from organ transplantation). In terms of financing, the vaccination service is paid by SHI, whereas the vaccine itself is funded by the central state budget through general tax revenue.

A long-term public health strategy, the National Health Programme, was submitted for government approval and accepted in 1995. The chief goal of

the programme is to encourage individuals to take an active approach to their health; it includes projects for healthy schools, homes, workplaces and cities. The National Health Board, led by the Minister of Health, is responsible for implementing the programme and reviewing applications for funding submitted by public and private organizations.

Laws prohibiting smoking in public places and regulating the advertising of tobacco products on radio and television were enacted in 1989 and 1995, respectively. Greater restrictions on tobacco advertising came into force in 2004, and a new law on tobacco and tobacco product control was enacted in 2005, further restricting smoking in public places.

Plans at the time of writing to reform state and locally financed public health services focus primarily on increasing their efficiency. Excess capacity is being reduced in a controlled manner, and some parts of different public health facilities, especially various auxiliary laboratories, are being privatized.

6.2 Primary/ambulatory care

There is no clear legal framework for the organization of primary care services in the Czech Republic, and regulatory authority is divided among the State, the regions and the health insurance funds. Although a strict definition of primary care providers does not exist in Czech law, GPs, paediatricians, gynaecologists and dentists are generally considered to fall under this rubric.

Approximately 95% of primary care services are provided by physicians working in private practice. Entry into private practice is controlled through licensing by the Ministry of Health and subsequent registration by the respective regional authority (see Subsection *Registration/licensing*, within Section 5.2 *Human resources*). Most primary care physicians work in solo practices, often employing a nurse who also has administrative duties and conducts home visits.

A primary care physician may join other physicians to work in private group practices, health centres or polyclinics. Health centres are generally owned by the municipalities, and primary care physicians who are in private practice pay rent for the use of the facilities. Polyclinics tend to be private legal entities and also offer ambulatory specialist care. The full range of primary care services includes general medical care, maternal and child health care, gynaecology, dentistry, home care by nurses, 24-hour doctor-on-duty care, and a number of preventive services, such as immunization and screenings. As described in Section 6.1 *Public health*, primary care physicians also collaborate with the

Regional Public Health Offices in epidemiological surveillance by reporting cases of selected communicable diseases.

Health centres and polyclinics tend to be well equipped: most have electrocardiographs, ultrasound scanners, and X-ray equipment. They also generally have diagnostic laboratory facilities on the premises and employ nurses and physiotherapists. Primary care physicians working in solo practices are less likely to have direct access to advanced diagnostic equipment. Moreover, the working conditions for primary care physicians depend to a considerable extent on local circumstances and whether they are situated in an urban or rural setting.

Patients register with a primary care physician of their choice, but can switch to a new one every three months without restriction. If a patient's condition requires specialized care that his or her primary care physician cannot provide, the physician refers the patient to an appropriate specialist who has a contract with the patient's health insurance fund. The physician substantiates his or her decision and informs the specialist, in writing, of the results of any examinations performed thus far. Later, the specialist notifies the referring physician about his or her findings and the steps taken during treatment. The specialist may also recommend further action or provide an evaluation of the patient's ability to work.

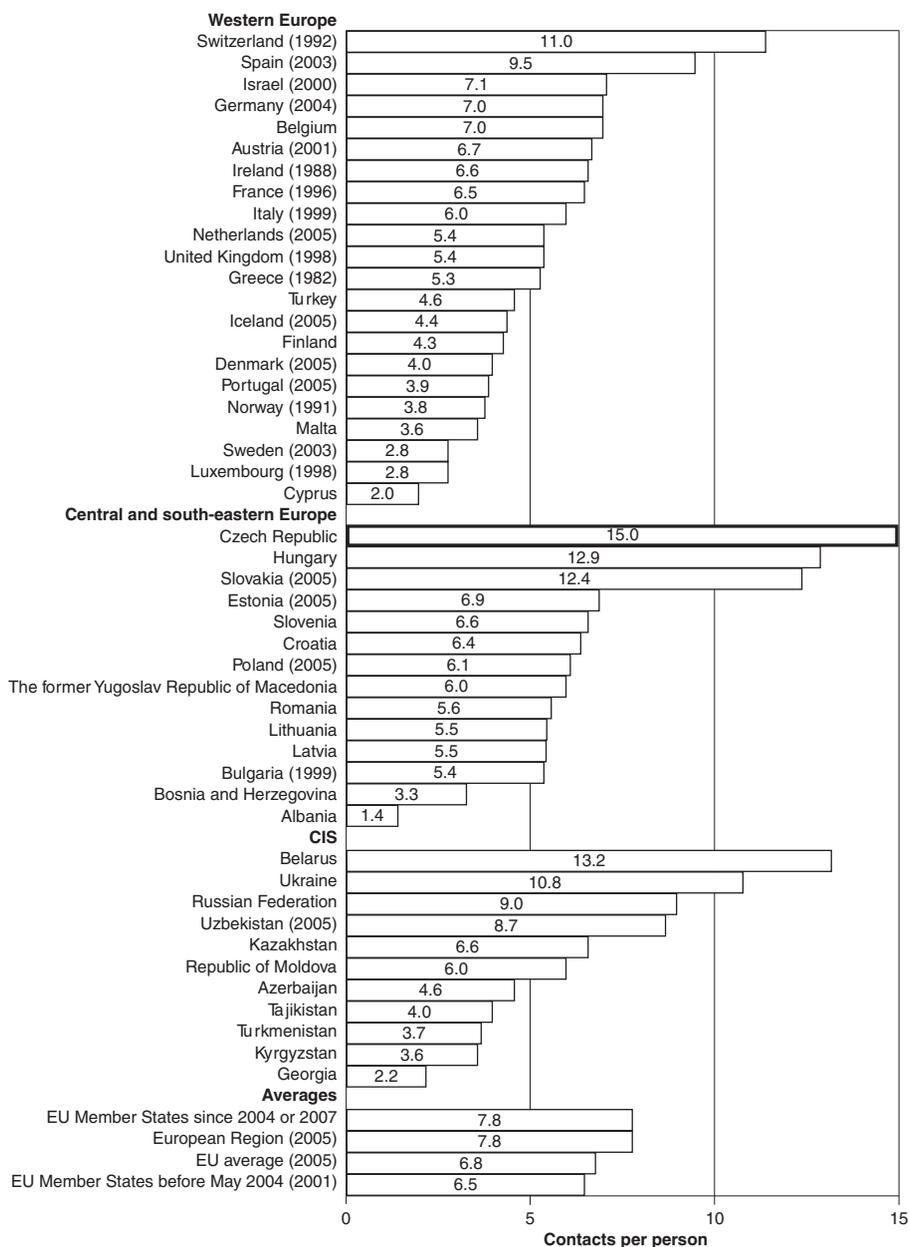
It should be noted that patients in the Czech Republic are also free to obtain care directly from a specialist of their choice without a referral, and do so frequently. As such, primary care physicians do not play a true gatekeeping role. Visits to dentists or gynaecologists are always direct and without referral.

In 2006 the number of patient–physician contacts in the Czech Republic was the highest in the WHO European Region (Fig. 6.2). One aim of the user fees introduced in 2008 for doctor visits was to reduce the number of outpatient contacts (see Subsection *Public Budgets Stabilization Act of 2007*, within Section 7.1 *Analysis of recent reforms*).

6.3 Secondary care (specialized ambulatory care/ inpatient care)

Secondary care services in the Czech Republic are offered by (a) private practice specialists working in solo or group practices, health centres or polyclinics; (b) hospitals; and (c) specialized inpatient facilities. At the end of 2007 there were 27 628 health care providers registered in the Czech Republic, 11 317 of which offered services in secondary and tertiary care (ÚZIS 2008b). Of

Fig. 6.2 Outpatient contacts per person per year in the WHO European Region, 2006 (or latest available year)



Source: WHO Regional Office for Europe 2008.

Notes: TFYR Macedonia: The former Yugoslav Republic of Macedonia; CIS: Commonwealth of Independent States; EU: European Union.

all ambulatory specialists, more than half were working in the outpatient departments of hospitals in 2007 (ÚZIS 2008b).

As described in Section 6.2 *Primary/ambulatory care*, patient access to secondary care is not restricted by a gatekeeping system. Patients are free to obtain care directly from a specialist of their choice without a referral, and they do so frequently. In contrast, a patient is admitted to inpatient care only upon referral from a physician. The referral must contain the physician's written substantiation of his or her application, as well as any other important information about the patient's state of health. In certain cases, such as compulsory care, life-threatening situations or childbirth, a patient must be accepted without a referral.

The Czech Republic inherited a wide network of hospitals and polyclinics covering the entire country. Before 1991 these were owned by the State and managed directly by the Ministry of Health under a 2-tiered system of National Health Institutes at the regional and district levels. Several factories had their own networks of health care providers, including hospitals. As a result of the democratization process and, later, public administration reform, hospitals in the Czech Republic are now owned and managed by a range of actors, including the Ministry of Health and other ministries, the regions and municipalities, private entities and churches.

Teaching hospitals, which are directly subordinate to the Ministry of Health, have special status, as they perform educational and research duties in addition to their function as health care providers. The management of teaching hospitals is organized in a twofold hierarchy, with directives and funding coming both from the Ministry of Education and the Ministry of Health, each of which may have competing demands and authority. At the time of writing, there are 11 teaching hospitals in the Czech Republic, a number of which provide highly specialized outpatient and inpatient care.

6.4 Emergency care

The emergency care network in the Czech Republic consists of command centres, operational rescue service units, a rendezvous system and an Air Emergency Medical Service. The network is part of the nationwide Integrated Rescue System, along with fire brigades and the police. According to the latest target response time, people should be able to receive assistance within 15 minutes of calling the emergency number.

Both the standard emergency number for the Czech Republic (155) and the European emergency number (112) connect callers to the command centres.

Established at the regional level in 2003, these centres organize transportation and coordinate the activities of both state and private rescue services. Each command centre is headed by a physician and staffed with a nurse or a certified rescue service specialist.

The operational rescue service units are part of a rapid emergency physician service and consist of ambulances staffed with a physician, an ambulance driver and another member of the emergency rescue service (that is, a nurse or equivalent health professional specialized in emergency medicine). Drivers complete a special training course involving 800 hours of instruction.

The rendezvous system encompasses two types of emergency services: another rapid emergency physician service and a rapid emergency medical service. The former consists of a small vehicle with a physician and an ambulance driver, the latter of an ambulance with a driver and a nurse from the operational rescue service. As part of the rendezvous system, two separate units are sent to the scene of an accident or emergency to provide aid.

The Air Emergency Medical Service (*Letecká záchranná služba*) is stationed within the regions and provides services throughout the Czech Republic and in border areas. Helicopters are provided by private organizations, the Ministry of Internal Affairs and the Ministry of Defence. Crew assignments, equipment and dispatching are coordinated by a rescue operations command centre.

6.5 Pharmaceutical care

As of 2007, 99% of pharmacies in the Czech Republic were being run as private enterprises (ÚZIS 2008b). The remaining 1% of pharmacies were owned by public hospitals, but were also open to the general public. There is a trend at the time of writing towards the establishment of pharmacy chains, especially in urban areas (see Subsection *Pharmacists*, within Section 5.2 *Human resources*).

In the early 1990s, the Czech pharmaceutical industry was almost completely privatized, leading to important changes in the commercial strategies and production methods used by the various manufacturers. Despite steady price increases, domestically produced pharmaceuticals are of great importance to the Czech health care system.

Since 2008, pricing and reimbursement decisions for registered pharmaceuticals have been the responsibility of the SÚKL (see Subsection *The State Institute for Drug Control*, within Section 2.3 *Organizational*

overview). Pharmaceuticals are assessed based on their efficacy, safety, quality and cost–effectiveness with regard to their proposed use or uses. In the event of an unfavourable decision, an applicant is entitled to file an appeal with the Ministry of Health or, if this appeal is unsuccessful, with the appropriate court. The pricing and reimbursement process is in line with Council Directive 89/105/EEC, otherwise known as the Transparency Directive. Before 2008 the responsibility for pricing and reimbursement was shared by the Ministry of Finance and the Ministry of Health.

The maximum ex factory price for a given pharmaceutical is based on a system of international price comparisons, with eight EU Member States serving as reference countries in 2009 (Estonia, France, Greece, Hungary, Italy, Lithuania, Portugal and Spain). In short, the maximum price is defined as the average of the three lowest prices for a given pharmaceutical in all eight reference countries. The SÚKL is responsible for finding accurate information about the lowest pharmaceutical prices in the reference countries.

Since 1995, a reference pricing system has been used in the Czech Republic to set reimbursement limits for pharmaceuticals assigned to the same group of therapeutic substitutes, or reference group. New rules for setting the reimbursement price were introduced in 2008, when the SÚKL became responsible for the process. The basic reimbursement level for each reference group is set at the price of the least expensive pharmaceutical within that group in the entire EU. Moreover, the 1997 Act on Public Health Insurance defines 300 groups of substances for which at least one pharmaceutical must always be covered in full by the health insurance funds. If any of these 300 groups lacks a fully covered pharmaceutical, the level of reimbursement must be increased to that of the least expensive pharmaceutical in that same group. In practice, more than 50% of pharmaceuticals reimbursed by the SHI system at the start of 2008 were covered in full, requiring no OOP payment other than the flat CZK 30 (€1.20) user fee charged for all reimbursed prescription pharmaceuticals.

The SÚKL uses the WHO Anatomical Therapeutic Classification system to define the various reference groups and also sets the conditions for reimbursement, such as requiring that patients have received a particular diagnosis or the prescribing physicians have a certain specialization (cardiology or oncology, for example). For some pharmaceuticals, special approval is necessary from a review doctor working for a health insurance fund.

The marketing authorization holder of a pharmaceutical (that is, a producer or distributor) may request that a surcharge of no more than 30% be added to the basic reimbursement level if the pharmaceutical in question has superior therapeutic benefits compared to other pharmaceuticals in the same reference

group. The marketing authorization holder is responsible for providing evidence of these benefits.

The combined maximum amount of mark-ups by pharmacies and wholesalers after pharmaceuticals leave the factory is set by the Ministry of Health. This total mark-up was lowered from 35% to 32% in 1999 and from 32% to 29% in 2006. On 1 August 2006 a degressive mark-up system (that is, with lower mark-ups on higher ex factory prices) was introduced, with maximum surcharges ranging from 5% to 36% of the producer price.

Since 1999 the health insurance funds have also played a role in constraining expenditure on pharmaceuticals, introducing pharmaceutical budgets for each health care provider and imposing penalties in the event of overspending. These budgets proved to be very unpopular among the providers, especially after the penalty element was strengthened in 2006. Political backlash led to a softening of the penalties in 2007.

Generic substitution has been allowed in pharmacies since 2008. Furthermore, some pharmaceuticals that were previously available only with a prescription can now be obtained on an over-the-counter basis, albeit exclusively in pharmacies. This measure was designed to reduce the costs of treating individuals with chronic disease.

There are plans at the time of writing to launch a data collection system using electronic prescriptions in 2009. One of the chief aims of the new system is to avoid drug abuse; for example, it will help to ensure that substances such as pseudoephedrine can be obtained by an individual patient only once a week and in limited quantities.

6.6 Long-term care

Long-term care for older or disabled people in the Czech Republic is still provided in two overlapping settings with different systems of organization and funding. Before 2007, residential long-term care facilities and other social services were financed primarily from the central, regional and municipal budgets, whereas health care facilities providing long-term inpatient care were financed primarily through the SHI system. This split led to frequent complications in the organization and provision of services.

In an attempt to remedy this situation, law-makers passed the 2006 Act on Social Services, which came into effect in 2007. The principal aim of the legislation was to support free choice of social services by providing individuals, rather than institutions, with a care allowance. It also introduced

a funding mechanism that permitted (a) health care facilities to finance some forms of social care from the state or regional budgets and to charge a per diem fee equivalent to that levied by social care facilities; and (b) social care facilities to finance some services through contracts with the health insurance funds (see also Subsection *Long-term health and social care reform*, within Section 7.1 *Analysis of recent reforms*). Finally, the legislation also provided for a new system to evaluate long-term social care facilities according to the quality of their services, the education of their staff, ethical issues and client involvement. A facility must receive a positive evaluation to obtain funding from the state budget.

Residential long-term social care facilities for the elderly generally have long waiting lists in the Czech Republic. This lack of capacity in the social care system has led to a bottleneck in hospitals offering long-term inpatient care, as a large number of hospital stays have been lengthened beyond medical necessity (see Subsection *Infrastructure*, within Section 5.1 *Physical resources*). In an attempt to increase the number of places in residential long-term care facilities to approximately 20 000, the market for these services was opened up to public competition in 1997. This goal has remained elusive, however, with the total number of beds in these facilities amounting to only 7200 in 2007. In 2008 a user fee of CZK 60 (€2.40) per hospital day was introduced as a means to reduce the inappropriate use of long-term beds in hospitals. Both the aim and effects of this and other user fees have been subject to great political controversy (see Subsection *Public Budgets Stabilization Act of 2007*, within Section 7.1 *Analysis of recent reforms*).

Apart from the residential setting, comprehensive home care (CHC) is also available. First introduced in the Czech Republic in the early 1990s, CHC is an integrated form of care and assistance provided to patients within their own social environments. A key component of CHC is home health care, which is a particular form of outpatient care provided by nurses under physician supervision. Family members and volunteers also play an important role in providing general care and assistance.

6.7 Mental health care

Mental health care is funded through the SHI system and is provided both in the ambulatory setting and in inpatient facilities. The latter include hospital psychiatric departments, psychiatric hospitals and psychiatric institutes. There is a gradual trend in the Czech Republic towards community-based care, along with increased public education about mental illness. Although the current

system offers satisfactory services to many patients, the care provided to those with chronic mental conditions is insufficient. Re-hospitalizations, extensive stays and even lifetime psychiatric hospitalization in this group are common. These problems stem from the low priority afforded to these individuals over many decades and are likely to continue if the coordination between the health and social care systems is not improved.

7 Principal health care reforms

7.1 Analysis of recent reforms

Many of the recent reforms to the Czech health system have attempted to address the chronic financial instability that has marked the system since the early 1990s. Others have focused on the issue of hospital ownership and management structures, especially following the modernization of public administration that took place between the years 2000 and 2003. Yet other reforms have focused on improving purchaser–provider relationships, compliance with the *acquis communautaire*, and coordination between the systems of health and social care. This chapter describes the major health care reforms in the Czech Republic and their impact from the late 1990s to the time of writing. For a more detailed description of individual measures, see each of the respective chapters.

Health sector financing reforms

To gain a better understanding of the major financing reforms made to the Czech health system since the late 1990s, it is important to look back to developments in the SHI system and the Czech economy during the country's transition period.

The early 1990s saw a sea change in the Czech health system. With the General Health Insurance Act (1991), the Act on the General Health Insurance Fund (1991), and the Act on Departmental, Professional, Corporate, and Other Health Insurance Funds (1992), the Semashko model of health care organization from the communist era was replaced with a system of SHI. This system was, and is, characterized by a number of quasi-public, self-governing health insurance funds acting as payers and purchasers of care and financed through mandatory

contributions. These contributions take the form of a payroll tax split between employers and employees; self employed individuals must contribute a fixed percentage of their profits. The first health insurance fund to be established was the VZP. It covered the entire population of the Czech Republic and remained the only health insurance fund in the country until the first of many other health insurance funds was founded pursuant to the above-mentioned 1992 Act. For the most part, the new and smaller funds were organized around large employers or according to specific industries. The first of them entered the market in 1993, and they recruited their insurance stock from the VZP. Many of them competed for insured individuals by offering a variety of services, such as free travel health insurance or subsidies for wellness activities, above and beyond the standard benefits. The individuals attracted by these special benefits tended to be young and healthy. This left the VZP with a continually smaller number of insured individuals and a disproportionate share of older persons with more complex health needs.

In 1995 the number of health insurance funds peaked at 27. Because some of them were too small to manage the health risks of their portfolios, a range of mergers took place and several health insurance funds went into liquidation. In a few cases, the failed health insurance funds were unable to pay their contracted providers. To protect providers from circumstances like these in the future, law-makers established a so-called Securing Fund in 1998. Its aim was to settle outstanding payables in the event of bankruptcies among the remaining health insurance funds. With the exception of the VZP, all health insurance funds were obliged to make annual contributions to this rainy day account, based on their average yearly health care expenditures. Although this obligation was withdrawn in 2006, the Securing Fund still exists today. To date, there has not been a single situation in which the Securing Fund has had to act.

The number of health insurance funds stabilized at nine in the late 1990s, remaining at this level until 2008, when a tenth health insurance fund was established. In 2008 the market share of the VZP was approximately 63% of the insured population. Since the wave of mergers and liquidations in the mid- to late 1990s, the other health insurance funds have not experienced difficulties meeting their contractual obligations with health care providers and have almost consistently reported positive or at least neutral financial results.

In contrast, the VZP has suffered from repeated solvency problems since its inception. Its cumulative debt reached a peak of CZK 10.6 billion (€356 million) in 2005, or 6.2% of total SHI expenditure that year.⁸ At the beginning of 2006 the VZP's payables were more than 30 days overdue. Many health care providers found themselves in the position of being involuntary

⁸ In this instance, the euro value is based on the average 2005 €/CZK exchange rate (€1 = CZK 29.78).

creditors of the VZP. Moreover, through spillover effects, the suppliers of pharmaceuticals and medical aids became involuntary creditors of these providers. These developments occurred in spite of several attempts by the State to improve the liquidity of the VZP by increasing state SHI contributions for economically inactive people and by directing the Czech Consolidation Agency to buy up bad debt resulting from unpaid SHI contributions (see Subsection *Other sources of financing*, within Section 3.3 *Revenue collection/sources of funds*).

When law-makers created the Czech SHI system in the early 1990s, it was difficult to predict future cash flow. To deal with this uncertainty, state SHI contributions on behalf of economically inactive people were introduced as a flexible mechanism to subsidize the SHI system. Since then, the state contribution rate has been increased several times on an ad hoc basis by government decree, but never to a level that could compensate for advances in acute medical treatment. Moreover, the SHI contribution rate for employees and employers has not been increased since the 4.5%–9.0% split was legislated in 1991 (see Subsection *Compulsory sources of financing*, within Section 3.3 *Revenue collection/sources of funds*). A chronic shortfall in revenue has been the result.

This shortfall is perhaps best illustrated by the state SHI contribution figures for 2005. During that year, the State made contributions on behalf of 5.8 million insured individuals, or more than half of the Czech population. Yet these contributions represented only 20.8% of revenue within the SHI system that year. In an attempt to address this disparity, a political consensus was reached in 2006 to link the state contribution to economic growth by defining the contribution as 13.5% of 25% of the average monthly wage two years prior to the current year (see Subsection *Compulsory sources of financing*, within Section 3.3 *Revenue collection/sources of funds*). This new formula was written into law. As a result, the state SHI contribution per economically inactive person rose between 2005 and 2006 from 18.7% to 23% of the average SHI contribution made per employee. Altogether, state contributions accounted for 24% of all revenue in the SHI system in 2006.

Another important change in financing in the Czech health sector took place starting in January 2005, as law-makers implemented a reform of the old risk-adjustment scheme, which had been in place since 1993. As described earlier, the entry of the other health insurance funds into the market and their recruitment of young and healthy insured individuals in the early to mid-1990s left the VZP with a disadvantageous portfolio in terms of age and morbidity. A risk-adjustment scheme was introduced in 1993 to deal with this issue, but it failed to reduce incentives for cream-skimming as it was based on only a portion of total revenue and used a fairly crude formula. The VZP's financial

situation consequently continued to deteriorate. The reform implemented during 2005 and 2006 involved a refinement of the previous risk-adjustment scheme; the new scheme is based on 36 age and gender categories and provides for ex ante redistribution and partial ex post compensation for costly care. Furthermore, 100% of state and non-state SHI contributions are subject to redistribution. For more details on the new risk-adjustment mechanism, see Subsection *Mechanisms for allocating funds among pooling/purchasing agencies*, within Section 3.4 *Pooling of funds*. The aim of this reform was to eliminate incentives for cream-skimming behaviour, to ensure that resources would be distributed more equitably among the health insurance funds, and to create stronger incentives for the health insurance funds to manage costs. Additional refinements are under consideration at the time of writing, such as incorporating pharmacy-based cost groups into the risk-adjustment formula.

As of January 2009 the SHI system in the Czech Republic is financially balanced. The large increase in the state SHI contribution in 2006, the reform of the risk-adjustment scheme, and the positive overall performance of the Czech economy helped the VZP to settle its outstanding payables and, in 2007, to begin filling its reserve account for the first time. A budget surplus in 2008 allowed the health insurance funds to further increase their internal reserves, which has helped cushion them against the current global economic crisis. Nevertheless, as the extent of the economic slowdown remains unclear, it is impossible to predict at the time of writing the ultimate impact of the crisis on the SHI system.

Organizational reforms in the hospital sector

Two important reforms of organizational structures in inpatient care have taken place since 2003: the reorganization of inpatient capacities in the regions and the concentration of highly specialized care into specially designated health care centres.

At the end of 2002, state administration at the district level was abolished and replaced by a system of regional governments. In the process, the ownership of 82 hospitals with 32 021 beds was transferred to the 14 newly formed regions (see Section 1.3 *Political context* and Subsection *The role of the regional governments/decentralization*, within Section 2.3 *Organizational overview*). Since 2003 several regional governments have chosen to convert the legal form, and thus the management structure, of their hospitals from so-called contributory organizations (*příspěvkové organizace*) to joint stock companies, which remain in regional ownership. It is worth noting that contributory organizations are a Czech form of legal entity that is established by a government body, to which the entity's budgets are linked. Proponents of the change argue that this legal

form was ill-suited to large hospitals, and that operating hospitals as joint stock companies would improve accountability, transparency and managerial responsibility (Veřmiřovský et al. 2008). It was also hoped that the change would address the hospitals' chronic deficits, which placed a considerable burden on regional budgets.

The ideal legal form of hospitals in the Czech Republic has remained a contentious political issue, and there are important arguments both for and against the above-mentioned changes undertaken by the regional governments. At the time, the changes were opposed at the national level by the then governing coalition led by the Social Democratic Party (ČSSD). A law mandating the conversion of the newly formed joint stock companies into a novel non-profit-making public legal entity (*veřejné neziskové ústavní zdravotnické zařízení*) and placing them back under de facto control of the Ministry of Health was passed by the Chamber of Deputies in 2006. The law was subsequently rejected by the Senate, in which the ODS enjoyed a majority, and later vetoed by the President. Although the presidential veto was later overridden, the Constitutional Court ultimately ruled that certain parts of the new law were unconstitutional. This ruling was handed down shortly before the law entered into force. At the time of writing in March 2009, it is theoretically possible for a hospital to exist with the new non-profit-making public status, but the regions with hospitals in the form of joint stock companies are no longer obliged to convert them into the new legal form, and none of them have done so to date. Some regions, such as Středočeský, have sold several smaller hospitals to private owners; other regions have outsourced hospital management – a common practice in other European countries. Nevertheless, the vast majority of regional hospitals remain under public ownership, despite their commercial legal status (see Subsection *Infrastructure*, within Section 5.1 *Physical resources*).

In 2008 the Ministry of Health launched a programme to improve the quality of highly specialized care in areas such as traumatology, oncology and cardiology. As part of this programme, high-performing health care facilities in these areas may apply to be designated as a Specialized Care Centre, which allows for special contractual conditions with the health insurance funds (for example, exclusive permission to use – and extra funding for – very costly pharmaceutical agents such as biologics or the latest oncological treatments). The aim is to increase patient safety and the quality of care by defining stringent quality criteria for the centres, ensuring that specialized treatment is delivered only in health care facilities in which medical staff have the appropriate qualifications and medical technology to treat complicated cases. Further aims are to concentrate demand, to avoid underutilization of expensive medical technology, and to guarantee sufficient capacity and geographic accessibility by creating networks of Specialized Care Centres. To date, networks have already been

established in the fields of traumatology and oncology. For more details on these centres, see Subsection *Regulating quality of care* within Section 4.1 *Regulation*.

Public Budgets Stabilization Act of 2007

The Public Budgets Stabilization Act, passed in August 2007, included a variety of measures aimed at the Czech health sector. The most important of these were the establishment of an annual ceiling on SHI contributions for all contributors; the introduction of small user fees for a variety of health services; and changes to the system for setting prices and reimbursement rates for pharmaceuticals.

The first of the above-mentioned measures addressed a long-standing discrepancy between the SHI contribution rates of employees and self-employed individuals. Since the early 1990s, the latter group had benefited from an annual ceiling on their SHI contributions. To establish a more equitable system of contributions and to improve revenue, the 2007 Public Budgets Stabilization Act created a new, uniform ceiling for all contributors, regardless of their employment status. As of March 2009 the ceiling is equal to 48 times the average monthly wage in the Czech Republic two years prior to the current year; this ceiling is higher than that originally applied for self-employed individuals (see Subsection *Compulsory sources of financing*, within Section 3.3 *Revenue collection/sources of funds*).

The second important measure contained in the 2007 Act was the introduction of small user fees for doctor visits, hospital stays, the use of ambulatory services outside of standard office hours, and prescription pharmaceuticals (for details see Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/sources of funds*). Until the end of 2007, inpatient and outpatient care was free of charge at the point of use, with the exception of some prescription pharmaceuticals and medical aids. In the view of the governing coalition of the ODS, the KDU-ČSL and the Greens (SZ) in power since 2007, this had led in many cases to the inappropriate use of scarce health care resources. Indeed, the number of outpatient contacts per person in the Czech Republic was the highest in the WHO European Region in 2006 (15.0 per person) (WHO Regional Office for Europe 2008). Moreover, an estimated CZK 4–10 billion worth (€144–360 million)⁹ of prescribed pharmaceuticals were wasted or went unused each year.¹⁰ The chief aim of the user fees introduced in 2008 was to produce a psychological effect that would lead to a reduction in overconsumption and

⁹ In this instance, the euro value is based on the average 2007 €/CZK exchange rate (€1 = CZK 27.76).

¹⁰ *Reformní opatření v resortu zdravotnictví a plán jejich uskutečňování v letech 2007–2009 [Reform measures in the health care sector and programme of their realization in the years 2007–2009]*, approved in Czech Government Decision No. 918/2007, 13 August 2007.

inefficiencies in the health sector. Although the user fees are small and thus not intended to serve as a major source of revenue, law-makers would naturally have realized that the fees would play some role in this regard.

Measuring both the short- and long-term effects of user fees is notoriously difficult. This is especially the case in the Czech Republic due to the sensitive political nature of the subject and negative media coverage of the fees, which may have led to general uncertainty among insured individuals regarding the new system. Ministry of Health data show that there was a drop of more than 15% in the number of visits to ambulatory specialists in 2008. The decrease in the use of ambulatory care services outside of standard office hours was even more pronounced, at 36%. Importantly, this was not accompanied by an increase in the use of emergency rescue services. Looking at hospitalizations in the Czech Republic in 2008, the number of hospital days decreased by 1.4% in acute care hospitals and by 3.8% in non-acute hospitals, even though the number of hospitalized patients increased by 3% in acute care hospitals and by 5% in non-acute hospitals during the same period. This suggests a reduction in the average length of stay. Finally, the number of prescribed pharmaceuticals and the number of unit packs of prescribed pharmaceuticals fell by 30.7% and 21.0%, respectively. At the same time, SHI expenditure on prescribed pharmaceuticals rose by 1.7%, indicating a shift in SHI reimbursement from less expensive, everyday pharmaceuticals to more costly pharmaceutical treatments (Ministry of Health 2009d).

It remains to be seen whether the use of health care services will remain at these lower levels beyond the short term. It will also be important to determine if the user fees have a deterrent effect among groups of vulnerable individuals, such as those with low income or chronic conditions, causing them to delay seeking necessary care. Aware of this potential effect, law-makers introduced a safety net along with the user fees, granting exemptions for people living below the poverty line, neonates, chronically ill children, pregnant women, patients with infectious diseases, organ and tissue donors, and individuals receiving preventive services. Moreover, an annual ceiling of CZK 5000 (€200) per insured individual was established for selected user fees (that is, user fees for hospital stays and the use of ambulatory services outside of standard office hours are not included), as well as for co-payments towards prescription pharmaceuticals whose actual price exceeds the reference price in a particular pharmaceutical group. Patients who exceed this limit are reimbursed for the additional user fees and prescription pharmaceutical co-payments by their health insurance fund. In 2008 this ceiling was reached by 18 700 individuals (Ministry of Health 2009d).

The user fees have become a very sensitive political issue in the Czech Republic, sparking debate in Parliament, the media and the general public.

In response to a variety of considerations and pressures, law-makers have already made a number of adjustments to the fee system. The annual ceiling will be lowered starting on 1 April 2009 to CZK 2500 (€100) for children and adolescents up to the age of 18, and for people older than 65 years. Moreover, children and adolescents up to the age of 18 years are now exempted from user fees for doctor visits. Despite these and other changes, the opposition parties in Parliament have announced their intention to eliminate user fees entirely. In February 2009 the ČSSD won elections in 13 of the country's 14 regions (that is, in all regions except for Prague) and have pursued a number of measures to counteract the fees.

The third important measure contained in the 2007 Public Budgets Stabilization Act involved far-reaching changes to the system for setting pharmaceutical prices and reimbursement rates. Under the old system, maximum ex factory prices were set by the Ministry of Finance, whereas reimbursement rates for reference groups were set by the Ministry of Health based on recommendations made by the so-called Categorization Committee. Both the Czech Constitutional Court and the European Commission criticized the system, finding fault in particular with the lack of transparency in price setting and with the absence of an appeal procedure in the process for setting pharmaceutical reimbursement rates. Under the new system, the two processes are administered by the SÚKL. The procedure for setting maximum ex factory prices now includes international price comparisons and has been made more transparent. Furthermore, the new process for setting pharmaceutical reimbursement rates allows the health insurance funds to play a more significant role and grants marketing authorization holders the right to appeal against unfavourable reimbursement decisions (see Section 6.5 *Pharmaceutical care*). The new system for setting reimbursement levels is in line with Council Directive 89/105/EEC, otherwise known as the Transparency Directive. According to data provided by the Ministry of Health and the SÚKL, the new system led to price decreases for approximately 3000 pharmaceuticals by November 2008 (that is, within the first 11 months of its implementation). As a result, an additional 500 pharmaceuticals no longer required a co-payment other than the flat CZK 30 (€1.20) user fee charged for all reimbursed prescription pharmaceuticals (Ministry of Health 2008).

Health care purchasing: new trends in the purchaser–provider relationship

Long-term contracts between the health insurance funds and individual providers are the cornerstone of the purchaser–provider relationship in the Czech Republic. The default contract for each category of provider is obligatory

and specified in a Directive on Long-term Contracts issued by the Ministry of Health. The contracts include a range of general conditions, such as staffing and technical requirements for providing health care, but do not specify the exact terms of reimbursement, which are subject to annual negotiations.

These annual negotiations between health insurance funds and health care providers are supervised by the Ministry of Health. If an agreement is reached, the Ministry publishes the results in a so-called Reimbursement Directive. If an agreement is not reached, then the Ministry determines the details of the Reimbursement Directive and publishes it on its own. Before 2008 this directive was binding for all parties involved; as a result, an agreement was generally not reached before the deadline, because both the health insurance funds and the providers hoped that the Ministry would set financial conditions that would be more favourable than those that could be achieved in negotiations. Since 2008, however, the Reimbursement Directive is no longer binding. Using the Reimbursement Directive as a guideline, individual health insurance funds and individual providers draw up amendments to the long-term contracts described earlier. These amendments contain the specific conditions of reimbursement for the current year (for more details see Section 3.5 *Purchasing and purchaser-provider relations*).

Since 2007 there has been a shift in the payment of hospitals from global budgets and capitation to methods of payment that better reflect the types and volumes of care provided. It is precisely here that the Reimbursement Directive published by the Ministry of Health serves as a helpful guideline, encouraging health insurance funds to explore the possibility of purchasing specific types of services outside of the usual system of prospective global budgets. Examples include DRG payment mechanisms and individual contracts, with package prices specified for hip and knee replacements, cataract surgery, some cardiovascular interventions, and even deliveries (see Subsection *Payment of hospitals*, within Section 3.6 *Payment mechanisms*). The new, non-binding character of the Reimbursement Directive also allows the health insurance funds to fine-tune their respective bonus systems, which aim to improve the care delivered by primary care doctors.

Long-term health and social care reform

An important goal of the 2006 Act on Social Services was to clarify the relationship between the overlapping networks of long-term health care and long-term social care. The former is the responsibility of the health sector with its many actors, whereas the latter lies within the remit of the Ministry of Labour and Social Affairs. Before the 2006 Act came into force in January

2007, the majority of social care providers were financed directly from the central, regional and municipal budgets, whereas health care facilities providing long-term inpatient care were financed primarily through the SHI system. Social care providers also received OOP payments from their clients and subsidies from the Ministry of Labour and Social Affairs. This split has led to frequent complications in the organization, provision and reimbursement of services.

The 2006 Act on Social Services sought to resolve this split in financing. First, it replaced direct subsidies to social care facilities with a social care allowance, which is given directly to individuals in need of assistance with activities of everyday living. The allowance may be used by eligible individuals to pay for care provided by an accredited institution of their choice, or by family members or other individuals. Second, the 2006 Act allows health care facilities to bill patients the full amount of their social care allowance in cases where these patients require fewer than three hours of medical care per day, but nevertheless must remain in inpatient care due to a lack of capacity within the social care system or because of an inability to receive social care within their home environment. In such cases, the health care facilities are also permitted to charge a per diem payment equivalent to that levied by social care facilities. Here, it should be noted that this per diem is not the same as – and may not be combined with – the CZK 60 (€2.40) user fee for inpatient care described in Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/sources of funds*. Before these changes were enacted, the SHI system provided patients with incentives to remain within inpatient facilities as long as possible, as it did not require any form of cost sharing. Finally, the 2006 Act on Social Services made it possible for social care facilities to receive reimbursements from SHI funds for health care provided to their clients; usually the care in question is provided by qualified nurses employed by the social care facilities themselves. In contrast to health care providers, the providers of social care are not required to have contracts with a health insurance fund in order to obtain reimbursement for these services.

The 2006 Act was designed to be financially neutral, ensuring a roughly equal exchange of funds between the two systems. After the first year of its implementation, however, it became apparent that the social care providers were receiving more public funds from the SHI system than vice versa. This appears to be the result of the lengthy and complicated administrative procedures that health care providers must follow in order to receive social care subsidies from the Ministry of Labour and Social Affairs.

Education and training of health professionals

Two acts passed in 2004 have played an important role in harmonizing the Czech legal framework with EU law, setting new rules for the acquisition and recognition of qualifications for physicians, dentists, pharmacists and non-physician professionals. The ministerial directives defining the precise conditions for the training of physicians and non-physician health care professionals are updated on a continual basis. To obtain their qualifications in a postgraduate medical specialty, physicians are required to complete five years of training. In 2008, a new residency programme was introduced for medical school graduates. The Ministry of Health subsidizes the places in the programme, covering the costs of training and part of the trainee salary. Being able to influence the number of trainees in different medical specialties is an important tool in the Ministry of Health's personnel planning programme. This is especially the case considering the current age structure of GPs and dentists as well as the shortage of nurses, in the Czech Republic (see Subsection *Planning of health care personnel*, within Section 5.2 *Human resources*).

7.2 Future developments

As in most other developed countries, the key challenge to health care reform in the Czech Republic in the coming decades will be to ensure that all inhabitants have access to high-quality care based on the principle of genuine solidarity, while simultaneously taking account of the country's economic development, demographic ageing and the capacities of the SHI system (Juliněk 2009). As of March 2009, a range of legislation aiming to meet this challenge is either awaiting approval in the legislative process or is still in its conceptual stages, being discussed among the various stakeholders. These reforms are intended to be implemented gradually in two phases and to focus on (a) patient rights and health care provision and (b) refining the SHI system.

The first phase involves strengthening patient rights, bringing these into compliance with present-day social needs and the Czech Republic's commitments to the EU. One piece of proposed legislation, the Act on Health Services and Conditions for their Provision, would replace the 1966 Act on Care for People's Health and would regulate the patient-provider relationship, clearly defining the basic rights and obligations of each party. In particular, the Act is aimed at defining patient rights, specifying providers' status and responsibilities, codifying registration requirements for providers, and clarifying providers' obligations with regard to the provision of health care. It also aims to improve patient safety and the quality of care by requiring improved monitoring and

control. Yet another proposal concerns the codification of special health services such as sterilization, in vitro fertilization and organ donation, and would include a specification of patient rights related to these services. Additional proposed legislation in the first phase focuses on emergency rescue services and would unify the financing of these services across regions, strengthen interregional cooperation and increase accessibility by creating more emergency service sites.

The second phase involves measures aimed at refining the SHI system. As described in Subsection *Definition of benefits* within Section 3.2 *Population coverage and basis for entitlement*, the system at the time of writing for defining and rationing benefits is fragmented, ad hoc and unwieldy. One of the most important pieces of proposed legislation in this field would provide a more explicit definition of SHI benefits and re-designate them as entitlements, thus increasing transparency and strengthening the legal rights of all relevant actors to enforce them. The goal is to ensure that patients receive the necessary and appropriate health care services and are able to choose from a variety of options in a well-informed manner. In addition, this law would establish minimum standards of access to care in terms of waiting times and geographical distribution; a right for patients to be provided with information about other treatment options; and stricter penalties for providers who fail to facilitate this right. A related proposal contains measures targeted at health insurance funds to improve their management, ensure transparent and efficient performance, and promote greater managerial responsibility. The proposal would establish an independent supervisory authority to oversee the economic performance of the health insurance funds, monitor their viability, and ensure that the entitlements of insured individuals are enforced.

In addition to these legislative proposals, the Ministry of Health launched a public and political discussion in 2007 regarding the more distant future, focusing in particular on the generation of resources in the Czech health system. Known as the Round Table Project on the Future Path of Health Care Financing in the Czech Republic, the undertaking was approved by the Government in June 2007 and lasted until January 2009. Its chief aim was to bring attention to the long-term challenges facing the Czech health system and to encourage discussion among experts and politicians regarding these challenges. The project outcomes included a selection of technical papers (for example, Kulatý stůl 2008).

8 Assessment of the health system

The Czech health system is characterized by relatively low total health care expenditure as a share of GDP compared to western Europe; low OOP payments distributed relatively evenly across household income deciles; more than sufficient human resources, albeit with some significant regional disparities; and good results for a number of important health indicators. The population enjoys virtually universal coverage and a broad range of benefits, and some important health indicators are better than the EU averages (for example, mortality due to respiratory disease) or even among the best in the world (such as infant mortality). On the other hand, the standardized death rates for diseases of the circulatory system and malignant neoplasms are well above the EU27 average. The same applies to a range of health care utilization rates, such as outpatient contacts and average length of stay in acute care hospitals, both of which are notably high. In short, there is substantial potential in the Czech Republic for efficiency gains and improved health outcomes. This has been recognized by the Czech Government, which has attempted to reduce inappropriate demand by increasing cost sharing, and to improve the quality of specialized care by identifying high-performing health care facilities and allowing for special contractual arrangements between them and the health insurance funds.

The Euro Health Consumer Index 2008 (EHCI) covers 34 health care performance indicators gathered in 6 sub-disciplines and uses external data from sources such as the OECD, WHO and the European Commission, as well as national data and a specific survey (Health Consumer Powerhouse 2008). The Index gives some indication of the performance of the Czech system from a European perspective. In three of the sub-disciplines (“waiting time for treatment”, “health outcomes”, and “pharmaceuticals”) the Czech Republic obtained above-average scores and in the sub-discipline “range and reach of

services provided” it obtained a close-to-average score. The report also mentions the Czech Republic as one of the countries that has made a faster-than-average improvement in consumer friendliness. On the other hand, a rather low score was obtained for the sub-discipline “patient rights and information”. Strengthening patient rights is one of the major aims of several legislative proposals approved by the Czech Government in 2008. As of early 2009, these proposals were under discussion in Parliament (see Section 7.2 *Future developments*).

8.1 Stated objectives of the health system

Set out in the Czech Constitution and a range of legislation, the principles of the Czech health system include universality, equity and free access to health services. The objectives of the health care reforms that took place in the 1990s were not always stated explicitly. The broader reforms during the early part of that decade consisted of dismantling the huge regional and district institutes of national health from the communist era, privatizing primary and outpatient specialist care, and establishing the system of SHI that has existed to the present day (see Section 2.2 *Historical background*). These reforms were generally aimed at securing and sustaining health care financing, introducing choice for patients and insured individuals, and ensuring incentives to improve the quality of health services. In the years that followed, legislation related to the health sector was drafted to address a number of immediate needs and situations that had arisen, generally introducing new obligations for the various stakeholders or defining limitations to their scope of action (for example, see Subsection *Definition of benefits*, within Section 3.2 *Population coverage and basis for entitlement*).

Some of the main priorities of the Government in power since 2007 are the economic stabilization, modernization and further development of the health care system. To achieve these goals, the Government has planned to promote sustained solidarity in financing health care, strengthen the role of patients, improve fair competition among health care providers, define the entitlements of insured individuals in a systematic manner, encourage health prevention efforts, foster patient safety, and improve the quality of care (Czech Government 2007). These objectives are developed further in a plan for reforms in the health care sector that was approved by the Government on 13 August 2007.¹¹ Some of the tools described in this plan have already been implemented, whereas others are in legislative process (see Section 7.2 *Future developments*).

¹¹ *Reformní opatření v resortu zdravotnictví a plán jejich uskutečňování v letech 2007–2009 [Reform measures in the health care sector and plan for their execution in the years 2007–2009]*, approved by the Czech Government on 13 August 2007, Government Decision No. 918/2007.

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

The Czech health system is financed through a variety of taxes and contributions. Mandatory, SHI contributions are the main source of revenue, accounting for 70% of all public revenue within the Czech health system in 2006 (OECD 2008b). These contributions take the form of a payroll tax split between employers and employees; self-employed individuals must contribute a fixed percentage of their profits. Other public sources of revenue are used to finance items such as the state SHI contribution on behalf of economically inactive people, direct investment subsidies for health care providers, and public health services (see Subsection *Compulsory sources of financing*, within Section 3.3 *Revenue collection/sources of funds*). These sources include personal income tax (6% of all public revenue in the health system in 2006), VAT (15%), and other taxes (9%) (OECD 2008b). Public sector expenditure on health in the Czech Republic amounted to 88.6% of total health expenditure in 2005 (WHO Regional Office for Europe 2009), which was among the highest in the WHO European Region for that year, surpassed only by Luxembourg (see Section 3.1 *Health expenditure*).

The SHI contributions made by employers take the form of a payroll tax and were thus proportional until an annual ceiling on contributions was introduced in January 2008. At the time of writing (March 2009), this ceiling is set at 48 times the average monthly wage in the Czech Republic, two years prior to the current year. This makes the funding system mildly regressive. Unlike employees, self-employed individuals have benefited from an annual ceiling on SHI contributions since the inception of the SHI system in the early 1990s. In January 2008, however, the aforementioned new ceiling was introduced. It applies to all contributors, regardless of their employment status. It is worth noting that this ceiling is considerably higher than the previous ceiling for self-employed individuals.

Private per capita household expenditure on health as a share of total household expenditure is distributed quite evenly across household income deciles and remains among the lowest in the OECD countries (OECD 2008a) (see Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/sources of funds*). In 2007, average private per capita household expenditure on health amounted to 2.4% of total household expenditure, ranging from a minimum of 1.9% in each of the two lowest deciles to a maximum of 2.7% in the fourth lowest decile (Table 8.1). In comparison, average household expenditure on alcoholic beverages and tobacco amounted to 2.9% of total household expenditure in 2007 (Czech Statistical Office 2009d).

Table 8.1 Private per capita household expenditure on health as a share (%) of total household expenditure according to net spendable income per person (deciles), 2007

	Lowest 10%	2nd 10%	3rd 10%	4th 10%	5th 10%	6th 10%	7th 10%	8th 10%	9th 10%	Highest 10%
Annual household expenditure on health per capita (€)	48	57	83	103	90	105	114	109	126	169
Average (€)	95 (2.4%)									
% of household expenditure	1.9	1.9	2.4	2.7	2.4	2.4	2.5	2.1	2.2	2.3

Source: Czech Statistical Office 2009d.

Because they are usually set independently of a patient's income, out-of-pocket payments tend to be viewed in the relevant literature as regressive (Zápal et al. 2009). Table 8.1 shows, however, that private per capita household expenditure as a share of total household expenditure in the Czech Republic in 2007 was not higher among people in the lowest income deciles, as one would expect in a regressive system. Although the introduction of user fees in 2008 has increased the potential for regressivity, the exemptions granted to people living below the poverty line and the annual ceiling on selected user fees and on co-payments for prescription pharmaceuticals may have a mitigating effect (see Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/ sources of funds*).

As can be seen in Table 8.2, the distribution of private per capita household expenditure on health as a share of household income according to household type reveals greater differences. Nevertheless, these differences still remain relatively low. In 2008, expenditure on health care amounted to 1.7% of household net income among economically active persons with children, and 4.1% of household net income among retired individuals (Czech Statistical Office 2009d). The substantial changes between the years 2007 and 2008 for some household types can be attributed to the introduction of user fees in January 2008.

Table 8.2 Private per capita household expenditure on health as a share (%) of household net income according to household type, 2007–2008

Type of household	Expenditure on health as a share (%) of household net income	
	2007	2008
Total	1.9	2.2
Retired individuals	3.2	4.1
Economically active (without children)	1.7	1.9
Economically active (with children)	1.5	1.7
With children and with minimum income	1.6	2.1

Source: Czech Statistical Office 2009d.

8.3 Efficiency of resource allocation in health care

Total health expenditure in the Czech Republic has remained relatively low compared to western Europe, amounting to 6.7% of GDP in 2007. At the same time, the Czech health system has, from a European perspective, a high number of physicians and nurses and offers an unusually broad range of services. During the 1990s changes made to the structure of inpatient facilities in the Czech Republic were driven primarily by an excessive number of beds in acute care and an insufficient number of beds in long-term care. A variety of measures were taken by the central Government in the first half of the 1990s to address this situation, such as restructuring smaller acute care hospitals into long-term care facilities, merging small hospitals and closing small, redundant inpatient facilities. Although this has led to a decline in the number of acute care beds, their number per capita was still among the highest in the WHO European Region in 2007.

The number of physicians and nurses in the Czech Republic is well above European averages, and although the number of dentists is low compared to many western European countries, it is slightly above the average for the EU27 countries (see Subsection *Trends in health care personnel*, within Section 5.2 *Human resources*). This is reflected in a high level of accessibility to GPs and most outpatient specialists. According to an analysis conducted by the Health Policy Institute and commissioned by the Czech Ministry of Health, geographic accessibility measured according to a patient's travelling time by car to the provider is good in all of the main medical disciplines (HPI 2008). Indeed, 95% of the Czech population has a GP for adults accessible within 6 minutes,

a dentist within 8 minutes, a gynaecologist within 10 minutes, and a pharmacy within 9 minutes. Most specialized outpatient care is accessible for 95% of residents within 20 minutes. Exceptions include cardiovascular surgery (average 53 minutes), neurosurgery (average 32 minutes), radio oncology (average 22 minutes) and traumatology (average 26 minutes). At the time of writing, legislation is being prepared that would introduce target travel and waiting times for practitioners in all disciplines (see Section 7.2 *Future developments*).

In summary, the human resources allocated to health care in the Czech Republic are more than sufficient to meet the needs of the population at the time of writing. It should be noted, however, that the physician-to-population ratio varies considerably between the country's 14 regions, with a high physician density in Prague (5.9 physicians per 1000 inhabitants) and a low density in the regions around the country's borders (approximately 2.7 physicians per 1000 inhabitants). The distribution of dentists within the country is also uneven, with a more-than-proportional share of dentists practising in urban areas (see Subsection *Trends in health care personnel*, within Section 5.2 *Human resources*). Moreover, waiting times have been shown to vary substantially between regions and health service providers for planned procedures such as hip or knee replacements, or cataract surgery. For a total hip replacement, for example, waiting times in 2005 ranged from 2 months in some facilities to as long as 24 months in others (Hroboň, Macháček & Julínek 2005). Although new contracting policies adopted by the health insurance funds since 2008 have already led to substantial improvements in waiting times, regional disparities in the accessibility of medical services remain some of the key challenges of future Czech health policy.

8.4 Technical efficiency in the production of health care

Considering the low share of total health expenditure as a percentage of GDP in the Czech Republic compared to western Europe, the technical efficiency of the health system is good when measured in terms of population health status. Infant mortality rates are among the lowest in the world, the standardized rate of mortality due to respiratory disease is lower than the EU27 and EU15 averages, and vaccination coverage is extremely high. These outcomes are reflected in the 2008 Health Consumer Powerhouse study, which ranks the Czech Republic as one of the five countries in the EU that provide the best value for money (Health Consumer Powerhouse 2008). Nevertheless, there

is considerable room for improving technical efficiency in the production of health care. Standardized death rates for diseases of the circulatory system and malignant neoplasms, for example, are still well above the EU27 averages (see Section 1.4 *Health status*).

When looking at resource use and the consumption of health services in the Czech health system, it also becomes apparent that the overall efficiency of the system could be improved. According to estimates, up to 20% of financial resources in the health system were spent inefficiently in 2007 (Kocian & Mařarová 2009). This includes money wasted on the overuse of health services, such as redundant medical examinations and laboratory tests, unnecessary doctor visits, prescribed pharmaceuticals that go unused, and unnecessarily high prices paid for medical aids by hospital purchasers. Furthermore, the average length of stay in acute care hospitals in the Czech Republic was well above the EU15 and EU27 averages in 2006, as were other important indicators of health care utilization, such as outpatient contacts, acute care hospital admissions, and all inpatient care admissions (WHO Regional Office for Europe 2009). These figures indicate that efficiency gains are possible.

In summary, the overconsumption of health services and inefficient use of resources are two important challenges facing the Czech health system in terms of technical efficiency. To help meet these challenges, the Government introduced a range of user fees in January 2008 for doctor consultations, hospital stays, the use of ambulatory services outside of standard office hours, and prescription pharmaceuticals (see Subsection *Out-of-pocket payments*, within Section 3.3 *Revenue collection/sources of funds*). When assessing the impact of the user fees after only one year, it must be borne in mind that all health services were previously free of charge at the point of use, with the exception of co-payments on some prescription pharmaceuticals. While early data seem to show that the user fees have had the desired effect, it remains to be seen whether this trend will persist (see Subsection *Public Budgets Stabilization Act of 2007*, within Section 7.1 *Analysis of recent reforms*).

8.5 Quality of care

National surveys on public satisfaction with the Czech health system are carried out at least once a year, and have been conducted since 2002 by an independent, nongovernmental public opinion agency. The results of the 2008 survey show a growing dissatisfaction with the Czech health system (CVVM 2009). Although this may be attributable in part to popular and political

opposition to the user fees introduced in 2008, it may also reflect an increase in patient expectations (see Subsection *Patient involvement*, within Section 2.4 *Patient empowerment*).

Although the Czech Republic lacks a unified system for assessing the quality of health services, some recent initiatives can provide insight into the quality of services provided in selected groups of facilities. For example, acute care hospitals and psychiatric inpatient facilities directly subordinate to the Ministry of Health have been assessed by the Ministry using patient satisfaction questionnaires. The results of the survey conducted in November–December 2008, with 23 000 participating patients, show that the care provided in these facilities is generally of a very good standard (Raiter 2009). High patient satisfaction scores were given for waiting times, hospital compliance with the date of planned treatment, the continuity of information provided by medical staff, the frequency of doctor visits, pain relief, inclusion of family members, and information provided regarding care and prescribed pharmaceuticals after hospitalization. Poor satisfaction scores were given for doctors' bedside manner, privacy during talks regarding patients' health status, the comprehensibility of doctors' answers to patients' questions, the inclusion of patients in decisions regarding their own treatment, the cleanliness of toilets and bathrooms, the time of morning wake-up calls, the willingness of a doctors to deal with patients' concerns, and trust in the attending physician (Raiter 2009).

The primary aim of these surveys is to provide the public with easily accessible information about the quality of health care providers and thus support patients' legal right to choose their physician and health care provider freely (see Subsection *Regulating quality of care*, within Section 4.1 *Regulation*). Another important aim is to supply the respective health care facilities with information that will enable them to improve items with low satisfaction ratings. Finally, the results of the surveys allow for the comparison not only of facilities as a whole, but also of departments and wards within and across facilities. The results are available to the public on a web-based Portal on Quality and Safety, run by the Ministry of Health (see Quality and Safety Portal 2009).

9 Conclusions

Many of the recent reforms to the Czech health system have attempted to address the chronic financial instability that has marked the system since its inception. Others have focused on the issue of hospital ownership and management structures, or on improving purchaser–provider relationships, compliance with EU law, and coordination between the systems of health and social care.

As of 2009 the Czech health system is characterized by relatively low total health care expenditure as a share of GDP compared to western Europe; low OOP payments; more than sufficient human resources, albeit with some significant regional disparities; and good results for a number of important health indicators. The population enjoys virtually universal coverage and a broad range of benefits, and some important health indicators are better than the EU averages (such as mortality due to respiratory disease) or even among the best in the world (in terms of infant mortality, for example). On the other hand, the standardized death rates for diseases of the circulatory system and malignant neoplasms are well above the EU27 average. The same applies to a range of health care utilization rates, such as outpatient contacts and average length of stay in acute care hospitals, both of which are high. In short, there is substantial potential in the Czech Republic for efficiency gains and improved health outcomes. This has been recognized by the Czech Government, which has attempted to reduce inappropriate demand by increasing cost sharing, and to improve the quality of specialized care by identifying high-performing health care facilities and allowing for special contractual arrangements between them and the health insurance funds.

The key challenge to health reform in the coming decades will be to keep high-quality care accessible to all inhabitants of the Czech Republic, while taking into account economic development, demographic ageing and the

capacity of the SHI system. Future reforms will likely focus on further codifying patient rights, clarifying the purchaser–provider relationship and refining the SHI system.

10 Appendices

10.1 References

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10.2 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 bureaus 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 database. The Health for All 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 Health for All data have been officially approved by national governments. With its July 2008 edition, the Health for All 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 and research and development.
- 5 Physical and human resources: deals with the planning and distribution of infrastructure and capital stock; the context in which information technology (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 and 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 WHO 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 services;
- to describe accurately the process, content and implementation of health 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.

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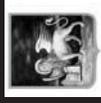
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Albania (1999, 2002^{a,g})
Andorra (2004)
Armenia (2001^g, 2006)
Australia (2002, 2006)
Austria (2001^e, 2006^e)
Azerbaijan (2004^g)
Belarus (2008)
Belgium (2000, 2007)
Bosnia and Herzegovina (2002^g)
Bulgaria (1999, 2003^b, 2007)
Canada (2005)
Croatia (1999, 2007)
Cyprus (2004)
Czech Republic (2000, 2005^g)
Denmark (2001, 2007)
Estonia (2000, 2004^{g,i}, 2008)
Finland (2002, 2008)
France (2004^{c,g})
Georgia (2002^{d,g})
Germany (2000^e, 2004^{e,g})
Hungary (1999, 2004)
Iceland (2003)
Israel (2003)
Italy (2001)
Kazakhstan (1999^g, 2007)
Kyrgyzstan (2000^g, 2005^g)
Latvia (2001, 2008)
Lithuania (2000)
Luxembourg (1999)
Malta (1999)
Mongolia (2007)
Netherlands (2004^g)
New Zealand (2001)
Norway (2000, 2006)
Poland (1999, 2005^k)
Portugal (1999, 2004, 2007)
Republic of Moldova (2002^g, 2008)
Romania (2000^f, 2008)
Russian Federation (2003^g)
Slovakia (2000, 2004)
Slovenia (2002)
Spain (2000^h)
Sweden (2001, 2005)
Switzerland (2000)
Tajikistan (2000)
The former Yugoslav Republic of Macedonia (2000)
Turkey (2002^{g,i})
Turkmenistan (2000)
Ukraine (2004^g)
United Kingdom of Great Britain and Northern Ireland (1999^g)
Uzbekistan (2001^g, 2007)

Key

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

- ^a Albanian
- ^b Bulgarian
- ^c French
- ^d Georgian
- ^e German
- ^f Romanian
- ^g Russian
- ^h Spanish
- ⁱ Turkish
- ^j Estonian
- ^k Polish



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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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