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Czech Republic

Health system review

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Preface

The Health Systems in Transition (HiT) series consists of country-based reviews 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 review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

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

Compiling the reviews poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including

the World Health Organization (WHO) Regional Office for Europe's European Health for All database, data from national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, data from the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. HiTs 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.

HiTs and HiT summaries are available on the Observatory's web site http://www.healthobservatory.eu.

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The HSPM is an international network that works with the Observatory on Country Monitoring. It is made up of national counterparts that are highly regarded at national and international level and have particular strengths in the area of health systems, health services, public health and health management research. They draw on their own extensive networks in the health field and their track record of successful collaboration with the Observatory to develop and update the HiT.

This edition was written by Jan Alexa (Czech Ministry of Finance), Lukáš Rečka (Environment Center, Charles University, Prague), Jana Votápková (PhD candidate at the Faculty of Social Sciences, Institute of Economic Studies, Charles University, Prague and analyst at the Ministry of Health), Ewout van Ginneken, Anne Spranger and Friedrich Wittenbecher (Berlin University of Technology). It was edited by Friedrich Wittenbecher, Anne Spranger and Ewout van Ginneken (Berlin University of Technology). The European Observatory on Health Systems and Policies' Research Director responsible for the Czech Republic HiT was Reinhard Busse (Berlin University of Technology). The basis for this edition was the previous HiT, which was written by Lucie Bryndová, Kateřina Pavloková, Tomáš Roubal, Martina Rokosová and Matthew Gaskins and published in 2009.

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List of abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ALOS	Average length of stay
ANO	Action of discontent citizens' party
AP-DRG	All patient diagnosis-related group
ATC	Anatomical Therapeutic Classification
CAM	Complementary and alternative medicine
CARK	Central Asian Republics and Kazakhstan
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
CMU	Centre for International Reimbursements
ČSSD	Social Democratic Party
CT	Computed tomography
CVVM	Public Opinion Research Centre
CZK	Czech Crown (currency)
DALE	Disability-adjusted life expectancy
DRG	Diagnosis-related group
EEA	European Economic Area
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
EU13	The 13 countries that joined the European Union in 2004, 2007 and 2014
EU28	All 28 Member States of the European Union as of 2009
FFS	Fee-for-service
FTE	Full-time equivalent
GDP	Gross domestic product
GP	General practitioner

HIV	Human immunodeficiency virus
HLY	Healthy life years
HPV	Human papillomavirus
HTA	Health Technology Assessment
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
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 Insurers
PET	Positron emission tomography
PPS	Purchasing power standards
PWPQ	Paramedical worker with professional qualifications
SDR	Standardized death rate
SHI	Statutory health insurance
SÚKL	State Institute for Drug Control
SZ	Green Party
SZP ČR	Czech Association of Health Insurers
SZÚ	National Institute of Public Health
TB	Tuberculosis
TCM	Traditional Chinese Medicine
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 Company of the Czech Republic
WHO	World Health Organization

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Abstract

This analysis of the Czech health system reviews recent developments in organization and governance, health financing, health-care provision, health reforms and health system performance. The Czech health-care system is based on compulsory statutory health insurance providing virtually universal coverage and a broad range of benefits, and doing so at 7.7% of GDP in 2012 – well below the EU average – of which a comparatively high 85% was publicly funded. 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, mortality rates for diseases of the circulatory system and malignant neoplasms are well above the EU average, as are 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 to improve health outcomes. Furthermore, the need for reform in order to financially sustain the system became evident again after the global financial crisis, but there is as yet no consensus about how to achieve this.

Executive summary

Introduction

The Czech Republic is a landlocked country situated in central Europe bordered by Germany, Poland, Slovakia and Austria, with a population of 10.5 million. Economically, the country performed well after the Velvet Revolution in 1989 and has one of the most developed economies among the post-communist European Union (EU) Member States. However, the recent global financial crisis had a substantial impact on the Czech economy; Czech GDP fell by 4.5% in 2009 and government debt has been increasing. Performance since then has been mixed; the strong Czech manufacturing sector helped to stabilize the economy in 2010–11, but in 2012–13 economic output declined again. In 2014 the Czech economy increased again by 2.4% of GDP, and is expected to further increase by 2.7% of GDP in 2015.

Life expectancy in the Czech Republic at birth is increasing, having reached 75.1 years for men and 81.3 years for women in 2012; these are well above the averages for EU13 Member States of 72.1 years for men and 79.9 years for women, but still below the EU15 averages of 78.8 years for men and 84.1 years for women in 2011. The rate of infant mortality in 2012 was among the lowest in the world: 2.6 deaths per 1000 live births, compared to an EU average of 4 in 2011. Diseases of the circulatory system are the most frequent causes of death, followed by malignant neoplasms, respiratory diseases and external causes. Risk factors for circulatory system disease, such as a relatively high rate of alcohol consumption and persistently high smoking rates, have been worrisome in the Czech Republic. Additionally, there are strikingly high smoking and alcohol consumption rates amongst teenagers compared to other OECD countries.

Organization and governance

The Czech Republic has a system of statutory health insurance (SHI) based on compulsory membership of a health insurance fund, of which there were seven in 2014. The funds are quasi-public, self-governing bodies that act as payers and purchasers of care. The core health legislation of the Czech Republic was adopted in the 1990s and has changed only marginally since then.

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 State Institute for Drug Control (SÚKL), which is the main regulatory body for pharmaceuticals.

The 14 regional authorities (kraje) 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. Czech residents may freely choose their health insurance fund and health-care providers. The health insurance funds must accept all applicants; risk selection is not permitted (though there is risk equalization between the funds, see below).

The use of information and communications technology (ICT) is generally underdeveloped in the Czech Republic; for instance plans to implement national e-health capacities have not been realized. Similarly, efforts to develop approaches for health technology assessment have not yet materialized into an infrastructure for using HTA in practice.

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 (7.7%) compared to the EU average of 9.6% in 2012. Health expenditure as a share of GDP rose temporarily following the financial crisis because of the fall in GDP, but fell back due to restrictions in expenditure. Health expenditure from public sources as a share of total health expenditure remains relatively high at just under 85% (the EU average is 75.9%), with the balance made up through out-of-pocket expenditures (private insurance plays only a marginal role). However, the system as a whole has had constant financial problems since the establishment of the current system at the start of the 1990s, reflected in solvency problems

with health insurance funds; although insurers had built up reserves towards the end of the last decade, following the financial crisis the largest insurer required a €62m loan, which was partially repaid in December 2014.

Population coverage is virtually universal, and the range and depth of benefits available to insured individuals are broad; in principle insured individuals are entitled to any medical treatment aiming to maintain or improve their health status, though in practice there is a range of limitations. The SHI system is financed through compulsory, wage-based contributions and through state contributions on behalf of economically inactive people, such as children and the unemployed. A risk-adjustment formula based on age, gender and ex-post compensation of 80% of costs above a set limit is used to redistribute funds between the insurers.

Since 2007 hospitals have been paid for inpatient care 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 being applied mostly for preventive care. Non-hospital ambulatory care specialists (e.g. self-employed physicians or dentists) are paid using a capped fee-for-service scheme.

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. In the past two decades the number of acute beds decreased continuously while the number of long-term beds increased, though at 470 acute care hospital beds the Czech Republic is still well above the EU average of 385 per 100 000 population in 2011. Furthermore, the lack of capacity in the social care system is a bottleneck for the hospital system. Since 2007 over €480m from EU Structural Funds were invested to improve ageing physical resources additional to national efforts. However, many psychiatric institutions, long-term care and nursing facilities for the elderly are out-dated and in need of modernization.

By European standards, the number of physicians in the Czech Republic is relatively high, with 3.6 physicians per 1000 population in 2012 (the EU average is 3.5), though the ageing profile of primary care physicians represents a potential human resources problem in the near future. The nurse-to-population

ratio is above the average for the EU (8.5 per 1000, as compared to 8.4 per 1000 for the EU as a whole). Though some health professionals move to work elsewhere in the EU, precise numbers are lacking.

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.

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 frequently do so. Secondary care services in the Czech Republic are offered by a range of providers, including private practice specialists, health centres, polyclinics, hospitals and specialized inpatient facilities. 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 target for emergency care is 20 minutes after an emergency call, with a wide range of services involved in provision; there are some cooperation initiatives in border regions with Germany and Poland.

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 was aimed at improving the coordination between the two systems by providing individuals with a flexible care allowance, allowing cross-funding between the two systems. However, the transfer of patients between social care and health-care facilities is still imperfect and there are strong financial incentives for patients to try to remain in health-care facilities even if it is unjustified by their medical condition. The flexible individual care allowance has also enabled some patients to pay for care by family members or volunteers.

Principal health reforms

Many of the recent reforms of the Czech health system have attempted to address the chronic financial instability that has marked the system since the early 1990s. The global economic crisis since 2008 has only further aggravated the need for reforms. Due to rising unemployment rates, SHI contributions increasingly have been funded by the state and health insurance funds have faced stagnating financial resources. Thus the most recent reform activities to a large extent consisted of various cost-saving emergency measures, including attempts to increase the share of private expenditure in health-care services and reforms of reimbursement mechanisms. Other health reforms have focused on patients' rights and empowerment and the restructuring of public health institutions.

Assessment of the health system

The Czech health system is characterized by relatively low total health-care expenditure as a share of GDP; low out-of-pocket payments distributed relatively evenly across different income groups; plentiful human resources, albeit with some significant regional disparities; and good results for some important health indicators.

The population has 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 asthma) or even among the best in the world (such as infant mortality). And an overall declining trend of amenable as well as preventable mortality in the Czech Republic reflects continuous efforts in modernizing and improving the health system. On the other hand, mortality rates for diseases of the circulatory system and malignant neoplasms are above the EU28 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.

Additionally, concerns have been voiced regarding non-transparent public procurement. There is little information on patient satisfaction and patient involvement in health policy-making is low. Nevertheless, the Czech population is well aware of the broad range of benefits citizens are entitled to and relevant indicators suggest that access to care as well as financial protection are good.

The health system is by a dominant share publicly funded, which has seen a marked slowdown due to economic downswings in 2010 and 2011 and fiscal consolidation efforts. It remains to be seen what the impact will be on population health status in the long term.

Conclusion

The Czech population values and is proud of its health system – and rightly so, as several indicators show. However, there is increasing need for financial reform in order to sustain the system. The main political parties are aware of this necessity and they each propose different solutions. On the left of the political spectrum more centralization with fewer or possibly only one health insurance fund is favoured, whereas a more market-oriented approach with increased competition is preferred on the right side of the political spectrum. While both ideological approaches may have advantages and disadvantages, the lack of consensus in itself poses an increasingly acute problem in the Czech Republic. The disaccord results in several rather small changes (e.g. with user fees) every time a new political party comes into power, while the larger issues regarding sufficient resource mobilization are not addressed.

1. Introduction

The Czech Republic is a landlocked country situated in central Europe and has a population of 10.5 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 financial crisis has had a substantial impact on the Czech economy, with a fall of 4.5% in GDP in 2009 and a steady increase of government debt. The strong Czech manufacturing sector helped to stabilize the economy, while in 2012 and 2013 economic output declined again. In 2014 the Czech economy increased again (by 2.4% in GDP) and is expected to further stabilize by an increase in GDP of 2.7% in 2015.

The Czech Republic is a parliamentary representative democratic republic headed by a president, who is elected (since 2013) by a two-round popular vote. A bicameral Parliament is responsible for final decision-making to approve new legislation.

Life expectancy at birth is increasing in the Czech Republic, having reached 74.9 years for men and 81.2 years for women in 2012, which is well above the average for EU13 Member States. The rate of infant mortality in 2012 was among the lowest in the world. In the same year diseases of the circulatory system were the most frequent causes of death, followed by malignant neoplasms, respiratory diseases and external causes.

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 78 866 km^2, which is slightly smaller than Austria but almost twice the size of Switzerland (Czech Statistical Office, 2012b). It has a temperate continental climate, with warm summers and cold, 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.

Fig. 1.1
Map of the Czech Republic

Source: United Nations Cartographic Section, 2013.

In 2012 the Czech Republic had a population of 10.51 million, of which 50.8% were female, and a population density of 136.1 per km^2. In 2011, 94% of the population were ethnic Czechs or Moravians. Ethnic minorities include Slovaks and Roma, as well as Bulgarians, Croatians, Hungarians, Germans, Poles, Ruthenians, Russians, Greeks, Serbs, Ukrainians and Vietnamese (Czech Statistical Office, 2012b). In the 2011 census 10.4% of the inhabitants responded that they were Roman Catholic, approximately 1% identified themselves with

one of the Protestant denominations and 41.3% stated that they were agnostic, atheist, non-believers or non-organized believers; the remaining share did not respond (Czech Statistical Office, 2013a).

Following a slight decline between 1994 and 2002, the population of the Czech Republic has been growing since 2004. The rise can be attributed to immigration, which accounted for more than 96% of total population growth in 2012 (Czech Statistical Office, 2013b). Additionally, in 2006 birth rates exceeded mortality rates for the first time since 1993. This trend continued until 2012, with both parameters at the same level. Yet fertility rates remain lower than the EU28 average (1.58 in 2012) and well below the replacement rate of 2.1 per thousand population in industrialized countries (Espenshade et al., 2003) (see Table 1.1). Thus the Czech Republic continues to struggle with an overall ageing population despite recent increases in birth and fertility rates.

Table 1.1

Demographic indicators, 1980–2012 (selected years)

	1980	1990	1995	2000	2005	2010	2012
Total population (in millions)	10.3	10.3	10.3	10.3	10.2	10.5	10.5
Population female (% of total)	51.5	51.5	51.4	51.3	51.3	50.9	50.8
Population ages 0–14 years (% of total)	23.5	21.5	18.6	16.5	14.8	14.2	14.6
Population ages 15–64 (% of total)	62.9	65.8	68.2	69.7	71.1	70.4	69.2
Population ages 65 and above (% of total)	13.5	12.7	13.2	13.8	14.1	15.4	16.2
Fertility rate total (births per woman)	2.1	1.9	1.3	1.2	1.3	1.5	1.5
Birth rate crude (per 1 000 people)	14.9	12.6	9.3	8.9	10.0	11.2	10.3
Death rate crude (per 1 000 people)	13.2	12.5	11.4	10.6	10.6	10.2	10.3
Age dependency ratio (% of working-age population)	58.9	52.0	46.7	43.5	40.6	42.0	44.4
Distribution of population (urban population as a share of total population)	75.2	75.2	74.6	74.0	73.7	73.5	73.4
Proportion of single households†	19.9	22.7***	–	25.0**	–	–	29.6*
% of tertiary school enrolment	16	16	21	28	49	63	65*

Sources: World Bank, 2014; †Czech Statistical Office.
Notes: *2011 data; **2001 data; ***1991 data; – not available.

1.2 Economic context

The Czech Republic has one of the most developed industrialized economies among EU13 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 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 as enabled by the reformed banking sector. The period of mostly export-oriented growth lasted until 2008, with the unfolding international financial crisis. As its main trading partners witnessed a substantial decline in economic activity, the Czech Republic was hit hard by the drop in foreign import demand. Czech GDP fell by 4.5% in 2009. The following years brought about some economic recovery, with GDP growth of 2.3% in 2010 and 2.0% in 2011. However, fiscal retrenchment (among other factors such as dropping external demands) reversed this recovery in 2012, as evidenced by a GDP base decreasing by –0.8%. According to the Czech Ministry of Finance, GDP further declined by –0.7% in 2013. In 2014 the Czech economy recovered again with GDP growth of 2.4% and is expected to further increase by 2.7% in 2015 (Ministry of Finance, 2014a; 2015).

Manufacturing remains a major economic activity in the Czech Republic, accounting for 36.7% of value added in 2013 (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 2.6% of value added in 2013; the principal crops were maize, sugar beet, potatoes, wheat, barley, rye, oats and rape (Czech Statistical Office, 2013c).

The Czech Republic belongs to the relatively stable and prosperous group of countries among the post-communist states of Central and Eastern Europe (CEE). This is reflected in a 14.6% at-risk-of-poverty rate (2013), which is among the lowest in Europe, as well as in steady economic growth (3.2% on average per year between 1998 and 2011), combined with increasing purchasing power (Table 1.2). In 1995 GDP per capita reached 10 800 purchasing power standards (PPS). This number increased steadily until 2011, reaching 20 580 PPS, but in 2012 PPS declined for the first time to 18 690. As a share of GDP per capita, this was approximately 79.1% of that in the EU28 countries and 72.4% of that in the EU15. Unemployment fell from 8.8% in 2000 to a historical low of 4.4% in 2008. With the unfolding financial crisis and declining economic activity,

Table 1.2

Macroeconomic indicators for the Czech Republic, 2012 (or latest available year)

Indicator Name	1990	1995	2000	2005	2010	2011	2012	2013
GDP (billions of current US$)	39.1	57.8	58.8	130.1	198.5	216.0	196.4	198.4
GDP, PPP (billions of current international $)	127.2	138.3	159.9	217.7	266.1	275.1	280.7	283.6
GDP per capita (current US$)	3 786.9	5 595.6	5 734.8	12 736.2	18 950.6	20 580.2	18 690.0	18 861.0
GDP per capita, PPP (current international $)	12 333.2	13 389.7	15 590.9	21 315.7	25 940.2	27 047.0	26 981.0	27 344.0
GDP average annual growth (%)		6.2	4.2	6.8	2.5	1.8	–1.0	–1.0
Central government debt, total (% of GDP)		12.7	13.2	22.0	33.6	36.4	40.8	
Unemployment, total (% of total labour force)		4.0	8.8	7.9	7.3	6.7	7.0	7.0
Agriculture, value added (% of GDP)	8.2	4.4	3.4	2.4	1.7	2.4	2.6	2.6
Industry, value added (% of GDP)		39.0	37.2	37.7	36.8	37.1	37.0	36.7
Services, etc., value added (% of GDP)		56.7	59.4	59.8	61.5	60.6	60.4	60.7
Labour force, total	4 923 222	5 159 906	5 183 636	5 168 891	5 239 905	5 242 209	5 282 696	5 329 784
At-risk-of-poverty rate (after social transfers) (%)**				19.6	14.4	15.3	15.4	14.6
Income inequality** ++				3.7	3.5	3.5	3.5	3.4
Official exchange rate (CZK per US$)***		27	39	24	19	18	20	20

Sources: World Bank, 2014; **Eurostat, 2014; ***Czech Statistical Office, 2013c.
Notes: GDP: Gross domestic product; PPP: Purchasing power parity; ++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.

Czech unemployment rates increased again and reached 7% in 2013 (Eurostat, 2014). The health sector has been affected indirectly by these recent economic developments. For example, government-funded health insurance contributions for the economically inactive (such as the increasing number of unemployed) have not been increased; VAT on pharmaceuticals and medical aids has been raised as a component of fiscal consolidation; and formal co-payments have been increased (see Chapter 3 *Financing*).

1.3 Political context

The Czech Republic is a parliamentary representative democratic republic headed by a president, who is elected (since 2013) by a two-round popular vote for a five-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 the president 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 the 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 Miloš Zeman, ex-party chairman of the Social Democratic Party (ČSSD) and a former prime minister (1998–2002) of the Czech Republic.

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 four-year terms, while the 81 members of the Senate (*Senát*) are elected for six-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. The government proposes new legislation for the health sector to the Parliament, usually through the minister of health.

Following a scandal involving the prime minister and his chief of staff in June 2013, the right-wing coalition government led by the main conservative party (Civic Democratic Party, *Občanská demokratická strana*, ODS) was replaced by an interim government before general elections were held in

October 2013. The election outcome (with ČSSD victorious, followed by a new party called Action of discontented citizens – *Akce nespokojených občanů*, ANO 2011 – headed by billionaire Andrej Babiš) resulted in a coalition government of ČSSD, ANO and the Christian Democratic Party. The new government started work at the beginning of 2014.

The political party system in the Czech Republic was relatively unstable in the years leading up to the 2013 elections. Three out of the seven parties which have been in the Parliament since 2013 did not exist six years before. The formerly strongest parliamentary party barely reached the 5% threshold to enter the Parliament in the 2013 elections, while the currently second strongest party was founded only two years before.

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, 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.

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. Moravskoslezský
7. Liberecký	14. Zlínský

Source: Bryndová et al., 2009, 7.

Each region has its own parliament (known as an assembly), government (known as a council) and governor (or, in the case of Prague, a mayor). The assemblies are elected for four years, based on a system of proportional representation. 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. At a later date some of them were transformed to joint stock companies with regional governments as sole owners (see section 2.4).

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. It also closely cooperates with other central European post-communist countries – namely Poland, Slovakia and Hungary – in the Visegrád group, which was established in 1991.

Accession to the EU on 1 May 2004 has perhaps been the most important historical and political development for the Czech Republic since the late 1990s. 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 binds all the Member States within the EU.

The Czech Republic has signed a range of important 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 and in 2004 the Framework Convention on Tobacco Control. 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 has been increasing in all EU countries. The same is true for the Czech Republic, where life expectancy in 2012 reached 75 years for men and 81 years for women (Table 1.3), thus being above the EU13 average (72.1 years for men and 79.9 years for women). Since 1990 life expectancy in the

Czech Republic has been rising more rapidly than the EU28 average, though it was still below that of the EU15 in 2011 (78.8 years for men and 84.1 years for women; WHO Regional Office for Europe, 2014a).

Table 1.3

Mortality and health indicators, 1980–2012 (selected years)

	1980	1990	1995	2000	2005	2011	2012
Life expectancy at birth, total	70.3	71.5	73.3	75.2	76.2	78.1	78.2
Life expectancy at birth, male	66.8	67.6	69.8	71.8	73.0	74.9	75.1
Life expectancy at birth, female	73.9	75.5	76.8	78.6	79.3	81.2	81.3
Total mortality rate, adult, male*	1 641.8	1 565.4	1 335.6	1 161.6	1 076.7	918.4	903.2
Total mortality rate, adult, female*	1 003.4	888.4	798.8	690.5	657.2	545.5	542.6

Source: WHO Regional Office for Europe, 2014a.
Note: *SDR all causes, all ages, per 100 000 inhabitants.

As in many other developed countries, diseases of the circulatory system were the most frequent causes of death in the Czech Republic in 2012 (Table 1.4). The standardized death rate (SDR) from these causes (all ages, per 100 000) has decreased almost continually since 1990 and more rapidly than in the EU28, partly due to a very high starting point (especially compared to the EU15 countries). Compared only to other European post-communist countries, the SDR by diseases of the circulatory system has also decreased markedly in the Czech Republic. Nevertheless, at 325.1 deaths per 100 000 in 2012, it remained well above the EU28 average of 212.85 in 2011 (WHO Regional Office for Europe, 2014b). There are substantial regional differences in mortality. The SDR varies from 774 in Prague to 1042 in the Ústecký region. These differences may reflect differences in standards of living, as well as environmental factors. Prague is the region with the highest standard of living, while the Ústecký region and the Moravian-Silesian region (with the second highest SDR) are among the poorest and were formerly associated with mining and heavy industry. Diseases of the circulatory system and neoplasms are the main causes of death across all regions (UZIS, 2013c).

Malignant neoplasms were the second most common cause of death in the Czech Republic in 2011. Since the 1970s the SDR due to malignant neoplasms has been markedly higher compared not only to the EU and Scandinavian countries, but also to other central European countries (WHO Regional Office for Europe, 2014b). Even though there has been a decrease in neoplasm-related mortality since 1995 in the Czech Republic, the SDR in 2011 (186.7; in 2012, 183.8) was still higher than the EU28 average (166.9; not available for 2012; WHO Regional Office for Europe, 2014b).

Table 1.4

Main causes of death, selected years

Standardized death ratio per 100 000 population

Causes of death (ICD-10 classification)	1980	1990	1995	2000	2005	2010	2011	2012
Communicable diseases								
All infectious and parasitic diseases (A00-B99)	6.1	4.0	2.2	2.3	3.2	7.0	9.0	10.44
Tuberculosis (A15-A19)		1.9	0.8	1.1	0.5	0.3	0.4	0.2
HIV/AIDS (B20-B24)		0.0	0.0	0.0	0.1	0.0	0.1	0.1
Non-communicable diseases								
Malignant neoplasms (C00-C97)	244.1	258.6	252.2	237.8	217.5	195.6	186.7	183.8
Colon cancer (C18-21)		37.6	37.4	36.1	32.3	26.6	24.6	24.4
Cancer of larynx, trachea, bronchus and lung (C32-34)	53.0	58.8	55.4	51.3	46.2	41.5	40.9	40.2
Breast cancer (C50)	28.5	17.8	18.5	16.3	15.2	11.9	12.0	11.4
Cervical cancer (C53)		6.8	7.3	5.8	5.3	4.9	4.5	4.9
Circulatory diseases (I00-I99)	660.0	645.0	559.6	462.5	419.0	344.1	331.5	325.1
Ischaemic heart diseases (I20-I25)		311.0	259.9	187.0	177.5	161.8	167.8	164.4
Cerebrovascular diseases (I60-I69)	224.5	202.8	151.7	136.1	109.4	73.0	66.6	64.2
Respiratory diseases (J00-J99)	106.7	49.2	43.5	40.2	46.3	41.1	37.1	37.0
Diseases of the digestive system (K00-K93)	52.3	46.7	38.7	36.2	38.7	34.2	32.6	31.8
External causes								
Transport accidents (V01-V99)		14.9	15.4	14.3	11.6	8.1	7.8	7.2
Suicide and intentional self-harm (X60-X86)		19.1	16.1	14.8	13.8	12.8	13.6	13.8

Source: WHO Regional Office for Europe, 2014b.

Diseases of the respiratory system were the third most common cause of death in the Czech Republic in 2012. Since 1990 a slight downward trend has been observed and in 2011 the respiratory disease-related SDR in the Czech Republic was lower than both the EU28 average (40.8) and the EU15 average (41.4).

Although the SDR attributable to external causes (injury or poisoning) has fallen markedly since at least 1970, external causes remained the fourth largest cause of death in the Czech Republic in 2012. The downward trend for this indicator is roughly in line with that observed in the EU28 as a whole (WHO Regional Office for Europe, 2014b). According to the Ministry of Health, the increase in the SDR attributable to infectious diseases in recent years is caused mainly by changed coding practices and altered methods in health statistics.

Risk factors for circulatory system disease, such as unhealthy habits and behaviour (smoking, unbalanced diet, low physical activity), are not uncommon in the Czech Republic. In addition, there is an increasing share of overweight or obese population (see Table 1.5). The prevalence of diabetes mellitus, another risk factor for circulatory system disease, was 8012 per 100 000 inhabitants in 2012 or roughly 8%. Alcohol consumption is relatively high and has been rising in recent years. Smoking rates have remained at a very high level over the last two decades. Especially among teenagers there are strikingly high smoking and alcohol consumption rates in the Czech Republic compared to other OECD countries (OECD, 2013; 2014a).

Table 1.5

Non-medical determinants of health, 1980–2012

	1980	1990	1995	2000	2005	2010	2011	2012
Alcohol consumption (litres per capita)	11.7	11.3	11.5	11.8	12.0	11.4	11.5	11.6
% of daily smokers among population aged 15+	–	26.1*	26.2*	23.5*	24.3	22.8	21.7	22.9
% obese or overweight population (self-reported)	–	47.1*	45.8*	50.2*	51.1*	54.3*	–	–
% obese population (estimates derived from health examinations)	–	11.3*	11.3*	14.2*	14.8*	17.4*	–	–

Source: OECD, 2014a.
Notes: *Respective years are 1993, 1996, 1999, 2002 and 2008.

Healthy life years (HLY) expectancy in the Czech Republic is only slightly above the EU28 average for both men and women. Disability-adjusted life expectancy (DALE) in the Czech Republic in 2007 was 70 years and thus below the EU15 average but above the EU13 average (see Table 1.6). In the lowest and highest income quintiles slightly fewer respondents perceived their health as good or very good in the Czech Republic than on average in all OECD countries in 2011. Respondents from the highest income quintile were thought to be at least in good health more often than in other Visegrád group countries; for the lowest income quintile this was reversed (see Table 1.7).

Table 1.6

DALE and HLY, 1980–2012

Disability-adjusted life expectancy (DALE)	2005	2006	2007	2008	2009	2010	2011	2012
Czech Republic			70					
EU15			73					
EU new Member States since 2004			66.7					
Healthy life years (HLY) in absolute value at birth, males								
Czech Republic	58.0	57.9	61.4	61.2	61.1	62.2	62.2	62.3
EU27	61.1	61.8	61.7	61.1	61.3	61.9	61.8	
EU28							61.7	61.5
Healthy life years (HLY) in absolute value at birth, females								
Czech Republic	60.0	59.9	63.3	63.4	62.7	64.5	63.6	64.1
EU27	62.5	62.5	62.6	62.2	62.0	62.7	62.2	
EU28								62.1

Sources: WHO Regional Office for Europe, 2014b: Eurostat, 2014.

Table 1.7

Perceived health status in the Czech Republic and selected countries in 2011

Percentage of population replying "very good or good" to the question "How is your health in general?" according to income quintiles

	Lowest income quintile (%)	Highest income quintile (%)
OECD (33 countries)	61.3	79.8
Slovak Republic	60.2	74.5
Czech Republic	49.3	75.3
Poland	51.9	69.2
Hungary	52.3	69.3

Source: OECD, 2013.

Infant mortality rates in the Czech Republic have been decreasing for decades and in 2012 they were among the lowest in the world, with 2.6 deaths per 1000 live births (Table 1.8). Infant mortality rates in the Czech Republic have remained consistently below EU15 averages since 1999 and in 2012 lower infant mortality rates within the WHO European Region were reported only in Estonia, Finland, Norway, Slovenia and Sweden (WHO Regional Office for Europe, 2014a). The probability of dying before the age of 5 years in the Czech Republic has also been lower than EU15 averages since 1999. In 2012 it was 3.2 (Czech Republic) compared to 4.3 (EU15 average).

Table 1.8

Maternal, child and adolescent health indicators, 1980–2012

	1980	1990	1995	2000	2005	2011	2012
Adolescent pregnancy rate (aged under 20 years)	11.5	14.1	11.0	4.9	3.4	2.8	2.8
Adolescent birth rate	2.1	1.9	1.3	1.1	1.3	1.4	2.8
Termination of pregnancy per 1 000 live births	448.2	820.5	502.5	357.8	258.8	221.4	212.1
Perinatal mortality rate	15.0	8.3	5.0	4.0	3.5	3.6	3.6
Postneonatal mortality per 1 000 live births		3.1	2.8	1.6	1.4	1.0	1.0
Infant mortality per 1 000 live births	16.9	10.8	7.7	4.1	3.4	2.7	2.6
Under-five mortality rate	–	12.42	9.1	5.2	4.1	3.4	3.2
Maternal mortality per 100 000 live births	–	8.4	6.2	9.9	14.7	10.1	5.5
Syphilis infection incidence per 100 000	5.2	1.5	4.2	9.4	5.5	6.2	–
Gonococcal infection incidence per 100 000	86.1	61.1	19.7	8.6	7.3	6.2	–

Source: WHO Regional Office for Europe, 2014a.

Vaccination coverage in the Czech Republic is high, with vaccination rates above 98% in all relevant immunization categories except influenza in 2012 (OECD, 2013). Screening rates for breast cancer and cervical cancer in 2011 were above 50% of the target population, which is relatively high in comparison to other OECD countries (OECD, 2013; see section 5.1 for more details on vaccination rates and preventive services).

2. Organization and governance

The Czech Republic has a system of statutory health insurance (SHI) based on compulsory membership in a health insurance fund, of which there were seven in 2014. The funds are quasi-public, self-governing bodies that act as payers and purchasers of care. Core health legislation of the Czech Republic was adopted in the 1990s and changed only marginally. Health insurance funds have been subject to different mergers in the 2000s with the VZP remaining the biggest fund in the Czech Republic.

The Ministry of Health's chief responsibilities include setting the health-care policy agenda, supervising the health system and preparing health legislation. It 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 (*kraje*) 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 (based on the constitution) for entitlement; risk selection is not permitted. SHI contributions are obligatory and based on wage or income; they are paid by employers, employees and self-employed individuals, among others. The state makes SHI contributions on behalf of certain groups of economically inactive people.

Patient rights were strengthened in 2011 by adopting new legislation (mainly the Health Services Act). The use of information and communications technology (ICT) is generally underdeveloped in the Czech Republic, and an infrastructure for using health technology assessment (HTA) of treatments and procedures is still lacking.

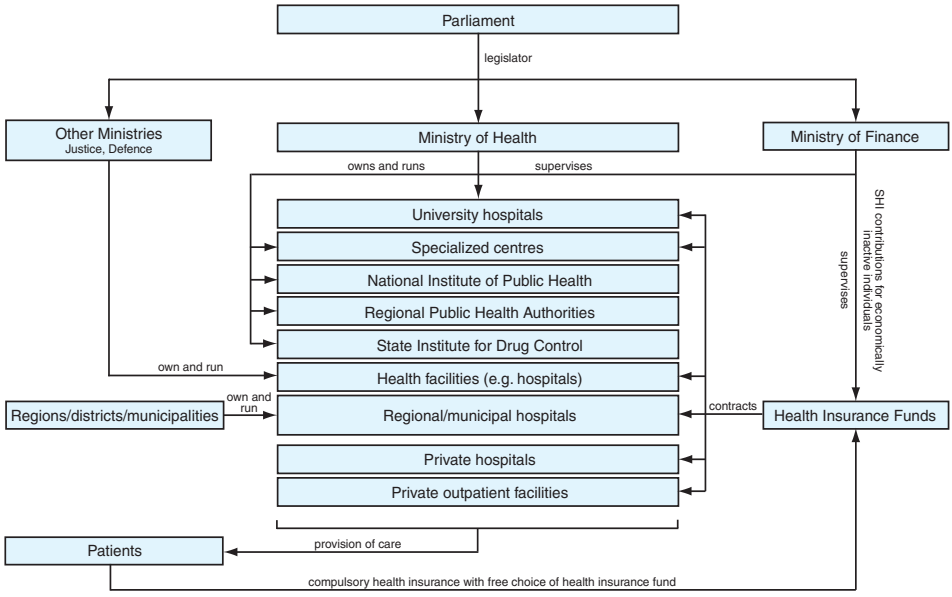
2.1 Overview of the health system

The Czech statutory health insurance system is based on universal coverage and a basic universal benefit package provided as benefits-in-kind (paid for by a third party) for all insured individuals. Universal accessibility of health care is stipulated by the legislation, particularly the law on public health insurance (*Zákon o veřejném zdravotním pojištění 48/1997 sb*). The system is financed primarily through mandatory, wage-based statutory health insurance contributions administered by the health insurance funds. Other sources of financing include general taxation and out-of-pocket payments. Membership of one of the seven (as of 2014) health insurance funds is compulsory for all Czech citizens residing in the country, as well as for other permanent residents in the Czech Republic. The health insurance funds are quasi-public self-governing bodies that act as payers and purchasers of health care. They compete for insured individuals.

The state is represented by both the Parliament, which is the main legislative body in the country, and the Ministry of Health, the responsibilities of which include setting the health-care policy agenda and supervising the health system, as well as running several health-care facilities. Additionally, the National Institute of Public Health (*Státní zdravotní ústav, SZÚ*), the State Institute for Drug Control (*Státní ústav pro kontrolu léčiv, SÚKL*) and regional public health authorities are subordinate to the Ministry of Health. The public sector is further represented by regions, districts and municipalities, which own and direct various health-care facilities and have responsibilities in licensing and supervising providers. Lastly, both the Ministry of Defence and the Ministry of Justice also manage several health-care facilities. Sick pay and other cash benefits are not covered by statutory health insurance, 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.

Recent legislation in health care has been aiming at higher efficiency in care provision (user fees, introduction of DRG financing scheme and restructuring public health authorities) and empowering patients by a range of policy instruments (see section 2.9). Pharmacies and diagnostic laboratories, as well as almost 90% of outpatient facilities, are in private hands. Some outpatient specialists are employed by hospitals and provide ambulatory care in polyclinics. Providers of emergency health-care services are mostly publicly owned. An overview of the Czech health system is presented in Fig. 2.1.

Fig. 2.1
Overview of the Czech health system



Source: Authors' compilation.

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 (Niklíček, 1994; Murray et al., 2007). 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 cash benefits to one on benefits-in-kind. 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 (Nečas, 1938; Niklíček, 1994).

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 (National Insurance Act, 1948). 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. All health care was provided free of charge at the point of delivery. At the same time all health-care providers were nationalized and incorporated into regional and district institutes of national health. The Czech part of Czechoslovakia had

seven 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 tuberculosis, 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 part 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 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, wage-based contributions. The first such entity to be established was the General Health Insurance Fund (*Všeobecná zdravotní pojišťovna České republiky*, 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. 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 decreased to seven by 2014.

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 specialists by introducing pharmaceutical budgets and limits on the volume of services that can be reimbursed at the full rate (see section 3.3.4).

An important development in public administration took place in 2003, when ownership of approximately half of the hospitals in the Czech Republic was transferred from the state to 14 newly formed, self-governing regions (see section 2.4). 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 (of which regional authorities still owned the majority of shares).

In an effort to contain costs, a system of user fees was introduced in 2008. These fees are intensely discussed by the Czech public and the exact design of the fee system is subject to constant changes (see sections 3.4.1 and 6.1). Additionally, in 2008 the administrative structure of the regional public health authorities was consolidated, with the aim of increased economic efficiency (see sections 2.3 and 5.1). In the late 1990s research started on introducing a DRG-based hospital payment system in the Czech Republic. Since 2007 case payments based on an adapted version of the AP-DRG system have accounted for an increasing share of total hospital revenue (estimates of 55–60% in 2013) (see section 3.7).

2.3 Organization

2.3.1 Organizational overview

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

1. SHI with virtually universal membership, funded through compulsory, wage-based SHI contributions;
2. diversity of provision, with ambulatory care providers (mainly private) and hospitals (mainly publicly owned, with different legal forms) contracted by health insurance funds; and
3. joint negotiations by key actors on coverage and reimbursement issues, supervised by the government.

The different levels of government (most of all the Ministry of Health) and their different agencies, the health insurance funds and – to a lesser extent – professional associations are most influential in setting the health policy agenda. Provider associations – i.e. mainly physician associations – also play a considerable role in policy formulation and decision- making in the Czech health sector. Below are described the key players in the Czech health-care system.

2.3.2 The role of the state and its agencies

The state itself plays many roles, including that of legislator (Parliament); tax collector and source of SHI contributions for certain groups of economically inactive people (Ministry of Finance); owner of health-care facilities (Ministries of Health, Defence and Justice; see section 2.8.2); and regulator (Ministries of Health and 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 supra-regional spheres of influence, including some highly specialized tertiary care facilities, such as the nine

university hospitals that accounted for more than a quarter of all hospital beds in 2012. (In total, there were ten university hospitals at the time of writing – nine of them directly subordinate to the Ministry of Health and one subordinate to the Ministry of Defence.) Additionally, all psychiatric hospitals and some therapeutic centres are managed by the Ministry of Health. The Ministry of Health also administers and regulates the State Institute for Drug Control (*Státní ústav pro kontrolu léčiv*, SÚKL) and health-care institutions and bodies charged with protecting public health. The main actors in the Czech system of public health are the National Institute of Public Health (*Státní zdravotní ústav*, SZÚ), the two institutes of public health and the 14 regional public health authorities. All of these institutions 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. Responsibilities range from research (mainly funded by the Ministry of Education through competitive research grants) to occupational safety, as well as infectious disease control. For more detailed information on Czech public health institutions, see section 5.1.

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 entered the market. 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 (see section 5.6).

2.3.3 The role of regional governments

Regional authorities play an important regulatory role in the Czech health system, as they are responsible for registering health-care facilities (both public and private), including providers of ambulatory care. Before opening a private practice, a physician must apply for registration with the respective regional authority. Importantly, there are no volume restrictions for private practices (see Chapter 4).

Additionally, regional governments and municipalities own various hospitals. These hospitals may be either entities directly subordinate to the regional (or municipal) authorities or joint stock companies (acting under private law) of which the authorities hold the majority of shares (for details see sections 2.8.2 and 4.1.2).

2.3.4 The role of the health insurance funds

Health care in the Czech Republic is financed primarily through compulsory, wage-based SHI contributions, which are collected and administered by health insurance funds. The seven health insurance funds (as of 2014) are quasi-public, self-governing bodies that act as payers and purchasers of health care. They collect contributions from individuals as well as institutions and they pay for health-care services provided to their members based on contracts with the particular health-care providers (including emergency care).

The largest health insurance fund, the VZP, also manages a special central account used for pooling and redistribution of the SHI contributions to the seven health insurance funds according to a risk-adjustment scheme (see section 3.3.3).

2.3.5 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.

There is a variety of other associations with voluntary membership. For example, the J.E. Purkyně Czech Medical Association (*Česká lékařská společnost Jana Evangelisty Purkyně*, ČLS JEP), with nearly 35 000 members, promotes the development and distribution of evidence-based medical knowledge and supports the use of such knowledge in the provision of health care (ČLS JEP, 2014).

All of these groups (among others) may be nominated by the Minister of Health to participate in the Health Services Working Group, which negotiates the fee schedule known as the List of Health Services. The Health Services Working Group is based at the Ministry of Health and consists of several stakeholders, including the Ministry; professional chambers (see

above); professional organizations other than the chambers; health insurance funds; medical device manufacturers; academics; representatives of patient organizations and hospitals. The exact composition of the Health Services Working Group depends on the subject area under negotiation (see section 3.3.4).

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 odborovýklub – Svaz českých lékařů*) and the Professional Sector Union of Health Care Staff (*Profesní a odborová unie zdravotnických pracovníků*). These groups negotiate wages in collective contracts with employers.

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. They are mainly non-governmental, non-profit organizations supported by donations (partly acquired through fund-raising campaigns) or by the EU as well as the state. There is no unifying umbrella structure for the various patient organizations; however, professional support for the staff may be obtained from the Academy of Patient Organizations (*Akademie pacientských organizací*), which organizes seminars mainly on possible sources of financing of their activities. One of the most politically active organizations is the Czech Association of Patients (*Svaz pacientů*, ČR).

2.3.6 The role of the private sector

Private business in the Czech health-care market includes pharmaceutical companies, pharmacies, private practices and private pharmacies and a relatively small share of hospitals. They are represented by the Czech Association of Pharmaceutical Companies (*Česká asociace farmaceutických firem*) or the Association of Innovative Pharmaceutical Industry (*Asociace inovativního farmaceutického průmyslu*). In 2012 there were 2736 pharmacies in the Czech Republic, the majority of which were privately owned (ÚZIS, 2013f). Equally, the majority of ambulatory care (81.7%) was provided by physicians working in private practice (ÚZIS, 2013c). In addition, 71 hospitals were fully privately run in 2012 (see section 4.1.2).

2.3.7 Organization of research

Research is carried out mainly in teaching hospitals and specialized centres. Research projects are mostly supported by grants from the Ministry of Education. Other ways to finance medical research in the Czech Republic

include grant competitions run by the Czech Grant Agency (*Grantová agentura České republiky*, GACR) and the Technological Agency (*Technologická agentura České republiky*, TACR), which focuses on applied research. There are provisional plans to create an Agency for Health Research (*Agentura pro zdravotnický výzkum České republiky*, AZV CR) to further support medical research (Rychlík, 2012). Additionally, the Ministry of Health provides some institutional and financial support for research via its Internal Grant Agency (*Interní grantová agentura Ministerstva zdravotnictví*, IGA MZ).

2.4 Decentralization and centralization

A major shift in responsibilities took place after 2003 when a system of 14 regional governments was created, replacing the state-administered districts (see section 1.3).Within this decentralization process, ownership of emergency units, institutions of long-term care (except for psychiatric facilities), some primary care facilities, medical spa facilities and approximately half of the hospitals in the country was subsequently transferred to the regions. Ownership of some smaller hospitals was transferred to the municipalities. As a reaction to increasing budgetary deficits and inadequate accountability mechanisms in the newly established regional hospitals, several regional governments have chosen to convert the legal form, and thus the management structure, of their hospitals from so-called "contributory budgetary organizations" to joint stock companies, which predominantly remain in regional ownership. "Contributory budgetary organization" is a Czech form of not-for-profit legal entity established to perform tasks in the public interest. Such an organization is an independent legal body but it is established by, and its budget is linked to, a government body. Besides their own resources which they earn through their main activity, these organizations may also receive contributions from the state budget. Possible profits are usually reinvested. State-run hospitals such as university hospitals, other supra-regional hospitals and a number of government-owned specialized facilities (for example, psychiatric hospitals) also have this legal form, as do regional hospitals which were not corporatized from 2003 on.

Another round of decentralization was planned by the government in 2011/12. The proposal was to transform the legal status of university hospitals from entities directly subordinate to government authorities to more independent organizations. Such a transformation would, however, require extensive legislative changes and its implementation remains unclear (see section 6.2).

2.5 Planning

A framework of strategic planning and budgeting has not yet been implemented in the Czech health sector. The government programme "Health 2020" – based on the WHO Health 2020 document – is the main national policy strategy to improve the health status of the Czech population until 2020. It promotes 16 targets in four priority areas: health promotion and disease prevention (for example, work on tobacco control and mitigating harm caused by alcohol); reduction of communicable and non-communicable disease burden; strengthening of local health capacities; and advocating healthy lifestyles (Ministry of Health, 2014c).

The Ministry of Health plays a major role in health system planning by establishing general frameworks on scope, conditions and requirement for health service provision. However, some policy declarations are set out as targets and quotas by different legislation. They often do not follow an overall long-term plan and are sometimes inconsistent. Additionally, different stakeholders – the Ministry, regional governments and health insurance funds – lack a clear understanding of their role and accountability in health planning (OECD, 2014b). For example, health insurance funds are legally obliged to ensure health care for their members, but how they meet this obligation is their own responsibility. Each insurance fund has some strategy on how to optimize the network of health-care providers. Another example for legally set targets is the requirement that every citizen should be able to receive emergency care within 15 minutes of calling the emergency number. To achieve this goal, regional governments and insurance funds cooperate. Maps of catchment areas of ambulance stations are drawn in every region by the regional government. If deficits become apparent in these maps, new stations are created. If, on the other hand, surpluses are found, then stations are closed. Equally, there are legal minimum requirements for staffing of health-care facilities (see section 2.8.2). The Ministry of Education, Youth and Sport on the other hand is responsible for planning professional training of health personnel.

One of the main strategic goals of Czech health policy has been the reduction of the excessive number of acute care beds and the strengthening of long-term care provision. Though these goals have been achieved to a certain extent (see section 4.1), there has not been a comprehensive hospital plan based on utilization data and performance monitoring. Whether a specific hospital location is strengthened or not is in principle dependent on negotiations between the health insurance funds and individual providers. Local governments often lack capacity and resources to enforce health planning decisions.

2.6 Intersectorality

There is no large-scale framework to enhance cooperation between different public stakeholders in order to achieve specific health policy goals. However, there is some cooperation between different ministries to improve the health status for Czech citizens on a project basis. To implement the Health 2020 strategy, a government council for health and environment was established to enhance inter-ministerial cooperation. Additionally, working groups of different important stakeholders in the health system were established to monitor progress in the identified priority areas (Ministry of Health, 2014c).

The Ministry of Health and the Ministry of Education cooperate in raising awareness of health issues among pre-school and elementary school children under the assumption that such educational campaigns can reduce health inequalities. The goal of this programme is to ensure that at least 50% of pre-school children and at least 95% of elementary school children have access to institutions (kindergartens/elementary schools) that support the health consciousness programme. Within this programme children are taught to consider good health a priority and to protect both their physical and mental health. Another intersectoral project is called "Nutrition as a way to health" (*Výživa ve výchově ke zdraví*), which started through cooperation between the Ministry of Agriculture, the Ministry of Education, the Charles University in Prague and other private non-profit institutions. It is an educational programme aimed at children aged 10–15 years and their teachers. The aim of this project is to increase the children's consciousness of positive and negative aspects of foodstuff.

The Czech Agriculture and Food Inspection Authority (*Státní zemědělská a potravinářská inspekce*) is directly subordinate to the Ministry of Agriculture. It is responsible for the supervision of safety, quality and labelling of foodstuff. If harmful substances are detected, the agency is responsible for informing the public through different forms of media. If interested, people can register online at the Food Safety Information Centre (Food Safety Information Centre, 2014) and receive information by email immediately when a harmful substance is detected in the market.

Occupational safety and health is included as a separate paragraph in the Labour Code (*Zákoník práce*) of the Czech Republic. According to this paragraph, employers must protect their employees from health damage or injuries at the workplace. Professions which are exposed to increased risk of

health damage or injuries are classified into several groups. Those in the highest categories receive bonuses (additional remuneration or holidays) within a range set by the government, as defined in the Labour Code.

2.7 Health information management

2.7.1 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 (and also to legal considerations), 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 (*Ústav zdravotnických informací a statistiky*, 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. All health-care providers are required to send data reports to the ÚZIS on an annual or semi-annual basis. The reports include service volumes, basic economic data and also information about available human and physical resources. The NHIS maintains 10 registries, including the National Oncological Registry, the National Registry of Congenital Malformations and the National Registry of Hospitalized Patients.

Several special registries (such as a diabetes registry) are maintained by the Institute of Biostatistics and Analysis (IBA) at Masaryk University in Brno. These are voluntary and mostly disease-specific. They primarily serve scientific purposes.

There is no public body systematically conducting comprehensive analyses of gathered information in order to enable evidence-based policy approaches. Generally, the ÚZIS provides only descriptive analyses and the IBA only conducts selected analyses aimed more at medical research than at public policy.

Finally, public health data are collected by the regional public health authorities (*Krajské hygienické stanice*) and the National Institute of Public Health (see section 5.1).

In 2012 the Ministry of Health announced a plan to implement a national e-Health system setting up data standards in Czech health care (to achieve so-called "Economical and Effective Electronic Healthcare") and enabling providers to share data as well as providing aggregated data for policy-making. However, the necessary EU funding has been denied as yet and the fate of the project is uncertain. The health insurance funds tried to develop their own eHealth capabilities, but so far the majority of projects have failed to reach a significant share of the population.

In fact, the lack of data exchange between different stakeholders in the Czech health-care system (for example, between providers and funds or between different public entities) is frequently criticized (OECD, 2014b). Strengthening of data collection capacities is included in the Health 2020 strategy.

2.7.2 Health technology assessment

In 2014 HTA was not used systematically in SHI coverage or reimbursement decisions. Only some evidence-based criteria are currently 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 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, and control and analysis of the submitted data are rather regarded as a formality than relevant input. For the process of setting reimbursement rates for pharmaceuticals the SÚKL also requires applicants to 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 5.6). This requirement is stipulated by the Health Insurance Act.

In 2012 the Ministry of Health commissioned the creation of comprehensive manuals for HTA analysis but these have so far not been implemented. Overall, there is considerable activity in the field of HTA in the Czech Republic, but as of 2014 the efforts have not yet materialized into concrete measures.

2.8 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, the VZP, also manages a special central account used for reallocating SHI contributions among the health insurance funds according to a risk-adjustment scheme. The central government plays an important 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 providers other than the teaching hospitals and specialized health-care centres that are directly subordinate to the Ministry of Health or other ministries. The Ministry of Health is also responsible for licensing health professionals. At the same time the regions own a considerable number of inpatient health-care facilities.

2.8.1 Regulation and governance of third-party payers

The health insurance funds in the Czech Republic are quasi-public, self-governing bodies that operate primarily under public law. The funds are not permitted to make profits and are open to any applicant who is legally entitled to health insurance in the Czech Republic; any kind of risk selection or cream-skimming is not permitted. Although all of the health insurance funds serve fundamentally the same purpose, the VZP as the largest one 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. Second, the VZP manages the special central account used for reallocating SHI contributions according to a risk-adjustment scheme (see section 3.3.3).

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 as organizational units, one in each region of the Czech Republic. In contrast, some of the other health insurance funds are relatively 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 Employee Insurance Company (*Zdravotní pojišťovna Škoda*), which had nearly 140 000 members in 2012 (Chamber of Deputies, 2013).

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; the other 20 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 health insurance fund.

In 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 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 civil service); 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 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 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 (*zdravotně-pojistný ÿlan*). This serves as a business plan per se, and also contains information concerning contracting and purchasing policies, the use of resources and planned investments in the 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 subsequent year, a provisional arrangement is sought. A similar procedure is used for approving the final accounts and annual reports of the health insurance funds. However, the Chamber rarely refuses to approve or amends plans so the main oversight and de facto approval lies with the Ministry of Health and the Ministry of Finance.

On a quarterly basis, the health insurance funds submit their financial results and other requested information to the Ministry of Health and the Ministry of Finance, which review 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, can revoke its operating licence. This may happen, for example, in cases of poor economic performance, if a fund is in serious debt or cannot meet its liabilities, or as a result of failure to comply with the public interest. Members of a health insurance fund whose licence has been revoked are automatically insured with the VZP. So far there has been only one example of forced administration of a health insurance fund by the Ministry of Health. In 2005 the VZP was put under forced administration for almost six months due to poor economic performance and large debts. 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 so that, for instance, only a certain percentage of revenues can be spent on operating expenses. Examples of 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 should function as a financial buffer in case of a temporary lack of liquidity. Within one year after foundation, 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. Mergers of health insurance funds have to be approved by the Ministry of Health, which assesses whether the merger is not disadvantageous to the system of health insurance. Health insurance funds typically have merged in the past if one of the funds faced financial difficulties or in order to benefit from shared structures and increased efficiency.

2.8.2 Regulation and governance of providers

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 and balneological care). 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 very often.

Regarding the quality of health-care delivery, the Ministry of Health sets minimum criteria for material and technical equipment and qualifications of medical staff. These criteria have to be fulfilled and continuously maintained, otherwise a health-care facility is not allowed to register or has to cease to provide health-care services. In the case of private providers, monitoring is the responsibility of regional authorities and professional medical chambers. Apart from the requirements concerning personnel and equipment, there is no system-wide compulsory accreditation system for quality standards. The Ministry of Health is currently developing a set of quality indicators to assess inpatient care. The first pilot collection of data took place between April and June 2013. At the time of writing, the results are not yet available.

Since 2012 minimum requirements for staffing of health services have been set up by a Decree of the Ministry of Health. Before 2012 the minimum requirements for staffing of various types of ward and provider were usually specifically determined by the contracts with health insurance funds. The Decree regulates most health providers. Prior to 2012 the providers were obliged to ensure the safety of provision of services by employing adequate numbers of personnel, but the legal requirements were not specific.

The regions manage, directly or indirectly, a large share of hospitals. Some regions, such as *Středočeský kraj*, 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 still remain in public ownership, despite their commercial legal status (see section 2.4).

Almost all primary and specialized ambulatory care physicians in the Czech Republic run private practices, which in principle are small businesses under private law.

2.8.3 Registration and planning of human resources

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. For more information on the training and licensing of health professionals, see section 4.2.

The Ministry of Health also accredits similar postgraduate training programmes for dentists, pharmacists, nurses and paramedical personnel. Nurses are granted a permit to work without supervision if they have passed a bachelor-equivalent degree in certain care-oriented fields of study (fully qualified nurses). Otherwise, nurses have to work for three years under supervision to receive this grant. Passing the post-graduate exam, however, is necessary if members of these groups of medical personnel 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. To obtain the recognition of a foreign qualification the candidate has to go through a two-stage process: 1) the diploma must be recognized by one of the Czech universities as valid and equivalent to a Czech diploma; and 2) the candidate has to pass an exam in Czech. The exams tend to be very rigorous and demanding, because once they are passed, the applicant is (with some possible additional conditions for certain countries) able to practise in all EU member states.

The Czech Medical Chamber, the Czech Chamber of Dentists and the Czech Chamber of Pharmacists may determine the conditions under which their members may 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 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 code). Membership of a Chamber is compulsory for all practising physicians, dentists

and pharmacists. The number of private practices is in principle restricted not by the respective Chambers but rather by the limited number of contracts the health insurance funds are willing to conclude in a given area.

2.8.4 Regulation and governance of pharmaceuticals

Regulation of pharmaceutical products

The Ministry of Health, the SÚKL, the Ministry of the Environment, and the State Office for Nuclear Safety are responsible for the regulation and governance of pharmaceuticals.

The Ministry of Health approves and controls specific treatment programmes; regulates the use of non-registered pharmaceuticals (for example, within specific treatment programmes or in case of a threat to public health (Law no. 378/2007 Coll.); takes part in the preparation of the European pharmacopoeia; defines the Czech pharmacopoeia that describes the parameters of pharmaceuticals production and manipulation; and controls and makes publicly available lists of individuals authorized to dispose of non-used or expired pharmaceuticals.

The Ministry of the Environment assesses pharmaceuticals containing genetically modified organisms and assesses impacts of pharmaceuticals on the environment. In the case of radiopharmaceuticals, the State Office for Nuclear Safety also takes part in the registration and clinical assessment.

The SÚKL is the main regulatory body for pharmaceuticals. It is a national administrative authority directly reporting to the Ministry of Health. The Institute is responsible for the supervision of properties of medicinal products for humans. All the activities of the Institute relate to monitoring the quality, safety and efficacy of pharmaceuticals in all stages of development, sale and use. For this purpose the Institute uses a system of preliminary reporting, licensing/authorization and registration procedures, inspections, laboratory controls and monitoring of practical use of medicines. The SÚKL classifies the pharmaceuticals in the registration process into one of four categories: only on prescription; only on prescription with restriction (for example, subutex, cannabis for therapeutic purposes, “abortion pill”); without prescription; and without prescription with restriction (for example, pseudoefedrin – restriction on quantity).

The SÚKL identifies and sanctions illegal conduct. Activities requiring effective authorization and supervision by the SÚKL include manufacturing; import; distribution; supply or sale; preparation and parallel import; performing clinical trials and reference laboratory activities. In order to enforce sanctions

the Institute cooperates closely with other institutions in the Czech Republic and abroad (in particular with the Czech Police, the Customs Administration, the Czech Agriculture and Food Inspection Authority (CAFIA), and other control authorities of the EU Member States).

The SÚKL authorizes any proprietary pharmaceutical prior to its placement on the market in the Czech Republic. The marketing authorization procedure includes an assessment of a dossier, in which the future marketing authorization holder (MAH) evidences the safety, efficacy and quality of the product. Furthermore, the indications, contraindications, dosage of the product, and general classification for supply, as well as the package leaflet for the patient and proposed texts on the labelling of the medicinal products, are assessed. The Summary of Product Characteristics (SPC) forms part of the marketing authorization. It serves as the key source of information about the medicinal product for doctors and health-care professionals.

In 2013 the surveillance activities of the SÚKL were extended to narcotic and psychotropic substances. The SÚKL is also charged with the surveillance of quality and safety of human tissues and cells intended for use in humans.

The Institute is entitled to take action where a risk to public health arises, to impose penalties, and to request necessary documentation. In the area of medical devices the Institute ensures control of health-care providers, investigation of adverse incidents and control of clinical trials. Generic substitution has been allowed in pharmacies since 2008. Electronic prescription has been possible since 2009, but it is not used very frequently at the time of writing.

Regulation of wholesalers and pharmacies

Wholesalers need permission from the SÚKL to distribute pharmaceuticals. The SÚKL controls wholesalers and may fine them or suspend or cancel the permission to distribute pharmaceuticals. All pharmacies have to be registered by the SÚKL and meet certain requirements on staff education and training. Mail-order or internet pharmacies have to be listed by the SÚKL. They may only sell pharmaceuticals in the category "without prescription and without restriction". Internet pharmacies have to publish all necessary information about sold pharmaceuticals and they have to ensure safe delivery. Ordered pharmaceuticals have to be sent within 48 hours. During office hours pharmacists or pharmacist assistants have to be accessible for consultation.

System for pricing prescription pharmaceuticals

Since 2008 the SÚKL has been responsible for determining the maximum prices of medicinal products and for determining the level and conditions of reimbursement of medicinal products. Before 2008 the Ministry of Finance set pharmaceutical prices and the Ministry of Health determined reimbursement conditions.

Only the prices of pharmaceuticals covered by the SHI are regulated. The price regulation is based on a combination of two mechanisms: 1) the maximum end-customer price – this is the average of the three lowest prices in the EU, and 2) a maximum trade margin determined by the so-called Price Decree by the Ministry of Health (usually a certain proportion of the ex-factory price). The conditions of reimbursement from the health insurance system are also regulated (prices usually consist of SHI reimbursement and co-payments from the patients). There is a system of reference groups, each consisting of drugs with similar effects and safety levels (the pharmaceuticals within a group might be substituted at the beginning of treatment). According to the law there should be at least one fully reimbursed pharmaceutical in each of the 195 existing groups. In reality, there are approximately 1500 fully reimbursed pharmaceuticals.

The SÚKL attempts timely re-evaluation of price regulations for pharmaceuticals in order to reduce the cost for pharmaceuticals, but its capacity is limited. Pharmaceutical costs rose until 2009 but have more or less stagnated since then (see section 3.1). In order to reduce pharmaceutical costs, some insurance funds (for example, the VZP) publish "positive lists" of pharmaceuticals. The respective insurance funds list pharmaceuticals with the best price for the fund and encourage physicians financially to prescribe pharmaceuticals from these lists. In theory, insurance funds may negotiate pharmaceutical prices individually with companies.

2.8.5 Regulation of medical devices and aids

In aspects of patient safety the key organizations are the Ministry of Health and the SÚKL. The SÚKL controls how providers use medical devices, examines adverse effects and oversees clinical trials. The Ministry of Health controls the SÚKL, re-examines the administrative decisions made by the SÚKL, sets up methodological guidelines for the SÚKL, and maintains international relations and co-operations with regulatory bodies of other EU countries.

Reimbursement rates for medical devices are regulated directly by the health insurance funds. There is currently a ministerial reform proposal aimed at moving this responsibility to the SÚKL. The proposed law also includes the

establishment of a registry, as well as a new classification of medical devices and aids. The registry should contain all necessary information about all devices on the market and the new classification is aimed at more clarity and comparability in procurement of these devices.

2.8.6 Regulation of capital investment

Generally the responsibility for capital investments lies with the providers. There is no coordinated central oversight of capital investments and providers are more or less free to dispose of financial means obtained through reimbursement by insurance funds (whether to use them for investments, salary increases or current expenditures). However, every provider owned by a public entity (state, regional government or municipality) must adhere to general rules on public procurement procedures. In practice, most significant capital investments are consulted with and approved by the public owner. This is due to both financial and managerial reasons. Some investments are supported directly by the owner and if, for instance, a regional government owns more than one hospital in the region, it may want to regulate capital investments to prevent duplication of purchases of costly devices.

2.9 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. In recent years the most important changes were enacted by the Health Services Act and Special Health Services Act (see section 6.1).

2.9.1 Patient information

The Czech Republic still lacks a unified system to assess the quality of health services and facilities which would enable patients to make an informed choice based on statistics about the performance of various providers or health insurance funds. There is, however, some advancement in this area. For example, a registry managed by the ÚZIS gathers information on adverse events. So far 40% of inpatient providers (measured in bed capacity) participate in this project,

which aims at supporting best practices by information sharing. Several other projects are spearheaded by the state or regional governments, whereas others are run by professional or civic organizations, such as the National Reference Centre (*Národní Referenční Centrum*, NRC) or the Czech Oncological Society (ČLS JEP). 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 in line with European directives, 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 detail.

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.

2.9.2 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. Applications have to be filed before 30 June of a given year in order to swap insurance funds in the next year. 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 frequently do so (see section 5.3). A government decree enacted in 2012 further specified the obligations of health insurance funds and postulated maximum waiting times for certain procedures and maximum geographical distances to certain services.

2.9.3 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 the Parliament in 2001.

A new law on health-care services came into force in 2011 and altered patient rights substantially. For more information see section 6.1.

2.9.4 Complaints procedures

Complaints procedures were overhauled by the Health Services Act in 2011. The new law stipulates who can file a complaint (patient, custodian of patient, or in case of death or serious disability a so-called "person close to the patient" – in Czech law, this is basically the legal designation for a family member). It also sets up a procedure for complaints. First, the provider must respond to the complaint filed against him or her/the organization or its employee. If the person who filed the complaint is not satisfied with the way the complaint is handled by the provider, he or she can subsequently inform the respective administrative body (mostly regional governments). There are also precise rules for setting up an exploratory committee and/or consulting medical professionals, if it is deemed necessary in order to decide about the legitimacy of the complaint. The burden of proof is with the person who files the complaint. In case of compensation requests the matter is usually settled by a civil court.

2.9.5 Public participation

Public participation in purchasing decisions is limited in the Czech Republic. Most decisions (for instance about the specifics of reimbursement) are made after consultation with the stakeholders, but these mainly represent health-care professionals and academics. There is some unofficial influence from various patient organizations, mostly in cases of well organized minorities of patients such as those suffering from rare and chronic diseases.

On the other hand health care plays an important role in almost every election, including those to regional governments. Statements about the availability and quality of health-care services often appear in political parties' manifestos, and thus patients indirectly have the opportunity to influence purchasing decisions as voters.

2.9.6 Patients and cross-border health care

Since 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 policyholders 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 policyholders may ask their health insurance fund for pre-authorization when planning to receive treatment abroad. The national implementation of EU Directive 2011/24/EU passed in 2014 further clarifies the possible claims of Czech citizens when receiving health services abroad. According to the changed rules, health-care provision will be reimbursed to patients if the service rendered would have been reimbursed in the Czech Republic, and it will be reimbursed up to the amount paid in the Czech Republic.

The Centre for International Reimbursements (*Centrum mezistátních 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 Centre's main tasks is to reimburse the costs of in-kind benefits provided to Czech policyholders while abroad and to collect the costs from other Member States for people treated in the Czech Republic.

As shown in Table 2.1, Czech policyholders were treated abroad in more than 120 000 cases in 2012. 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. Roughly 54% of total treatments abroad were treated in Slovakia. Yet they represent only 38% of the expenditure on cross-border treatments. Most cases of Czech policyholders treated during a temporary stay abroad (mostly tourists) occurred in Slovakia, Germany or Poland. More than half (56%) of the total costs incurred by Czech policyholders while receiving health care abroad in 2012 were associated with hospitalization.

Table 2.1
Use of health services abroad by Czech policyholders (2012, number of cases, selected countries)

Country in which health services were used	Number of cases
Slovakia	68 753
Poland	31 481
Germany	10 969
Austria	4 149
Croatia	3 047
Spain	1 544
France	1 422
Italy	1 415
Belgium	649
Switzerland	604
Total	**126 203***

Source: CMÚ, 2013.
Note: *total includes 22 other countries with fewer than 600 cases per year.

In 2012, 100 355 foreign patients received treatment in the Czech Republic, up from 70 647 in 2007 (CMÚ, 2008; CMÚ, 2013). These patients were mainly from the neighbouring countries of Germany, Slovakia, Poland and Austria. 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. Patients paying for health care abroad with travel insurance or out-of-pocket payments are not included. However, in recent years there has been a steady increase in the numbers of both Czech policyholders treated abroad and foreign policyholders treated in the Czech Republic (see section 3.3.1).

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 (7.7% in 2012) compared to Western European countries (WHO Regional Office for Europe, 2014a). The vast majority of health expenditure is through the SHI system and through state contributions on behalf of certain groups of economically inactive people. Health expenditure from public sources as a share of total health expenditure remains among the highest in the WHO European Region (still above 85% in 2012 after reforms). Population coverage is virtually universal, and the range and depth of benefits available to insured individuals are unusually broad. Due to the comprehensive SHI benefit package, VHI plays only a marginal role. Health expenditure from private sources is low compared to other European countries and decreased from 15.8% in 2011 to 15.2% in 2012 due to the abolition of some user fees (see section 3.4.1) but it is likely to rise in the long term due to insufficient public sources.

Monthly wage-based SHI contributions from employers, employees and self-employed individuals are the main source of health-care financing in the Czech Republic. The contributions are collected via individual health insurance funds and subsequently reallocated among them based on a risk-adjustment scheme. SHI contributions made by the state for certain groups of economically inactive people are also included in the reallocation process. The health insurance funds serve as the main purchasers of health-care services in the Czech SHI system, and their organizational relationship with the various providers is based on individual long-term contracts. Since 2007 hospitals have been paid using a combination of a diagnosis-related group (DRG) system, individual contracts and global budgets, with a continuously increasing share of DRG-based payments. 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 applied mostly for preventive care. Non-hospital ambulatory care specialists are paid using a capped fee-for-service scheme.

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 that is in place today. Between 1990 and 1995 total health expenditure as a percentage of GDP rose from 4.4% to 6.7%; in 1996 it fell to 6.4% and stayed at this level until 2001. Over the next seven years total health expenditure remained relatively stable at 6–7% but increased considerably between 2008 and 2009, from 6.7% to 8% (Fig. 3.2). After 2009 total health expenditure as a share of GDP decreased again and stabilized at around 7.5% (Table 3.1). The rapid increase in 2009 is attributable to the sharp decline in GDP during the economic crisis and the fact that health insurance funds had accumulated enough reserves before the financial crisis to keep spending levels stable or even increase them. In 2010 and 2011 the health insurance funds came under pressure to decrease spending levels. In 2012 and 2013 health expenditure was severely restricted by the Reimbursement Directive (see section 3.3.4). The reserves of the health insurance funds have steadily decreased since 2009 and the biggest health insurance fund, the VZP, received a loan of CZK 1.7 billion (€62 million) from the state budget, which was partially repaid in December 2014.

Table 3.1

Trends in health expenditure in the Czech Republic, 1995 to latest available year

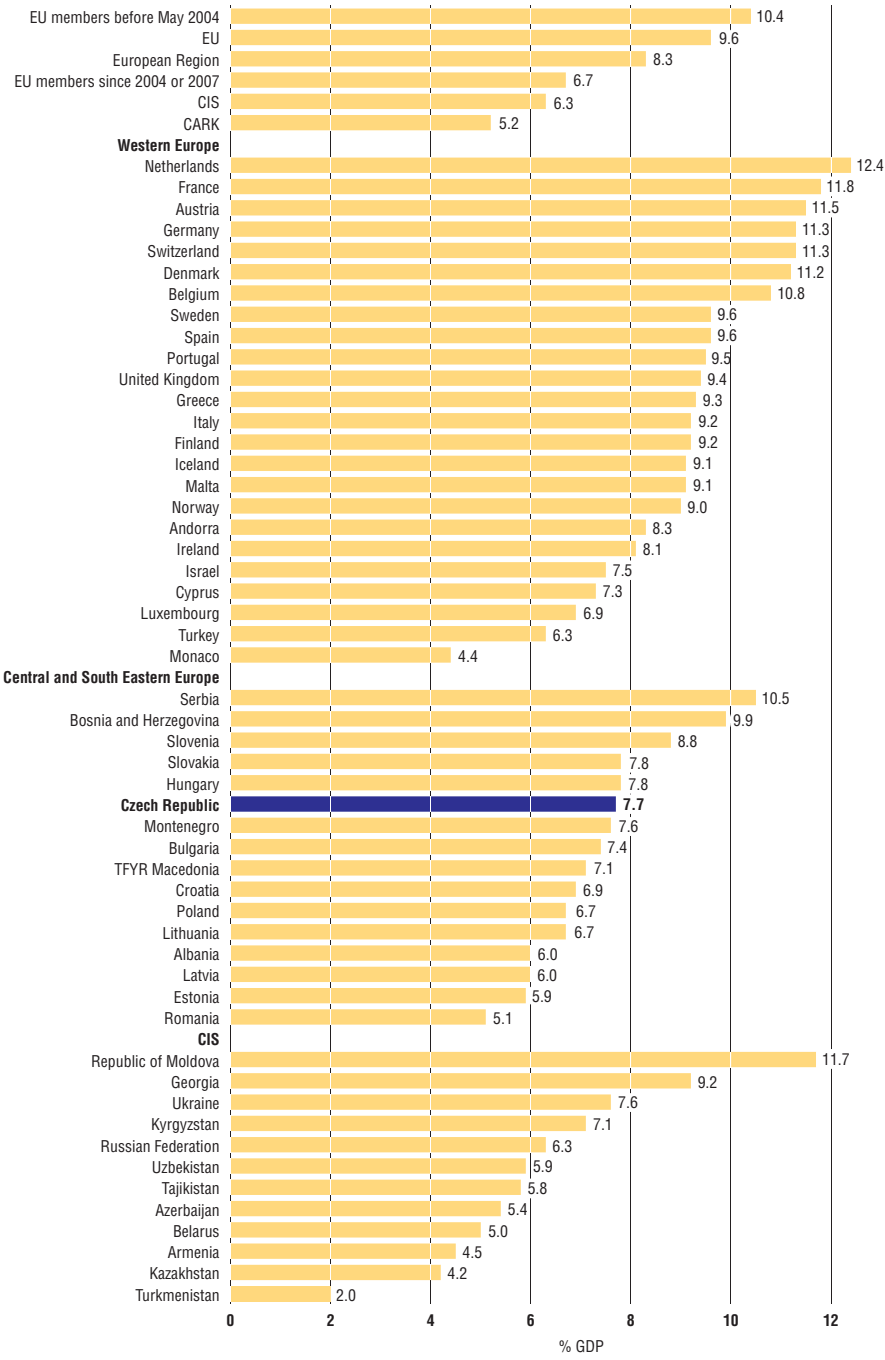
Expenditure	1995	2000	2005	2010	2011	2012
Total health expenditure in US$ PPP per capita	896	982	1 474	1 884	1 966	2 046
Total health expenditure as % of GDP	6.7	6.3	6.9	7.4	7.5	7.5
Mean annual real growth rate in total health expenditure	–	4.9	7.2	4.2	2.8	–
Public expenditure on health as % of total expenditure on health	90.9	90.3	87.3	83.8	84.2	84.1
Private expenditure on health as % of total expenditure on health	9.1	9.4	12.5	15.8	15.8	15.9
OOP payments as % of total expenditure on health	9.1	9.7	10.7	14.9	14.7	14.2

Source: WHO Regional Office for Europe, 2014a; ÚZIS, 2013b.

In 2012 total health expenditure as a share of GDP in the Czech Republic was low compared to the EU15 countries, but above most of the EU13 figures (Fig. 3.1). Despite the steady increase in health expenditure in the 1990s and 2000s, the gap between EU15 averages and the Czech Republic kept widening. From 2009 onwards most countries including the Czech Republic followed a slight and simultaneous downward trend in health expenditures. 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, especially as it is seen to be limiting their pay rises (see also Section 3.7.2 *Paying health workers*).

Fig. 3.1

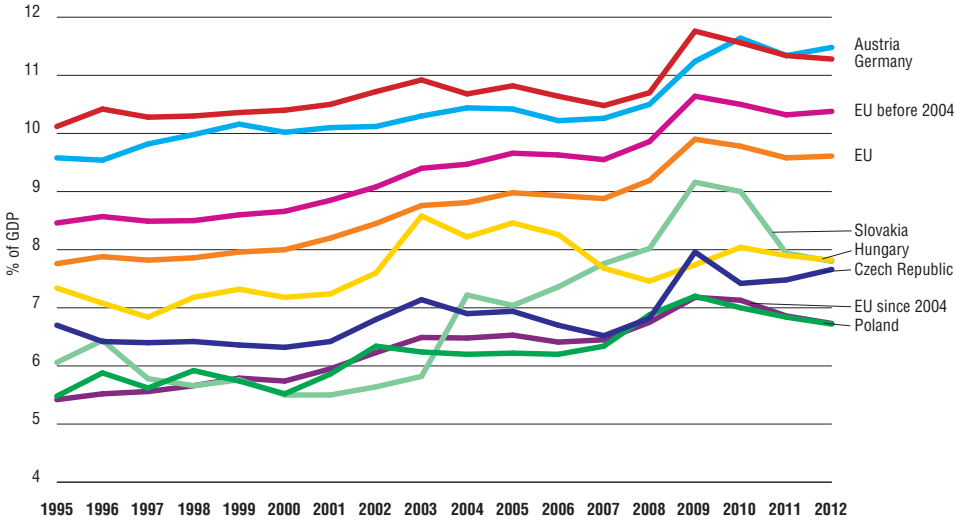
Total health expenditure as a share (%) of GDP in the WHO European Region, 2012



Source: WHO Regional Office for Europe, 2014a.
Notes: GDP: Gross domestic product; EU: European Union; CIS: Commonwealth Independent States; CARK: Central Asian Republics and Kazakhstan; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Fig. 3.2

Trends in health expenditure as a share (%) of GDP in selected countries, 1995 to latest available year



Source: WHO Regional Office for Europe, 2014a.
Notes: GDP: Gross domestic product; EU: European Union.

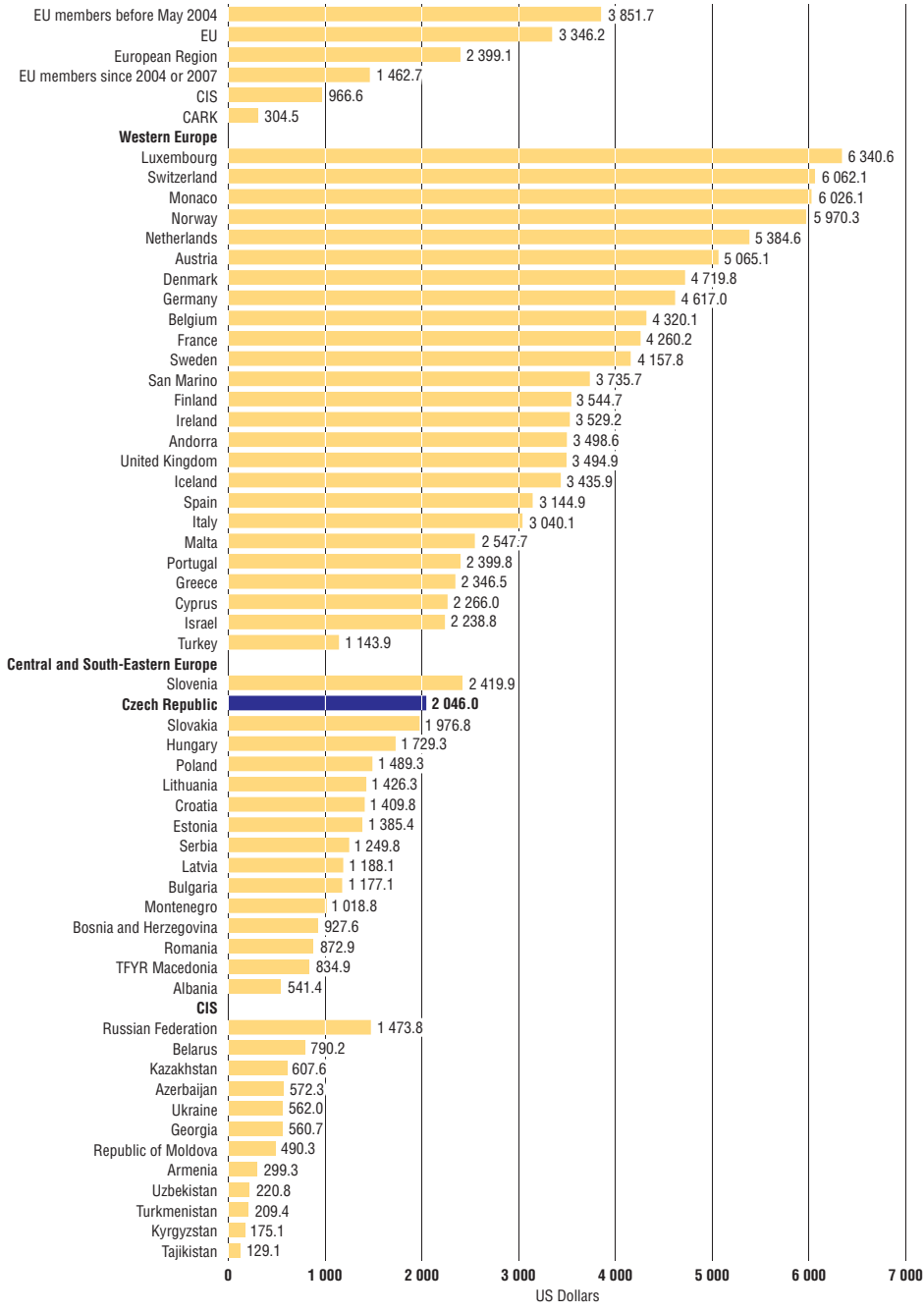
As shown in Fig. 3.3, in 2012 health expenditure per capita in the Czech Republic in US$ PPP (purchasing power parity) was low compared to the EU15 member states, but considerably higher than the EU13 average and the third highest among the Visegrád group (the Czech Republic, Hungary, Poland and Slovakia). Higher per capita expenditure in Slovakia can be partly explained by higher private expenditure, mainly in the form of out-of-pocket-payments (Szalay et al., 2011) (see Fig. 3.4).

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 (see Fig. 3.4), which reflects a broad benefits package and virtually universal coverage (see section 3.3.1). The introduction of, and constant changes to, user fees has led to some slight variation of this figure in recent years. In 2012 health expenditure from public sources increased to 84.8% of total health expenditure (WHO Regional Office for Europe, 2014a).

In 2012, 50.9% of the health insurance funds' expenditure was devoted to hospital inpatient and outpatient care. As shown in Table 3.2, this share rose slightly until 2007 and then stabilized at around 51%. Expenditure on ambulatory care has slightly risen since 2005 to 26.1% in 2012. In contrast, expenditure on

Fig. 3.3

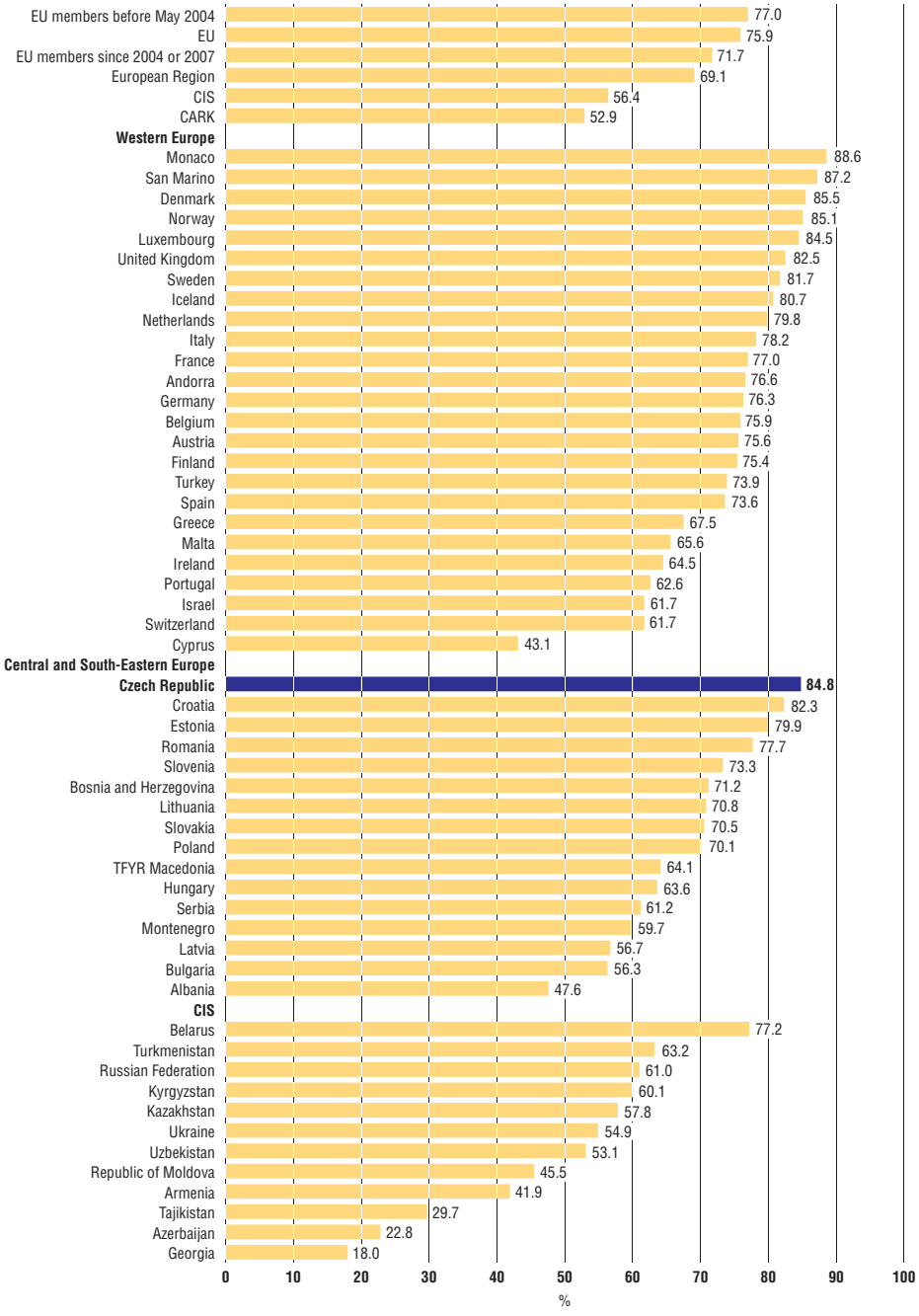
Health expenditure in PPP per capita in the WHO European Region, 2012, WHO estimates



Source: WHO Regional Office for Europe, 2014a.
Notes: PPP: Purchasing power parity; EU: European Union; CIS: Commonwealth of Independent States; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Fig. 3.4

Public sector health expenditure as a share of total health expenditure in the WHO European Region, 2011, latest available year



Source: WHO Regional Office for Europe, 2014a.
Notes: EU: European Union; CIS: Commonwealth of Independent States; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Table 3.2

Shares in expenditure of the health insurance funds in the Czech Republic, 2000–2012

Indicator		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Ambulatory care	%	23.0	22.4	22.6	23.3	23.2	23.1	23.6	23.9	24.9	25.4	25.7	26.4	26.1
Dental services	%	6.3	6.0	5.7	5.6	5.5	5.2	5.0	5.0	4.7	4.5	4.6	4.6	4.4
GPs	%	5.2	5.1	5.0	5.1	4.8	4.6	4.9	4.7	5.2	5.6	5.8	5.9	5.8
Rehabilitation	%	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9	1.0	1.0	1.1	1.1
Diagnostics	%	3.5	3.3	3.4	3.7	4.0	4.1	3.9	3.7	3.8	4.2	3.8	3.8	3.8
Home care	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	0.6
Specialized ambulatory care	%	6.3	6.4	6.7	7.0	6.9	7.1	7.8	7.4	7.7	7.7	8.1	8.5	8.4
Other	%	0.4	0.4	0.5	0.5	0.5	0.5	0.6	1.7	1.9	1.7	1.8	1.9	2.0
Hospital care	%	47.5	48.1	48.2	46.7	46.2	46.7	49.9	50.9	51.2	50.7	51.8	51.4	50.9
Hospitals (including hospital outpatient care)	%	43.1	43.4	43.2	41.4	41.1	41.6	44.4	45.2	46.1	45.3	47.7	47.3	46.8
Long-term care hospitals	%	1.9	2.1	2.0	2.1	2.0	2.0	2.1	2.2	1.8	1.9	1.0	1.1	1.1
Spa	%	2.4	2.3	2.2	2.3	2.1	1.9	1.7	1.6	1.5	1.5	1.5	1.4	1.1
Other	%	0.1	0.1	0.4	0.5	0.4	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3
Transport	%	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.8	0.7	0.7	0.6	0.6
Emergency	%	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.8	0.7	0.7	0.8	0.8	0.9
Pharmaceuticals	%	21.8	21.7	21.5	22.2	22.9	22.7	20.3	18.5	16.9	17.2	15.9	15.5	16.1
Medical aids	%	2.7	2.7	2.7	2.7	2.7	2.8	2.7	2.8	2.9	2.8	2.8	2.9	2.8
Health care abroad	%	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3
Other	%	3.4	3.6	3.9	4.1	4.1	4.2	3.3	3.4	3.7	3.8	3.4	3.5	3.8

Source: Ministry of Health, 2013b.
Note: GP: General practitioner.

pharmaceuticals has decreased markedly since the early 2000s, falling by 5.7 percentage points from 21.8% in 2000 to 16.1% in 2012. This is probably due to several factors, including the exclusion of some basic pharmaceuticals from SHI coverage and the impact of user fees for each prescribed pharmaceutical, as well as the fact that other components of health spending have been growing more strongly.

The administration costs of the Ministry of Health and the health insurance funds were EUR 347 million in 2012. This translates into 3% of total health expenditure and includes administration costs of the regional governments related to their health budgets (Chamber of Deputies, 2013; Ministry of Health, 2013a).

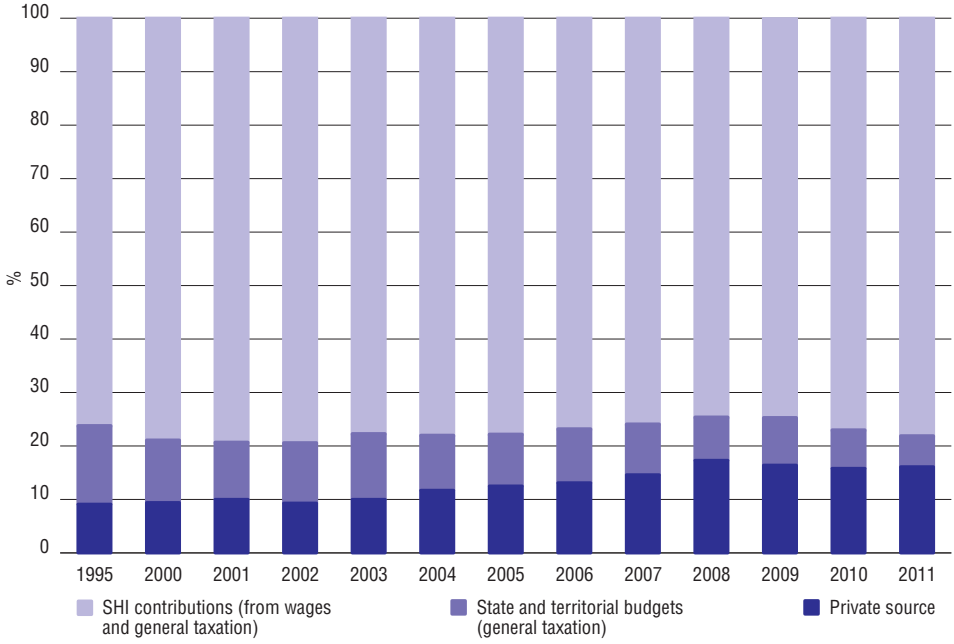
Research is financed partly by the Ministry of Health and partly by state agencies such as the Czech Science Foundation. The Ministry of Education only indirectly participates in financing health research through providing some institutional money (non-targeted support) to public universities and research institutions. The share of total health spending for research is not available since the funding comes from multiple sources.

Although private sources of funding play only a minor role in financing the Czech health system, there was a slow but steady increase in their share of total health expenditure from the end of the communist period until 2008, when the share jumped to 17.3%. In 2008 a variety of user fees was introduced and further adjusted in the following years (see section 3.4.1). After the rise in 2008, the share of private expenditure of total health expenditure decreased to 16.4% and in the years 2010–2012 it stabilized slightly below 16%. The main private source of funding in the Czech health system is OOP spending, which accounted for virtually 100% of private health expenditure in 2012 (ÚZIS, 2013b).

3.2 Sources of revenue and financial flows

The main sources of health expenditure in the Czech Republic are (1) SHI contributions (consisting of wage-based contributions and state contributions from general taxation), (2) state and territorial budgets and (3) private expenditure. Fig. 3.5 demonstrates these sources of financing as a share of total health expenditure. The following section describes in detail the sources of revenues as well as financial flows.

Fig. 3.5
Sources of financing for total health expenditure in the Czech Republic, 1995–2011 (selected years)



Source: ÚZIS, 2012a.

Social health insurance

Compulsory, wage-based SHI contributions are the main source of health-care financing in the Czech Republic, accounting for 74% of revenue within the SHI system in 2012 (Ministry of Health, 2013b). The remaining 26% 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 77.9% of total health expenditure in the Czech Republic in 2012 (OECD, 2014a).

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 General Health Insurance Fund (*Všeobecná zdravotní pojišťovna*, VZP) manages the redistribution of funds within the system based on a risk-adjustment scheme (see section 3.3.3). SHI contributions are legally set at 13.5% of pre-tax monthly wages (contribution base), with employees paying a 4.5% share and employers a 9.0% share. There is an annual ceiling on the basis for contribution calculation.

This ceiling was increased in 2010 from 48 to 72 times the average monthly wage in the Czech Republic two years prior to the current year, which makes the funding system mildly regressive. This annual ceiling was abolished temporarily between 2013 and 2015 with the aim of mobilizing additional resources to support fiscal consolidation after the economic downturn (Act No. 500/2012). In February 2014 the government presented plans to abolish this ceiling permanently. Self-employed persons pay the same total percentage (13.5%), but the base is only 50% of their profits. There is also a legally defined minimum contribution: employees (and individuals without taxable income whose SHI contributions are not covered by the state) have to pay 13.5% of the minimum monthly wage and self-employed persons 13.5% of one half of the average monthly wage one year prior to the current year.

In 2012 employees and employers contributed EUR 5852 million to the SHI while self-employed individuals contributed EUR 552 million and individuals without taxable income EUR 97 million. Table 3.3 shows the number of insured individuals in each employment category and their contribution in 2012. In that year 242 000 insured persons were categorized as employees and self-employed individuals simultaneously.

Table 3.3

Number of insured and their contribution in 2012

Contributions (in € million)	Number of insured in thousand (%of total population)	
5 852	3 934 (35%)	Employees and employers
552	692 (6%)	Self-employed individuals
97	250 (2%)	Individuals without taxable income
2 102	6 100* (57%)	Economically inactive persons

Source: Ministry of Health, 2013b.
Note: *2011 data.

There are significant disparities between the average contributions of employees and self-employed persons, as depicted in Table 3.3.

The Ministry of Finance pays monthly SHI contributions for certain groups of economically inactive people, referred to in this context as "state-insured". This contribution is set by the government and in 2012 these contributions amounted to EUR 2102 million. The contributions for state-insured rose annually by 5.7% on average from 2001 to 2010 and then remained stable until 2013. State-insured people are defined by law and include groups such as children, students, women or men on parental leave, pensioners, unemployed

individuals, people living below the poverty line, prisoners and asylum seekers. The contributions that the Ministry of Finance makes on their behalf are financed through general taxation. Table 3.4 shows the revenues of SHI in the Czech Republic from 2006 to 2012.

Table 3.4

SHI revenues in the Czech Republic, 2006–2012 (million Euro)

	2006	2007	2008	2009	2010	2011	2012
Employee and employers payments	5 490	6 044	6 373	6 344	6 374	6 548	6 686
State payments	1 710	1 888	1 880	1 936	2 096	2 097	2 102
Total	7 200	7 932	8 253	8 280	8 470	8 645	8 788

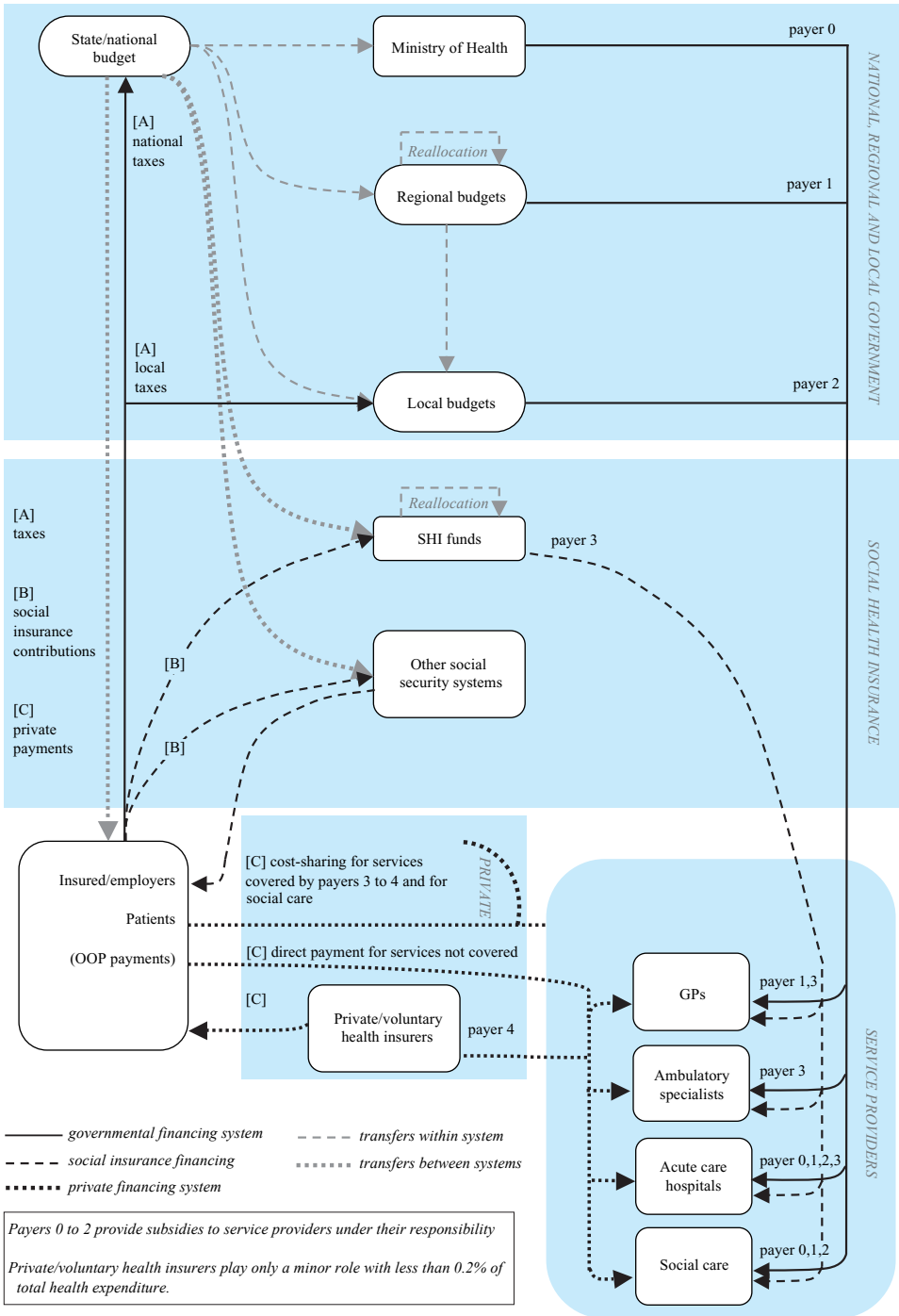
Source: Ministry of Health, 2013b.
Note: Exchange rate 25.14 CZK/€ – the average 2012 exchange rate – is used for conversion.

State budget

Spending from state, regional and municipal budgets (not counting insurance contributions for state-insurees) accounted for 4.5% of total health expenditure in 2012 (OECD, 2014a). These budgets are financed through general taxation (see section 3.3.2). Taxes are used to cover expenditure at both 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, specialized institutions for research and postgraduate education, and the air medical rescue service. At the regional level capital investments in regional and municipal hospitals are financed by regional authorities; it is important to note, however, that all hospitals may also apply for subsidies from the Ministry of Health. In recent years some capital investments were partially covered by EU structural and cohesion funds from the Integrated Operational Programme of the Czech Republic. The medical rescue service is subsidised by regional governments.

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), air emergency services, conducting medical research, and providing postgraduate education to physicians. The main financial flows in the Czech health system are depicted in Fig. 3.6.

Fig. 3.6
Financial flows in the Czech Republic, 2013



Source: Authors' compilation.

3.3 Overview of the statutory financing system

3.3.1 Coverage

Breadth: who is covered?

Entitlement to coverage in the Czech Republic is based on permanent residence rather than on direct 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.

As Table 3.5 shows, the number of foreigners treated in the Czech Republic increased by 55% while spending rose by 82% from 2009 to 2012. See section 2.9.6 for further details.

Table 3.5

Health expenditure on treatment of non-Czech nationals and number of treated foreigners in the Czech Republic, 2009–2012

	Year	2009	2010	2011	2012
Health expenditure on treatment of non-Czech nationals	€ million	13.9	16.2	22.8	25.3
Number of treated foreigners	thousands	61.8	64.9	77.6	95.9

Source: Ministry of Health, 2013b.

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 switch insurance funds annually provided they have applied before 1 July the previous year. In reality, however, the percentage of insured individuals who switch is very low (1.4% in 2012), as there are only small differences between the funds (VZP, 2013a). They may differ very slightly in bonuses provided to their members (for example, contributions for sporting activities) and in the amount and type of contracted medical facilities. Yet most GPs, ambulatory

specialists and hospitals have contracts with all the relevant health insurance funds in their region. Children and pensioners may register with any health insurance fund, but for historical reasons most pensioners are registered with the VZP (see section 2.8.1).

Scope: what is covered?

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 treatments and 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.

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, acupuncture 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 covered and (b) medical and dental aids that are covered. Both lists are relatively unspecific 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 State Institute for Drug Control (SÚKL; see section 5.6), whereas general lists of medical and dental aids covered by SHI are defined by the Ministry of Health. Items that are not included in the formularies may still be reimbursed if it is the only remaining potentially effective treatment for a specific patient. This decision is made by the respective insurance fund.

The third means by which benefits are rationed is an annual negotiation process between the health insurance funds and health-care providers (see section 3.3.4). In the negotiation process, the reimbursement conditions and prices for health care should be set in a consensual way, but in reality a consensus usually is not reached and the Ministry of Health ultimately sets the rules for reimbursement through the so-called Reimbursement Directive. In general, the conflict of interests between cost minimization by the health insurance funds and revenue maximization by health-care providers is moderated by the Ministry of Health. From the patients' point of view these negotiations can result in limitations of volume of services provided by specific providers.

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 section 2.3). 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 2013 the List of Health Services enumerated more than 3800 items across 688 pages. The following 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
- Medical transportation services
- Spa treatments (if 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. In 2013 the guidelines for spa therapy prescriptions were fundamentally modified and the possibilities of prescription severely limited. With the exception of pharmaceuticals, medical aids and – from 2012 to 2013 – above-standard

care, 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 practice, around 1500 prescribed pharmaceuticals (approximately 55% in terms of the numbers of packs distributed) do not require any co-payment beyond a CZK 30 (€1.20) fee per prescription. There is a trend of exclusion of common over-the-counter pharmaceuticals from the benefit package – more than 120 pharmaceuticals were excluded in July 2012 (for example, certain wound disinfectants and allergy drugs).

Additional benefits may be offered by the funds only in the field of prevention (such as safety helmets for children, vitamins and health promotion activities).

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.

Depth: how much of the benefit cost is covered?

In the Czech health system the introduction of formal user fees in 2008 reduced the depth of coverage, because health providers' remuneration was adjusted downward to take into account the revenues of user fees directly paid to providers. User fees for prescriptions and certain health services (for example, emergency care or hospital stays), as well as co-payments for pharmaceuticals, were introduced in 2008. The system of user fees and co-payments has been changed several times since its introduction. User fees for hospital stays were abolished by the Czech Constitutional Court in 2013. In mid-2014 there were user fees for doctor visits – CZK 30 (€1.20); the use of ambulatory services outside standard office hours – CZK 90 (€3.60); and per prescription – CZK 30 (€1.20). (For further information see section 3.4.1.) Co-payments other than those specified by law or top-up payments are legally prohibited.

3.3.2 Collection

Each health insurance fund has its own revenue collection system. On a monthly basis they collect SHI contributions from employers and employees (the responsibility for contributions remains with employers), from self-employed people, and from individuals without taxable income who are not state-insured (see section 3.2). Self-employed individuals make advanced payments, which are accounted annually.

Spending from state, regional and municipal budgets accounted for 4.5% of total health expenditure in 2012 (this does not include SHI contributions from the state for economically inactive people; OECD, 2014a). These budgets are financed through general taxation. See section 3.2 for further details.

3.3.3 Pooling of funds

The distribution of revenue and expenditure among the health insurance funds was unequal due to the different structure of their insured individuals. 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 health insurance funds were still permitted to offer additional services over and above the standard package of benefits, and 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. In 2014 a capitation formula for redistribution purposes was in place based on age (grouped according to five-year categories) and gender, forming a total of 36 groups. Moreover, ex post compensation of 80% of the costs above the limit is provided for insured individuals whose annual costs are 25 times greater than the average annual costs per client in the entire SHI system. This is intended to protect the health insurance funds from unexpected fluctuations in expenditure. The Ministry of Health finalized a pilot pharmaceutical cost group (PCG) model in 2014 that is intended to improve the redistribution process in the future. Some health insurance funds oppose these plans as they question whether these measures will actually improve the reallocation process.

The reallocation process is managed by the VZP through a special central account. Each month the health insurance funds report to the VZP the total amount of SHI contributions they have collected, as well as the age and gender of their insured individuals. 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.

3.3.4 Purchasing and purchaser–provider relations

The health insurance funds serve as the main purchasers of health-care services in the Czech SHI system. 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 conditions of reimbursement – including payment mechanisms – for specific groups of providers, such as acute care hospitals, GPs or ambulatory care specialists. 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 interested groups (such as the Czech Medical Chamber). The committee then makes a non-binding recommendation as to which health-care provider should or should not be contracted by the health insurance funds – among the main criteria are density and availability of current health-care providers. 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 selection process (*výběrové řízení*) has taken place. In practice, the health insurance funds mostly follow the recommendations made by the committees.

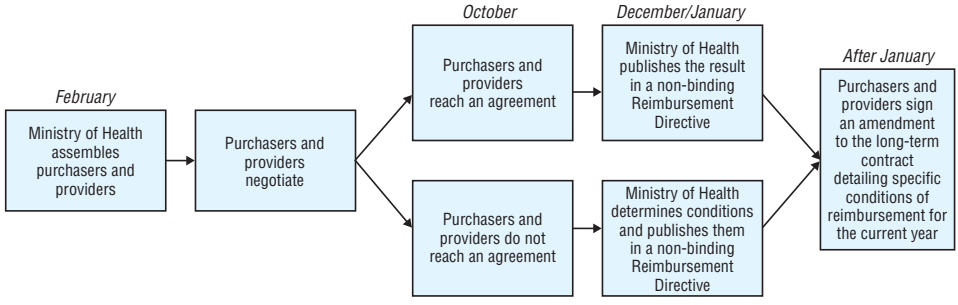
The health insurance funds sign long-term contracts with individual providers for a period of five or eight years, depending on the type of provider. The default contract for each category of provider is obligatory and specified in a Directive on Long-term Contracts issued by the Ministry of Health; it defines essentials of the long-term contracts between insurance funds and individual providers. The long-term 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 amendments to the contract.

The health insurance funds and health-care providers are usually not able to reach an agreement in all fields (for example, in the negotiation process for 2013 agreement was reached only in three out of 12 health sectors). Therefore the Ministry of Health publishes a so-called Reimbursement Directive, which serves as a framework 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.

Using the Reimbursement Directive as a guideline, individual health insurance funds and individual providers subsequently draw up amendments to the long-term contracts described earlier. If no agreement is reached between individual funds and providers, then the Reimbursement Directive becomes binding for both parties. The amendments are usually concluded during the year for which they are applied. As a result, providers face some uncertainty on how much they will get paid. Equally, amendments may result in higher financial obligations for health insurance funds, which in turn may cause delays in payments to providers. Fig. 3.7 provides an overview of the described process.

Fig. 3.7
Annual negotiations on the Reimbursement Directive



Source: Authors' compilation.

3.4 Out-of-pocket payments

Out-of-pocket payments in the Czech Republic mainly consist of (1) direct payments for over-the-counter pharmaceuticals and some dental procedures; (2) co-payments on medical aids and prescription pharmaceuticals, the actual price of which exceeds the reference price in a particular pharmaceutical group, and – between 2012 and 2013 – on above-standard care (see section 3.3.1); and (3) 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 15.7% of total health expenditure in 2011 (Czech Statistical Office, 2014a). OOP payments as a percentage of final household expenditure in the Czech Republic remain among the lowest in OECD countries (OECD, 2014a).

3.4.1 Cost-sharing (user charges)

Until the end of 2007 inpatient and outpatient health services were free of charge at the point of use, with the exception of some prescription pharmaceuticals and medical aids. Starting in 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 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 each prescribed pharmaceutical (thus, a patient would pay CZK 60 for one prescription with two prescribed pharmaceuticals on it). This was changed to a flat fee of CZK 30 (€1.20) per prescription in 2012 (thus, the patient pays only one fee even if there is more than one pharmaceutical on the prescription). Since 2009, for pharmaceuticals for which the actual price exceeds the reference price in a particular pharmaceutical group, patients additionally must either pay the difference in price or pay CZK 30 (€1.20), whichever is greater. In 2011 the user fee per hospital day was increased from CZK 60 to CZK 100 (€4.00).

Table 3.6
Changes in user fees, 2008–2015

Type of service	User fee 2008	User fee 2013	Changes envisaged for 2015
GP visits	CZK 30 (€1.20)	CZK 30 (€1.20)	abolished
Ambulatory specialist visits	CZK 30 (€1.20)	CZK 30 (€1.20)	abolished
Out-of-office-hours ambulatory care visits	CZK 90 (€3.60)	CZK 90 (€3.60)	CZK 90 (€3.60)
Hospital stays (per day)	CZK 60 (€2.40)	CZK 100 (€ 4.00)	abolished
Pharmaceuticals (per item)	CZK 30 (€1.20)	abolished	abolished
Pharmaceuticals (per prescription)	Not introduced	CZK 30 (€1.20)	abolished

Source: Authors' compilation based on Act no. 256/2014 Coll.; exchange rate 25 CZK/€ used for conversion.

Some groups were (and 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 preventive services. Moreover, an annual ceiling of CZK 5000 (€200) per insured individual was established for selected user fees (user fees for hospital stays and the use of ambulatory services outside standard office hours were (and are) not included in the individual calculation of ceilings), as well as for co-payments on prescription pharmaceuticals the actual price of which exceeds the reference price in a particular pharmaceutical group. Due to popular and political opposition to the user fees, the annual ceiling was lowered to CZK 2500 (€100) in 2009 for persons under 18 and over 65 years. Patients who exceed this limit are reimbursed for the additional user fees and prescription pharmaceutical co-payments by their health insurance fund. Moreover, children up to the age of 18 years were exempted from user fees for doctor visits. In 2013 the CZK 2500 (€100) ceiling was reached by 228 000 people (approximately 2.2% of the population) (Ministry of Health, 2014a). In July 2013 the Czech Constitutional Court abolished the user fees for hospital days as of January 2015. The main argument behind this decision was that CZK 100 (€4) per day was unfair to certain vulnerable groups. User fees have been politically divisive and controversial as well as unpopular among the population since their introduction (Van Ginneken et al., 2010). Any future developments will heavily depend on who is in power. Before the early elections in October 2013 most political parties (including the Social Democrats, ČSSD) declared they wanted to maintain user fees per hospital day at CZK 60 (€2.40) and fees for the use of ambulatory services outside standard GP office hours. The new coalition (ČSSD, ANO, KDU-ČSL) abolished user fees per doctor visit and for

prescription pharmaceuticals in January 2015, therefore only the user fee for the use of ambulatory services outside standard office hours remains in force, at CZK 90 (€ 3.60).

3.4.2 Direct payments

Direct payments consist of payments for over-the counter pharmaceuticals and medicinal products and non-SHI services and are limited in scope given the broad SHI benefit package. Direct payments are, for instance, payments for treatment by selected senior physicians or more luxurious hotel-related services in inpatient settings.

Approximately 42% 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 materials (although the treatment itself is usually covered by SHI). OOP payments on dental care accounted for 15.6% of total OOP expenditure on health care in the Czech Republic in 2012 (OECD, 2014a).

3.4.3 Informal payments

There is little official evidence on informal payments in the Czech health system. According to the Transparency International Global Corruption Barometer 2013, 15% of the population make informal payments in the health system. A European Commission study on corruption in the health-care sector (European Commission, 2013) found that informal payments by patients are relevant only in relatively limited areas of Czech health care. For example, more timely treatment of non-life-threatening but highly painful conditions (such as hip replacement) are said to be susceptible to informal payments. Equally, informal payments occur in gynaecology and obstetrics. Additionally, the study suggests that corruption in public procurement is a serious issue (see also Chapter 7).

3.5 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 (2014). 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.

3.6 Other financing

3.6.1 Parallel health systems

There are some private physicians, dentists and ambulatory specialists without contracts with any health insurance fund, but their share is negligible. This group of providers is nevertheless reimbursed for necessary and urgent health care. As a result, in general there are three minor parallel health systems in the Czech Republic: the Military Medical Service for comprehensive medical security of the armed forces, the Prison Service, and the Ministry of the Interior runs several health-care facilities for security forces.

3.6.2 External sources of funds

EU contributions are important external sources of funds. These are mostly structural funds from the European Regional Development Fund, the European Social Fund and the Cohesion Fund aimed at levelling regional economic development and therefore competitiveness. Ministry of Health budgetary organizations received €21.4 million in 2010, €25.7 million in 2011 and €11.5 million in 2012. The majority of these subsidies were targeted at infrastructure projects, modernizing medical equipment or construction of hospital buildings (Ministry for Regional Development, 2007).

3.6.3 Other sources of financing

In principle, there are no relevant other financing mechanisms than those described. However, extraordinary financial subsidies (mainly from national and regional government funds) have been made repeatedly in the past in order to rectify specific situations. For example, excessive debt burdens of health insurance funds and hospitals were relieved in the late 1990s and early 2000s. In the wake of the financial crisis, in 2012 health facilities obtained €259 million subsidies for operational costs from state and regional budgets, of which rescue ambulance services received 48% and hospitals 52%.

3.7 Payment mechanisms

3.7.1 Paying for health services

The system of paying for health services combines several payment mechanisms, mainly capped fee-for-service (FFS) payments, case payments based on DRGs, global budgets and individual contracts. The capped fee-for-service system has been used since 2007. Care provided by ambulatory specialists and hospital outpatient services up to a pre-defined threshold is reimbursed on a fee-for-service basis according to the List of Health Services (see section 3.3.4). Care provided beyond this threshold is also reimbursed on a fee-for-service basis, but using lower service prices. The DRG-based hospital payment system was used in 2007 for the first time and only a small proportion of inpatient services was reimbursed based on DRGs; today it is the main payment mechanism for inpatient health services. GPs are mostly reimbursed through capitation, but for selected procedures FFS is used.

Table 3.7 provides an overview of payment mechanisms across health-care segments. Since the Reimbursement Directive is not binding, payment mechanisms are not common for all health-care providers and health insurance funds (for example, in some cases the health insurance funds enter into a contract with the providers based on global budgets; see Table 3.6 and section 3.3.4). The VZP usually pays according to the Reimbursement Directive (VZP, 2013b). The health insurance funds provide monthly advance payments to health-care providers and the final billing takes place in the following year. This means there are monthly advance DRG-payments, FFS-payments, global budget-payments and individual contract payments, which are then settled in the subsequent year. The monthly advance payments equal one twelfth of annual payments from two years before, multiplied by a coefficient. The coefficient is supposed to capture the estimated increase or decrease in costs and volume of health-care services of a given provider (i.e. provider specific coefficients). This means the coefficient may be above or below 1. In 2012 the coefficient was 1 for most hospitals. However, the hospitals faced increasing costs and higher value added taxes in 2012. In combination with advance payments based on 2010 annual reimbursements, this resulted in cash flow problems for a large number of Czech hospitals (AČMN, 2012).

Public health services are provided and paid for by the Ministry of Health and by regional governments as well as municipalities.

Table 3.7
Provider payment mechanisms in 2013

	SHI funds	Ministry of Health	Regional government and municipalities
GPs	C; FFS[1]		
Ambulatory specialists	FFS[1]		
Acute care hospitals	capped DRG and capped FFS/GB	The Ministry of Health, regional governments and municipalities subsidize hospitals they own and participate in capital investments	
Long-term care and rehabilitation hospitals	capped FFS/GB per diem	The Ministry of Health, regional governments and municipalities subsidize hospitals they own and participate in capital investments	
Hospital outpatient care	capped FFS/GB	The Ministry of Health, regional governments and municipalities subsidize hospitals they own and participate in capital investments	
Dentists	FFS		
Pharmacies	maximum margin for each sold unit[2]		
Ambulance services	capped FFS (per km)	The Ministry of Health funds the air rescue service. Regional governments and municipalities usually participate in operational costs of transport services	
Public health services	–	Public health services are fully paid by the Ministry of Health and the regional governments	

Source: Authors' compilation based on the Directive No. 475/2012.
Notes: C = capitation; DRG = diagnosis-related groups; FFS = fee-for-service; GB = global budget; SHI = social health insurance.
[1]HI funds can restrict reimbursement of some pharmaceuticals' prescription and requested health care in the individual contracts.
[2]The maximum margin for each pharmaceutical is regulated by the SÚKL (see section 2.8.4, *subsection System for pricing prescription pharmaceuticals*).

Payment of hospitals

In the 1990s and early 2000s different hospital payment systems – mainly based on FFS, per diem payments and global budgets – were in place in the Czech Republic. In 2004 this was changed to a system dominated by prospective global budgets. Though budgets were based on hospital activity, this led to a perceived 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. In 2011 the reimbursement scheme was completely replaced by flat payments at the value of 98% of total payment in 2009. In 2012 the reimbursement scheme was then reversed to a combination of four different reimbursement mechanisms, including case payments based on DRGs, individual contracts, global budgets and fee-for-service payments for hospital outpatient care. The share of health care paid through case payments based on DRGs has been gradually increased

and in 2012 it was already the main reimbursement mechanism for hospitals (according to Ministry of Health estimates, approximately 60% of total payments in 2012).

Diagnosis-related groups

The Czech DRG system is based on the IR-DRG system which has been adapted to the local context. In 2013 there were 1046 groups. The Czech groups were created by the National Reference Centre (NRC) and each year an updated version of the relative weights list is published by the NRC. The base rate is also set annually by the NRC based on data from 12 representative hospitals – the hospitals provide the data on a voluntary basis. 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 income, "risk corridors" were established in 2008 to avoid dramatic fluctuations in annual revenues. This means that maximal rates for divergence from previous revenues (those of the two years before) are set. If a given hospital exceeds these maximal rates in either direction, the reimbursement mechanism changes in such a way that excessive decreases or increases of revenues are balanced.

Individual contracts

For certain types of medical services the health insurance funds may negotiate contracts with individual providers; these are in principle bundled payments. These services 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 3.3.4).

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.

Capped fee-for-service payments for hospital outpatient care

Since 2009 hospital outpatient services have been 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.

Global budgets

Hospitals and health insurance funds may agree on a global budget as well. Global budgets are usually set based on historical production of given medical services. The role of global budgets has been declining as the role of DRGs has been increasing in recent years. In 2014 global budgets not linked to DRG-based production measurements played only a minor role.

Payment of GPs and ambulatory specialists

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.

To address this issue, in 1997 the Ministry of Health introduced a system of risk-adjusted capitation fees for the reimbursement of GPs, with 18 groups differentiated by age but not by gender (for example, an index value of 3.8 is assigned to children from 0 to 4 years old, 0.9 to individuals from 20 to 24 years old, and 3.4 to elderly people of 85 years and older). In certain geographical areas (with low density of GPs or geographically remote), GPs may receive higher capitation payments if the number of patients registered with them is less than 70% of the national average of a given health insurance fund. The GPs receive a bonus if they work particularly long office hours or if patients are able to choose the timing of their appointment. 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 10–15% of a physician's income in 2012 (authors' estimate). Other GPs' revenues are user charges and direct payments (for example, for examinations for a driving licence).

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 (capped fee-for-service). 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 3.3.4). This fee-for-service system is adjusted annually and changes are delineated in the Reimbursement Directive.

3.7.2 Paying health workers

The main difference in paying health workers in the Czech Republic is between self-employed ambulatory care physicians or dentists and salaried health workers in hospitals.

Self-employed physicians or dentists constitute the majority of ambulatory care doctors. They are remunerated according to a blended system of capitation and FFS. The exact composition of their earnings depends on their contracts with the different health insurance funds. They may also receive payments from patients for services not covered by SHI – these potential payments are set by the physicians individually. Only the prices for services rendered to citizens of EU countries, services in case of emergency care for non-EU foreigners and services demanded by a court or the police are regulated by the Ministry of Health.

Out-of-pocket payments are most common and frequent for dentists – 43% of expenditures on outpatient dental care were in the form of out-of-pocket payments in 2011 (OECD, 2014a). Self-employed physicians must cover all their expenses from their income, including remuneration of other employees.

The payment of salaried health workers depends on whether they work for a public or private provider. In this context, "public" and "private" refer to ownership, or more precisely to legal form. This means public providers are those that are funded or run by a governmental body, in part or in total. Hospitals that are joint stock companies act as private providers in this context even though the majority of shares might be in public hands. Regulations for salaries differ for public and private providers. The average salary across all economic sectors in the Czech Republic was €994 in 2011 (ÚZIS, 2012a). Public salaries are negotiated between providers and unions (or employees) and ultimately set by providers in accordance with legal prerequisites (i.e. minimal tariffs), usually at intervals of one year. In 2011, 39% of all employees in health services were employed by public providers. Their average total monthly salary in 2011 was €1187, which meant an increase of 5.2% from 2010. See Table 3.8 for differences in average salaries of public health workers.

Table 3.8

Average monthly salary of employees in health services in 2011 (in organizations operated by the government and regional authorities)

Category	Number of employees*	Average monthly salary			
		Total (incl. flexible components)		Fixed tariff salary[1]	
		€	index (2010 = 100)	€	index (2010 = 100)
Total		1 187	105.2	708	105.2
Physicians and dentists	12 644	2 346	114.8	1 193	120.7
Pharmacists	504	1 694	101.2	906	100.4
General nurses and midwives	35 258	1 145	102.3	729	101.7
Other paramedical workers with professional qualifications	8 365	1 140	103.1	709	102.6
Paramedical workers with professional and specialized qualifications	3 465	1 148	102.0	785	101.4
Health-care workers pursuing a paramedical profession under professional supervision or direct guidance	15 260	769	101.3	489	100.8
Other professional workers in health care and dentists without university level qualification	2 782	1 051	99.0	677	98.4
Pedagogical personnel	83	1 143	112.6	750	105.4
Technical and economic personnel	9 732	1 111	101.3	614	100.4
Manual workers and operational personnel	10 693	629	99.8	417	99.7

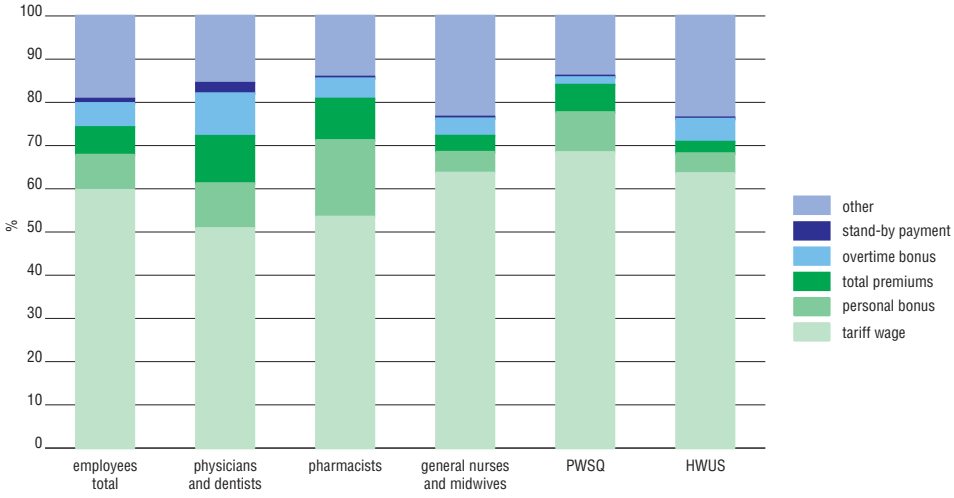
Source: ÚZIS, 2012a.
Notes: *full time equivalents; [1]The tariff salary is the fixed part of the salary without flexible components (for example, bonuses, compensation for overtime); see Figure 3.8.

Public salaries are generally divided into 16 tariff levels in the Czech Republic. While most physicians fall into levels 12 to 14, nurses and midwives mainly fall into levels 9 to 11. Salary averages ranged from €2705 for level 14 to €921 for level 9 in 2011. For most health workers – and especially for physicians and dentists – premiums and overtime bonuses constitute a substantial part of their total income (ÚZIS, 2012a; see Fig. 3.8). Personal bonuses, as depicted in Fig. 3.8, are individually set up regular parts of the salary, while other bonuses or premiums are typically more flexible. The average total monthly salary of publicly employed physicians and dentists was €2346 in 2011, 51% of which was the tariff salary. In recent years the total income has gradually increased.

Private salaries in general are negotiated by the provider and employees (or unions) and set by providers, usually at intervals of one year. Regulations for private salaries in the Czech Republic also apply to health workers in private settings. Their average monthly salary was €1006 in 2011, which was an increase of 4.6% compared to 2010. The average salary of physicians and dentists (employees) was €2258, whereas the average salary of general nurses and midwives was €963.

Fig. 3.8

Structure of average monthly salaries of employees in health services in 2011 (in organizations operated by the government and regional authorities)



Source: ÚZIS, 2012a.
Notes: PWSQs: paramedical workers with professional and specialized qualifications; HWUS: health-care workers pursuing a paramedical profession under professional supervision or direct guidance.

In late 2010 publicly employed physicians in the Czech Republic organized themselves in a protest movement called "Thank you, we're leaving" (*"Děkujeme, odcházíme"*). They threatened to resign from their posts and work in the private sector or move abroad unless certain requests were met. Physicians complained about the poor financial and organizational conditions of the Czech health-care system. They put forward several requests, such as changes in medical education, improved financial accountability and pay rises. No fewer than 3837 physicians (of approximately 12 500 full-time equivalents of publicly employed physicians in total in 2010) were prepared to resign (ÚZIS, 2011a). Negotiations between the Ministry of Health and the Czech Doctors' Trade Union resulted in the joint signature of a Memorandum (see section 6.1) that included pay rises and outlined measures to improve the educational system of health personnel. The salary increases in 2011 (see Table 3.8) were a direct result of this agreement. In 2012 the salaries of publicly employed physicians and dentists were increased by another 5.9%, which was lower than originally promised due to the continuing financial crisis (ÚZIS, 2013c).

4. 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. In the past two decades the number of acute beds has decreased continuously while the number of long-term beds has increased, which added up in 2013 to 156 acute care hospitals with 54 223 beds and 32 long-term care hospitals with 2584 beds (ÚZIS, 2014a). In 2013 inpatient stays averaged 5.9 days in acute care hospitals, marking a steady substantial decrease from 6.7 days in 2008 (ÚZIS, 2009d). Since 2007 substantial amounts from EU Structural Funds have been invested to improve ageing physical resources. By European standards, the number of physicians in the Czech Republic is relatively high, with 3.7 physicians per 1000 population in 2012. The Czech physician population has been ageing, with 26.6% of physicians aged between 50 and 59 years and 21.1% of physicians aged 60 years or above in 2012; this may pose a human resources problem in the near future (ÚZIS, 2013f). The nurse-to-population ratio is above the averages for the EU15 and EU13 Member States. The number of dentists per population is slightly above the EU28 average. In 2012 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.

4.1 Physical resources

4.1.1 Capital stock and investments

In 2012 there were 188 hospitals in the Czech Republic, of which 156 were acute care hospitals with 54 223 beds and 32 long-term care hospitals with 2584 beds. From the 1990s until 2013 there was an overall trend of decreasing

acute care hospitals and beds and slightly increasing long-term care beds (see Table 4.1). In addition, in 2012, 158 specialized therapeutic institutes had a total of 21 470 beds (UZIS, 2013c). Specialized therapeutic institutes do not have the status of a hospital and provide specialized follow-up care, especially for long-term or chronically ill patients. Having decreased remarkably prior to 2006, their number has stabilized since then.

Not all Czech health-care facilities have been able to keep pace with technological advances. In particular, many psychiatric institutions, long-term care and nursing facilities for the elderly are outdated and in need of modernization. This applies to buildings as well as equipment.

Renovations of hospital infrastructure are, in theory, financed by the health insurance funds through reimbursement of hospital services. On the provider side, however, revenues from reimbursement are usually not thought to be sufficient for building up reserves for capital investments. Responsibility for decisions on the exact use of the payments received and capital investments lies with the individual hospital management teams. Investment decisions have to be adequate for hospitals to fulfil at least the minimal technical requirements set by an amendment to the Health Services Act. In state-owned or region-owned hospitals, investments are in practice often complemented by resources from the state or regional budgets, and thus by general taxation. Expenditure on capital investments by the Ministry of Health in 2013 amounted to CZK 866 million (€31.5 million), which is a decrease by 47% compared to 2012 (CZK 1.6 billion or €59.9 million). Capital expenditure from the state budget covers, for example, the purchase of hospital shares and investments in state-run hospitals as well as capital transfers to lower government levels (regions, municipalities) (Ministry of Finance, 2014b).

Additionally, EU Structural Fund payments contributed substantially to capital investments in health care between 2007 and 2013. Some of these investments were 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 on increasing the quality of public services. The European Commission finances up to 85% of total IOP expenses. The IOP invested more than CZK 12 billion (€480 million) in the Czech health-care sector, including CZK 2 billion (€80 million) on Specialized Care Centres (such as cardiovascular centres, oncological centres, traumatology centres, and so on) and their equipment. Other programmes which serve as sources of investment financing include European Economic Area (EEA) Grants and the Norway Grants. These funds are invested in areas such as palliative care, HIV management and psychiatric care.

Table 4.1

Structure of inpatient facilities in the Czech Republic, 2005–2012

	Acute			Chronic			Specialized Therapeutic Institutes (OLÚ) total			Psychiatric hospitals (separated from OLÚ) total		
	Number of hospitals	Number of beds	Beds per 1 000 population*	Number of hospitals	Number of beds	Beds per 1 000 population*	Number of hospitals	Number of beds	Beds per 1 000 population*	Number of hospitals	Number of beds	Beds per 1 000 population*
2005	169	60 815	5.93	26	2 367	0.23	247	46 789	4.56	20	9 858	0.10
2006	164	60 313	5.86	27	2 408	0.23	162	22 521	2.19	20	9 762	0.09
2007	165	61 338	5.91	27	2 324	0.22	153	22 191	2.14	19	9 627	0.09
2008	164	60 915	5.82	28	2 348	0.22	154	22 005	2.10	19	9 540	0.09
2009	163	60 634	5.77	28	2 358	0.22	154	21 704	2.07	20	9 467	0.09
2010	159	59 702	5.67	30	2 517	0.24	157	21 764	2.07	20	9 318	0.09
2011	158	57 756	5.50	31	2 580	0.25	160	21 672	2.06	21	9 254	0.09
2012	156	56 262	5.35	32	2 570	0.24	158	21 470	2.04	21	9 097	0.09
2013[a]	156	54 223		32	2 584							

Source: ÚZIS, 2014a ; 2014b ; 2014c.
Notes: OLÚ – Specialized therapeutic institutes. Psychiatric hospitals are classified as specialized therapeutic institutes; Total = psychiatric hospitals for children + psychiatric hospitals for adults; *Authors' computation based on ÚZIS data.

Since there are no comprehensive surveys of property conditions it is hard to assess objectively the state of the physical capital. However, anecdotal evidence and substantial investments from EU Structural Funds suggest that there have been some improvements in recent years. However, investments were predominantly allocated to larger hospitals. The state of physical capital in smaller hospitals is thus thought to be generally worse than in larger facilities. There are no comprehensive property condition surveys; however, the Ministry of Health conducted an unofficial survey of ministerial hospitals. The estimated needs for urgent investments amounted to CZK 6.3 billion (€230 million). Some form of ad hoc appraisal of conditions is usually used when planning future investments, but there are no formalized procedures that would facilitate (largely non-existent) formal assessments of future investments.

There is no reliable information available on investments in private facilities, especially in the ambulatory care sector. Public–private partnerships are not common in the Czech health-care sector.

4.1.2 Infrastructure

Of the total 188 hospitals in 2012, 24 were owned by the state (29.5% of beds), and regional governments directly owned and managed 23 hospitals and had a majority of shares in 42 additional hospitals (13.7% of beds). Municipalities owned 17 hospitals and had a majority of shares in eight additional hospitals (6.5% of beds). Three hospitals were owned by the church and the remaining 71 hospitals (50.3% of inpatient beds in 2012) were fully privately run enterprises.

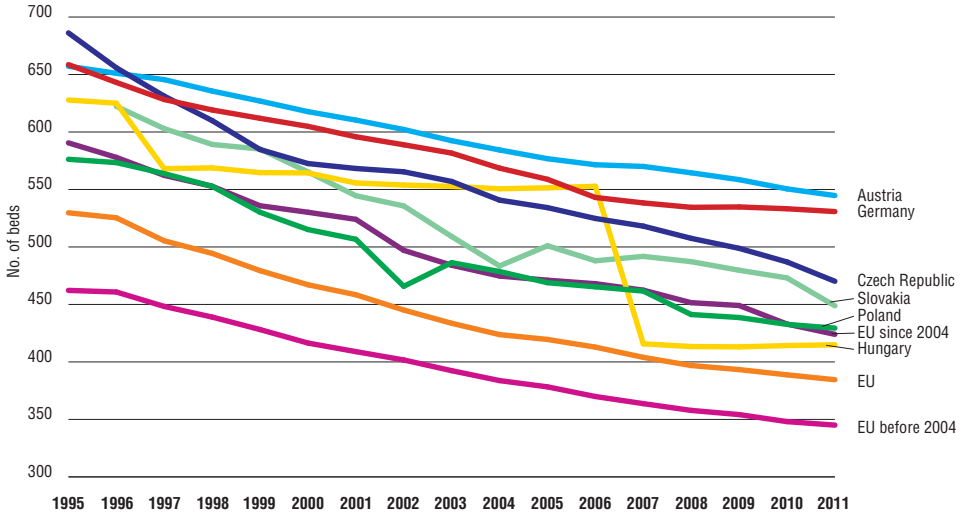
In 2012, 11 hospitals in the Czech Republic had more than 1000 beds and 44 hospitals had fewer than 100 beds (ÚZIS, 2013a).

In contrast to the majority of inpatient facilities, which are still owned by public authorities, almost all providers of ambulatory care are privately run entities (mainly run by self-employed individual physicians).

In 1990 the number of acute beds per 1000 population in the Czech Republic was one of the highest in Europe, surpassed only by Estonia among the countries that would later form the EU28 (WHO Regional Office for Europe, 2014a). At the same time the occupancy rate for acute beds was well below the EU28 and EU15 averages. In the past two decades a variety of measures were taken to address this situation. All in all, these measures led to a considerable reduction in bed numbers (see also Fig. 4.1).

Fig. 4.1

Beds in acute hospitals per 100 000 population in the Czech Republic and selected countries, 1995 to latest available year



Source: WHO Regional Office for Europe, 2014a.
Note: EU: European Union.

However, in 2011 the number of acute care beds in the Czech Republic (470.2 beds per 100 000 inhabitants) was still among the highest in the WHO European Region. Among the countries for which recent data were available, Germany (530.8 beds) and Austria (544.7 beds) reported higher figures, as shown in Fig. 4.1.

In principle, there are no capacity-related regulations in the Czech health sector. Individual providers reduce or expand their capacity according to agreements with the health insurance funds with which they are contracted. These agreements are guided by anticipated patient demand. At the beginning of 2013 further attempts to reduce the number of acute care beds were initiated by health insurance funds. This was strongly supported by the Ministry of Health at the time. Specifically, three types of contract between hospitals and health insurance funds were agreed upon in 2013: long-term contracts for a period of five years for hospitals that should not undergo any change in the near future; medium-term contracts for the period of two to three years for hospitals that should prepare for a reduction of acute care beds or a transformation to another type of care; and short-term contracts of one year for hospitals in which a reduction in beds or a transformation is expected, with this one-year period intended to smooth the adjustment process. These steps aimed at closing

or transforming 12 hospitals and at a reduction of 6000 acute beds within a year, leaving approximately 50 000 acute beds after the process is completed. To determine with which hospitals to conclude which of these three types of contract, health insurance funds used their internal statistics about past health-care consumption in particular hospitals and the number of insurees.

In 2011 inpatients stays (Average Length of Stay, ALOS) in the Czech Republic averaged 6.8 days in acute care hospitals, which is shorter than in Germany and Poland but longer than in most other European countries. Bed occupancy rates in acute care hospitals are higher than those of Slovakia and Hungary. They have, however, decreased in recent years and are below the EU average (WHO Regional Office for Europe, 2014a). According to national statistics, ALOS has remained the same for 2012.

Table 4.2

ALOS and bed occupancy rates in the Czech Republic and neighbouring countries in selected years

	Average length of stay, acute care hospitals only			Bed occupancy rate in %, acute care hospitals only		
	2009	*2010*	*2011*	*2009*	*2010*	*2011*
Czech Republic	7.1	7.0	6.8	75.3	73.8	72.8
Germany	8.2	8.1	7.9	79.2	79.0	79.0
Austria	6.7	6.6	6.6	86.9	86.2	85.5
Poland	7.4	7.3	7.1			
Hungary	5.8	5.8	5.7	74.3	71.6	71.1
Slovakia	6.7	6.6	6.3	67.3	66.5	65.5
EU before 2004	6.6	6.5	6.5	76.8	76.6	
EU since 2004	6.5	6.4	6.4	75.8	73.2	73.0
EU	6.5	6.5	6.4	76.7	76.3	75.9

Source: WHO Regional Office for Europe, 2014a.

One of the key problems in the area of inpatient care in the Czech Republic is the separation of 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 yet received, a place in a social care facility such as a nursing home (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. There have been some decreases in the number of acute beds and increases in the

number of chronic beds in recent years (see also Table 4.1). However, a decade later the process is still under way, and the high demand for beds in long-term care still continues to create a bottleneck in the system of inpatient treatment.

4.1.3 Medical equipment

There are only limited financial regulations for purchasing medical equipment in the Czech Republic. The general terms are stipulated in the Health Services Act (*Zákon o zdravotních službách a podmínkách jejich poskytování č.* 372/2011) and its updates. When new medical equipment is purchased, it has to fulfil conditions defined in the Act on Medical Devices No. 123/2000 (*Zákon o zdravotnických prostředcích*). The devices have to be reviewed for safety periodically by SÚKL. Thus the initial decision whether to purchase new equipment or not (i.e. whether to apply or not) is made by the owner of a health-care facility.

The Czech Republic is comparatively well equipped with diagnostic imaging technologies (see Table 4.3). It has a higher number of CT scanners and Gamma cameras per million population than the other Visegrád group countries and also relatively high numbers of MRI and PET scanners as well as mammography systems. In contrast, the number of angiography units per million population is slightly smaller than that in Poland and Slovakia. As a result of considerable investments in the past, there does not seem to be a significant lack of devices, although a significant portion of the devices is ageing (see Table 4.4). Yet, as investment activity is to a large degree determined by the owners of health-care institutions, differences between poorer and richer areas in the country cannot be excluded. There are especially large differences between Prague and rest of the country. However, medical facilities in Prague often also serve inhabitants of other regions (for example, the Prague proton facility).

Table 4.3

Number of diagnostic imaging technologies per million population, 2011

	CT	Digital Subtraction Angiography	Gamma cameras	Litho-tripters	MRI	Mammo-graphy systems	PET	Radiation therapy equipment
Czech Republic	14.8	7.2	11.8	3.2	6.9	12.8	0.8	8.3
Hungary	7.3	3.7	10.9	5.2	3.0	14.4	0.4	4.2
Poland	13.5	10.2	3.5	4.4	4.8	13.1	0.4	3.2
Slovakia	15.0	8.5	6.1	6.1	7.0	14.1	0.9	11.3

Source: OECD, 2014a.

Table 4.4
Age of selected equipment, 2011

Age of equipment %	CT	Lithotripters	MRI	Mammographs	PET
Less than one year	7.8	8.8	6.9	6.1	0.0
More than eight years	15.6	41.1	9.7	33.3	12.5

Source: UZIS, 2013e.

4.1.4 Information technology

In 2013 internet access was more widespread among Czech enterprises (96.3% of companies had internet access) than Czech private households (67% with home internet access) (Czech Statistical Office, 2014e). Internet use in the Czech Republic is comparable to other Visegrád group countries but slightly less than in other neighbouring countries such as Germany (Eurostat, 2014).

There are some relatively fragmented eHealth initiatives in the Czech Republic, such as individual projects that 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 (*Elektronická zdravotní knížka*, IZIP) project. The VZP stopped it due to low utilization among the population and financial issues. These were revealed by an internal audit of the company running the project in 2012. Over 2.5 million patients and over 20 000 medical staff were formally participating in the project at the time of its cessation, but the added value and "site traffic" seemed to be low.

There are other, more successful, projects. Examples include Life card (*Karta Života*), Vitakarta, mVitakarta or "Card of my heart" (*Karta mého srdce*), all of which are offered by various health insurance funds for their members. The functions are similar across different types of card – they allow patients (and, with their permission, also physicians) to access their electronic medical records. All cards collect medical histories, laboratory test results and prescription data. There is, however, no nationwide project for electronic medical documentation. A plan for nationwide data collection was unveiled in 2011, but its implementation was paused after funding from European Funds could not be secured.

Further implementation of e-prescription initiatives seems to be more dependent on political will than on technical capabilities. Additionally, professionals (doctors, pharmacists) fear that rather than patients themselves, a particular company providing the necessary technology would benefit. If e-prescriptions were introduced, both doctors and pharmacists would need to

use uniform software supplied by a corporation selected by politicians. The health insurance funds currently pool some information in order to facilitate pooling of revenues.

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. As many as 6.4% of health-care facilities allow patients to make an appointment over the internet and 7.5% of facilities offer online consultations (UZIS, 2011b).

All of the health insurance funds have web sites for communicating with their 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 the parties involved. The need for a nationwide eHealth strategy was incorporated in the new government programme "Health 2020" of the Czech Republic.

4.2 Human resources

The total number of individuals employed in the Czech health sector at the end of 2012 was 249 658 in full-time equivalents (FTEs), 39 719 of whom were physicians and 7247 were dentists. There were a further 6265 pharmacists and 107 476 paramedical workers with professional qualifications (PWPQs). Of these PWPQs, 86 424 were general nurses and 4055 were midwives. At the end of 2012 approximately 71.1% of all physicians (including dentists) and about 51% of PWPQs were providing outpatient care (ÚZIS, 2013a). Table 4.5 shows a further breakdown of different occupations as FTEs per 1000 population.

Table 4.5
Health workers in the Czech Republic per 1 000 population, selected years

	1990	1995	2000	2005	2010	2012
Primary care doctors**	n.a.	0.69	0.73	0.73	0.70	0.70
Specialist physicians**	n.a.	n.a.	n.a.	2.78	2.83	2.92
Nurses*	7.76	7.90	8.05	8.52	8.48	8.46†
Midwives*	0.51	0.49	0.46	0.42	0.42	0.43†
Dentists*	0.54	0.60	0.65	0.67	0.69	0.71†
Optometrists***	n.a.	n.a.	n.a.	0.004	0.01	0.04
Pharmacists*	0.38	0.36	0.49	0.56	0.58	0.59
Psychologists***	n.a.	n.a.	n.a.	0.07	0.08	0.08

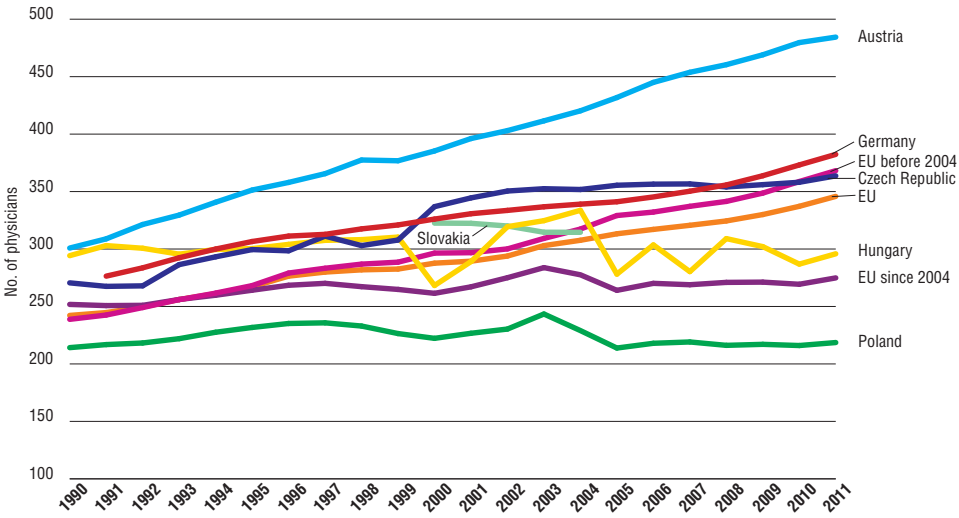
Sources: *WHO, Regional Office for Europe, 2014a; **OECD, 2014a; ***Authors' compilation based on Czech Health Statistics Yearbooks; †2011.

4.2.1 Health workforce trends

The number of physicians in the Czech Republic is slightly above the EU28 average, with 3.78 physicians per 1000 population in 2012. While the EU13 average (2.74) is slightly lower, the EU15 average (3.68) is very similar, as Fig. 4.2 shows. Only in recent years has the Czech Republic approached EU averages; prior to 2004 there was a wider gap. The increase in the Czech Republic's physician-to-population ratio since 1990 is in line with the general development within the EU and is very similar to neighbouring Member States, with the exception of Poland (Fig. 4.2).

Fig. 4.2

Number of physicians per 100 000 population in the Czech Republic and selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2014a.
Note: EU: European Union.

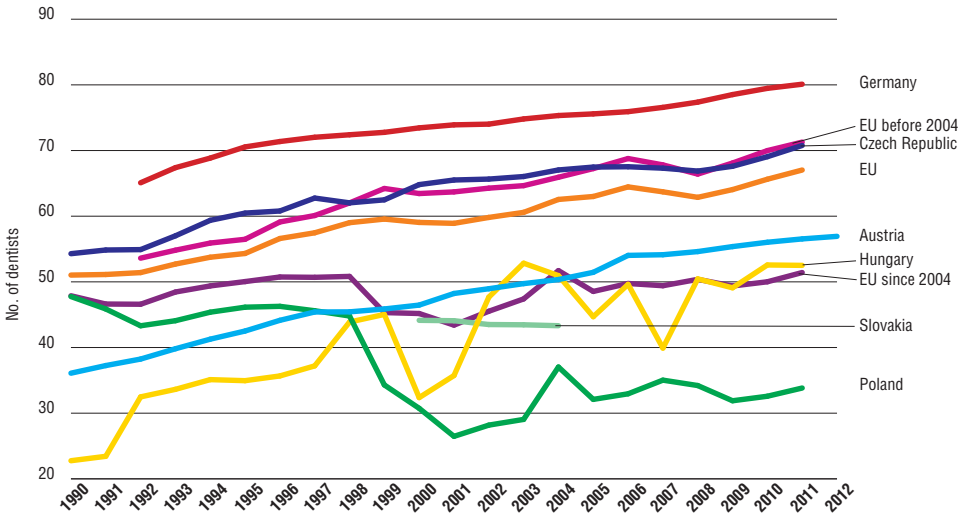
The number of patients registered with a physician varies across the Czech Republic and across specializations. The national average for the number of patients registered with a GP was 1632 at the end of 2012, with the highest numbers of patients per GP in Středočeský and Pardubický regions (1841) and the lowest number of patients per GP in Prague and Olomoucký regions (fewer than 1500) (UZIS, 2013c). An average paediatrician in the Czech Republic attended to 949 children, with a minimum in Prague (866) and a maximum in Středočeský and Ústecký regions (1023). On average, 3211 women

were registered per gynaecologist in the Czech Republic in 2012, with the minimum in Prague (2488) and the maximum in Pardubický region (3852) (UZIS, 2013c; see also sections 5.3 and 7.3.2).

The ratio of dentists to population in the Czech Republic is above the EU28 average (Fig. 4.3). The distribution of dentists within the country is again uneven, with a higher-than-proportional share of dentists in urban areas. The minimum number of registered patients per dentist was 999 in Prague, the maximum 1444 in Vysočina (ÚZIS, 2013c). The high density of most health professionals in the Prague region is also explained by the fact that they also provide services to patients who only formally reside in other regions or who commute. This is especially relevant in cases of specialized treatments.

Fig. 4.3

Number of dentists per 100 000 population in selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2014a.
Note: EU: European Union.

At the end of 2012 as many as 25% of all health staff were employed by state-run establishments, with a further 15% of personnel employed by non-state establishments which were, however, effectively owned by regions, cities or municipalities (joint-stock companies in which regions, cities or municipalities

owned a majority share). The remaining 60% of personnel worked for private establishments (owned by a physical person, the church or other legal entity) (UZIS, 2013c).

Almost 36% of physicians specialized in and practised one of the following fields (ranked by number of physicians): (1) general practical medicine, (2) internal medicine, (3) surgery, (4) gynaecology and obstetrics (see also Table 4.6).

Table 4.6

Most frequent specializations practised by physicians (absolute numbers), 2012

General medicine	Internal medicine	Surgery	Gynaecology and obstetrics	Paediatrics	Anaesthesiology	Neurology	Psychiatry	Radiology, diagnostic imaging
5 327	3 580	2 555	2 525	2 059	1 928	1 545	1 474	1 450

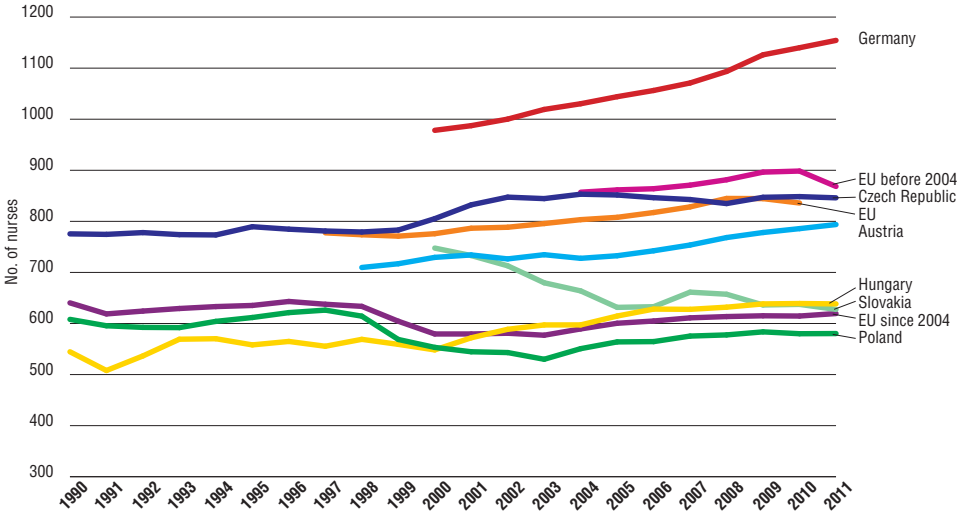
Source: ÚZIS, 2013b.

At the end of 2012, 56% of physicians were female. Surgical disciplines and urology have a markedly higher share of male physicians, whereas more women practise paediatrics and dermatology. The proportion of female dentists is higher compared to the share of female physicians, representing two thirds of all dentists. These distributions have been stable for several years. The share of women among pharmacists reached 84% in 2012 (UZIS, 2013c). At the end of 2012 an average physician was 48.1 years old (48.9 years for men, 47.5 years for women). The Czech physician population has been ageing, with 26.6% of physicians aged between 50 and 59 years and 21.1% of physicians aged 60 years or above in 2012. The average age of dentists was 50.0 years in 2012 and that of pharmacists 42.7 years in 2012 (UZIS, 2013c).

As shown in Fig. 4.4, the nurse-to-population ratio in the Czech Republic is higher than in the other Visegrád group countries. It is similar to the EU average and above the EU13 average (WHO Regional Office for Europe, 2014a). In 2012 one hospital nurse was responsible for 5.4 occupied beds (ÚZIS, 2013c).

Fig. 4.4

Number of nurses per 100 000 population in the Czech Republic and selected countries, 1990 to latest available year

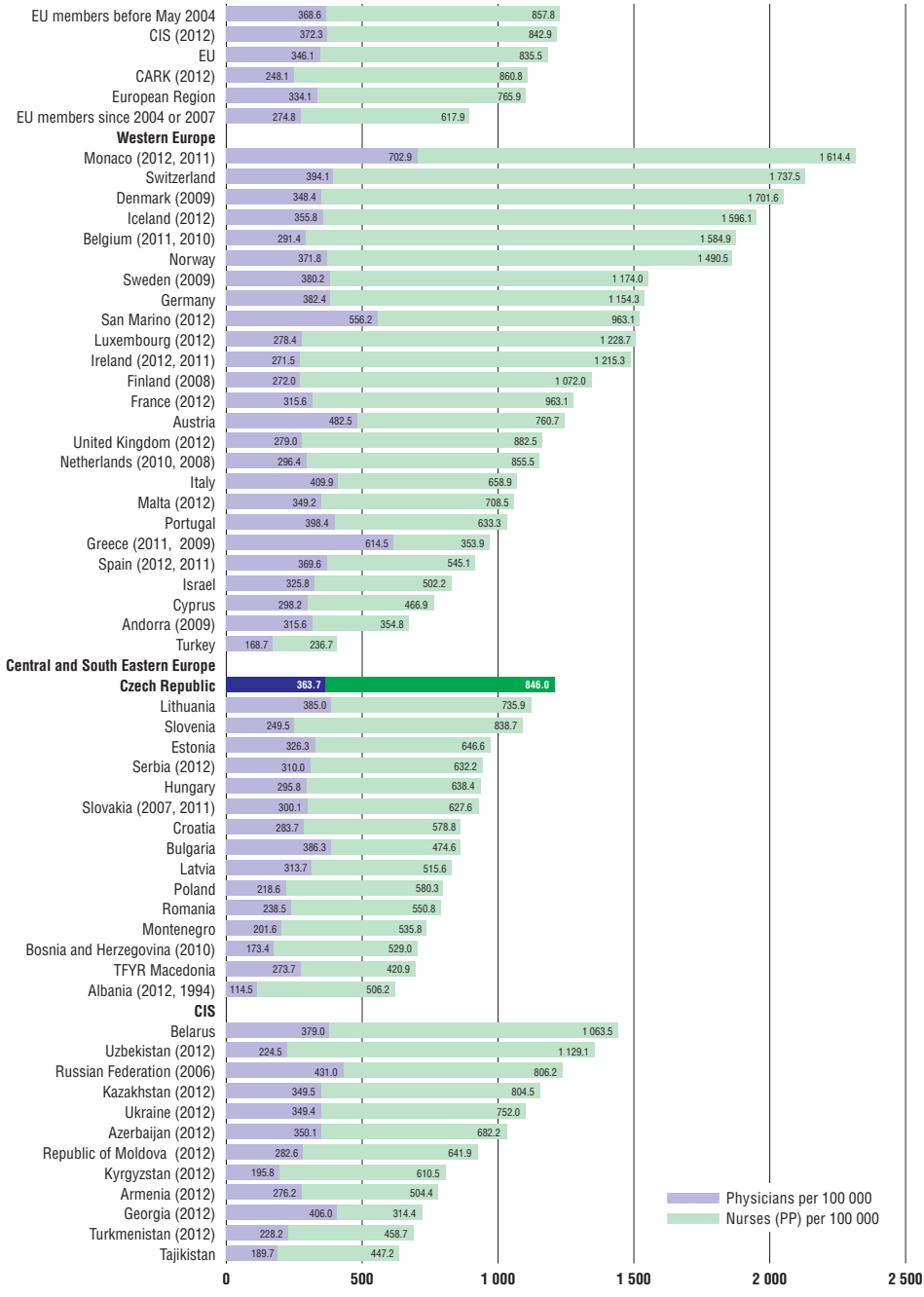


Source: WHO Regional Office for Europe, 2014a.
Note: EU: European Union.

Fig. 4.5 compares the number of nurses and physicians combined per 100 000 population for the latest available year in the WHO region. It thus complements Figs. 4.4 and 4.6. With 1209 doctors and nurses combined, the numbers in the Czech Republic are lower than the EU15 average, but relatively similar to the overall EU average of 1154.

Fig. 4.5

Number of physicians and nurses per 100 000 population in the WHO European region, 2011 or latest available year

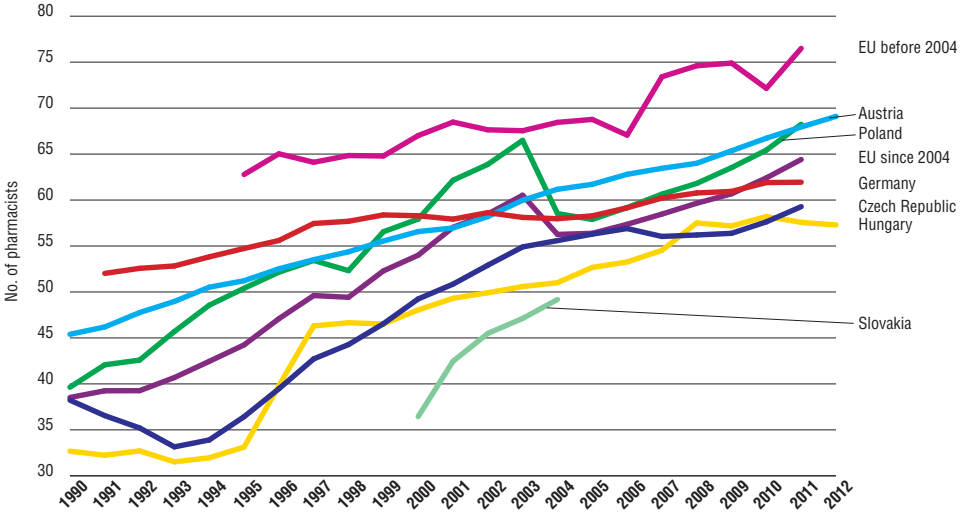


Source: WHO Regional Office for Europe, 2014a.
Notes: EU: European Union; CIS: Commonwealth of Independent States; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

Fig. 4.6 compares the number of pharmacists in selected countries showing an increasing trend in all of them in the past decades. Numbers in the Czech Republic are lower than the EU averages and also lower than in the other Visegrád group countries except Hungary (WHO Regional Office for Europe, 2014a).

Fig. 4.6

Number of pharmacists per 100 000 population in selected countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2014a.
Note: EU: European Union.

4.2.2 Professional mobility of health workers

Of the approximately 1000 annual graduates of Czech medical faculties, some leave for better working conditions and salaries abroad. Verified numbers of professional migration from the health sectors are not available. The only possible source of data – the issuance of certificates allowing doctors to work abroad according to EC Directive 2005/36 – proved unreliable since not all applicants actually leave the country. Emigration flows for nurses are not known either.

Working conditions and salaries, as well as the system of postgraduate education, were strongly criticized in a campaign by the Physician Union Club called "Thank you, we're leaving" (*Děkujeme, odcházíme*) in January–March 2011 (see section 3.7.2 for more details).

4.2.3 Training of health workers

Training of physicians

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' study; dentistry and pharmacy studies require five years.

There are eight medical faculties in the Czech Republic at the time of writing, five of which are located at the Charles University in Prague (three in Prague, one in Plzeň and one in Hradec Králové). 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, nursing or pharmacy programmes are set by the schools themselves, not by the government (see Table 4.7 for further details on the number of students of health-related degrees). The eight medical faculties had a total of 14 406 students (including 1372 dentistry students) as of 31 December 2011. Women represented about two thirds of all students.

Table 4.7

Graduates from health-related degrees, 2011

	Total number of graduates
Physicians	1 460
Dentists	300
Pharmacists	343
Nurses	1 822
Midwives	262

Source: WHO Regional Office for Europe, 2014a.

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. The programmes are offered by a wide range of providers throughout the country, each of which must be accredited by the Ministry of Health. This programme generally takes five years to complete.

In 2009 new legislation defined 40 basic postgraduate medical specialties in the following ten fields: 1) Anaesthesiology; 2) Gynaecology and Obstetrics; 3) Hygiene; 4) Surgery; 5) Internal medicine; 6) Pathology; 7) Paediatrics; 8) Psychiatry; 9) Radiology; and 10) General practice, and also three postgraduate specialties for dentists and seven for pharmacists. These specializations take three to five years to complete, depending on the specialty. The legislation specified 44 additional medical and pharmaceutical subspecialties, which will be optional and require an additional one to three years of training. In 2011 an amendment increased the number of basic medical fields from 10 to 16 (adding Dermatology and Venereology; Neurology; Ophthalmology; Orthopaedics; Otholaryngology; and Urology), moved forensic medicine from additional subspecialties to basic specialties and defined some new subspecialties.

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 and 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. In 2009 the requirements for and form of the licensing exam were adjusted by a directive of the Ministry of Health.

The providers of specialization courses that increase the qualifications of non-physician professionals are chosen on a competitive basis. For example, the Institute of Postgraduate Education in the Health System was the main provider of the Ministry of Health's individual education programme "Improving

non-physicians' professional knowledge" from May 2010 to April 2013. More than 32 000 people received further education free of charge through this programme, which was supported financially by the EU Cohesion Fund.

After becoming general nurses (with or without specialization), individuals must prove every ten years that they have 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.

4.2.4 Doctors' career paths

After graduation from medical studies, doctors in the Czech Republic usually start training for their chosen specialization in hospitals. Certain requirements exist for each specialization (for example, length of training, rotations, number of procedures performed, and so on) but there is no structured progression as such (see previous section 4.2.3).

Professional development mainly depends on individual motivation and ambition. Part of the training for specialization can (or in certain fields must) be done in an ambulatory setting. After being awarded a specialty degree, doctors can either pursue a hospital career or work in an ambulatory surrounding. In ambulatory care doctors can found a private practice alone or with partners, or choose to be employed in a practice conglomerate. Individual private practice is by far the most common form of work for doctors in ambulatory care in the Czech Republic.

In hospitals doctors can progress from senior physician to assistant medical director and medical director. The larger health-care facilities (hospitals) usually have some hierarchical structure and wards are directed by senior doctors (*primář*). In state-run facilities there is a link between the years served and salary, because part of the salary is determined in a way similar to that for civil servants, but generally there is no rule stating that doctors with more years of service should attain senior positions or earn more. In university hospitals doctors may combine clinical duties with research activities. Apart from personal merit and ambition, promotions and career progressions are dependent either on the superiors or the institutional board.

4.2.5 Other health workers' career paths

Possibilities within the different health-care professions are manifold and vary considerably. In general, career progression in all fields very much depends on personal capabilities, choices and desires. For example, pharmacists may

decide to pursue a career in a competitive industry environment or choose to run a private pharmacy. Nurses can work in a hospital and progress to different levels of responsibility for patients as well as staff, or they may choose to work in ambulatory settings.

As with doctors, there is no set nationwide career path for other health-care personnel apart from certain training requirements for health workers (see section 4.2.3). Hospital wards usually have a head nurse (*staniční sestra*), who is the counterpart for nursing to the senior doctor and is in charge of all other nurses. The link between salary and seniority for other health-care workers is similar to that for doctors (see section 4.2.4). Other health-care professionals, such as speech therapists, psychologists and hospital auxiliary staff, do not follow a defined career path either (for details on remuneration, see section 3.7.2).

For many health-care professionals, a career in public health or in public administration can also be an option, again depending on personal goals and ambitions.

5. 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 two 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 frequently do so. 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 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 was aimed at improving coordination between the two systems by providing individuals with a flexible care allowance, allowing cross-funding between the two systems and requiring that providers of long-term care fulfil certain quality criteria before they may receive funding.

However, in 2014 the transfer of patients between health-care facilities and social care is still inadequate and there are strong financial incentives for patients to try to remain in health-care facilities, even if it is not justified by their medical condition.

5.1 Public health

The public health sector has seen several reforms since 2000. In 2014 the main actors in the Czech system of public health were the National Institute of Public Health (SZÚ), the two regional institutes of public health and the 14 regional public health authorities. All of these institutions 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. For more detailed information on public health reforms, see section 6.1.

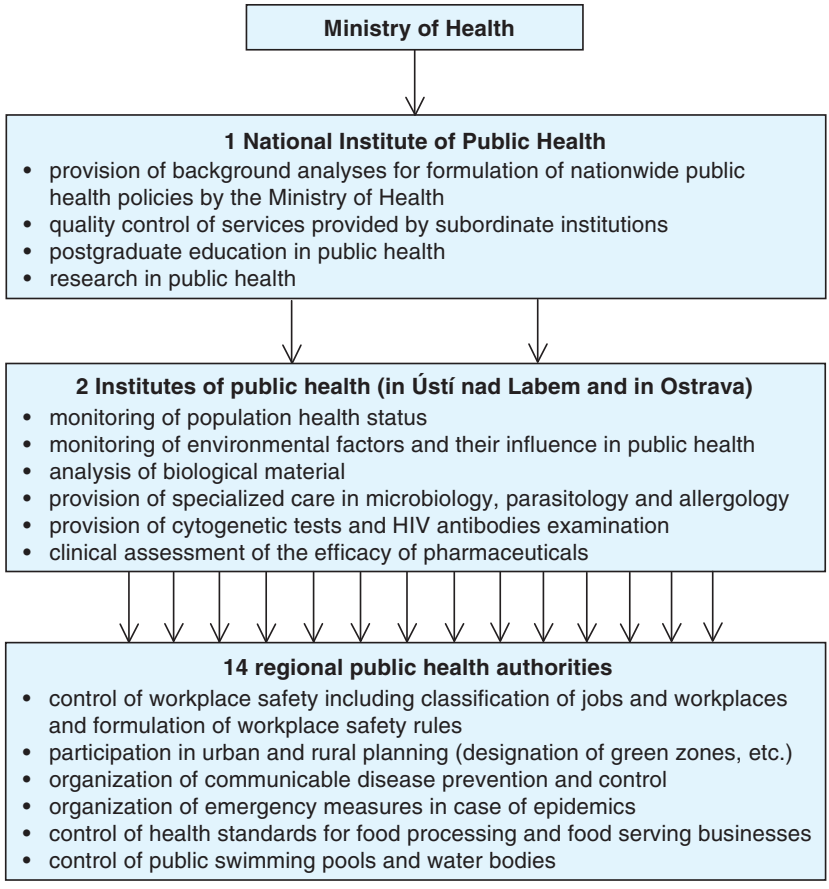
The SZÚ conducts research, provides advice on methodology and drafts expert opinions on the safety of various products, such as cosmetics, food supplements and other items of daily use. It also systematically monitors the impact of environmental factors on the health status of the population and helps 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 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.

The two regional institutes of public health are located in Ústí nad Labem and in Ostrava, with branches in several other cities (see Chapter 6). In the area of epidemiological surveillance, the two regional institutes of public health (*zdravotní ústavy*) share duties with the SZÚ and the Ministry of Health. In 2014 the Czech Republic had a system of surveillance for some 50 diseases and public health hazards. The two institutes of public health are health facilities, the chief domains of which are science and research. Additionally, living and working conditions and the quality of consumer and industrial products are assessed and evaluated by these institutes. Furthermore, the two institutes of public health (and their branches) are permitted to compete with private laboratories. Some criticism of the merger of the previously 14 institutes has been voiced. Opponents felt strongly that the merger would lower the competition for private providers in this field and might favour certain private providers.

The 14 regional public health authorities (*krajské hygienické stanice*, RPHA) are responsible for a range of public health services, including epidemiological surveillance, immunization logistics, and certifications and authorizations. Any physician who diagnoses a communicable disease must inform the relevant RPHA. This office subsequently reports total incidence levels to the Ministry of Health using the Epidemiological Data (EPIDAT) information system, which is part of the National Health Information System (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. Regarding immunization logistics, the two public health institutes collaborate with primary care facilities, which are responsible for providing vaccinations and antenatal services.

Fig. 5.1

Institutions of public health in the Czech Republic and their tasks



Source: Authors' compilation based on the Protection of Public Health Act 258/2000.

The Ministry of Health and the Ministry of Labour and Social Affairs are jointly responsible for occupational health and injury prevention. Occupational diseases are the responsibility of occupational medicine departments within the 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 two institutes of public health and their branches. 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 voluntary periodic examinations by GPs (every two years), dentists (every year) and gynaecologists (every year) for adults;
- cancer screening programmes – for cervical cancer (once per year), breast cancer (once every two years from 45 years of age) and colorectal cancer (occult blood test once between 50 and 54 years of age and then every two years or colonoscopy once every 10 years from 55 years of age);
- Voluntary vaccination against HPV for teenage girls since 2012.

Vaccination rates for major immunizable diseases vary from 98% to 99% (WHO Regional Office for Europe, 2014a). 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 and meningococcal disease is available upon request but generally not covered via SHI; 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 vaccinations as well as the vaccines have been paid through SHI since 2010. This was a change from previous arrangements when the state paid for the vaccine through general taxation. It has added to the financial strain on health insurance funds as the additional responsibilities for vaccination were not matched by rising rates of health insurance premiums. Estimates suggest that this shift led to savings from the state budget of approximately CZK 850 million (€31.2 million) per year.

A long-term public health strategy, the National Health Programme, was submitted for government approval and accepted as early as 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. A new strategic document was adopted in 2012 to better reflect the institutional changes which have happened since 1995 and also to reflect the WHO Health 2020 Strategy. The new document emphasized the promotion of healthy lifestyles and raising awareness about the available preventive services such as screenings.

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. A proposal to ban smoking in all restaurants and other public areas was made in 2013. Before the dissolution of the Chamber of Deputies in 2013, the law was not put to a vote. Whether similar proposals will be made by future administrations is as yet unclear.

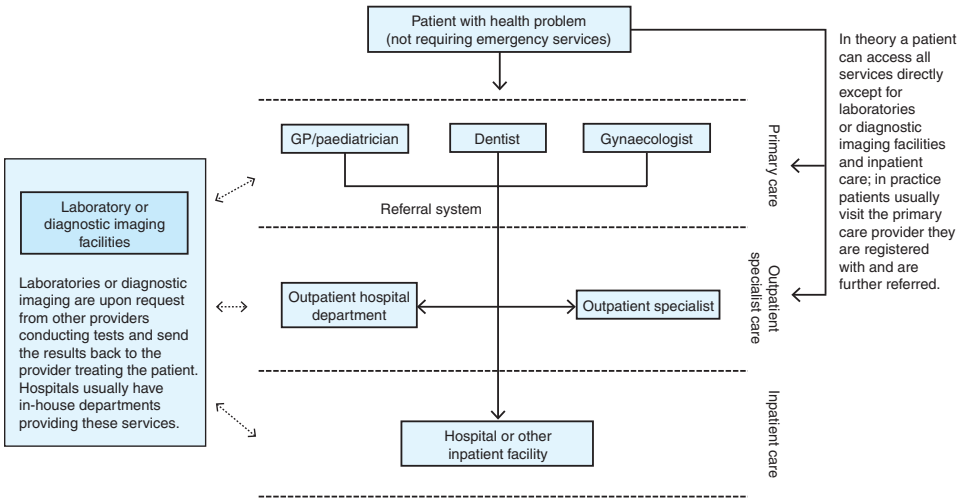
5.2 Patient pathways

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 a written note supplied to the patient, of the results of any examinations performed to date. However, it is not compulsory for patients to see the particular specialist suggested by the referring physician; they retain the freedom of choice of provider (although some limitations exist for seeing a provider not contracted by the patient's health insurance fund). Later, the specialist notifies the referring physician about any findings and steps taken during treatment. The specialist may also recommend further action or provide an evaluation of the patient's ability to work. The pathway of patients' documentation is compulsory and laid out by a decree enacted in 2012 (Decree 98/2012).

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 frequently do so. Primary care physicians thus do not play a true gatekeeping role. There has been a proposal to increase user fees for patients who go to specialists without a referral, but this proposal turned out to be politically unfeasible. Visits to dentists or gynaecologists are always direct and without referral. A registering procedure has been introduced to strengthen the role of GPs (and paediatricians for children), dentists and gynaecologists as points of first contact. Every insured individual is entitled to be registered with one provider in each category. The respective provider should act as a first contact point for the patient, provide primary care and serve as a focal point for coordination of care with other providers.

Fig. 5.2 outlines possible patient pathways in the Czech Republic. Box 5.1 shows a typical patient pathway for hip replacement in the Czech Republic in more detail.

Fig. 5.2
Patient pathway



Source: Authors' compilation.

Box 5.1
A typical pathway for hip replacement in the Czech Republic

In the Czech Republic, a woman experiencing pain and having so far undiagnosed need of a hip replacement because of arthritis would take the following steps:

- During a visit to the GP with whom she is registered, the GP refers her to an ambulatory orthopaedic specialist (she may also go directly to the specialist).
- She has free access to any specialist of her choice who has a contract with her health insurance fund. If she has been referred by her GP, the GP is likely to recommend a particular specialist. Anecdotal evidence suggests that waiting times for appointments with ambulatory specialists in non-acute cases are around two to four weeks.
- The chosen ambulatory specialist will assess the patient (usually requesting some form of diagnostic imaging) and then decide whether an operation is needed; if so, the patient is referred to a hospital for treatment. The specialist prescribes any medication necessary in the meantime. The patient is free to choose the hospital. She will get information from the hospital about local waiting times for surgery; she may contact her health insurance fund to inquire about other hospitals with shorter waiting times. Maximum waiting times for this procedure (52 weeks) are guaranteed by law (with health insurance funds being responsible for contracting sufficient providers).
- After she has chosen a hospital, the patient will have to wait for inpatient admission and surgery.
- Following surgery and primary rehabilitation at the hospital, the patient returns home, where she might need home care (home nurse and/or home assistance); this is usually prescribed by her GP and provided by a home-care agency contracted by the patient's health insurance fund. These services are free of charge.
- The GP receives a discharge summary from the hospital.
- A follow-up hospital visit is very likely to take place to check the treatment's outcome.

5.3 Primary/ambulatory care

The majority of ambulatory care – both primary and secondary – is provided by physicians working in solo practices, though a variety of other forms of care exists, as described below. At the end of 2012 there were 28 753 health-care providers registered in the Czech Republic, including inpatient care and all other types of care.

Of the 28 753 health-care providers, 213 establishments were owned by the Ministry of Health and other central bodies, another 318 were owned by other public entities (regions, municipalities) and 28 222 were owned by individuals, churches or other private entities (ÚZIS, 2013c).

Primary ambulatory care

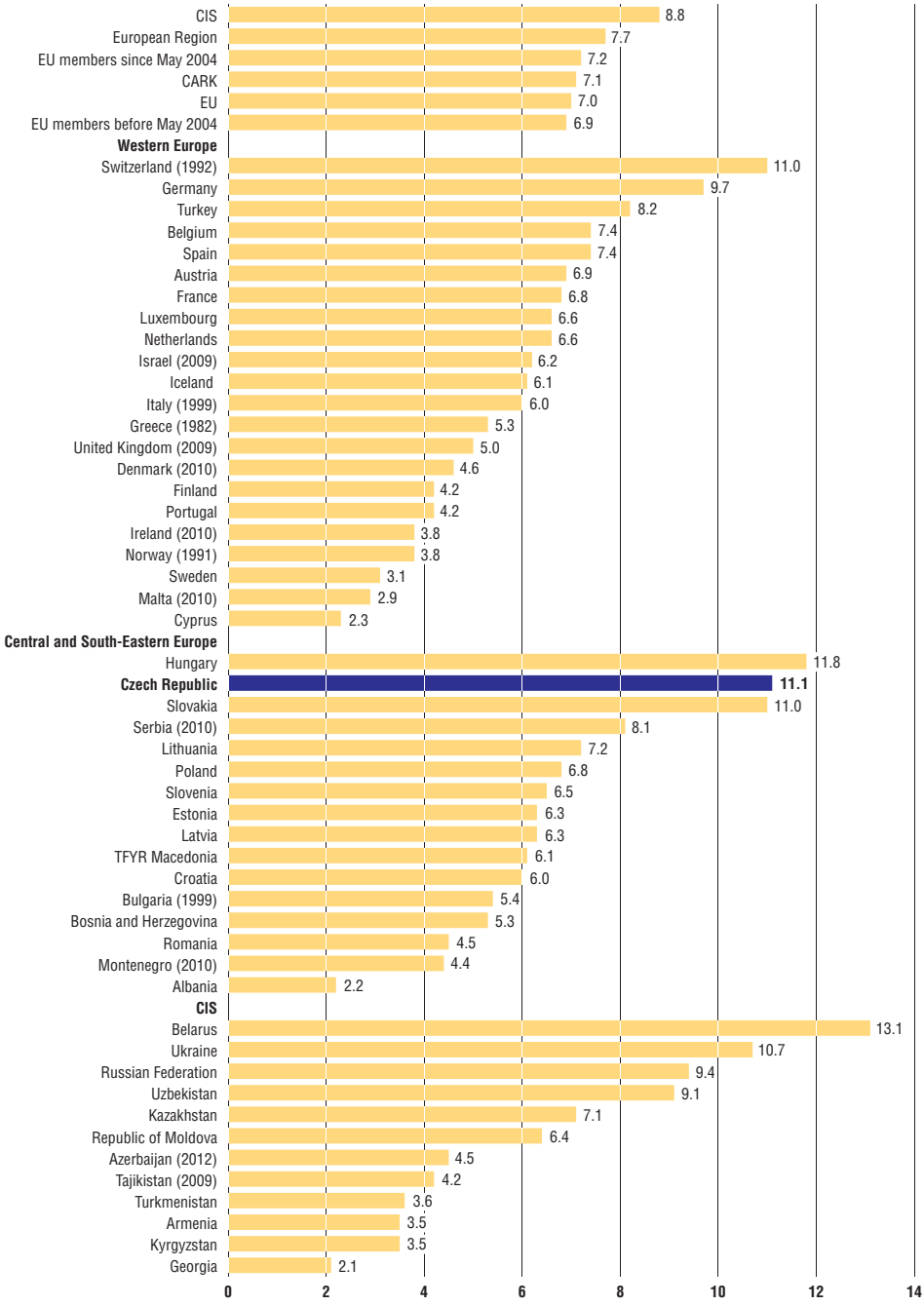
The main legal framework for primary care provision is the Health Services Act (*Zákon o zdravotních službách* 372/2011 Sb.). Regulatory authority is divided among the state, the regions and the health insurance funds. Currently, the legal framework for integration of care is somewhat unclear and different parts of the system could be linked more closely. Although a strict definition of primary care providers does not exist in Czech law, the 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 5.1, primary care physicians also collaborate with the regional public health offices in epidemiological surveillance by reporting cases of selected communicable diseases.

In Czech health provider statistics, contracts are registered rather than individuals and in fact many physicians and nurses have more than one contract (for example, one in a public hospital and one in a private clinic). Contracts in this context refer to both employed and self-employed individuals. In 2012, 71% of Czech physician contracts (33 396 contracts) and 51% of nurse contracts (51 793 contracts) belonged to the ambulatory care sector. Of all ambulatory care physician contracts 46.4% belonged to primary care, including dentistry and gynaecology, the remaining 53.6% were ambulatory specialist care contracts. Approximately 82% of ambulatory care contracts (including specialist care) belonged to private facilities (ÚZIS, 2013c; ÚZIS, 2013g). The large share of physician contracts in private establishments is partially caused by the transformation of hospitals owned by the regional governments into joint stock companies. Since the transformation, these establishments appear in statistics as private establishments, even though they are in reality owned by the regions. Entry into private practice is controlled through registration by the respective regional authority.

As shown in Fig. 5.3, an average Czech visited an ambulatory care doctor 11.1 times in 2011, which is high compared to the EU average. It is, however, comparable to other Visegrád group countries, except for Poland, with only 6.8 visits per person. The reasons for the high number of outpatient contacts may be cultural as well as employment-related. Direct and unlimited access to ambulatory care is highly valued by the Czech population. Additionally, Czech employees have to provide a doctor's note from the first day of absence onwards, otherwise their absence is considered unexcused. This appears especially paradoxical as the first three days of sick-leave are unpaid and this procedure is likely to contribute to the excessive number of outpatient visits.

Fig. 5.3

Outpatient contacts per person in the WHO European Region, 2011 or latest available year



Source: WHO Regional Office for Europe, 2014a.
Notes: CIS: Commonwealth of Independent States; CARK: Central Asian Republics and Kazakhstan; EU: European Union; TFYR Macedonia: The former Yugoslav Republic of Macedonia.

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; primary care physicians in health centres usually pay rent for the use of the facilities and remain self-employed. Polyclinics tend to be private legal entities and also offer ambulatory specialist care. In 2012 there were 195 polyclinics, employing 1676 doctors (full-time equivalents) and 2400 nurses (full-time equivalents) (ÚZIS, 2013c). Most primary care physicians, however, work in solo practices, often employing a nurse who also has administrative duties and conducts home visits. Home visits by nurses are prescribed by physicians and do not substitute for home visits by a doctor. Services provided by a nurse at home cover shot applications, intravenous therapy, rebandaging and medical check-ups.

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 available equipment for primary care physicians depends to a considerable extent on local circumstances and whether they are situated in an urban or rural setting. In general, rural centres tend to be less well equipped. In case of more complex medical need, patients are often referred to medical centres in more densely populated regions.

Accessibility of primary care, including gynaecology and dentistry, for both children and adults differs regionally, as shown in Table 5.1. In general, the lowest number of patients per primary care doctor was found in Prague in 2012 in all categories. This infers a high physician density in the capital. On the other hand, Pardubický kraj and Stredoceský kraj have the lowest density of primary care physicians in at least two categories (ÚZIS, 2013c).

Table 5.1

Average number of registered patients per primary care physician in 2012

	National average	Minimum	Maximum
		(Region: number of patients)	(Region: number of patients)
GP	1 632	Prague 1 462 and Olomoucý: 1 430	Stredoceský and Pardubický: 1 814
Gynaecologist	3 211	Prague: 2 488	Pardubický: 3 852
Paediatrician	949	Prague: 866	Stredoceský and Ústecký: 1 023
Dentist	1 202	Prague: 999	Vysocina: 1 444

Sources: ÚZIS, 2013c; ÚZIS, 2013h.

Patients register with a GP of their choice, but can switch to a new one every three months without further restrictions. A GP can reject a new patient due to work overload (too many registered patients). There is no official threshold above which a doctor may reject new registrations. Some health insurance funds may also decrease capitation for additional patients if they deem the number of registered patients too high. The acceptable work load is nevertheless an individual decision. Being registered with a GP has in principle no financial advantages for patients, nevertheless most patients choose to do so as GPs are more easily accessible (waiting times are a matter of hours) than ambulatory specialists.

Specialist ambulatory care

Similar to primary ambulatory care, specialist ambulatory care services in the Czech Republic are offered by private practice specialists working in solo or group practices, health centres or polyclinics, and also in outpatient departments of hospitals. Patients are encouraged to obtain a referral for specialist care from their GP. It is, however, possible for patients to visit a specialist without a referral and they frequently do so.

5.4 Specialized ambulatory care/inpatient care

Inpatient care in the Czech Republic is offered in hospitals and specialized inpatient facilities. As described in section 5.3, patient access to specialist care is not restricted by a hard gatekeeping system. Patients are free to obtain care directly from a specialist of their choice without referral, even though it is not recommended that they do so. In contrast, a patient is admitted to inpatient care only and exclusively upon referral from a physician (except in cases of medical emergency). The referral must contain the physician's written justification for hospitalization, as well as any other important information about the patient's health status. The patient is, however, usually able to go to a hospital of choice if that hospital has a contract with the patient's health insurance fund. In certain cases, such as law-mandated hospitalization (for example, for highly contagious individuals), life-threatening situations or childbirth, a patient must be accepted without a referral. In most of these situations patients are unlikely to be able to choose a hospital, except in most cases of childbirth. However, in most regions pregnant women need to register in advance with the hospital of their choice for childbirth.

The most frequent reasons for hospitalizations are listed in Table 5.2.

Table 5.2
Most frequent reasons for hospital admissions in the Czech Republic, 2012

	ICD-10 chapter	Diagnosis	Hospitalizations per 1 000 inhabitants
1.	IX	circulatory system diseases	30.4
2.	XXI	factors determining health status and contacts with health-care establishments*	24.4
3.	XI	gastrointestinal tract	19.0
4.	XIX	injuries, poisoning and other external reasons	18.6
5.	II	tumours	16.7

Source: ÚZIS, 2013i.
Notes: *33% admitted in relation with reproduction; 24.4% healthy people accompanying the sick; 11.7% chemotherapy, radiotherapy.

In 2012 there were 188 hospitals in the Czech Republic with 58 832 beds, 12.6% of which were specifically dedicated to long-term patients (32 hospitals providing only long-term care covering 2570 beds, the remaining long-term care beds provided within acute care hospitals). There were also 160 other inpatient facilities with 21 672 beds, 42.4% of which were devoted to psychiatric care. There were 11 hospitals with more than 1000 beds and 44 hospitals with fewer than 100 beds. Large hospitals providing maximum care are situated exclusively in larger cities. Very small hospitals in smaller cities and towns tend to focus on only a limited number of medical specialties (internal medicine wards, maternity wards) and the scope of care offered is less broad than in larger hospitals. In recent years some of these hospitals focused on day surgery and scaled down their inpatient services while focusing more on outpatient services (ÚZIS, 2013d).

University hospitals, which are directly subordinate to the Ministry of Health, have a special status as they perform educational and research duties in addition to their function as health-care providers. The Ministry of Education controls educational tasks carried out in teaching hospitals. They tend to be in possession of high-end technology, which is also in line with their teaching mission. Recently, two university hospitals lost their teaching status, but they remain directly subordinate to the Ministry of Health, and one gained a teaching status, even though it is subordinate to the Ministry of Defence. Thus in 2014 there were 10 university hospitals in the Czech Republic providing highly specialized outpatient and inpatient care.

5.4.1 Day care

Day care in the Czech Republic is defined as the provision of a bed for a patient for less than 24 hours. The exact time of care provision depends on the character of the particular clinical examination or surgery. Besides hospitals providing

inpatient care, day care may also be offered by facilities without inpatient departments if conditions to run a health-care facility (hygienic, technical and personnel) and to perform a specific medical procedure are fulfilled. These facilities include specialized day care centres and facilities providing specialized ambulatory care. One of the conditions for the provision of day care is that a standard inpatient care facility has to be accessible within a reasonable distance for follow-up in case of complications. In 2013, 43 providers offered exclusively day care services at 69 different sites in the Czech Republic.

From 2013 day care may be provided in six specializations, namely surgery (including paediatric and vascular surgery), plastic surgery (including burns), gynaecology, urology, orthopaedics and otolaryngology (including jaw surgery) (Decree n. 134/1998 and its amendments classifying medical procedures as day care). Procedures carried out in emergency departments cannot be classified as day care under any circumstances. Furthermore, if carried out in other than surgical specializations, the procedures have to be invasive. The user fee for an inpatient day is not charged for day care stays.

Table 5.3 shows the total number of day cases and the most frequent diagnoses treated as day cases. Mainly gynaecological and obstetric conditions are treated as day cases. The number of abortions in day care has almost doubled since 2002.

Table 5.3

Day cases: most frequent hospital discharges by diagnosis in the Czech Republic, total number, selected years (sorted by 2011)

ICD-10	2002	2004	2006	2008	2010	2011
All causes of diseases (A00-Z99) excluding V00-Y98	29 522	32 882	37 459	45 979	47 083	55 035
Diseases of the genitourinary system (N00-N99)	4 812	4 407	5 872	9 130	9 322	10 388
Pregnancy, childbirth and the puerperium (O00-O99)	3 800	4 467	5 403	9 065	9 486	10 067
Diseases of the circulatory system (I00-I99)	2 892	3 221	3 286	3 788	5 133	5 860
Medical abortion	2 601	3 033	3 353	5 114	5 043	5 351
Other diseases of the genitourinary system (remainder of N00-N99)	1 517	1 481	2 245	4 124	4 325	4 665
Diseases of the respiratory system (J00-J99)	1 848	2 981	1 907	2 415	2 913	3 895
Menstrual, menopausal and other female genital conditions	2 082	1 741	2 543	3 672	3 656	3 733
Factors influencing health status and contact with health services (Z00-Z99)	2 174	2 286	2 572	2 583	3 279	3 292
Other pregnancy with abortive outcome (O00-O03,O05-O08)	446	638	1 102	2 438	2 889	3 148
Injury, poisoning and certain other consequences of external causes (S00-T98)	2 680	2 821	2 652	2 698	2 702	2 772

Source: Eurostat, 2014.
Note: Eurostat includes every case in which the patient is discharged in less than 24 hours. The Eurostat definition is thus broader than the Czech legal definition that is mentioned in the text.

5.5 Emergency care

Emergency care comprises urgent care in sudden life-threatening situations. Since the last reform in 2011, a patient should receive emergency care within 20 minutes after an emergency call. Previously the target was 15 minutes, which proved unfeasible for some remote geographical areas.

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. In 2012 there were 225 emergency units with 1026 physicians and 3087 nurses (ÚZIS, 2013c). Emergency service provision is guaranteed by the state and paid for from the state budget and the health insurance funds. Emergency service providers are mainly directly subordinate to the regional governments. There are a few private emergency service providers. They operate based on contracts with the particular regional emergency service providers, following the same rules as the publicly owned providers.

Both the standard emergency number for the Czech Republic (155) and the European emergency number (112) connect callers to a triage assistant. Established at the regional level in 2003, command centres organize transportation and coordinate the activities of both state and private rescue services. Each of these centres is headed by a physician and staffed with a nurse or a certified rescue service specialist.

The number of professionals in a rescue team differs from two to three (driver, doctor, nurse) depending on the type of rescue team (emergency service, emergency medical service, rendezvous, air emergency service). Drivers complete a special training course involving 600 hours of instruction.

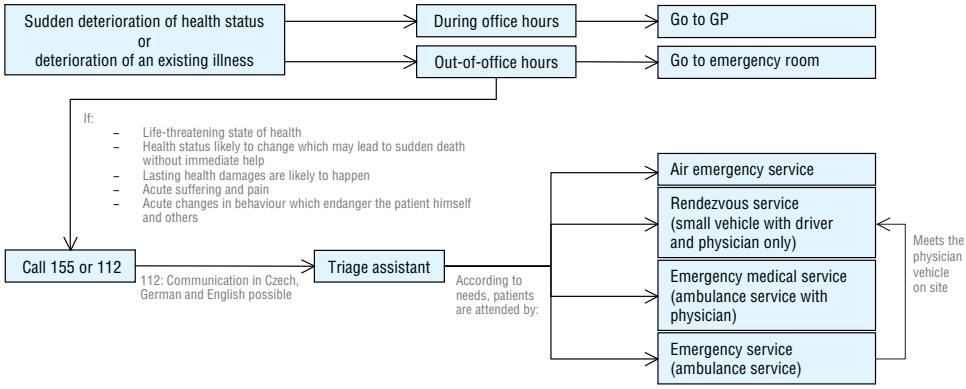
The rendezvous system encompasses two types of emergency service. The first is a small vehicle (not equipped for patient transport) with a physician and an ambulance driver, while the latter consists of a fully equipped ambulance vehicle, able to transport patients, with a driver and a nurse from the operational rescue service. In the rendezvous system two separate units are sent to the scene of an accident or emergency to provide aid. The advantage is that the small vehicle is usually faster and the doctor can thus attend the patient shortly after the call. If he considers transport to the hospital necessary, the doctor transfers to the bigger vehicle and accompanies the patient to the hospital. This type of service, however, is used in less than 10% of all emergency care cases.

The Air Emergency Medical Service (*Letecká záchranná služba*) is located 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 dispatch are coordinated by rescue operation command centres.

Until 2006 emergency care providers were solely responsible for transport services. Since then, transport services have also been provided by general hospitals and other providers.

Emergency wards (usually in hospitals) substitute for GPs beyond their opening hours, i.e. at night or during national holidays. A user fee of CZK 90 (€3.60) is charged for an emergency room visit. Most regions do, however, offer user fee exemption in their own facilities. Since the supply of emergency room services has been decreasing, there are regional initiatives to relieve the pressure on emergency rooms by setting up round-the-clock hotlines for patients to discuss their health status and needs, with a physician giving advice on further steps. Typical patient pathways for emergency services are shown in Fig. 5.4.

Fig. 5.4
Patient pathway for emergency services



Source: Authors' compilation.

In 2013 the Czech and German Ministers of Health signed a framework agreement concerning cross-border cooperation of emergency medical services that entered into force in July 2014. Currently, Czech and German ambulances can only transport patients to a hospital in their respective countries, not considering the patient's nationality or closer health facilities across the border.

The cooperation allows for a German citizen injured in the Czech Republic to be taken to a Czech hospital by Czech emergency medical services, and vice versa. The agreement is valid for the Czech and German bordering regions and thus are in the process of negotiations and implementation of specific conditions. After relevant regional partners signed bilateral contracts (envisaged for 2015), emergency medical services will be able to intervene on both sides of the border (within an agreed distance) and transport patients to the nearest appropriate health facility according to their health conditions. The cross-border cooperation will be realized only on request and depends on current availability of emergency medical service. When realized, both Czech and German emergency services will participate in cross-border emergency services.

Another project funded and initiated by the EU aimed to increase cooperation between the emergency services of the Czech Republic and Poland in the border area. It was carried out between 2009 and 2011 in the Euroregion Nisa.

Despite these efforts to optimize emergency care in border regions, there is still considerable need for improvement.

5.6 Pharmaceutical care

In the Czech Republic in 2012 pharmaceutical services were provided by 2736 pharmacies and 464 medical device dispensaries (including detached units). Since the privatization of the pharmaceutical markets the number of pharmacies is still growing, by 66 pharmacies and 126 dispensaries in 2012. This translates to an average of 3935 inhabitants per pharmacy in 2012 (compared to 4079 inhabitants per pharmacy in 2008). However, the density of pharmacies differs across the Czech Republic, with a denser coverage in larger cities (ÚZIS, 2009a; 2013c). As of 2012, 99% of pharmacies in the Czech Republic were run as private enterprises (ÚZIS, 2013c). The remaining 1% of pharmacies were owned by public hospitals, but were also open to the general public.

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 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 sections 2.3 and 2.8.4).

The total revenues of pharmacies from pharmaceuticals amounted in 2012 to CZK 66.8 billion (€2.4 billion), of which prescribed drugs issued directly to patients amounted to CZK 35.6 billion (€1.3 billion), pharmaceuticals issued to providers of health care amounted to CZK 13.5 billion (€0.49 billion), and CZK 16.8 billion (€0.61 billion) was paid for over-the-counter pharmaceuticals (ÚZIS, 2013j).

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. On the other hand, a new category of pharmaceuticals – "prescription drug with limitation" – was introduced to tackle the manufacturing of illegal substances from certain pharmaceuticals. Only a limited number of packages of these drugs can be sold to a single patient, regardless of the amount of prescriptions (potentially from multiple physicians) a patient has.

Pharmaceutical expenditure as a share of total expenditure by health insurance funds was 16.1% in 2012; there has been a decreasing trend over the last decade (see Table 3.2 and Chapter 3 for details). In absolute numbers the expenditure on pharmaceuticals has risen to US$ 380 per capita in 2012. However, the percentage share of total current health expenditure decreased (see Table 5.4).

Table 5.4

Expenditure on pharmaceuticals and other medical non-durables in the Czech Republic, selected years

Unit	Pharmaceutical and other medical non-durables				
	2000	2005	2008	2010	2012
% of total expenditure on health	23.4	24.8	20.4	19.9	21.1
% of current expenditure on health	24.7	25.7	20.9	20.4	21.5
Per capita expenditure, US$ at 2005 PPP rates	256.7	366.3	340.0	350.8	380.0

Source: OECD, 2014a.

The first electronic prescription was used in the Czech Republic in January 2008. So far, electronic prescriptions have been used only on a voluntary basis and are of minor importance compared to paper prescription. There were 75 million paper prescriptions and only approximately 300 000 electronic prescriptions in 2012. Over 800 pharmacies accept electronic prescriptions. A decision in 2013 to introduce compulsory electronic prescriptions in 2015

caused serious concerns about connected costs and possible data protection issues and a perceived unwillingness of providers to implement it. Therefore, the Minister of Health appointed in January 2014 abolished the plan to make the use of electronic prescriptions obligatory.

5.7 Rehabilitation/intermediate care

Rehabilitation and intermediate care are part of the basic health insurance package, in both inpatient and outpatient settings. Rehabilitation care is primarily designed as follow-up care after other forms of treatment. Given the free choice of provider, patient pathways are currently not uniform. Rehabilitation care is usually offered in both inpatient settings (in general hospitals as well as in specialized facilities) and outpatient settings. These services are part of the SHI benefit package and there are no reported shortages or problems of availability of these services. In the case of shortages, the health insurance funds are obliged to ensure the provision of timely care to their members (i.e. to contract more providers).

There is no special reimbursement mechanism for rehabilitation or intermediate care. Outpatient rehabilitation care remains an important part of the benefit package, with reimbursement worth more than CZK 2.6 billion (€94.9 million) in 2013. Inpatient rehabilitation and intermediate care is provided in hospitals as well as in specialized facilities and spas. Spa treatments continue to be reimbursed, although there was a steady decrease in the number of spa treatments in 2013, according to the health insurance funds' reports to the Ministry of Health. This was due to the new "Indication Decree", which limits indications for reimbursable spa treatments (quarterly data for 2013 suggest a drop of about 20%). Spa treatments had been regarded as not sufficiently cost-efficient by some stakeholders for a while, but the "Indication Decree" from 2013 was vigorously opposed by both providers of spa services and patient groups. The Minister of Health appointed in January 2014 announced some revisions to the "Indication Decree" which are intended to lessen the impact of previous changes, and further revisions are expected for 2015.

One of the stated goals of the 2012 plan for the general reduction of beds was to further strengthen intermediate care capacities, which were seen as insufficient. Already in the years preceding 2012 inpatient rehabilitation and intermediate care have seen an increase in available beds. Hospital beds dedicated to rehabilitative treatment of musculoskeletal and nervous system diseases increased from 3692 in 2008 to 4181 in 2012. The number of beds

for rehabilitative nursing care for all diseases increased from 13 558 in 2008 to 13 918 in 2012 (ÚZIS, 2009a; 2013c). These figures also include long-term nursing beds. Nursing care beds are usually dedicated to less intensive care than rehabilitation beds.

5.8 Long-term care

In the Czech Republic long-term care for older or disabled people or those with chronic diseases 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 (nursing beds – see above for the development in terms of capacity) 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 (b) social care facilities to finance some services through contracts with the health insurance funds. 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. The Ministry of Labour and Social Affairs (MSLA) sets standards and regional job offices (which are subordinate to the MLSA) conduct evaluations. Controls consist of on-site visits to assess quality of services and fulfilment of formal requirements.

The introduction of individual-oriented care allowances was met with some controversy, because it generally resulted in lower budgets for established care institutions and made way for informal carers. There is a sentiment of gradually increasing acceptance. In 2012 there were 312 440 individuals receiving care allowances amounting to a total of CZK 18.39 billion (€0.75 billion) (Ministry of Employment and Social Affairs, 2013). A patient wishing to receive a care allowance must complete an examination process conducted by the Czech Social Security Administration (including an assessment of health status). Depending on health status (and age), the patient may then be eligible for a monthly allowance ranging from CZK 800 (€29.20) to CZK 12 000 (€438).

Anecdotal evidence suggests that residential long-term social care facilities for the elderly within the price range available for most of the population in the Czech Republic have long waiting lists. 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. As for the capacities of these services, in 2012 the Ministry of Employment and Social Affairs recorded 13 820 beds in facilities for the disabled and 37 477 beds in residential social long-term care for the elderly (Ministry of Employment and Social Affairs, 2013).

Apart from residential settings, 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. After a drop possibly attributable to the adoption of the Act on Social Services, the volume of home care has been increasing substantially. In 2008 home care health personnel conducted 5 514 780 visits, but in 2012 the number of visits rose to 6 006 011 (ÚZIS, 2009b; 2013k). The services provided by home care providers paid from SHI must be strictly medical in nature. Non-medical services such as meal delivery are not paid by SHI, but the patient can purchase them using care allowances.

Table 5.5

Ambulatory long-term care provision

	2000	2005	2006	2007	2008	2009	2010	2011	2012
Comprehensive Home Care (CHC) visits	4 186 719	6 121 209	6 071 936	5 890 074	5 514 780	5 727 098	5 709 983	5 914 598	6 006 011

Sources: ÚZIS, 2002; 2006; 2007; 2008; 2009b; 2010; 2011c; 2012b; 2013k.

5.9 Services for informal carers

Family members and volunteers also play an important role in providing general care and assistance. There are no options within the system of statutory health insurance for reimbursing the services provided directly by family members or volunteers. However, the care allowances established by the Act on Social Services made it possible for these carers to be paid directly by the patient. Since the introduction of the care allowance, it is entirely up to the patient

what to spend the money on. In 2009, 230 600 persons in the Czech Republic reported being informal caregivers (2.7% of the population above 15 years). More than 70% of informal care was provided by women. The total volume of informal care provided was reported to be 7.6 million hours per week, mainly provided in the form of household support (Hrkal et al., 2011).

5.10 Palliative care

Palliative care – defined as care intended to alleviate suffering and improve quality of life for patients suffering from incurable diseases – is part of standard SHI coverage and is usually provided within inpatient institutions. The health-care facilities contracted to provide palliative care usually also provide end-of-life care. Together with long-term care, palliative care services are now considered as one of the areas most in need of reform (especially to promote home-care services where possible). The amount of money allocated to hospices has risen from CZK 135 million (€4.9 million) in 2010 (when this category started to be reported separately by health insurance funds) to CZK 146 million (€5.3 million) in 2012, pointing to the growing importance of palliative care in the Czech Republic. Yet palliative care still tends to be provided mainly in large inpatient facilities with many other functions, which, compared to dedicated palliative care facilities, is generally more costly and often less efficient regarding the aims of palliative care. The number of dedicated hospices is still very low despite recent increases. In 2012 there were 16 hospices in the Czech Republic with a capacity of 468 beds. This represents a relatively steep increase in capacity from six facilities with 171 beds in 2002 (ÚZIS, 2003; 2013g). There are no official waiting lists. Patients who wish to be admitted to a hospice are in practice either referred by some other provider or seek advice from their respective health insurance fund. Hospices tend to be privately owned and small in size: on average they have a capacity of 30 beds (ÚZIS, 2013d).

5.11 Mental health care

Mental health care is funded through the SHI system and is provided both in ambulatory settings and in inpatient facilities. Inpatient facilities include hospital psychiatric departments and specialized psychiatric inpatient facilities. The number of physicians providing mental health care in outpatient settings continually increased from 564 in 1997 to 788 in 2012 (ÚZIS, 2013l). In the same period the number of beds in psychiatric wards slightly decreased

from 9781 to 8994, but the number of physicians providing psychiatric care in inpatient settings increased from 422 to 528 contracts. While the shift in outpatient care reflects a general trend in the Czech Republic towards community-based care and more outpatient settings, the increase in the number of physicians in inpatient settings reflects a push for higher quality. Activities aimed at public education about mental illnesses were also intensified as the stigmatization of mental disease is still felt to be a serious problem by some stakeholders. As shown in Table 5.6, mental health-related hospital discharges have been decreasing continuously in recent years and are far below those of neighbouring countries.

Table 5.6

Mental health-related hospital discharges (in-patients) per 100 000 inhabitants, Czech Republic and selected countries

	Czech Republic					Slovakia	Poland	Hungary
ICD-10	2002	2004	2006	2008	2010	2010	2010	2009
Mental and behavioural disorders (F00-F99)	691.0	728.3	664.1	668.0	315.2	777.2	678.9	1 108.5

Source: Eurostat, 2014.

Although the current system offers satisfactory services to many patients, the care provided to those with chronic mental conditions is open to improvement. Re-hospitalizations, extensive stays and even lifetime psychiatric hospitalization are common, especially in the case of chronically ill patients. Part of the problem is related to the low priority afforded to this group of patients over many decades, and the difficulties are likely to continue if coordination between the health and social care systems is not improved. Problems related to the low prioritization of mental health care and subsequent shortcomings were recognized in the Ministry of Health's Strategy for Reform of Mental Health Care in 2013 (see section 6.1).

In 2011 a new project, "The reform of psychiatric care", was launched and the Strategic Document for the Reform of Psychiatric Care was adopted in 2013. The key features of the reform plan are the creation of Mental Health Centres which should function as support units for the inclusion of patients in their living environment; measures for mitigation of social exclusion stemming from mental illnesses (including educational activities for the general public as well as health-care professionals); definition of standards of psychiatric care through systematic classification of services; measures for better diagnostics such as postgraduate educational activities for health professionals; and better linkages

between the health and social sectors resulting in increased employment of the mentally ill. There are also plans to implement minimum capacities of mental health-care professionals per capita. The strategy is scheduled for execution in 2014–22.

5.12 Dental care

Dental care in the Czech Republic is provided mainly by private providers (usually self-employed dentists), although some dental care is also available in publicly owned hospitals. Theoretically, dental care is part of the basic insurance package, although in practice cost-sharing is much more common than in other areas of health care. Apart from user fees for visits (planned for abolition in 2015), patients mainly have to bear the costs when they request the use of specific materials (for instance, white cavity filling material instead of the standard filling for cosmetic purposes). However, there is an increasing number of dentists accepting private (i.e. self-paying) patients only.

SHI expenditures on dental care have steadily risen, from CZK 8.6 billion (€313.9 million) in 2005 to CZK 10 billion (€365 million) in 2011 (Ministry of Health, 2013b), but at a slower pace than most of the other segments of care. Also, the number of dentists in the Czech Republic has risen, from 5855 dentists in 2008 to 6262 dentists in 2012 (ÚZIS, 2009c; 2013f). The age structure of dentists suggests that their number will decrease in the future (ÚZIS, 2013f; see also section 4.2). Preventive dental care, such as regular check-ups, is also covered by SHI and is excluded from payment of user fees. Providers of dental care have the same status as other health-care providers and are therefore obliged to conform to the same standards of care, including internal safety protocols and patients' complaint procedures for quality control introduced by the Health Services Act from 2011 (see also section 6.1).

5.13 Complementary and alternative medicine

Complementary and alternative medicine (CAM) is not included in the SHI benefit basket. For instance, acupuncture is one of the services specifically listed in the Public Health Insurance Act No. 48/1997 as not covered. Nevertheless, providers of CAM still have to adhere to rules on safety, patient information and patients' rights, as outlined in the Health Services Act. At the time of writing, there is an ongoing project, initiated by the Ministry of Health, concerning

international cooperation with China aimed at introducing more Traditional Chinese Medicine (TCM). There are plans to establish a TCM department within one of the university hospitals. Anecdotal evidence, however, suggests that generally there is little support for CAM in the Czech Republic.

5.14 Health services for specific populations

With SHI coverage of virtually 100%, health services are accessible for almost anyone residing in the Czech Republic. However, for some groups specific services are provided which are reimbursed by special funds either within SHI (such as preventive care for military personnel sent abroad) or outside the SHI framework (such as contraception for sex workers or testing for diseases for drug addicts – usually funded by the national government or local authorities via grants).

6. Principal health reforms

Many of the recent reforms of the Czech health system have attempted to address the chronic financial instability that has marked the system since the early 1990s. The global economic crisis since 2008 has only further aggravated the need for reforms. Due to rising unemployment rates, SHI contributions have increasingly been funded by the state. As state-funded contributions are calculated on the basis of minimum wages, health insurance funds have faced stagnating financial resources. Thus the most recent reform activities to a large extent consisted of various cost-saving emergency measures, including attempts to increase the share of private expenditure in health-care services and reforms of reimbursement mechanisms. Other health reforms have focused on patients' rights and empowerment and the restructuring of public health institutions.

6.1 Analysis of recent reforms

This chapter describes the major health-care reforms in the Czech Republic and their impact from the 1990s to the time of writing, with special focus on the period since the last HiT review for the Czech Republic appeared (Bryndová et al., 2009). For descriptions of earlier reforms please refer to Section 2.2. and the 2009 HiT review. The latter gives a particularly detailed description of the transition period until the late 2000s. Box 6.1 outlines key reforms in the Czech health-care system since the early 1990s.

Box 6.1
Summary of main reforms and events in Czech health system financing

SHI system	1991/92	Establishment of SHI by General Health Insurance Act, Act on the General Health Insurance Fund and Act on Departmental, Professional, Corporate and Other Health Insurance Funds SHI contributions legally set at 13.5% of pre-tax monthly wages; the state contributes for economically inactive persons
	1994–2005	Consolidation of health insurance funds due to rising health expenditures Act on Public Health Insurance sets negative list of medical procedures for SHI coverage in 1997 Contribution for economically inactive population by the state increases Shift of health service provision to regional governments (2002–03) Significant risk selection process results in cumulative debts of health insurance funds, especially the VZP, by roughly CZK 10 billion Clearing off health-care debts of the VZP through the Czech Consolidation Agency in 2002 The VZP is put under forced administration in 2005 by the Ministry of Health
	2005–2011	*Stabilizing measures and reforms* New risk adjustment and equalization schemes between health insurance funds to improve redistribution process (i) The criteria of age groups and sex introduced, plus risk-sharing by the ex post compensation of 80% of costs for insured individuals whose costs exceed a threshold of 25 times the average costs per insured in 2005 (ii) The ceiling on monthly SHI contributions was increased in 2010 from 48 to 72 times the average monthly wage in the Czech Republic two years prior to the current year. Public Budgets Stabilization Act (2007) and gradual reforms to payment schemes for hospitals (i) Introduction of flat payments at the value of 98% of total payment in 2009 for 2011 reimbursement scheme (ii) A combination of four different reimbursement mechanisms – including DRGs – introduced for 2012 (iii) DRG is dominating reimbursement mechanism since 2012 Implementation of user fees (2007/08) and 'above-standard' care in order to reduce health expenditures Cumulative debt of health insurers is resulting in late payment schedules and cash flow problems for a large part of Czech hospitals. Nationwide strike of physicians in 2011.

	2011–2013	*Stabilizing measures and reforms (II)* Ad-hoc redistribution of health insurance funds reserves to other insurers in 2012 Cumulative debt of health insurers (especially the VZP) resulting in late payment schedules and emergency measures by granting loans of CZK 1.7 billion to the VZP in 2013 Global budget cuts to major health institutions such as the Ministry of Health and public institutions Restrictions on health expenditures in Reimbursement Directives 2012 and 2013 Gradual abolition of user-fees and above-standard treatments by rulings of the Constitutional Court in 2013 and the new government Reforms to risk-adjustment scheme of health insurance funds in 2013 (i) including pharmaceutical cost groups (ii) abolition of ceilings on monthly SHI contributions for employed and self-employed Increase in state contributions for economically inactive population
Public health reform	2010–2012	Merger of regional public health authorities and reorganization of national public health system after global budget cuts. Alteration to vaccination schedules, by adding HPV vaccination and shifting financial responsibility for vaccination to health insurance funds
Patients' Rights	2011	Reform of Health Services Act/Specific Health Services Act overhauled the legal framework and enlarged it to include further topics such as reproductive medicine Governmental decrees in 2012 ruled on the compulsory documentation of patients' pathways, specified obligations of health insurance funds and postulated maximum waiting times for certain procedures and maximum geographical distances to certain services

6.1.1 Health sector financing reforms

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, wage-based contributions. 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. Seven funds were still operating in 2014. A merger of the Military Health Insurance Fund and the Health Insurance Fund of the Ministry of Internal Affairs was initiated by the national government in 2012 but failed due to opposition in the Board of the Military Health Insurance Fund. Since its inception, the system has been plagued by chronic financial instability. In the 1990s and early 2000s this was mainly reflected in solvency problems among health insurance funds (particularly the VZP) due to insufficient funding and inadequate risk adjustment between health insurance funds, which had to be compensated by steadily increasing per capita state contributions on behalf of the economically inactive and improvements in risk adjustment (see section 3.3.3). Yet when the financing system was at last balanced in 2009 (Bryndová et al., 2009), the global financial crisis was already taking effect and worsened the financial situation of the Czech health system.

Health insurance contributions on average differ significantly between the economically active (employed and self-employed) and inactive (unemployed, students, pensioners, and so on) population (see also section 3.2). Despite increases over the years, the government still pays comparatively low contributions, which are based on the minimum wage for economically inactive insurance members. The share of those members for whom the state paid contributions in 2011 amounted to 58.4% of all insured individuals in the Czech Republic. The payments made for these members on the other hand represented only 24% of the total revenues of the health insurance funds in 2011 (Ministry of Health, 2013b).

Table 6.1

State-funded SHI members in the Czech Republic

	2000	2005	2008	2010	2011
Unemployment rate (% of total workforce)	8.8	7.9	4.4	7.3	6.7
Number of state-funded SHI members (in millions)	5.8	5.8	5.8	6.1	6.1
Share of state-funded members within SHI system (%)	56.0	56.4	56.3	58.4	58.4
State contributions as share of total revenues of SHI funds (%)	23.5	21.8	22.7	24.7	24.3

Sources: Czech Statistical Office, 2014b; Authors' compilation based on internal data from the Ministry of Health.

The rising number of economically inactive persons in the wake of the 2008 financial crisis led to a stagnation of collected revenues of the funds. The economic crisis and subsequent fiscal retrenchment additionally led to a cessation of the previously regular increases in contributions per state

insured member. In combination with rising costs of care, this caused solvency problems for several insurance funds, particularly the VZP, which suffers from less favourable reimbursement schemes. Some funds struggled less than others, mainly because they had managed to acquire financial reserves. To address imbalances between the reserves of health insurance funds, legislative changes were made. As a consequence, one third of all the reserves of all the health insurance funds was redistributed in January 2012 using the same mechanism that is used for the risk-adjustment scheme (see section 3.3.3). This redistribution was a one-off measure and enabled the VZP to continue to pay providers on schedule for the greater part of 2012. In the second half of the year the VZP started to delay payments because of insufficient funds. The problem was postponed by a loan to the VZP made by the government in the autumn of 2013. In early 2014 all health insurance funds were meeting their payment obligations.

The health insurance funds were able to use reserves in order to cope with increased financial pressure for a relatively long period. The partial pooling of these reserves and some alleviation of pressure due to measures such as user fees contributed to the stability of the health system and the ability of funds to meet their obligations. However, the reserves of almost all funds are now spent. Consequently the government agreed at the end of 2013 to increase the payment for state insurees and to implement further measures to strengthen the financial stability of the system; one measure is an improved risk-adjustment scheme that includes pharmaceutical cost groups.

To balance out publicly funded sources of the Czech health-care system and to reduce over-utilization, user fees for doctors' consultations, emergency room services, inpatient care (per inpatient day) and prescription drugs were introduced in 2007. The actual effect of user fees is difficult to assess, but some regulatory effect is likely or at least cannot be ruled out. While some studies support the hypothesis that user fees had some (although limited) effects – mainly decreases in the demand for certain drugs (Hromádková & Zdeněk, 2013) – others suggest a contrary effect (Zápal, 2010). In 2011 the prescription fee was altered to CZK 30 (€1.1) per prescription (not per item on the prescription) and the fee per inpatient day was increased from CZK 60 (€2.20) to CZK 100 (€3.65). In July 2013 the Constitutional Court ruled that this increase was unfair to vulnerable groups and the fee was abolished completely. The government that came into power in January 2014 abolished all remaining fees in January 2015, except for the out-of-office-hours fee. Despite the introduction of user fees, the Czech Republic remained the only OECD country in 2008 (i.e. shortly

after the introduction of user fees) where people in the highest income quintile were less likely to see a doctor than people with an average income and similar health-care needs (Devaux & de Looper, 2012).

Health-care purchasing: new trends in purchaser–provider relationships

Since 2007 there has been a shift in hospital payment, away from global budgets and capitation towards methods of payment that better reflect the types and volumes of care provided. Global budgets were gradually replaced by DRG-based payments (except for a brief period in 2011). Unofficially the Ministry of Health estimates that DRG-payments amounted to roughly CZK 50 billion (€1.82 million) in 2013. The legal basis for funding mechanisms is the Reimbursement Directive, which is published and updated annually by the Ministry of Health (see sections 3.3.1 and 3.7.1). It is binding only if no other agreement is reached between funds and providers. This means in theory that purchasers and providers could come to alternative agreements. There are, however, few incentives for health-care providers and health insurance funds to deviate from the Reimbursement Directive as negotiations are likely to result in disadvantages for one of the negotiating partners; i.e. there is usually one side that is in favour of the Reimbursement Directive. Some providers and health insurance funds, however, choose to retain reimbursement through global budgets because it is administratively less difficult and providers face less uncertainty about final revenues.

From 2012 to 2013 patients could opt for so-called "above-standard" medical procedures, enabling the patient to choose between the standard treatment and an above-standard treatment (for example, better artificial eye lenses). The patient paid the difference in price compared to the standard treatment. The list of procedures that offered such choice was relatively short and included only some type of vaccination, plasters and artificial eye lenses. Before the introduction of the above-standard medical services list, the patient had to pay the full costs of the more expensive option of health care without any public coverage unless the more expensive option was prescribed for a specific medical reason. According to ex-Minister Heger, this practice nurtured informal payments by patients hoping to influence their physicians to prescribe the more expensive above-standard health care (IDNES, 2013). However, the Czech Constitutional Court abolished the above-standard procedures in July 2013 on the basis of technical shortcomings. Although the Court ruled that in principle a system of above-standard procedures was legally sound, it took the view that the list of above-standard procedures had to be specified by law and not, as was the case, only by governmental decree. In 2012, 433 000 above-standard

procedures (and 857 000 vaccinations) were performed (internal Ministry of Health estimate). The government that came into power in 2014 currently has no plans to reintroduce these procedures.

6.1.2 Health Services Act and Specific Health Services Act

Health services and patients' rights constitute another major area of reform. Two new legislative documents in this field entered into force in 2011: the Health Services Act and the Specific Health Services Act. Public debate preceding these Acts was vivid and some argued that the reforms were too market-oriented. One of the main critics of the Health Services Act was the Czech Chamber of Physicians.

Health Services Act

The 2011 Health Services Act replaced the 1966 Act on Care for People's Health. The terminology was updated and changing demands for quality standards and patients' rights were considered. The new law regulates patient–provider relationships and clearly defines the basic rights and obligations of each party. In particular, the Act aims to define patients' rights, specify providers' status and responsibilities, and define registration requirements. Additionally, the Act sets adjusted monitoring and (quality) control requirements targeted at improvements in patient safety and the quality of care.

Regarding quality assurance and patients' rights, the Health Services Act further includes:

- Requirements for informed consent
- The right to information on alternative treatment options
- Regulations for co-payments
- Outline of a voluntary process of external accreditation
- Setting up an adverse event registry
- Regulations for children's rights (for example, for parents to visit their children outside visiting hours; children's rights to refuse parent visits if abused by parents)
- The right for a translator at all times in case of non-ability to communicate
- Regulations for living wills (expressly excluding assisted suicide)

On the other hand, the Health Services Act requires patients to adhere to agreed treatment plans and to truthfully disclose their state of health. Sanctions, however, are only outlined for providers not abiding by the new rules and not for patients. Introducing obligatory consensual agreement by both parents to the non-acute treatment of children caused controversy among divorced parents and was amended in 2013.

Specific Health Services Act

The Specific Health Services Act of 2011 includes provisions on services such as sterilization, in vitro fertilization and organ donation, and specifies patients' rights related to these services. The revised Act specifically aims at areas in which the old Act was insufficient because of shifts in the perception of human rights and technological progress in certain procedures.

In the Czech Republic non-reversible castration without medical need can still be conducted in the case of convicted criminal offenders if active consent is given. For those patients who wish to be castrated after a conviction for rape or similar offences, the Specific Health Services Act has introduced a specific legal procedure. In addition to the active consent, a reported high probability of reoffending is necessary, as well as the approval of a commission including psychologists, sexologists and lawyers.

Since 2011 similar expert commissions have also had to be instituted in cases of voluntary sterilization, gender transformations and psychosurgical treatments. Additional regulations apply for these procedures in the case of under-age patients.

Inter alia the Specific Health Services Act sets boundaries for the manipulation of the human embryonic genome. While future medical diagnostics and treatment are in theory allowed, manipulation for scientific purposes is prohibited (for example, the transfer of parts of the human genome into other species or the creation of human clones). The Act also provides a new and more comprehensive framework for preventive custody, such as compulsory hospitalization in psychiatric wards. Legal certitude of patients in these wards was increased by regulating amongst other things patients' rights of correspondence and complaint.

6.1.3 Reforms to the public health system

The public health sector has also seen significant reforms in recent years. From an administrative point of view, the biggest change was the merger in 2012 of fourteen public health institutes into two institutes of public health, one in each

of the two historic regions of Bohemia (located in Ústí nad Labem) and Moravia (located in Ostrava). The stated main reasons for the reform were the reduction of administrative costs and inefficiencies caused by decentralization.

The new system of public health authorities now consists of the National Institute of Public Health, the main role of which is to advise the other parts of the public health system and prepare strategic documents, as well as to conduct research and foster international cooperation in this domain; two institutes of public health responsible for quality measurement of the environment, examination of biological material and similar tasks; and 14 regional public health authorities (RPHA) responsible for controlling adherence to public health rules (for instance, in workplaces).

In 2012 a new Strategic Document for Public Health was adopted (see also section 5.1), which outlined the need for financial stabilization as well as for adequate staffing of the RPHA. The RPHA have seen a steep decrease in personnel (43%) as well as funding from the state budget (minus 42% in nominal terms) between 2002 and 2011. This strategy also outlined the new institutional framework for public health in the Czech Republic, including the classification of public procurements.

Another public health reform concerned immunization coverage. The government shifted the financial responsibility for vaccination against most diseases to the patients' health insurance funds in 2010 and included the vaccination against HPV in the benefit package. Estimates suggest that this led to savings from the state budget of approximately CZK 850 million (€31.2 million) per year. On the other hand, it has contributed to the financial struggles of the health insurance funds, which received no compensation for the new responsibilities.

6.1.4 Other reforms

There have been numerous other areas of reforms, which cannot be discussed in detail. However, five areas were particularly important:

(i) Cross-border health care

In 2014 the Czech Republic passed an amendment to Act no. 48/1997 concerning general health insurance, implementing the Directive of the European Parliament and Council no. 2011/24/EU on the application of patients' rights in cross-border health care. Czech insured individuals are thus entitled to cost reimbursement for health-care services in another EU Member State if the service is covered by the Czech SHI system. The amount of reimbursement

would follow the rules for reimbursement of these services to providers in the Czech Republic. Also a system of new "national contact points" provides insured individuals with information regarding the use of health-care services in other EU Member States. This system cooperates with contact points of other EU Member States, and provides information to other EU nationals who decide to travel to the Czech Republic to receive health-care services. There are also plans to enhance cooperation in emergency services between the Czech Republic and certain neighbouring countries (see also section 5.5).

(ii) Education and training of health professionals

Physicians are required to complete five years of clinical training to obtain qualifications in a postgraduate medical specialty. In 2008 a new residency programme was introduced for medical school graduates. The Ministry of Health subsidizes the places in the programme and covers the costs of training and part of the trainee salary. Since then, several amendments of the existing laws have been passed to mitigate problems with the newly established system. Problems were caused especially by the administrative complexity of the subsidizing procedure and more stringent controls of the correct use of the financial means were required. Amendments were also made in order to harmonize legislation with EU law and improve the human resource planning abilities of the Ministry of Health. The complexity of the system and lack of funding by the Ministry of Health are said to cause shortages of available training capacities for post-graduate applicants.

Some under-graduate training-related issues were solved by extensive amending of current medical education laws, such as the previously ambivalent definition of a pharmacist, more precise processing rules for granting and removing accreditations for teaching, and the removal of duplication in the education of nurses and medical personnel of similar grades.

(iii) Changes for health personnel

Providers of health care must comply with a new decree on minimal staffing requirements from 2012. Previously only non-specific requirements of safe conduct and agreements between providers and health insurance funds were in place. The funds required a certain number of physicians for each inpatient care department before making any reimbursements. Providers without a contract with the health insurance funds were thus not affected by these arrangements.

The new decree established clear and accountable nationwide rules for all inpatient care providers. The process of determining minimum staffing levels for various fields was difficult and not without controversy. Some stakeholders criticized the results as a first step to a drastically reduced quality of care

because they feared that the minimum levels would become the new norm, especially in times of financial constraints. Whether these concerns will materialize in the future remains to be seen.

Medical personnel have seen substantial increases in their monthly salaries in recent years, from approximately CZK 49 000 (€1800) in 2009 to approximately CZK 58 000 (€2130) per month in 2011 for publicly employed physicians. This was partly a result of the campaign by labour unions known as "Thank you, we're leaving" (also see section 3.7.2).

(iv) Pharmaceuticals

In the area of pharmaceutical policy there have been some incremental changes aimed at the prevention of misuse of some potentially dangerous pharmaceuticals. A new drug category with a limited volume of prescriptions was introduced in 2012 (see section 5.6). This step was aimed at preventing the production and resale of illegal substances from prescribed pharmaceuticals and at preventing the prescription of some abortive drugs to girls under a certain age.

The pharmaceutical reimbursement system has seen some technical changes since the early 2010s. The SÚKL aimed to revise reimbursement requirements in all ATC (Anatomical Therapeutic Chemical Classification System) groups every three years but often did not manage to do so. Therefore a new body was established in 2011 to simplify price calculations for drugs in case of value added tax changes. Furthermore, the number of ATC groups with at least one fully reimbursable product has decreased since 2008 when the SÚKL became responsible for reimbursement policy. Due to alterations in the grouping algorithm of ATCs the change did not result in lower coverage. However, in 2014 the actual revision is still not matching the three-year requirement.

(v) Mental health reforms

Reforms in 2011–2013 adopted a new strategic document for mental health. The key aspects were implemented into a Partnership Agreement 2014–2020 (Ministry of Regional Development, 2014), outlining the use of EU funds. Proposed activities include better accessibility of mental health professionals, the introduction of centres of mental health, which should serve as intermediaries between ambulatory and inpatient care (thus limiting the need for inpatient care), improving cooperation between social and health services in the field of mental health issues, and lowering the stigmatization of patients.

6.2 Future developments

As in other developed countries, the key challenge to health-care reforms in the Czech Republic in the coming decades will be to ensure access to high-quality care based on the principle of solidarity, while simultaneously taking into account the country's fiscal context, demographic ageing and the capacity of the SHI system (Julinek, 2009). Total health expenditure as a share of GDP in the Czech Republic is low (7.7% in 2012) compared to other Western European countries. In view of the country's financial situation this share is unlikely to increase substantially and thus there is a need to spend available funds wisely by promoting efficiency and adding value in the system.

The future fiscal context of the Czech SHI system primarily depends on political decisions regarding an acceptable share of private expenditures. Despite the fact that the Czech Republic has one of the lowest shares of private health expenditures among OECD countries (OECD, 2013), it is unlikely that this share will rise in the short term due to lack of political consensus. To keep the current standard of health care, additional (financial) resources will thus have to be mobilized through other channels such as rising SHI contributions or more efficient delivery of care. If not, access may effectively be reduced because of increasing waiting times or limited availability of modern treatment options. The main political parties are aware of the necessity for reform. Yet they propose different solutions, ranging from more centralization with fewer or possibly only one health insurance fund on the left side of the political spectrum, to a more liberal and market-oriented approach on the right side of the political spectrum. The lack of consensus on a vision of the future Czech health system has prevented some key structural problems being addressed, such as mobilizing sufficient funds during economic downturns. This has led to recurring problems with financial instability, inefficiencies in care delivery, high transaction costs and an inability to benefit from reforms in the medium and long term.

At the time of writing (2014) there is a new government manifesto which outlines several health-care reforms for the subsequent four years.

The government plans to further develop the DRG-based hospital payment system. The DRG-classification that is currently used is thought to be imprecise, thus insufficiently reflecting clinical reality and the associated costs. A new project called "DRG Restart" was launched in the autumn of 2014. It aims to make DRGs more transparent and to improve DRG-weighting methodologies.

There are also plans to refine the risk-adjustment formula for redistributing SHI funds, by adding new factors other than gender and age (see also section 3.3.3). The government also plans to reform state-owned hospitals. Suggestions are to grant hospitals more autonomy and to increase the involvement of universities as well as employees in the governance of the hospitals. Moreover there are proposals to supervise the health insurance funds more closely. There are also plans to decrease the VAT rate on pharmaceuticals and medical aids and to implement a flexible mechanism for adjusting state contributions for economically inactive health insurance fund members.

Other potential initiatives under contemplation but not explicitly mentioned in the manifesto include a comprehensive eHealth strategy. Some eHealth initiatives such as electronic prescriptions instigated by the SÚKL are unlikely to become effective due to opposition from certain stakeholders, while others have already been dismissed, such as the electronic health records project (*Elektronická zdravotní knížka*, IZIP) of the General Health Insurance Fund. In principle, however, there is agreement on the need to strengthen information technology in the delivery of care, also under the Health 2020 strategy.

Another area of potentially less contentious reform is the introduction of Health Technology Assessment (HTA) as the basis for benefit package decisions. In 2014 HTA was still virtually non-existent in the Czech Republic; the SÚKL has until now only made some first attempts to use HTA. Furthermore the Czech Republic still maintains one of the largest hospital bed pools (per capita) of all OECD countries (OECD, 2013). Although most stakeholders increasingly accept the need to restructure the inpatient care sector in line with demographic and technological changes, political interests and disagreements hinder the closing of hospital wards, especially in local hospitals. However, fiscal pressures will likely force hospitals into optimizing their operations and management.

7. Assessment of the health system

The Czech health system is characterized by relatively low total health-care expenditure as a share of GDP; low out-of-pocket payments distributed relatively evenly across household income deciles; plentiful human resources, albeit with some significant regional disparities; and good results for some important health indicators. The system performs relatively well in terms of value for money, although there is still room for considerable efficiency gains. 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 asthma and status asthmaticus) or even among the best in the world (such as infant mortality). And an overall declining trend of amenable as well as preventable mortality in the Czech Republic reflects continuous efforts to modernize and improve the health system.

On the other hand, the SDR for diseases of the circulatory system and malignant neoplasms are above the EU28 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 health system for efficiency gains and improved health outcomes. Additionally, concerns have been voiced regarding non-transparent public procurement. There is little information on patient satisfaction, and patient involvement in health policy-making is low. Nevertheless, the Czech population is well aware of the broad range of benefits they are entitled to and relevant indicators suggest that access to care as well as to financial protection is good.

Health expenditures are by a dominant share publicly funded, which has seen a marked slowdown due to economic downswings in 2010 and 2011 and fiscal consolidation efforts. It remains to be seen what the impact will be on the population's health status in the long term.

7.1 Stated objectives of the health system

The aims of the Czech health system are set out in the Czech Constitution and a range of legislation and they include universality, equity and "free" access to health services. The objectives of the health-care reforms that took place from 2007 to 2013 were financial stability and increasing effectiveness and efficiency of health-care delivery. Although health promotion and disease prevention have featured high on the agenda of health sector reforms since the mid-2000s, less attention has been given to systematic efforts to address these issues, and the health promotion policy continued to be ineffective. As of 2014, the population health-related goals of the system are outlined in the Health 2020 (*Zdraví 2020*) strategy and include, for example, the promotion of healthy lifestyles; increasing life expectancy; improving health status, public health protection and promotion; disease prevention; and other public health and health-care topics. The national strategy will be further specified in several implementation strategies.

To achieve the outlined goals, the government started initiatives to promote sustained solidarity in financing health care, to strengthen the role of patients, to foster patient safety, to improve fair competition among health-care providers and health insurance funds, to define entitlements of insured individuals in a systematic manner, to encourage health prevention efforts, and to improve the quality of care. Some of these plans materialized in new laws (for example, the Health Care Services Act), while some are yet to be achieved (such as increasing competition between health insurance funds). So far it is not possible to say to what extent these objectives are met.

In 2013 a ministerial Working Group for Public Health Protection and Promotion, Disease Prevention and the Health 2020 Programme Implementation in the Czech Republic was established as an advisory body to the Minister of Health.

7.2 Financial protection and equity in financing

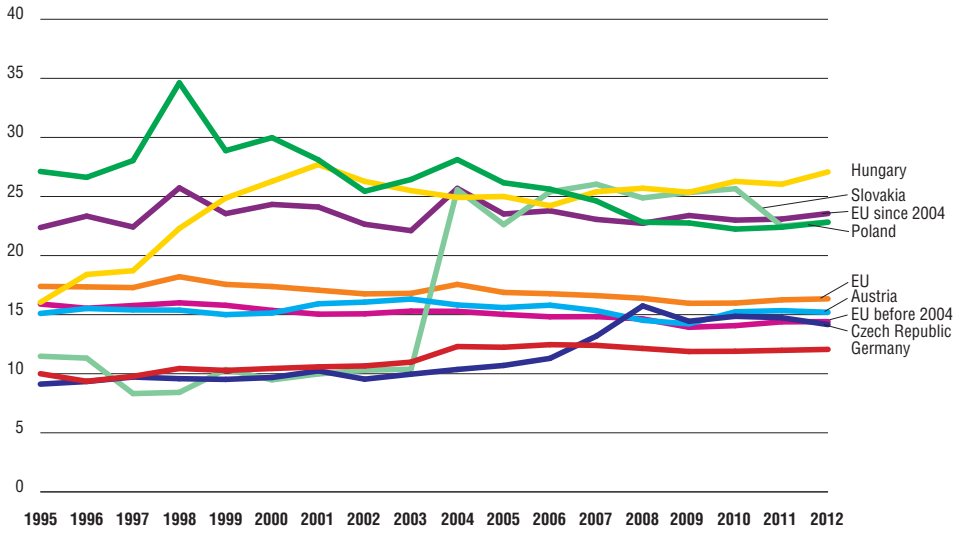
7.2.1 Financial protection

The degree of financial protection provided by a health system is determined by the extent to which people are protected from the financial consequences of illness. If the population has to pay a large share of total health expenditure out of pocket, financial protection offered by the health system is limited.

In 2012 private households' OOP payments for health services amounted to 14.2% of total health expenditure. As Fig. 7.1 shows, OOP payments have increased steadily since 1995. Yet overall, the Czech Republic has a low share of OOP payments of total health expenditures compared to EU averages.

Fig. 7.1

OOP payments as a share of total health expenditure, 1995 to latest available year, in selected countries



Source: WHO Regional Office for Europe, 2014a.
Note: EU: European Union.

Substantial OOP payments by private households may constitute barriers to accessing health care. Evidence of possible barriers mainly comes from population surveys. According to the Eurostat Income and Living Condition Survey, unmet need for medical examination was 14.2% in the Czech Republic in 2013, which was slightly lower than the EU28 average of 16.3% (Eurostat, 2015; Table 7.1).

In 2013 only 1% of the population within the lowest income quintile claimed that they were unable to meet their needs because care was too expensive (Eurostat, 2015). This is significantly lower than the EU28 average of 4.9% and considerably lower than in countries comparable in terms of GDP, such as Hungary (5.9%) and Poland (6.6%). It is noteworthy that the recent increase of this share from 0.6% in 2006 to 1.0% in 2013 coincided with reform activity aiming at fiscal consolidation in the health sector, especially the introduction of user fees in 2008 (Eurostat, 2015).

Table 7.1

Self-reported unmet needs for medical examination or treatment by reason, first quintile, 2005–2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Too expensive	0.6	0.6	0.4	0.8	0.9	0.7	1.0	0.9	1.0
Too far to travel	0.9	0.6	0.4	0.2	0.4	0.6	0.6	0.6	0.8
No time	1.5	1.1	1.1	0.6	0.5	0.5	0.4	0.7	1.2
Didn't know a good doctor or specialist	0.3	0.0	0.2	0.1	0.1	0.1	0.0	0.1	0.0
Waiting list	0.4	0.1	0.2	0.3	0.1	0.4	0.4	0.5	0.2
Fear of doctor, hospital, examination or treatment	1.0	0.8	0.6	0.5	0.4	0.5	0.3	0.3	0.3
Wanted to wait and see if problem got better on its own	2.3	1.5	1.0	1.3	1.1	1.5	1.2	1.8	2.1
Other reasons	2.6	1.6	1.1	0.4	0.6	0.3	0.6	0.5	0.3

Source: Eurostat, 2015.

Yet OOP payments for health still remain among the lowest in OECD countries (OECD, 2014a). Because they are usually set independently of a patient's income, OOP payments tend to be viewed in the relevant literature as regressive (Zápal et al., 2009). Table 7.2 shows, however, that private per capita household expenditure as a share of total household expenditure in the Czech Republic in 2013 was highest not among people in the lowest income deciles, but among middle income households; the exemption from user fees for people with low incomes and the annual ceiling on selected user fees and on co-payments for prescription pharmaceuticals may have had a mitigating effect in this regard for low income deciles. The income of the highest decile on the other hand is likely to enable this group to meet health-care needs by spending a relatively lower share of expenditures on health. This distribution may be subject to change after the abolition of most user fees in 2014 and 2015.

In summary, the Czech health system offers a high level of financial protection.

Table 7.2
Private per capita expenditure on health in € and as a share (%) of total household expenditure according to net spendable income per person (deciles), 2013

Deciles	2013	
	Annual expenditure on health per capita (€)	Share of household expenditure on health per person (%)
Lowest 10%	51	1.96
2nd 10%	70	1.95
3rd 10%	107	2.71
4th 10%	128	2.90
5th 10%	131	2.82
6th 10%	138	2.86
7th 10%	127	2.38
8th 10%	142	2.38
9th 10%	152	2.22
Highest 10%	187	1.91
All households	116	2.38

Source: Czech Statistical Office, 2014a.

7.2.2 Equity in financing

Equity in financing is most often associated with the concept of vertical equity (Wagstaff & van Doorslaer, 2000). Vertical equity refers to the idea that people with a greater ability to pay should pay more than people with a lesser ability to pay. Equity in financing is best achieved with a progressive financing system (WHO, 2000), i.e. one where higher-income individuals pay a larger share of their income, while lower-income individuals contribute a smaller share of their income. A progressive tax system offers the potential for greater vertical equity than proportionate taxation. OOP payments are usually regressive and have the lowest potential to ensure vertical equity.

SHI contributions made by employees in the Czech Republic are wage based and were thus proportional until an annual ceiling on contributions was introduced in January 2008. Prior to 2013, this ceiling was set at 72 times the average monthly wage in the Czech Republic, two years prior to the current year. This made the funding of the system mildly regressive. However, the annual ceiling was temporarily abolished (for 2013–2015) and the government announced in 2014 its intention to abolish this annual ceiling permanently. SHI contributions made by self-employed individuals are income based and levied on 50% of their net profits. 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 2013 this ceiling was also abolished (see section 6.1).

Private per capita household expenditure on health as a share of total household expenditure in the Czech Republic was overall relatively similar across household income deciles in 2013, with an average of 2.4% of household expenditure spent on health. The lowest value (1.9%) was reported in the highest income decile (see also Table 7.2 and section 7.2.1).

In comparison, average household expenditure on alcoholic beverages and tobacco amounted to 2.5% of total household expenditure in 2013 (Czech Statistical Office, 2014a). In 2013 average household expenditures on health were constituted of 66.6% for pharmaceuticals and medical aids, 30.1% for outpatient care and 3.3% for inpatient care (all categories including the respective user fees; Czech Statistical Office, 2014a).

The distribution of private per capita household expenditure on health according to activity status of the head of household reveals greater differences than the distribution according to household income deciles (see section 7.2.1). For households of employees and unemployed individuals health represents only 1.7% of expenditures, while the households of retirees report a significantly higher share (3.9%) (Czech Statistical Office, 2014a).

In summary, the largest part of revenue in the Czech health system is wage-based SHI contributions, which are proportional. An increasing share of SHI contributions is covered by the state and thus indirectly by taxes, which are mostly progressive. Though this means that the system is likely to become increasingly progressive, it also implies that the working population carries an increasing burden of financing the health system compared to the economically inactive population. Yet overall the Czech health-care system appears to offer a comparatively high degree of equity in financing, which is also supported by the low share of – mainly regressive – OOP payments.

7.3 User experience and equity of access to health care

7.3.1 User experience

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, non-governmental public opinion agency. The results still show considerable

dissatisfaction with the Czech health system, but the share of those satisfied with health care outnumbered those dissatisfied in 2012 (39% vs. 28%) (CVVM, 2014). This represents an increase from 2008, when only 27% of respondents were satisfied and 44% dissatisfied. According to the survey, accessibility of services was especially improved since 2008 (in 2008 accessibility was felt to be a problem by 33% of respondents, while in 2013 only 28% felt that way).

There are no comprehensive databases on user experiences in the Czech health-care system at the service level. However, in 2008 a project called "Quality through the eyes of the patient" was launched (Ministry of Health, 2008). It was based on voluntary participation and aimed at monitoring satisfaction of hospital patients with factors not directly linked to health outcomes or medical appropriateness of care (such as the quality of food, the attitude of personnel, and so on) and rankings of hospitals were available on the project web site. The project was cancelled in 2010 due to legal and financial issues. In 2014 the Ministry of Health was preparing a new project, again based on voluntary participation. The reasons behind the satisfaction with the health system have not been systematically evaluated yet. That said, the government has attempted to improve the user experience in the following ways:

1. The 2011 Health Services Act and Specific Health Services Act strengthened patients' rights, for example, confidentiality of information and patient involvement in treatment decisions (see section 6.1).
2. The government issued a decree in 2012 setting up maximum waiting times for procedures deemed to be relatively urgent (such as starting treatment in newly diagnosed cases of multiple sclerosis) or for procedures with especially long waiting times (such as hip replacement). The health insurance funds are responsible for meeting the set targets. The funds may be penalized by the government if they fail to contract sufficient health-care capacities to meet these targets for members.

7.3.2 Equity of access to health care

Equity of access is associated with the concept of horizontal equity, which in the area of health care is interpreted to refer to equal access for equal need. Access to services depends on a number of factors, including financial, geographical and informational, and barriers to care may exist in all of these.

As outlined in chapter 3 (see section 3.3.1) and above in section 7.2.2, the Czech Republic benefits from a relatively high level of equity in financing. Coverage in the Czech Republic is comparatively extensive with an

unusually broad range of services and benefits being provided regardless of socioeconomic characteristics such as income or occupation (with the exception of certain services for military personnel or special preventive programmes supplied by the employer). The Czech health system still has, from a European perspective, a high number of physicians. However, the distribution of health workers across the regions varies considerably. Table 7.3 shows the number of medical doctors in 2011 according to the Nomenclature of Territorial Units for Statistics (NUTS) regions by Eurostat. In the capital Prague more than twice as many physicians provide care as compared to the region of Střední Čechy (Central Bohemia).

Table 7.3

Number of medical doctors per 100 000 inhabitants in the Czech Republic and regions in 2011 (NUTS regions by Eurostat)

Regions	2011
Czech Republic	364
Praha	673
Střední Čechy	240
Jihozápad	346
Severozápad	289
Severovýchod	320
Jihovýchod	372
Střední Morava	342
Moravskoslezsko	329

Source: Eurostat, 2014.

Although the total numbers of human resources allocated to health care in the Czech Republic are high from a European perspective, it should be noted that the physician (and dentist)-to-population ratio varies considerably between the country's 14 regions. Moreover, waiting times have been shown to vary substantially between regions and between health service providers for planned procedures such as hip or knee replacements and cataract surgery (Hroboň et al., 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 a key challenge for future Czech health policy.

In 2008 user fees were introduced to decrease over-utilization of health-care services. The introduction of user fees has caused much debate and the design of the fee system has been altered several times. Opponents fear that user

fees will not have a significant effect on the demand for health-care services and may reduce equity of access. In 2014, several years after the introduction of user fees, high health-care utilization is still perceived as a larger problem in the Czech Republic than barriers to care posed by user fees. The number of outpatient contacts (11.3 per capita) by far exceeded the EU15 average of 6.9 visits in 2011 (WHO Regional Office for Europe, 2014a). An important caveat is that the number of doctor consultations includes telephone calls, which may not be counted in other countries. This can result in an overestimation of consultations in the Czech Republic compared to other countries.

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

Czech population health outcomes are relatively variable. 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). Additionally, considerable improvements in amenable mortality have been achieved, especially in comparison to other central and eastern European countries. On the other hand, the standardized death rates for diseases of the circulatory system, malignant neoplasms and infectious diseases are well above the EU28 average and life expectancy is still below the EU15 average (Eurostat, 2014; see also section 1.4).

The self-perceived level of health (60.2% of the population reported "good" health in 2012) is comparable with other central European countries, such as Poland (57.7%) and Hungary (57.6%), but lower than that of neighbouring western European countries, such as Germany (65.3%) and Austria (70%) (OECD, 2014a). This suggests that Czech health care has outcomes comparable to countries with similar levels of health expenditure but that there is still considerable room for improvement. Table 7.4 compares selected outcomes of the Czech Republic with other Visegrád group countries and EU15 averages (see section 1.4 for more details).

Table 7.4

Health outcomes, 2011

	Life expectancy (years)	Neoplasm (deaths per 100 000 population)[a,b]	Infant mortality (deaths per 1 000 live births)[c]	Maternal mortality (deaths per 100 000 live births) [a,d]	Potential years of life lost (all causes, per 100 000 population 0–69)[a,b]	Perceived good health 15+ (% of population)	Perceived good health 15+, low income (% of population)	Perceived good health, high income 15+ (% of population
Czech Republic	78.2	239.8	2.6	7.7	3 942.2	59.6	49.3	75.3
Hungary	75.0	297.9	4.9	15.5	5 961.9	56.1	52.3	69.3
Poland	76.9	253.4	4.7	2.2	5 264.4	57.8	51.9	69.2
Slovakia	76.1	249.5	4.9	9.9	5 113.9	63.4	60.2	74.5
EU15 average	81.2	215.1	3.4	5.9	3 020.0	71.4	62.4	82.4

Source: OECD, 2014a.
Notes: [a]data for 2010; [b]EU15 average without Belgium and France; [c]EU15 average without Italy; [d]EU15 average without Belgium. (Data for Slovakia for 2011 due to obvious error in the data for 2010.)

The concept of amenable mortality refers to mortality that is sensitive to health-care interventions even after onset of the disease. It is distinct from preventable mortality, which describes mortality that is preventable by individual behaviour, such as smoking cessation (Nolte et al., 2012). In a comparison of amenable mortality in 31 OECD countries the Czech Republic ranged in the bottom third, with 125 or 128 (depending on the calculation basis) amenable deaths per 100 000, below the OECD averages of 95 or 104 deaths (Gay et al., 2011).

Fig. 7.2 shows the development of amenable and preventable mortality in selected European countries. For men, both amenable and preventable death rates in the Czech Republic showed steep improvements since 1990. For women, amenable mortality improved considerably whereas preventable death rates slightly increased. Yet the overall declining trend of amenable as well as preventable mortality in the Czech Republic reflects continuous efforts to modernize and improve the health system. Looking only at 2012 mortality rates in Fig. 7.2, the Czech Republic overall performs well in comparison with other central and eastern European countries.

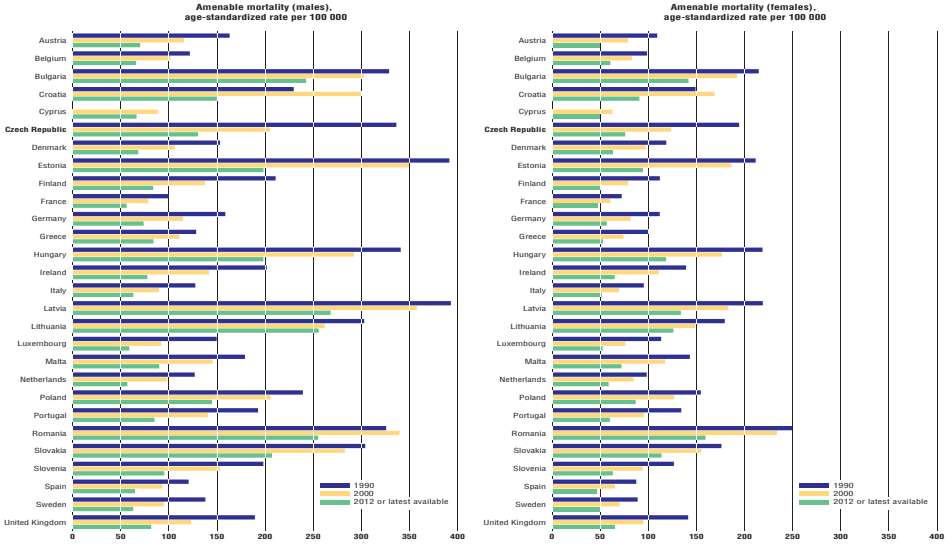
Another in-depth study of avoidable mortality in the Czech Republic and Slovakia suggests that there have been significant improvements in the standardized mortality rates for almost all considered disease entities. These improvements have been more pronounced in the Czech Republic since the early 1990s than in Slovakia, indicating some positive influence of the Czech health system (Kossarova et al., 2012).

The cancer survival rate in the Czech Republic is still lower than in many OECD countries despite the gains that have been made in the last decade. For instance, the five-year survival rate for colorectal cancer is only 53.4% compared to the OECD average of 61.3% (see also Fig. 7.3).

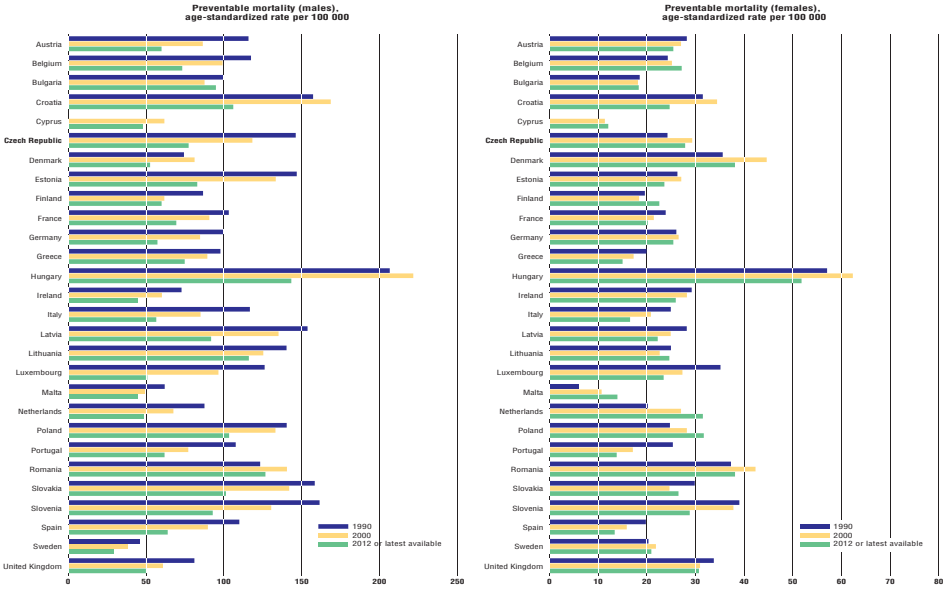
Fig. 7.2

Changes in (a) amenable and (b) preventable mortality between 1990, 2000 and 2012 in selected EU countries

(a) Amenable mortality

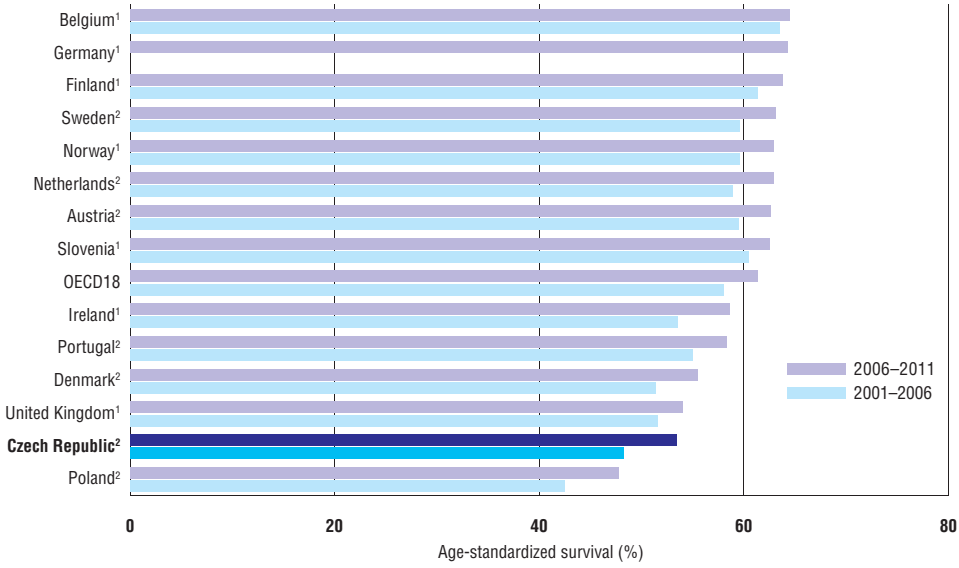


(b) Preventable mortality



Sources: Adapted from Nolte et al., 2012; Murauskiene et al., 2013; update calculated by Karanikolos, M using WHO mortality files (released February 2014), http://www.who.int/healthinfo/statistics/mortality_rawdata/en/ for number of deaths and populations; and Nolte & McKee, 2004.

Fig. 7.3
Colorectal cancer, five-year relative survival, 2001–2006 and 2006–2011 (or nearest period)



Source: OECD, 2013.
Notes: [1]Period analysis; [2]Cohort analysis.

7.4.2 Health service outcomes and quality of care

The rates of child vaccinations in the Czech Republic are traditionally high – 99% of children were immunized against diphtheria, tetanus and pertussis in 2011 (OECD, 2013; see also section 1.4). On the other hand, the rate of influenza vaccinations of people older than 65 years – a voluntary vaccination – was relatively low at 22.1% in 2008, even though immunization is reimbursed for the target population (people above 65 years of age) (OECD, 2013).

As Table 7.5 shows, admission rates for asthma and chronic obstructive pulmonary disease (COPD) tend to be lower than in comparable central European countries, but higher for diabetic short- as well as long-term complications (OECD, 2014a). Hospital admission rates for certain chronic conditions may serve as an indicator of quality of care, as such admissions often can be prevented by timely access to ambulatory care.

Table 7.5
Inpatient admissions for patients with selected chronic conditions, 2011

	Hospital admission rate (per 100 000 population, age sex standardized)
Asthma	37.0
Chronic obstructive pulmonary disease	143.7
Congestive heart failure	377.6
Diabetes short-term complications	19.8
Diabetes long-term complications	168.2
Uncontrolled diabetes	33.0

Source: OECD, 2014a.

The use of patient-reported outcome measures (PROMs) is not common in the Czech Republic and there are currently no plans to use PROMs on a wider scale. The measurement of patient safety indicators (such as the number of falls) began on a voluntary basis in several (mainly government-run) hospitals in 2013 and the results are not yet available.

7.4.3 Equity of outcomes

Life expectancy differs slightly among the regions in the Czech Republic. While life expectancy at birth for males in Prague in 2013 was 77.3 years, it was only 73.8 years in the region of Moravskoslezsky (Czech Statistical Office, 2014d). These disparities are likely to be attributable to environmental factors to a great extent as those regions with a relatively low life expectancy (such as Moravskoslezsky or Ustecky) have a history of heavy industry, intensive mining and poor environmental quality (Ministry of the Environment, 2013). Occupational hazards may also be a cause of differences. Geographical discrepancies for life expectancy are more pronounced for men than for women with heavy industry and mining jobs traditionally being male occupations.

An analysis of data up to 2011 from the Health, Alcohol and Psychosocial Factors in Eastern Europe (HAPIEE) study showed significant differences in all-cause mortality by three different measures of socioeconomic position (education, difficulty buying food, household amenities), also for the Czech study population. Age-standardized mortality rates in the lowest socioeconomic groups were worst and above the average of the whole sample. The differences between groups were more pronounced for men than for women in the Czech sample (Vandenheede et al., 2014). There are certain limitations to this study, with only a relatively small sample and respondents from predominantly urban

regions. However, the results indicate that there is scope for health policy interventions to improve health outcomes for the socioeconomically worse off parts of the Czech population.

There are no data suggesting larger differences among other socioeconomic characteristics than in other Visegrád group countries, but more research in this area may also be needed.

7.5 Health system efficiency

7.5.1 Allocative efficiency

The term "allocative efficiency" refers to the notion that society's resources are being used in such a way that they best satisfy the population's needs and wants. In the case of the health sector, this is usually interpreted as the allocation of resources between the various levels and types of care consistent with what is in society's best interests. Levels of allocative efficiency may relate to the allocation of resources to the health system; the allocation of resources to different types of provider; the allocation of resources to different types of services; and the allocation of resources for public health.

The share of public expenditure on health in the Czech Republic is relatively high (84.8% in 2012; see also section 3.1) and health service provision is not reliant on private out-of-pocket payments which could be interpreted as indicative of a certain degree of efficiency. On the other hand, this reliance on public expenditure means that allocations to health are vulnerable during economic downturns and allocations may have to be reduced.

As described in Chapter 3, risk adjustment between health insurance funds is rather inadequate (see section 3.3.3) as it is based on gender and age and on ex post cost reimbursement. Concerning the allocation of resources to different types of provider, the majority of expenditure by health insurance funds (which is most of public expenditure) is devoted to inpatient care (36.9% in 2012) and less is allocated to ambulatory care (31%). Resources allocated to inpatient care as a share of total health expenditure are comparable to neighbouring countries. In contrast, resources allocated to long-term care are very low (see Table 7.6).

Table 7.6
Selected categories of health-care spending as percentage of current expenditure on health, 2012

Country	Total expenditure on inpatient care (curative, rehabilitative care and long-term care)	Inpatient curative and rehabilitative care	Outpatient curative and rehabilitative care	Services of long-term nursing care	Pharmaceutical and other medical non-durables
Austria	42.8	35.2	24.5	14.5	12.2
Czech Republic	32.3	29.1	29.1	3.9	21.5
Germany	36.1	28.4	23.1	12.6	14.4
Hungary	29.5	26.0	23.0	3.8	32.8
Poland	34.7	33.4	22.8	7.0	22.3
Slovakia	22.7	22.7	24.4	0.3	26.5

Source: OECD, 2014a.

As outlined in section 7.3.2, waiting times and geographical disparities concern certain services more than others. This suggests that allocation of resources could be geared more towards an efficient service mix.

7.5.2 Technical efficiency

Considering the low share of total health expenditure as a percentage of GDP in the Czech Republic, the technical efficiency of the health system is good when measured in terms of population status. There is nevertheless considerable room for improving technical efficiency in the production of health care.

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 can be improved. The average length of stay in acute care hospitals in the Czech Republic was well above the EU15 and EU28 averages in 2011, 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, 2014a). These numbers point to potential efficiency gains. A European Commission study on corruption in health care found that bribery, mainly in medical device procurement, is a serious issue in the Czech Republic and anecdotal evidence suggests that this leads to considerable cost increases in the health-care sector (European Commission, 2013).

Hospital bed availability in the Czech Republic (6.8 beds per 1000 population) is the second highest among Visegrád group countries (following Hungary with 7.2 per 1000 inhabitants) and much higher than the EU average (4.8 beds per 1000 population). Discharge rates in the Czech Republic (20.5 per 1000 inhabitants) are among the highest compared to other Visegrád group countries and well above the EU15 average (16.3 per 1000 inhabitants). Average length of stay in acute care hospitals in the Czech Republic is slightly above the EU15 average (see Table 7.7).

Furthermore, overspending on pharmaceuticals has been voiced as a concern in the Czech Republic. Fig. 7.4 shows the development of drug expenditure and drug consumption between 2001 and 2011. The number of total packages sold has been decreasing since 2005. A stabilization of previously rising pharmaceutical expenditure from 2009 onwards coincides with the introduction of user fees. An alternative explanation for stagnating pharmaceutical sales may be rising unemployment leading to fewer over-the-counter sales. Economic research does not suggest a significant impact of user fees on pharmaceutical sales so far (Zápal, 2010). Generic substitution in pharmacies has been allowed since 2008, but there is only limited information on the share of generic pharmaceuticals. Efficiency gains are likely possible in this area as well.

In summary, the inefficient use of resources and overconsumption of health services are two important challenges facing the Czech health system in terms of technical efficiency. To help meet these challenges, the government introduced in January 2008 a range of user fees for doctor consultations, hospital stays, the use of ambulatory services outside regular office hours, and prescription drugs. The effect of user fees was mixed and as they remained controversial the government announced in 2014 that most of them would be phased out. So far no new policies discouraging over-utilization have been announced.

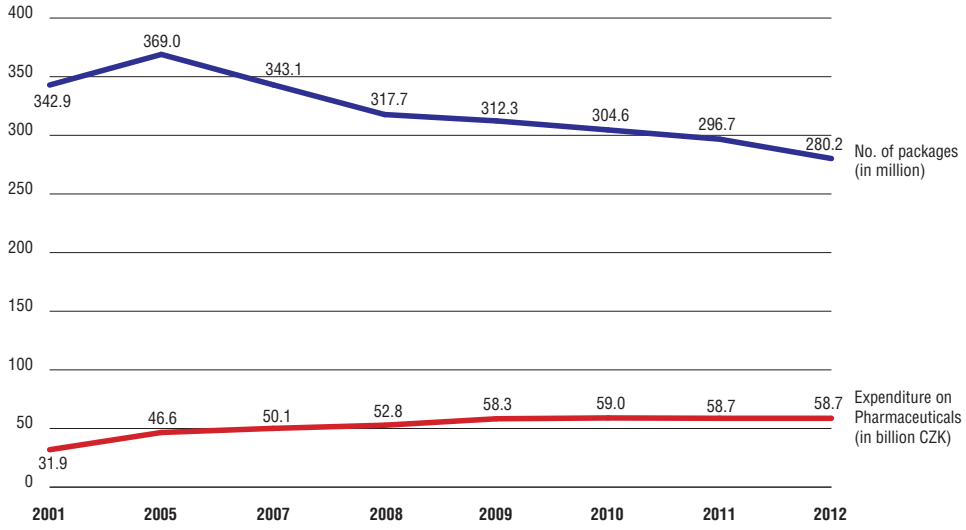
Table 7.7

Selected health efficiency indicators as of 2011

	Expenditure on health (% of GDP)	Expenditure on health (US dollars per capita in PPP)	Hospital beds (per 1 000 inhabitants)[1]	Physicians (per 1 000 inhabitants)[2,6]	Doctor consultations (per capita)[3]	Acute care occupancy rate (%)[4]	Discharge rates for all causes (per 1000 inhabitants)	Average length of stay in acute care (days)[5]
Czech Republic	7.4	1 929	6.8	3.6	11.1	72.8	20.5	6.8
Hungary	7.7	1 640	7.2	3.0	11.8	71.1	20.4	5.7
Poland	6.4	1 351	6.6	2.2	6.8	–	16.1	7.1
Slovakia	7.6	1 828	6.1	3.3	11.0	65.5	18.7	6.3
EU15 average	9.5	3 606	4.8	3.5	6.3	75.2	16.3	6.5

Source: OECD, 2013.
Notes: [1]EU15 average without the Netherlands, Greece, Luxembourg and Denmark; [2]Data for Slovakia is for the category of professionally active physicians since no data were available for physicians per 1000 inhabitants. No data were available for professionally active physicians for the Czech Republic and Hungary, but Poland's reporting data for both categories reveals considerable consistency between the two categories; [3]EU15 average without Sweden, Italy, Ireland, Greece, Denmark; [4]EU15 average for eight countries only; [5]EU15 average without Belgium, Denmark, Greece; [6]EU15 average without Greece, Denmark, Finland, Netherlands, Portugal, Sweden.

Fig. 7.4
Pharmaceutical expenditure and drug consumption



Source: ÚZIS, 2013c.

7.6 Transparency and accountability

In general, transparency and accountability in the Czech Republic have become an important issue in recent years, often even appearing as a main theme of election campaigns, as in 2010. Transparency is mainly seen as an anti-corruption measure in the field of public procurement. Less attention is paid to the process of policy-making. There are standard mechanisms in place and all legal initiatives go through an extensive review process in which important stakeholders such as the Chamber of Physicians or associations of providers are included. Patients' organizations are also frequently consulted but their influence is limited. This is in part due to a lack of comprehensive mechanisms to assess how far these organizations are actually representative of patient concerns.

A European Commission study on corruption in health care found that bribery is a serious issue in the Czech Republic, mainly in medical device procurement. The study reports that unofficial trade-offs and favours are institutionalized in the acquisition of medical equipment and anecdotal evidence suggests that this leads to considerable cost increases in the health-care sector. Intensified

prosecution and arrest of even high-ranking public sector personnel is thought to have led to some improvement in medical device procurement as the risk of corruption has increased (European Commission, 2013). Since the inclusion of the SÚKL in the pricing process of pharmaceuticals in 2008 (see section 2.8.4), the scope for corruption in pharmaceutical procurement is thought to have been reduced, although some stakeholders still see potential for increasing transparency of the pricing and registration process of pharmaceuticals. In general, the anti-corruption measures enacted in recent years (prior to 2014) strengthened the rules for public procurement and also made the process of setting up reimbursement for pharmaceuticals more transparent. Currently there is a similar proposal for more classification and oversight for medical devices (see also section 2.8.5).

Most of the Czech population is aware of all the benefits to which they are entitled. There are no data supporting or refuting claims about the existence of informal payments. Some reports indicate that informal payments by patients are relatively common but the willingness to pay is said to have been reduced significantly since the introduction of user fees (which might change again after the abolition of most user fees). Informal payments still occur for some treatments of non-life-threatening conditions, for example for reduction of waiting times or treatment by a specific physician. For instance, pregnant women may pay up to CZK 20 000 (€800) to ensure that their doctor of choice is available for delivery of their child (European Commission, 2013). Yet informal direct payments by patients are not seen as an ultimate barrier to needed care.

The accountability of the health system may be regarded as quite low, because there is no compulsory reporting of outcomes. Although all providers must adhere to the rules on standards of care, these tend to be only poorly controlled. There is no comprehensive performance monitoring which would provide policy-makers with up-to-date information about the impact of various policies on health outcome.

8. Conclusion

Since the early 1990s the Czech health system has undergone various reforms and transformations and in several areas it performs well in international comparisons. 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 EU28 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.

The years since the financial crisis in 2008 have been marked by economic difficulties in the Czech health system, even though many reforms have attempted to address the chronic financial instability since the early 1990s. Unsurprisingly, health politics have been overshadowed by the need for fiscal consolidation, while in the meantime the Czech health system has been regularly criticized for its comparatively low levels of health spending. Yet in view of necessary fiscal retrenchment, public spending is unlikely to change in the near future. Moreover, the Czech population highly values the low levels of OOP payments and has strongly resisted efforts to increase private spending. As one of its first measures, the government that took office in 2014 abolished almost all of the – comparatively moderate – user fees that were introduced in 2008. In order to maintain the current standards of health care, additional (financial) resources will thus have to be mobilized through other channels, such as higher wage-based SHI contributions, increased government contributions from general tax or more efficient delivery of care. More positively, there is scope to increase the efficiency of the system. For example, the Czech health system still

has an abundance of acute care beds – despite considerable reductions in the last two decades – and many indicators point to comparatively high utilization rates of health services. On the other hand, there are still some shortages in capacities outside acute inpatient care (for example, palliative care). The health workforce is sufficient, especially from an international perspective, even though this may change as it is increasingly ageing, particularly in the case of GPs. Moreover, disparities exist that are reflected in shortages in some areas or specialties. Additionally, the complex administration of the health insurance funds could be reduced, and pooling and redistribution of funds could be optimized. The Czech health-care system would also benefit from more emphasis on prevention and better monitoring of outcomes (OECD, 2014b).

Another area that will require further political attention in the near future is public procurement in the Czech health sector. Czech public procurement has suffered from intransparent procedures. Government officials can be removed or replaced quite easily, which has given way to a certain degree of more or less subtle forms of corruption. Only in 2014, and under considerable pressure from the European Union, did the Czech government start to reform officialdom and thus strengthen the job security of mid-level positions in civil administration. At the time of writing (2014), the new Civil Service Act is under deliberation in the Parliament.

In some aspects there is a strong will to improve and reform the Czech health system. For example, patients' rights have been strengthened considerably and the public health system has been reformed in the years leading up to 2014. Training and payment of health workers have both improved – albeit only under intense pressure from professional groups – although there is still considerable room for further improvements. Yet a clear and comprehensive overall strategy is missing and many measures are incoherent.

In summary, the Czech people value and are proud of their health system – and rightly so, as several indicators show. However, there is increasing need for financial reform in order to sustain the system. The main political parties are aware of this necessity and each proposes different solutions. On the left of the political spectrum more centralization with fewer or possibly only one health insurance fund is favoured, whereas a more market-oriented approach with increased competition is preferred on the right side of the political spectrum. While both ideological approaches may have advantages and disadvantages, the lack of consensus in itself poses an increasingly acute problem in the Czech Republic. The disaccord results in several rather small changes (for example, with user fees) every time a new political party comes into power, while the larger issues regarding sufficient resource mobilization are not addressed.

9. Appendices

9.1 References

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9.2 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory's research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. 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/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in 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 summer 2013 edition, the Health for All database started to take account of the enlarged EU of 28 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 consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers are paid.

4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which information technology systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.
6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process (see the following section).
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (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.

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that

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9.3 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

9.4 About the authors

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