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Health system review

Liubove Murauskiene • Raimonda Janoniene
Marija Veniute • Ewout van Ginneken
Marina Karanikolos

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Health Systems in Transition

Liubove Murauskiene, *Training, Research and Development Centre, Vilnius*

Raimonda Janoniene, *Institute of Hygiene, Vilnius*

Marija Veniute, *Public Health Institute, Vilnius University*

Ewout van Ginneken, *Berlin University of Technology and European Observatory on Health Systems and Policies*

Marina Karanikolos, *European Observatory on Health Systems and Policies*

Lithuania:

Health System Review 2013

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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 at http://www.healthobservatory.eu.

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The European Observatory on Health Systems and Policies is a partnership hosted by the WHO Regional Office for Europe, which includes the Governments of Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden, the United Kingdom and the Veneto Region of Italy; the European Commission; the European Investment Bank; the World Bank; UNCAM (French National Union of Health Insurance Funds); the London School of Economics and Political Science; and the London School of Hygiene & Tropical Medicine. The Observatory team working on the HiT profiles is led by Josep Figueras, Director, Elias Mossialos, Co-Director, and the heads of the research hubs, Martin McKee, Reinhard Busse and Richard Saltman. The production and copy-editing process was coordinated by Jonathan North, and administrative and production support for preparing the HiT was provided by Caroline White. Additional support came from Jane Ward and Meggan Harris (copy-editing), Pat Hinsley (typesetting) and Mary Allen (proofreading).

List of abbreviations

AIDS	Acquired immunodeficiency syndrome
CT	Computed tomography
DRG	Diagnosis-related group
EEA	European Economic Area
ENT	Ear, nose and throat
EU	European Union
EU-12	The 12 countries that joined the EU in 2004 and 2007
EU-15	The 15 EU Member States before May 2004
EU-27	All 27 EU Member States as of January 2013
GDP	Gross domestic product
GP	General practitioner
HIV	Human immunodeficiency virus
HTA	Health technology assessment
INN	International Nonproprietary Name
MRI	Magnetic resonance imaging
NATO	North Atlantic Treaty Organization
NGO	Nongovernmental organization
NHIF	National Health Insurance Fund
OOP	Out-of-pocket (payments)
PET	Positron emission tomography
SHCAA	State Health-Care Accreditation Agency
SMCA	State Medicines Control Agency
SPHS	State Public Health Service
SSIF	State Social Insurance Fund
TB	Tuberculosis
VHI	Voluntary health insurance
WHO	World Health Organization

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Abstract

This analysis of the Lithuanian health system reviews the developments in organization and governance, health financing, health-care provision, health reforms and health system performance since 2000. The Lithuanian health system is a mixed system, predominantly funded from the National Health Insurance Fund through a compulsory health insurance scheme, supplemented by substantial state contributions on behalf of the economically inactive population amounting to about half of its budget. Public financing of the health sector has gradually increased since 2004 to 5.2% of GDP in 2010. Although the Lithuanian health system was tested by the recent economic crisis, Lithuania's counter-cyclical state health insurance contribution policies (ensuring coverage for the economically inactive population) helped the health system to weather the crisis, and Lithuania successfully used the crisis as a lever to reduce the prices of medicines. Yet the future impact of cuts in public health spending is a cause for concern. In addition, out-of-pocket payments remain high (in particular for pharmaceuticals) and could threaten health access for vulnerable groups. A number of challenges remain. The primary care system needs strengthening so that more patients are treated instead of being referred to a specialist, which will also require a change in attitude by patients. Transparency and accountability need to be increased in resource allocation, including financing of capital investment and in the payer–provider relationship. Finally, population health, albeit improving, remains a concern, and major progress can be achieved by reducing the burden of amenable and preventable mortality.

Executive summary

Introduction

The Republic of Lithuania is situated on the east coast of the Baltic Sea and has a population of 3 million. Since the declaration of Lithuania's independence from the USSR in March 1990, there have been a series of economic and social reforms leading to steady economic growth and stability. The financial crisis has had a severe impact on the economy of Lithuania, with a fall in GDP of 15% in 2009 and an increase in unemployment and government debt. Signs of recovery emerged in 2011; however, the economy has not reached its pre-crisis levels by 2013.

Life expectancy at birth has been fluctuating greatly since the early 1990s, with improvements seen in the most recent years, reaching 73.3 years in 2010. In 2010, age-standardized mortality from all causes in Lithuania was 951 per 100 000 of the population – the second highest among the 27 EU Member States as of 2013 (EU-27). Mortality from ischaemic heart disease, suicides and alcohol-related causes was the highest in the EU. The leading causes of death were circulatory diseases, malignant neoplasms and external causes. Steady improvements have been made in infant mortality, particularly neonatal mortality, since the early 2000s and in deaths from road traffic accidents in the past few years.

Organization and governance

In the late 1990s, Lithuania moved away from a system funded mainly by local and state budgets to a mixed system, predominantly funded by the National Health Insurance Fund (NHIF) through a national health insurance scheme and based on compulsory participation. The state health-care system is intended to serve the entire population, and the Health Insurance Law requires

all permanent residents and legally employed non-permanent residents to participate in the compulsory health insurance scheme (typically paying 6–9% of taxable income), without an option to opt-out.

The Ministry of Health is a major player in health system regulation through setting standards and requirements, licensing health-care providers and professionals and approving capital investments. In the 1990s many health administration functions were decentralized from the Ministry of Health to the regional authorities. The 60 municipalities (*savivaldybė*), varying in size from less than 5000 people to over 500 000, become responsible for organizing the provision of primary and social care, and for public health activities at the local level. They also own the majority of polyclinics and small-to-medium sized hospitals, yet concerns exist over whether they have the capacity to effectively govern these facilities.

The role of the private sector has been limited, particularly in inpatient care. The private sector does play a substantial role in dental care, cosmetic surgery, psychological therapy, some outpatient specialties and primary care. Since 2008, the NHIF has increasingly been contracting private providers for specialist outpatient care.

Financing

Total health expenditure as a percentage of GDP increased from 5.4% in 1995 to 6.6% in 2011, similar to the average for other central and eastern European EU countries, though less than the average of 10.6% for the 15 'old' EU Member States. Of this, public expenditure accounts for around 73% of total health expenditure (also similar to other central and eastern European EU states).

Since 1997, the NHIF has been the main financing agent for the health system, accounting for 61% of the total expenditure on health in 2010. However, about half of NHIF revenue comes from the national budget in the form of transfers for population groups insured by the state (eg. those receiving any pension or benefit, children and the elderly, women on maternity leave and single parents, amounting to about 60% of the population). In addition, the state budget covers long-term care at home, health administration, education and training, capital investment and public health services, which in total accounted for 11% of total health expenditure in 2010. Consequently, in 2010, taxes were the main source of health financing, accounting for 40% of the total health

expenditure, followed by social insurance contributions (32%) and out-of-pocket payments (27%). Since 2011, the contributions from the economically active population have been increasing again, and so have the out-of-pocket payments.

In the late 2000s, the economic crisis and the need to reduce the public deficit affected public spending, including that on health care. The cuts mainly focused on reduction of cost of health service provision and reduction of pharmaceutical expenditure. Reduced NHIF revenues from falling employment were partially compensated for by an increased state contribution for the economically inactive population.

Compulsory health insurance provides a standard benefits package for all beneficiaries. There is no positive list of health services provided in state-financed health-care facilities. Emergency care is provided free of charge to all permanent residents irrespective of their insurance status. For pharmaceuticals, drugs prescribed by a physician are reimbursed for certain groups of the population (e.g. children, pensioners, the disabled) as well as for patients suffering from certain diseases. All other insured adults must pay the full cost of both prescribed and over-the-counter drugs out of pocket.

A combination of payment methods exist for publicly funded health services. Primary care is financed predominantly through capitation, and a smaller share of fee-for-service and performance-related payments. Outpatient care is financed mainly through case payment, and through fee for service for diagnostic tests. Inpatient care is financed mainly through case payment. Public health is mainly financed through historical budgets. There is a cost-sharing element across most areas of health service provision. The role of voluntary health insurance (VHI) is negligible.

More than 70% of out-of-pocket (OOP) payments are for pharmaceuticals. Some facilities charge patients for treatment, most often for diagnostic tests; however, there is no legal base for some of these charges. Excluded services (acupuncture, abortions, occupational health check-ups, etc.) require direct payments. Surveys indicate that informal payments are quite widespread in the health-care sector in Lithuania.

Lithuania has received substantial financial support from external sources. In the 1990s this came mainly through three programmes – PHARE, ISPA and SAPARD – and since 2004 Lithuania has access to EU structural funds as a Member State. EU funding between 2004 and 2013 has reached over €1.5 billion, and the EU structural funds have become the main source of capital investment in the health system.

Physical and human resources

Between 1990 and 2011, the total number of hospitals in Lithuania declined and the majority of hospital premises were renovated. By 2010, the number of beds in acute care was reduced to 498 per 100 000 population – half the number of beds that existed in 1992 – but still higher than the EU average. At the same time, nursing and elderly home beds have gradually been increasing. Hospital admissions have fallen but, at a rate of 22 per 100 inhabitants, still remain high in comparison with the other Baltic States and EU averages. The average length of stay in acute hospitals decreased from 14.7 in 1992 to 6.4 in 2010, comparable to EU averages.

Overall, the health workforce has decreased by approximately 18%: from 65 000 in 1990 to 47 000 in 2010, mostly through a large decrease in nursing personnel. Unequal distribution of medical personnel throughout the country presents a serious problem. Countrywide in 2010, the density of practising physicians ranged from 906 to 54 per 100 000 population, but even within regions density varies by up to a factor of 7, similarly to nurses and midwives.

Recent research on migration shows that about 3% of health professionals left the country between 2004 and 2010. A number of policy actions (increase in salaries, increase in enrolment for training programmes, change in medical residency status and professional re-entry programmes) have prevented major outflows of physicians from the health sector and the country. Yet the ageing workforce will increasingly pose a challenge.

In 2010, Lithuania had five magnetic resonance imaging (MRI) units and 18 computed tomography (CT) scanners per million population, well below the EU averages of 10 and 20 units respectively per million inhabitants. Three large public investment projects for a national e-health system (the development of e-health service, electronic prescription service and medical image exchange system) are currently underway.

Provision of services

The public health system in Lithuania consists of 10 public health centres, subordinated to the Ministry of Health, and a number of specialized agencies with specific functions (radiation protection, emergency situations, health education and disease prevention, communicable disease control, mental health,

health surveillance, and public health research and training). At the local level, municipal public health bureaus carry out public health monitoring and health promotion and disease prevention.

Primary care is delivered by a general practitioner (GP) or a primary care team. The development of the GP gatekeeping function has been an important goal of the primary health- care reforms. The municipalities administer the entire network of primary health-care institutions through one of two models. In the centralized model, one primary health-care centre manages a pyramid of smaller institutions. In the decentralized model, GP practices or primary care teams are legal entities holding contracts with the NHIF.

Emergency care is commonly provided by GPs during working hours. Alternatively, or during out-of-hours for GP service, it is provided by emergency departments of hospitals.

Specialist outpatient care in Lithuania is delivered through outpatient departments of hospitals or polyclinics as separate legal entities, as well as through private providers. A major service restructuring in specialist services has been continuing since 2003. Day care, day surgery and outpatient rehabilitation services have been significantly developed; specialized hospital units have been closed in many local hospitals, and services have been transferred to multi-speciality hospitals, with some institutions merged.

The number of pharmacies increased from 465 in 1993 to 1498 by 2011, and the vast majority of these are privately owned. The level of reimbursement for pharmaceuticals in Lithuania remains low, and access to innovative medicines has been shown to be lacking.

Principal health reforms

The 1995 Primary Health Care Development Strategy focused on strengthening and expanding of GP services, decentralizing primary care, and improving prevention services. In addition, GP training programmes and development of infrastructure started. Since 2001, patients are required to register with a GP or a primary care institution, and since 2002 GPs have acted as gatekeepers and coordinators for access to health care. The implementation of a comprehensive primary care planning, financing and management model was delayed until mid-2000s due to lack of funding.

In 2003–2012, the network of hospitals was restructured as part of wider health-care service reform. This started from expansion of ambulatory services and primary care, introduction of day care and day surgery and development of long-term and nursing services. During this period, there were 42 mergers, while 11 surgical and 23 obstetrics departments were closed; in addition, ambulance service reform was initiated.

In mental health, reforms in the 1990s mainly focused on creating a regulatory framework and creating a body responsible for coordination of mental health policy. Since 2000, development of outpatient services and community health services, integration of inpatient psychiatric services into general hospitals and the reduction of specialized psychiatric hospitals' capacity have been prioritized. The Mental Health Strategy 2007 aims to improve population mental health through provision of effective, rational and evidence-based mental health services to patients and their carers, and infrastructure has been upgraded with support from the structural funds.

The privatization of supply and delivery of pharmaceuticals in the 1990s led to an improved supply of drugs but also to growing expenditure on pharmaceuticals. In response to the economic crisis, the Plan for the Improvement of Pharmaceutical Accessibility and Price Reductions was adopted in 2009. It led to a reduction in public and out of pocket spending on pharmaceuticals (in particular through reference pricing, strengthened use of generics and price-volume agreements for new pharmaceuticals), and improved access to medicines.

The concept of public health was introduced in the Lithuanian Health Programme of 1998, and the main law regulating public health was adopted in 2002. In 2007, public health bureaus were established in municipalities to support health promotion and to monitor population health status at the local level. A network of ten regional Public Health Centres went through numerous structural changes by converting into administrative authorities, responsible for public health and environmental safety as well as prevention and control of communicable diseases.

A systematic application of health technology assessment (HTA) in the country has been lacking. Starting in 2013, two three-year projects financed from the EU Social Fund have been under implementation to develop a strategy for HTA in Lithuania.

Future reforms up to 2020 envisage development in the following: health improvement and disease prevention; expansion of health-care service market through fair competition; increasing transparency, cost–effectiveness and rational use of resources; ensuring evidence-based care; and access to safe and quality services. Three stages of development are envisaged: structural changes (including reductions in hospitals, beds and physicians); the introduction of budgetary ceilings for health-care providers; and increase in cost-sharing through VHI, legalising co-payments and introduction of fair competition and effective management in health care.

Assessment of the health system

The main objectives of the health system are improving population health as well as access to and quality of health-care services. The focus is being shifted from treatment towards prevention and healthy lifestyles. Primary care needs to play a central role in increasing efficiency in service delivery. In addition, economic progress and EU integration is expected to lead to increased funding for technology upgrades and health professionals' wages.

Health insurance contributions have traditionally been an important source of revenue but their share has substantially declined since the fall in employment and incomes in 2008–2010. The state has increased its contribution on behalf of economically inactive and vulnerable groups (children, elderly, disabled, unemployed, etc.), and this provided a degree of vertical equity and progressivity in the system. However, high OOP payments represent a substantial regressive component.

Population surveys indicate a varying degree of overall satisfaction with the health system, from comparatively low (European Commission's *Eurobarometer*) to relatively high (national surveys). Increasing waiting times reported in population surveys point to organizational barriers. There is little evidence on equity of access to health care by socioeconomic group. While family doctors formally serve as gatekeepers, there is an option to access a specialist doctor directly for a fee. This, in turn, may have an impact on equity of access to specialist care.

Evaluation of the Lithuanian Health Programme (1998–2010) showed that by 2010 some of the targets set for population health had been achieved: average life expectancy increased to 73 years, infant mortality decreased twice as fast as expected and the incidence of tuberculosis decreased by 30%.

Partial success has been achieved in reducing mortality from injuries and in reducing premature mortality from cancer and ischaemic heart disease. No substantial reductions have been achieved in mortality from circulatory diseases in those under 65 years of age, from breast cancer or from suicides, or in reducing prevalence of cervical cancer and mental illness. Mortality from conditions amenable to health care (deaths that should not occur in presence of timely and effective medical care) increased in males and barely reduced in females between 1991 and 2008. Preventable mortality (deaths that could be prevented through changes in lifestyle and intersectoral measures that have impact on public health) has also increased over the same period. Lithuania is the country with the largest gender gap in life expectancy at birth in the EU. In 2010, men were expected to live 68 years compared with 79 years for women.

Health resource allocation is based largely on population size adjusted for age, sex and urban/rural distribution for primary care, and on service utilization in secondary care. Prioritization of health resource allocation often reflects a politically driven, rather than evidence-based, decision-making process. In terms of technical efficiency, despite recent reorganizations, there is still more scope for treating patients more efficiently outside the inpatient sector.

There is a lack of transparency and accountability in the system. Although, a number of reports and assessments commissioned by the Ministry of Health have addressed such issues, there has been no progress to date.

Conclusions

The Lithuanian health system was put to the test by the economic crisis that struck in 2008. However, Lithuania used the crisis as a lever to reduce the prices of medicines and maintained counter-cyclical contribution policies to weather the crisis. Yet the future impact of cuts in public health spending is a cause for concern. In addition, out-of-pocket payments remain high and could threaten health access for vulnerable groups. A number of challenges remain. The primary care system needs strengthening so that more patients are treated within it instead of being referred to a specialist, which will also require a change in attitude by patients. Transparency and accountability needs to be increased in resource allocation, including financing of capital investment and in the payer–provider relationship. Finally, population health, albeit improving, remains weak, and major progress could be achieved by reducing the burden of amenable and preventable mortality.

1. Introduction

The Republic of Lithuania is situated on the east coast of the Baltic Sea and has a population of 3 million. Since the declaration of Lithuania's independence from the USSR in March 1990, there have been a series of reforms of the national economy. The Lithuanian national currency (litas) was introduced in 1993, and positive GDP growth first occurred in 1995. The early 2000s were marked by further growth and financial stability, and in 2004 Lithuania achieved accession to NATO and the EU. The financial crisis has had a severe impact on the economy of Lithuania, with a fall in GDP of 15% in 2009 and an increase in unemployment and government debt. Signs of recovery emerged in 2011 but the economy has not reached its pre-crisis levels by 2013.

Lithuania is a parliamentary republic. The country is governed by a single-chamber parliament (*Seimas*), elected for a four-year term, and a president elected for five years.

Life expectancy at birth has been fluctuating greatly since the early 1990s with improvements seen in the most recent years, reaching 73.6 years in 2011. In 2011, age-standardized mortality rate from all causes in Lithuania was 951 per 100 000 population – the second highest among the EU-27 countries. Mortality rates from ischaemic heart disease, suicides and alcohol-related causes were the highest in the EU. The leading causes of death were circulatory diseases, malignant neoplasms and external causes. Steady improvements have been made in infant mortality, particularly neonatal mortality, since the early 2000s and mortality from road traffic accidents in the past few years.

1.1 Geography and sociodemography

The Republic of Lithuania is situated on the east coast of the Baltic Sea (Fig. 1.1). It is bordered by Latvia to the north, Belarus to the east and Poland and the Russian Federation's Kaliningrad region to the south. The surface area is 65 300 km^2. The capital is Vilnius (Statistics Lithuania, 2012).

Fig. 1.1
Map of Lithuania

Source: United Nations, 2005.

According to the national census carried out in March 2011, the population of Lithuania was 3 043 429. There has been a decrease of 441 000 (13%) since the previous (2001) census, of which 102 000 was through natural decrease and 339 000 through negative net migration (Statistics Lithuania, 2011b). Ethnic Lithuanians account for 84% of the population, about 6.6% are Polish, 5.8% are Russian and 1.2% are Belarusian. The main religion is Roman Catholic.

Table 1.1 shows changes in the main sociodemographic indicators for Lithuania over the past 30 years. In 2011, the population of Lithuania was 3 million and 53.5% of the total population was female. Since the early 2000s,

the proportion of men and women has been changing, from 1136 women per 1000 men in 2000 to 1171 women per 1000 men in 2012 (Statistics Lithuania, 2012).

Table 1.1

Trends in population/demographic indicators, selected years

Indicator	1980	1990	1995	2000	2005	2010	2011
Population, total (in thousands)	3 413.2	3 697.8	3 629.1	3 499.5	3 414.3	3 286.8	3 030.2
Population, female (% of total)	52.9	52.7	52.9	53.2	53.4	53.5	53.6
Population aged 0–14 (% of total)	23.3	22.6	21.8	20.0	16.8	14.9	14.7
Population aged 65 and above (% of total)	11.4	10.9	12.3	13.9	15.2	16.1	16.2
Population growth (annual %)	0.5	0.4	–0.8	–0.7	–0.6	–1.6	–8.1
Population density (per km^2 land area)	54.5	59.0	57.9	55.8	54.5	52.4	48.3
Fertility rate, total (births per woman)	2.03	2.03	1.55	1.39	1.27	1.55	1.76
Birth rate, crude (per 1 000 people)	15.2	15.4	11.4	9.8	8.9	10.8	11.3
Death rate, crude (per 1 000 people)	10.5	10.8	12.5	11.1	12.8	12.8	13.5
Age-dependency ratio (% of working-age population)[a]	53.0	50.2	51.8	51.2	47.0	44.8	44.7
Urban population (% of total)	61.2	67.6	67.3	67.0	66.6	67.0	67.1
Proportion of single-person households (%)[b]	n/a	n/a	n/a	9	11.3	12.9	13.6
Literacy rate (%) in population aged 15+[c]	98.9	99.3	99	99	99.6	99.7	n/a

Sources: World Bank, 2013; [b]European Commission, 2013; [c]WHO Regional Office for Europe, 2013.
Notes: n/a: Not available; [a]The age dependency ratio is the ratio of the combined child population (aged 0–14) and the elderly population (aged 65+) to the working age population (aged 15–64).

According to national statistics, at the beginning of 2013 there were 2 972 900 people residing in Lithuania (Statistics Lithuania, 2013b). Since the country joined the EU, net migration has increased markedly: from 6.8 per 1000 population in 2003, peaking at 26.9 in 2010 and then reducing to 14.3 in 2012 (Statistics Lithuania, 2013b). According to estimates based on the registered place of residence, 54 000 migrants left the country in 2011, with Great Britain, Ireland, Norway and Germany being the main destinations. Of these adult migrants, 82% had been unemployed in the year preceding migration and over 50% were aged between 20 and 34 (Statistics Lithuania, 2012).

In 2003, the birth rate changed from declining to increasing, reaching 11.3 live births per 1000 population in 2011, when 34 400 babies were born. Since 2000, the average age of women giving birth has increased from 26.6 to 28.6 years, while that of first-time mothers has increased from 23.9 to 26.7 years (Statistics Lithuania, 2012).

An increased birth rate does not ensure demographic balance and generational change. In 2011, children aged 0–14 years made up 15% of the country's population, compared with 20% in 2000. Population ageing is reflected in the share of population aged 65 and older, which increased from 13.9% in 2000 to 16.2% in 2011.

1.2 Economic context

Since the declaration of Lithuanian independence from the USSR in March 1990, there have been a series of reforms of the national economy. The litas, Lithuanian national currency, was introduced in 1993. Positive GDP growth first occurred in 1995. In 1999 there was a decrease in GDP, which was affected by the financial crisis in the Russian Federation in August 1998. The early 2000s were marked by further growth and financial stability, and in 2004 Lithuania achieved accession to NATO and the EU. The country's economy was further strengthened by EU structural funds, while GDP has been growing at an annual rate of 8%. Table 1.2 shows changes in selected microeconomic indicators for Lithuania between 1990 and 2011.

The financial crisis has had a severe impact on the economy of Lithuania, with a fall in GDP of 15% in 2009. In the same year, government debt almost doubled in comparison with 2008, and reached 34% of the total GDP. Signs of recovery emerged in 2011 and the forecast for 2012–2014 shows annual growth of over 3%. In 2013, the economy has not yet reached its pre-crisis levels (European Commission, 2013).

Unemployment increased rapidly during the financial crisis, from 4.3% in 2007 to 17.8% in 2010; in 2012 it reduced to 13.2% (Statistics Lithuania, 2013b). Unemployment in males is higher than that in females (15.1% and 11.5%, respectively); and the rate among young people (15–24 years of age) was twice the country's average (26.5%). In 2011, the population considered the economic recession and unemployment to be among the most important issues faced by the country (European Commission, 2011).

According to the Global Competiveness Index 2011–2012 (World Economic Forum, 2011), Lithuania ranked 44th among 142 countries. Flexibility of wage determination, mobile telephone subscription, tertiary education enrolment rate, trade tariffs and women's participation in the labour force received best assessments, while extent and effect of taxation, wastefulness of government

Table 1.2

Macroeconomic indicators, selected years

	1990	1995	2000	2005	2008	2009	2010	2011
GDP (current US$, millions)	10 507	7 905	11 434	25 962	47 253	36 846	36 306	42 725
GDP, PPP (current international $, millions)	34 525	22 554	30 150	48 474	65 682	56 596	59 557	65 088
GDP per capita (current US$)	2 841	2 178	3 267	7 604	14 071	11 034	11 046	14 100
GDP per capita, PPP (current international $)	9 337	6 215	8 616	14 197	19 559	16 948	18 120	21 480
GDP growth (annual %)	n/a	3.29	3.25	7.80	2.93	–14.74	1.33	5.87
General government final consumption expenditure (% GDP)	19.18	20.81	22.77	18.74	19.26	17.88	19.29	21.94
Cash surplus/deficit (% GDP)	n/a	n/a	–2.76	–0.46	–3.06	–9.04	–7.36	–5.16
Tax revenue (% GDP)	n/a	n/a	14.56	17.26	17.38	13.98	13.36	13.37
Central government debt, total (% GDP)	n/a	n/a	n/a	21.37	18.36	34.19	43.35	43.69
Industry, value added (% GDP)	30.86	31.47	29.78	32.86	31.59	26.95	28.16	n/a
Agriculture, value added (% GDP)	27.08	10.93	6.35	4.82	3.72	3.36	3.51	n/a
Services etc., value added (% GDP)	42.06	57.60	63.87	62.33	64.70	69.69	68.34	n/a
Labour force, total (thousands)	1 901.5	1 790.8	1 683.3	1 605.6	1 613.9	1 639.0	1 628.5	1 514.0
Unemployment, total (% total labour force)	n/a	17.10	15.90	8.30	5.80	13.70	17.80	15.40
Poverty gap at $2 a day (PPP) (%)	n/a	n/a	0.33	n/a	0.16	n/a	n/a	n/a
GINI index[a]	n/a	n/a	31.85	n/a	37.57	n/a	n/a	n/a
Real interest rate (%)	n/a	–17.59	11.10	–1.26	–1.24	12.56	3.88	n/a
Official exchange rate (LCU per US$, period average)	n/a	4.00	4.00	2.77	2.36	2.48	2.61	2.48

Source: World Bank, 2013.
Notes: LCU: Local currency unit; n/a: Not available; PPP: Purchasing power parity; [a]The Gini coefficient is a measure of absolute income inequality. The coefficient is a number between 0 and 100, where 0 corresponds to perfect equality (where everyone has the same income) and 100 corresponds to perfect inequality (where one person has all the income, and everyone else has zero income).

spending, burden of government regulation, ease of access to loans, hiring and firing practices, brain drain and public trust of politicians were listed among the poorest indicators.

In 2011, Lithuania was categorized as a country with high human development; it had a Human Development Index of 0.81, ranking 40th among 187 countries (UNDP, 2011). In 2011, the share of people at risk of poverty and social exclusion was 33.4% (compared with the EU-27 average of 24.2%), while inequality of income distribution (ratio of 20% of population with highest income and 20% of population with lowest income) was 5.9 (compared with 4.9 for the EU-27) (European Commission, 2013).

1.3 Political context

Lithuania is a parliamentary republic. The country is governed by a single-chamber parliament (*Seimas*) elected for a four-year term, and a president elected for five years. Last parliamentary elections were held in the autumn of 2012 and resulted in a change of government. The next presidential elections are scheduled for 2014.

The parliament is the main legislative body and has 141 members. The election system is mixed: 71 seats are contested in single-member constituencies, while the remaining 70 seats are contested in multimember constituencies (party lists). The current *Seimas*, elected in October 2012, has a number of political groups, including the Lithuanian Social Democratic Party (37), the Homeland Union–Lithuanian Christian Democrats (33), the Labour Party (29), the Order and Justice Party (11), the Liberals' Movement of the Republic of Lithuania (10), the Electoral Action of Poles in Lithuania (8) and others. The Lithuanian Social Democratic Party, together with the Labour Party, the Order and Justice Party and the Electoral Action of Poles in Lithuania, has formed the governing coalition.

The President of the Republic holds primary powers in foreign policy matters and is the Commander-in-Chief of the armed forces, as well as acting as a major guarantor of effective judiciary.

The Government of the Republic of Lithuania consists of the Prime Minister and the Cabinet. The Prime Minister is appointed or dismissed by the President of the Republic, with the approval of the parliament. Upon the recommendation of the Prime Minister, the President appoints and dismisses ministers. The Government of the Republic of Lithuania is accountable to parliament. Ministers of the Republic of Lithuania are accountable to parliament, the President of the Republic and directly subordinate to the Prime Minister. The current government (2012–2016) has 14 ministries: Environment, Energy, Finance, National Defence, Culture, Social Security and Labour, Transport and Communications, Health, Education and Science, Justice, Foreign Affairs, Economy, Interior and Agriculture.

The country is administratively divided into 60 local municipalities (*savivaldybė*), each with its municipal council that is directly elected every four years. They represent areas that vary in population size from less than 5000 to the whole of Vilnius (more than 500 000). Municipalities have limited power to raise taxes, but they can set priorities in financing education, cultural activities and health care.

From 1995 until 2010, 10 counties (*apskritis*) were an essential administrative tier of central government (headed by a centrally appointed county governor) with certain responsibilities in transport, agriculture, education and health care. However, the administrative functions of the countries were revised and in 2010 transferred over to the relevant ministries or municipalities, or terminated.

In 2012 Lithuania was given a score of 54 on the Corruption Perception Index (Transparency International, 2012), ranking the country 48th in the world and 23rd among 30 countries of the EU and western Europe. The Global Corruption Barometer indicates that corruption is an issue of great concern in Lithuania (Transparency International, 2010): in 2010, the opinion of 63% of respondents was that the level of corruption had increased over the previous three years, while 78% of those interviewed thought that current actions against corruption were ineffective. In addition, 34% of respondents in Lithuania (the highest proportion within the EU) reported paying a bribe at least once in the previous year.

The process towards accession to the EU and NATO has been one of the major drivers for political and economic changes in Lithuania since the mid-1990s. Since 2004, Lithuania has been a member of NATO and the EU. In the second half of 2013, Lithuania will be holding the Presidency of the EU Council.

Lithuania is committed to many international agreements, including the European Convention on Human Rights, Convention on the Rights of the Child, Convention on the Elimination of Discrimination against Women, Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Framework Convention on Tobacco Control, and General Agreement on Trade in Services. A number of international conventions and regulations were ratified as a condition for accession to the EU.

1.4 Health status

The EU Survey of Income and Living Conditions (European Commission, 2013) for adults in 2011 showed that 52% of males and 41% of females in Lithuania rated their health as good and very good (EU-27: 71% of males and 65% of females), while 14% of males and 22% of females rated their health as bad or very bad (EU-27 average 8% of males and 11% of females). The survey indicated that 28% of the population had a long-standing illness or health problem (compared with 32% in the EU-27), and 23% had some form of long-term health limitation

(compared with 26% in the EU-27). The only national population health survey was conducted in 2005 (Statistics Lithuania, 2006). It showed similar results for self-perceived health, with better health being associated with higher education, being economically active and having higher household income. The same survey showed that among the most frequently reported health problems were severe headache (33%), chronic anxiety or depression (23%) and allergy (20%). In relation to medically confirmed diagnoses, the most prevalent were arterial hypertension (22%) and rheumatoid arthritis (10%); 5% of the population suffered from chronic bronchitis, migraines or headaches, stomach ulcer, or anxiety and depression.

Table 1.3 shows life expectancy and crude adult mortality changes in Lithuania. Life expectancy at birth has been fluctuating greatly since the early 1990s, reaching 73.6 years in 2011 (68.1 years for men and 79.3 years for women) (World Bank, 2013). Substantial gender differences are noted as men in Lithuania are expected to live, on average, 11 years less than women (the widest gap in the EU countries). Similarly, there is a gap in healthy life-years between men and women: 57.8 and 62.4 years, respectively (European Commission, 2013).

Table 1.3
Mortality and health indicators, selected years

	1980	1990	1995	2000	2005	2010	2011
Life expectancy at birth, total (years)	70.5	71.2	69.0	72.0	71.3	73.3	73.6
Life expectancy at birth, male (years)	65.6	66.4	63.3	66.8	65.4	68.0	68.1
Life expectancy at birth, female (years)	75.6	76.2	75.0	77.5	77.4	78.8	79.3
Mortality rate, adult, male (per 1 000 male adults)	293.6	287.7	372.4	293.2	325.9	270.8	–
Mortality rate, adult, female (per 1 000 female adults)	111.6	107.0	133.7	103.2	109.7	93.0	–

Source: World Bank, 2013.

In 2010, age-standardized mortality from all causes in Lithuania was 951 per 100 000 population – the second highest among the EU-27 countries. Mortality rates from ischaemic heart disease, suicides and alcohol-related causes was the highest in the EU. The leading causes of death were circulatory diseases, malignant neoplasms and external causes (WHO Regional Office for Europe, 2013). Table 1.4 shows the age-standardized mortality rates for selected causes in Lithuania.

Table 1.4
Main causes of death, selected years

Causes of death (ICD-10 classes; standardized death rate per 100 000)	1981	1990	1995	2000	2005	2010
All causes	1 070.90	1 048.01	1 188.69	999.96	1 081.60	950.63
Infectious and parasitic diseases	15.07	9.64	17.61	13.83	14.18	12.50
Tuberculosis	9.11	7.32	13.94	10.34	10.34	6.13
HIV/AIDS	n/a	n/a	0	0.19	0.09	0.56
Malignant neoplasms	173.57	193.45	202.59	198.89	194.68	187.26
Colon cancer	15.65	19.26	20.82	20.63	21.41	20.46
Cancer of larynx, trachea, bronchus and lung	36.43	44.10	45.63	38.88	37.23	34.37
Breast cancer, females	18.10	22.80	24.60	24.90	24.30	22.80
Cervical cancer, females	9.06	9.35	10.84	11.83	9.76	10.72
Diabetes	2.86	5.61	6.55	6.20	8.13	6.21
Mental and behavioural disorders	10.01	8.67	28.67	3.04	1.72	2.04
Circulatory diseases	567.35	586.44	607.86	514.94	562.81	494.50
Ischaemic heart diseases	417.24	428.24	404.57	309.45	354.98	313.91
Cerebrovascular diseases	119.63	125.24	128.74	118.43	123.23	116.20
Respiratory diseases	78.66	47.58	47.93	39.12	42.46	28.21
Digestive diseases	26.35	23.61	32.63	34.08	49.67	55.91
Ill-defined and unknown causes of mortality	n/a	n/a	n/a	1.21	1.93	0.76
Transport accidents	28.71	34.09	24.67	21.54	24.80	10.43
Suicide	35.16	27.21	47.86	46.73	37.02	28.52

Source: WHO Regional Office for Europe, 2013.
Notes: n/a: Not available; ICD-10: WHO *Classification of Mental and Behavioural Disorders*.

As a response to high mortality rates, the Minister of Health in 2007 adopted a 2007–2013 programme on reducing morbidity and mortality from the major noncommunicable diseases as well as from external causes.

Circulatory diseases

Age-standardized mortality rates from all circulatory diseases in 2010 were 667 per 100 000 males and 383 per 100 000 females. Circulatory diseases became the major cause of deaths for those aged 50 years and over. Between 2000 and 2010, the number of deaths from circulatory diseases increased by 13% (European Commission, 2013). Age-standardized mortality from ischaemic heart disease in Lithuania is the highest among the EU countries. In 2010, it was 436 per 100 000 males and 239 per 100 000 females (compared with the EU averages of 113 for males and 56 for females). The mortality rate from stroke in 2010 was 135 per 100 000 for males and 103 per 100 000 for females (compared with the EU average of 58 for males and 47 for females) (WHO Regional Office for Europe, 2013).

There are large variations in mortality from cardiovascular diseases between regions in the country (see Fig. 7.2). As a response to these geographical inequalities, a large project aimed at decreasing mortality and morbidity from cardiovascular diseases was implemented in the eastern region of Lithuania between 2004 and 2007. The project evaluation demonstrated some success in prevention of myocardial infarction; however, the overall mortality from cardiovascular diseases increased in the region over the period of evaluation (Ministry of Health, 2009b; Health Information Centre, 2013).

In 2006, the National Cardiovascular Disease Prevention Programme for people with high cardiovascular risk was launched in the country. As part of the programme, GPs needed to identify risk factors and produce an individual disease prevention plan for a patient or refer the patient to a specialized centre. In 2010, almost 150 000 people were checked.

Cancer

In 2010, the age-standardized death rates from cancer were 290 per 100 000 males and 128 per 100 000 females (compared with the EU average of 224 for males and 130 for females) (WHO Regional Office for Europe, 2013). Since the early 2000s, cancer rates have generally remained stable in men and have somewhat declined in women, although premature mortality from cancer remains the main cause of death in women aged 40–59 years. The most common types of cancer in men are lung, colorectal and prostate. In women they are breast, colorectal and stomach cancers.

Mortality rates from breast and cervical cancer in Lithuania are 23 and 11 per 100 000 women, respectively (Table 1.4). The screening programme for breast cancer started in 2005 and is aimed at women aged 50–69 years to undergo biannual checks. According to Cancer Registry data (Lithuanian Cancer Registry, 2013), the share of disease diagnosed in stages I and II remained the same between 2005 and 2011 and is around 66–68%. A cervical cancer screening programme was launched in 2004 for women aged 30–60 years (the age limit was extended in 2008 to 25–60 years) to have checks once in three years. The proportion of cervical cancer diagnosed at stages I and II has also stayed the same between 2004 and 2011 – at 54%. Both breast and cervical cancer screening programmes are non-population based and screenings are performed on an opportunistic basis.

The study on cervical and breast cancer in Lithuania revealed geographical inequalities within the country (Gurevcius & Gerasimaviciute, 2010). Mortality from cervical cancer has always been higher in Lithuania among women living in rural areas. Less awareness and barriers in accessing health care have been

mentioned as possible explanatory factors. Conversely, mortality from breast cancer was higher among urban women. Deaths from breast cancer have been falling since the early 1990s, which is likely to be related to improving quality of treatment.

Prostate cancer screening has been launched in 2006. It is aimed at biannual checks of men aged 50–75 years and men over 45 years whose fathers or brothers had prostate cancer. Colorectal cancer screening targeting individuals 50–75 years of age for biannual checks has been implemented in two regions since mid-2009. As with breast and cervical cancer screening, the programmes are non-population based and are financed by the NHIF.

External causes

External causes of death make up more than 50% of deaths in children and young adults (10–34 years), and they also dominate in those aged 1–9 and 35–49 years. The proportion of deaths caused by external factors has decreased for those aged 15–34 years since the early 2000s; however, it still exceeds 60% of total deaths in young adults. Age-standardized mortality rate from external causes in Lithuania is the highest in the EU. In 2010, it was 198 per 100 000 males and 43 per 100 000 females, compared with the EU averages of 55 and 19 for males and females, respectively (WHO Regional Office for Europe, 2013).

Baltic States stand out with very high mortality caused by homicides and assaults: in 2010, the age-standardized death rate per 100 000 population was 4.4 in Estonia, 5.6 in Latvia and 5.0 in Lithuania, which is more than five times higher than the EU average.

The standardized death rate from transport accidents, which had been increasing over the first half of the 2000s, peaked at 23 per 100 000 population in 2006; it then decreased and in 2010 was 9 per 100 000 population (compared with the EU average of 6). This rapid decline has been attributed to a number of reasons, including the implementation of an intersectoral programme on road traffic safety (Centre for Health Education and Disease Prevention, 2010), anti-alcohol measures (Veryga, 2009) and the effect of the financial crisis (Stuckler et al., 2011). The decisions to invest in trauma centres and ambulance services using EU structural funds and the national budget have also reflected political concern regarding the rising numbers of road traffic deaths.

In 2010, the age-standardized death rate from suicide was 29 per 100 000 population (compared with the EU average of 10), which is the highest among countries of the EU. The suicide rate in men was almost six times higher

than that for women (51 and 9 per 100 000 population, respectively). The suicide rate fell between 2000 and 2007, but there has been a subsequent increase in suicides during the financial crisis, with a peak of 31.5 per 100 000 population in 2009.

In 2011, out of 3720 deaths caused by external factors (9% of total deaths), 1018 were suicides, 362 from transport accidents, 348 from falls, 308 from alcohol poisoning, 239 from drowning and 158 were homicides (Statistics Lithuania, 2013b).

Infectious diseases

TB incidence in Lithuania in 2011 was the second highest among the EU countries after Romania, being 54 per 100 000 compared with the EU average of 12. Age-standardized mortality rate from TB in Lithuania in 2011 was 5.9 per 100 000 population (compared with 0.8 in the EU) (WHO Regional Office for Europe, 2013). It is estimated that about half of new patients with TB in Lithuania are unemployed; of those, about 30% are addicted to alcohol (Ministry of Health, 2010b).

In 2011, prevalence of infection with the human immunodeficiency virus (HIV) in Lithuania was 59 per 100 000 population, and prevalence of the acquired immunodeficiency syndrome (AIDS) was 9 per 100 000 (Health Information Centre, 2012) As of the beginning of 2012, there were 1900 HIV-positive people in the country. During the 2000s, approximately 100 new HIV cases were recorded annually in Lithuania with the exception of 2002, when an outbreak in prisons resulted in about 400 new cases. In 2009, 2010 and 2011 there was also an increase, and 180, 153 and 166 new cases, respectively, were registered. In 2011, Lithuania had a lower rate of newly diagnosed HIV than the EU average (5.1 per 100 000 population in Lithuania and 5.7 in the EU), as well as the other Baltic States (13.4 in Latvia and 27.3 in Estonia) (European Centre for Disease Prevention and Control/WHO Regional Office for Europe, 2012). While intravenous drug use remains the main risk factor, the number of HIV infections acquired through heterosexual contacts has been increasing, and so has the proportion of females among newly detected cases (Ministry of Health, 2010a).

Mental health

In 2011, about 6.5% of the population were on a mental illness register (Health Information Centre, 2013). The main causes for treatment of mental illnesses are depression and addictions. Poor mental health is reflected in very high suicide rates and rising prevalence of addiction-related disorders (State Mental Health Centre, 2013), plus high consumption of medications for anxiety (Garuoliene,

Alonderis & Marcinkevicius, 2011). The government's response to concerns regarding population mental health includes infrastructure development: five crisis intervention centres and five centres for comprehensive support for children and families were financed from 2009–2013 EU structural funds. Three relevant national programmes have been adopted (2008–2010 Programme on Implementation of the National Mental Health Strategy, 2008–2010 National Family Health Programme and 2008–2010 National Prevention of Violence Against Children and Support for Children Programme, aiming at improving family relationships). Particular focus was on children of mentally ill parents and children of parents working abroad.

Children and adolescence

Table 1.5 shows the trends on key maternal and child health indicators in Lithuania. In recent years, infant mortality has reached the lowest levels in the country's history: 4.3 deaths per 1000 live births in 2010 (EU average 4.1). Neonatal mortality (infants under 28 days of age) in Lithuania is 2.3 deaths per 1000 live births, which is less than the EU average of 2.7, but postneonatal mortality is higher than the EU average (2.0 per 1000 live births in Lithuania and 1.4 in the EU). Since 2000, mortality rate in children under 5 years has halved and by 2010 it reached 6.2 per 1000. Perinatal and congenital conditions and accidents are the main causes of deaths in children under 5 years.

Table 1.5

Maternal, child and adolescent health indicators, selected years

	1981	1990	1995	2000	2005	2010
Adolescent fertility rate (births per 1 000 women aged 15–19)[a]	n/a	n/a	n/a	25.3	20.1	17.6
Abortions per 1 000 live births	n/a	879.2	759.3	476.1	326.5	196.2
Perinatal mortality per 1 000 live births	n/a	10.1	12.5	9.8	7.5	5.6
Neonatal mortality per 1 000 live births[b]	n/a	10.3	8.0	4.8	4.1	2.3
Postneonatal mortality per 1 000 live births[b]	n/a	4.1	4.5	3.8	2.8	2.0
Infant mortality per 1 000 live births	16.5	10.2	12.5	8.6	6.8	4.3
Under-5 mortality rate (per 1 000)[a]	22.4	17.4	16.1	11.8	9.1	6.2
Maternal mortality rate per 100 000 live births	30.6	22.9	17.0	8.8	13.1	5.6

Sources: WHO Regional Office for Europe, 2013; [a]World Bank, 2013.
Notes: n/a: Not available; [b]Earliest data for 1991.

During the implementation of the 2004–2006 National Mother and Children Programme, better standards in maternity and obstetric care were introduced, seeking improvement of maternal and child health outcomes. An ongoing Switzerland–Lithuania cooperation programme is also seeking to improve maternity and obstetric care. Since 1992, the ongoing National

Immunoprophylaxis Programme has been implemented. It regulates vaccination activities according to the schedule and sets coverage targets (90% for the whole country and each administrative unit).

There are a few policy documents focusing on children's health improvement (e.g. National Children Welfare Strategy, National Demographic Strategy, Children's Health Strengthening Programme 2008–2012). Increasing attention is currently focused on injury prevention (e.g. transport safety measures).

Risk factors and lifestyle

Mortality from smoking-related causes in Lithuania is higher than the EU average (493 and 199 per 100 000, respectively). There was a reduction in smoking prevalence from 52% to 34% among men between 2000 and 2010 (Grabauskas et al., 2011), reflecting the ban on tobacco advertisement in 2001, ban on smoking in public areas in 2007 and increasing tobacco excise duty. Prevalence of smoking among women remained relatively stable over this period (16% in 2000 and 15% in 2010) (Statistics Lithuania, 2013b). An increasing trend in smoking among schoolchildren has been observed: the prevalence in 15 year olds who smoke at least once a week has increased from 27% to 34% among boys and from 11% to 21% among girls between 2001–2002 and 2009–2010 (Currie et al., 2004, 2012).

High alcohol consumption in Lithuania has been an issue of concern for a long time (McKee et al., 2000). The rate of alcohol-related deaths increased between 2000 and 2007 from 171 to 201 per 100 000 population, and then sharply fell to 150 per 100 000 in 2010 (WHO Regional Office for Europe, 2013). Consumption of strong alcohol at least once a week fell from 34% to 24% in men and from 18% to 12% in women between 2000 and 2010 (Statistics Lithuania, 2013b). Most of this improvement happened after 2008, as alcohol control became a matter of priority in Lithuanian health policy (Veryga, 2009; Stelemekas & Veryga, 2012): advertising bans, increases in excise duty and restrictions in opening hours, together with other measures limiting alcohol accessibility, have been introduced. However, after a minor decrease in 2009, the consumption of alcohol increased again and reached 11.9 litres per person in 2011. A study on trends and social differences in alcohol consumption in Lithuania between 2000 and 2010 showed that regular consumption of strong alcohol as well as wine increased significantly in women, particularly of younger ages and with higher education (Klumbiene et al., 2012). The proportion of 13 year olds who have been drunk at least twice has decreased in boys from 25% to 20% and increased in girls from 14% to 17% between 2001–2002 and 2009–2010 (Currie et al., 2004, 2012).

Population survey results (Grabauskas et al., 2011) show changes in nutritional habits among Lithuanian residents between 1994 and 2010: there has been some reduction in consumption of oil and fat, and an increase in consumption of fresh vegetables. At the same time, the prevalence of physical excercise has increased; however, obesity and overweight increased in men (60% and 19%, respectively) and remained stable in women (50% and 20%, respectively).

Dental health in Lithuania has been traditionally poor: 88% of preschool children had dental caries in 2010, and the proportion of children brushing their teeth regularly decreased in this group between 2000 and 2010 (Razmiene et al., 2012). A population health survey (Statistics Lithuania, 2006) revealed that one in four young people had one or more missing teeth. In adults aged 25–34 years, this proportion increased to two-thirds of the population. One in three of those over 65 years did not have teeth at all. Among policy actions are reimbursement from the NHIF for teeth prostheses for the elderly (about 22 000 in 2010) and for dental sealants for children (56 000 in 2011) (NHIF, 2012a), as well as clarification of the scope of dental care covered by the NHIF payments to providers.

2. Organization and governance

During the 1990s, core health legislation was adopted in Lithuania. The Health System Law 1994 (Parliament of the Republic of Lithuania, 1994) described the structure and the main principles of the national health system. The health system consists of governance institutions (the government, ministries and municipalities, as well as other specialist governance and control bodies), providers of health-care services, and health system resources and services. In the late 1990s, Lithuania moved away from a system funded predominantly from local and state budgets to a mixed system, predominantly funded by the NHIF through the national health insurance scheme and based on compulsory participation.

The Ministry of Health has been a major player in health system regulation through setting standards and requirements, licensing and approving capital investments. Outside the ministry, the number of regulatory agencies declined between 2008 and 2012 as a result of government policy to reduce bureaucracy and related costs.

In the 1990s, many health administration functions were decentralized from the Ministry of Health to the regional authorities. Municipalities became responsible for organizing the provision of primary and social care, and for public health activities at the local level.

Privatization of the health sector has been limited, particularly in inpatient care. The private sector plays a substantial role in dental care, cosmetic surgery, psychotherapy, some outpatient specialties and primary care. Since 2008, the NHIF has increasingly been contracting private providers for specialist outpatient care.

Strategic planning and programme budgeting in the health sector take place mainly through three-year strategic plans (currently 2013–2015) and annual plans. Reporting on implementation of plans takes place on an annual basis.

The plans are directly linked with the budget allocation of corresponding institutions. The Ministry of Health produces policy declarations and legal acts and establishes a general framework on scope, conditions and requirements for the service provision, as well as on the network of health-care institutions.

Systematic application of HTA in the country has been delayed until the present time. Since the start of 2013, two three-year projects financed from the EU Social Fund and aiming to develop a strategy for HTA in Lithuania have been under implementation.

2.1 Overview of the health system

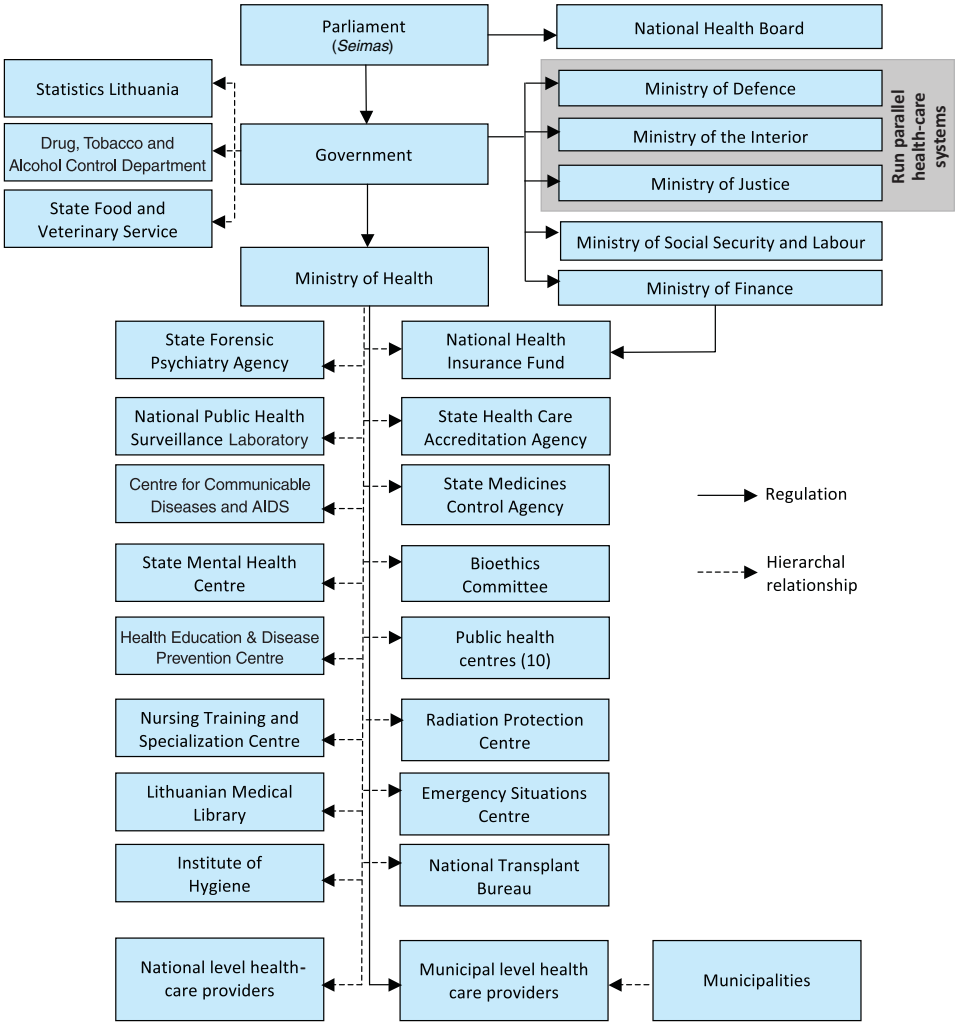
After regaining independence in 1990, the focus in Lithuania has been placed on introducing health legislation. During the 1990s, key laws such as the Health System Law (1994), the Health Care Institutions Law (1996) and the Health Insurance Law (1996) were adopted. At the same time, numerous more specific health regulations were prepared and introduced. The intense legislative process led to sometimes conflicting regulatory provisions. This required harmonization and clarification of the legislation during the 2000s.

The Health System Law 1994 describes the structure and the main principles of the national health system. The health system consists of governance institutions (the government, ministries and municipalities, as well as other specialist governance and control bodies), providers of health-care services, and health system resources and services. An overview of the Lithuanian health system is shown in Fig. 2.1.

In the late 1990s, Lithuania moved away from a system funded predominantly from local and state budgets to one funded by the autonomous NHIF. As a result, the country has a mixed system funded by the national health insurance based on compulsory participation in the health insurance scheme and by the state budget. The vast majority of Lithuanian health-care institutions are non-profit-making enterprises. Property rights and administrative functions fall under the jurisdiction of the central government (Ministry of Health), or the local municipalities.

The policy agenda is set by the Lithuanian Parliament (*Seimas*) through legislative changes and by the government through the state government programmes. The ministries develop strategic programmes and plans, with specified priorities and ways of programme implementation. To date, programme evaluation has been the most fragile area: regular (mostly annual)

Fig. 2.1
Organization of the health system in Lithuania



institutional reporting of public authorities focuses mainly on financial accountability and often lacks more comprehensive and analytical evaluation. Nevertheless, some progress in developing evaluation and accountability has been achieved, mainly because of the need to account for spending from the EU structural funds.

2.2 Historical background

Between 1918 and 1940, a health system based on the Bismarck model started to develop in Lithuania. During the country's incorporation into the USSR, health care was organized according to the Semashko system. The system was hierarchical, centrally funded and planned. The health-care structures were organized around five major cities and consisted of general and specialized hospitals, polyclinics for children and adults and a broad network of rural outpatient clinics and medical posts. In 1988, there were more than 46 000 beds (1270 per 100 000 population) in 193 inpatient facilities and dispensaries. Lithuania's health system was relatively well funded and the population health status was better than in other parts of the USSR (Cerniauskas & Murauskiene, 2000). The main shortcomings of this system were extensive size with low productivity and lack of incentives for efficiency and quality.

Since the restoration of independence in 1990, there have been several stages in the development of the national health system. The first stage (1990–1992) was characterized by devolution, as the role of municipalities in administering outpatient care and managing most small and medium-sized hospitals was increased. In addition, medical universities became more autonomous. A very limited statutory health insurance scheme (covering pharmaceuticals and spa care) was implemented in 1991, administered by the State Social Insurance Fund (SSIF), while the rest of the financing for local public health-care institutions came from state and municipal budgets. A National Health Concept offering a comprehensive view on the future health-care system, including the introduction of primary care, was adopted in 1991 (see Chapter 6 for more details) (Supreme Council of the Republic of Lithuania, 1991), but because of the increasing coordination problems between decision-makers and health-care providers, and the absence of an implementation plan, very few objectives have been achieved. A major weakness of this approach was the lack of long-term planning.

The next stage (1993–1994) was characterized by debates on private versus public administration of health-care institutions and free patient choice of physician versus a gatekeeping role for GPs. The outcome was in favour of a public health-care system and the introduction of family medicine. At this time, the health system was increasingly underfunded; population health status was deteriorating and there was uncontrolled privatization of the pharmaceutical sector. As a result, few changes actually took place, with the exception of the introduction of general practice as a clinical and licensed specialty and the launching of intensive training for GPs.

In 1994–1995, a number of political decisions were taken, among them to implement a statutory health insurance scheme and to decentralize specialist health-care services administration from the Ministry of Health to the 10 counties.

Between 1994 and 1997, key pieces of legislation were adopted that established the legal framework for the national health-care system. Since then, some of the laws have been through a long process of revisions and amendments in order to harmonize interactions between various legal statements and to facilitate their enforcement. In the meantime, institutional capacity on the national level was developed. Regulatory agencies involved in licensing, accreditation, registration and control procedures were created under the supervision of the Ministry of Health. In May 1996, the parliament passed the Health Insurance Law, which introduced compulsory health insurance from 1 January 1997. Under the legislation, the NHIF became the single national health insurance agency, with an independent budget.

Consequently, since 1996, the health system in Lithuania has been in the process of moving away from an integrated model towards a contract model. Substantial changes in the system have been prompted by two major factors: the appearance of a third party payer in the form of the NHIF and enforcement of legislation redefining property rights and the status of health-care institutions.

Subsequent reforms covered implementation of both market and administrative mechanisms in health-care regulation, as health-care providers increasingly recognized the challenges related to the new financial management system. Moreover, the growing deficit in the health system stimulated a search for arrangements and tools for more efficient development of the sector. Gradual restructuring of health-care facilities (mostly by changing the hospital network and prioritization of outpatient care delivery) and the introduction of further legislation (e.g. Public Health Law 2002, the new Pharmacy Law 2006) represent significant parts of the health system reform agenda in the 2000s (see Chapter 6 for details).

2.3 Organization

National level

The state itself plays many roles within the health system, including that of legislator (parliament), regulator (government and the Ministry of Health), contributor to the Compulsory Health Insurance Fund (Ministry of Finance)

and owner of health-care facilities (Ministry of Health, Ministry of Defence, Ministry of the Interior, Ministry of Justice). In addition to ensuring the implementation of the state health programmes, the Government of Lithuania is responsible for intersectoral collaboration and drafting legislation. The institutions subordinated directly to the government include the Drug, Tobacco and Alcohol Control Department, established in April 2011 by merging two governmental institutions (Drug Control Department and State Tobacco and Alcohol Control Service); the State Food and Veterinary Service; the Labour Inspectorate; and the Statistics Department (routinely reporting on main national statistics, including population health status and health-care resources, utilization and expenditure). The roles of the various ministries and institutions follows.

Ministry of Health. Overall responsibility for general supervision of the entire health system is held by the Ministry of Health. It is strongly involved in drafting legal acts and issuing regulation for the sector. It also runs health-care facilities and public health institutions and has the overall responsibility for health system performance. The Ministry of Health develops health-care infrastructure and prepares national health programmes. In conjunction with the Ministry of Economy and the Ministry of Finance, it makes decisions on major investments. The main aims of the Ministry of Health are the development, organization, coordination and control over the implementation of state policy in four fields: individual health care, public health, pharmaceutical activities and health insurance. Other major functions of the Ministry of Health include drafting legal acts, licensing, implementing state policy in subordinated institutions, formulating and implementing health strategies and programmes, international collaboration, analysing and disseminating information, and handling patients' complaints. In addition, many institutions (listed below) subordinated to the Ministry of Health have been established in order to carry out regulatory and governing functions.

The NHIF. The state health insurance scheme is implemented by the NHIF, which also manages the Compulsory Health Insurance Fund. While the NHIF was initially directly subordinate to the government and the NHIF Board, in 2003 it was transferred to the Ministry of Health with the NHIF Board taking on an advisory role. The health insurance budget replaced national budget allocations to health-care facilities in 1998, leaving payment of contributions for those insured by the state as the major input into the system. Social insurance contributions collected by the SSIF and the State Tax Inspectorate became another main source of the health insurance budget revenue. The NHIF mission is to ensure access to health care for those insured by remunerating the costs and

to use the funds in a transparent and efficient manner. The NHIF coordinates the activities of five existing territorial health insurance funds. The central NHIF office is in charge of budget planning and control, including decisions on the financial reserves, supervision and audit of the territorial branches, maintaining the insured persons' registry and procurement. Territorial branches of the NHIF sign contracts with health-care providers and pharmacies. They pay providers for the health-care services rendered to the insured residents, and pharmacies for reimbursable medicines issued to patients. The branches also contract and reimburse health-care providers and pharmacies, disseminate information, control service provision in the regions, and finance municipal public health programmes. Supervisory boards of territorial NHIF branches have advisory functions and consist of representatives from the Ministry of Health, the central NHIF and the municipalities.

State Health Care Accreditation Agency (SHCAA). This agency is mainly engaged in licensing health-care providers and professionals (with the exception of dental services) and public health institutions, laboratories and pathology services; it also has a role in the assessment and control of medical devices (see section 2.8.5). Other functions, such as organization of HTA, participation in creation of policies related to the quality of services and equipment, have been less developed.

State Medical Audit Inspection. This was initially a separate public authority under the Ministry of Health and covering all issues related to the quality of services and patient safety. In 2012 it was incorporated into the SHCAA.

State Medicines Control Agency (SMCA). The main responsibility of the SMCA is registration, licensing, evaluation and control of medicines for human use, as well as licensing of pharmacies and pharmacists. The agency monitors the safety of medicines through a pharmacovigilance network and takes appropriate actions if adverse drug reaction reports suggest changes to the benefit–risk balance of a drug. A network of over 50 national experts, including representatives from the national medical schools, provides scientific support.

Bioethics Committee. This committee comprises two boards of experts (Group of Experts of Biomedical Research and the Bioethics Council). It aims to promote and protect human rights and dignity in the field of health care. The Committee was established in 1995 and has two main responsibilities: (1) to inform the biomedical community and general public on ethical issues and moral dilemmas arising in the context of modern health care, and (2) to facilitate the protection of patient rights in the field of biomedical research and

to coordinate the ethical review of biomedical research projects in Lithuania. The Bioethics Committee provides methodological support to the regional ethics committees as well as to hospital medical ethics commissions.

Public health centres. There is a network of 10 territorial public health centres, which have been through numerous structural changes and now serve as administrative authorities responsible for public health safety control, control of environmental risk factors as well as prevention and control of communicable diseases. From July 2012, they were directly subordinated to the Ministry of Health, following the parliamentary decision on the abolition of the State Public Health Service (SPHS), which coordinated this network previously (Parliament of the Republic of Lithuania, 2011b).

Other administration bodies under the Ministry of Health. These are the Emergency Situations Centre, the Radiation Protection Centre and the National Transplant Bureau.

Budgetary institutions under the Ministry of Health. The eight institutions have specialized functions: State Forensic Psychiatry Agency, National Public Health Surveillance Laboratory, Centre for Communicable Diseases and AIDS, State Mental Health Centre, Health Education and Disease Prevention Centre, Nursing Training and Specialization Centre, the Lithuanian Medical Library and the Institute of Hygiene.

Ministry of Finance. The Ministry of Finance has an important role in allocating the funds for the Ministry of Health and forming the annual health insurance budget, which is decided together with the national budget. It also makes decisions on investments, either under the state investment programme or from the EU structural funds, and performs strategic planning and programme budgeting in state budget allocations.

Other ministries running parallel health systems. The Ministry of Defence and the Ministry of Interior run parallel health-care provider networks that are also funded by the Ministry of Finance. There have been no steps towards integrating health services of the Ministry of Defence and the police into the national health system. However, in 2000, the responsibility for the penitentiary system was transferred from the Ministry of the Interior to the Ministry of Justice. In 2001, the Ministry of Justice established a Prison Health Care Division in charge of overseeing health-care provision in all prisons (one hospital of 310 beds and 225 medical staff) in cooperation with the Ministry of Health.

Ministry of Social Security and Labour. This ministry is responsible for policies on welfare, particularly regarding children and youth, as well as social integration of people with disabilities and functioning of state-owned homes for the elderly and the disabled. It also finances medical support within these institutions. A scheme of cash benefits for sick leave and maternity (as well as pensions) is administered by the SSIF. Regulation and inspection of work safety conditions are also the responsibility of this ministry, while the Ministry of Health is in charge of the performance of occupational health-care providers.

Ministry of Education and Science. This regulates the state educational system, thus indirectly influencing medical professionals' training.

National Health Board. Among the national level institutions in charge of health policy implementation, the National Health Board, which is subordinated to parliament, plays the most active role. The board consists of representatives of municipal health boards, universities, nongovernmental organizations (NGOs) and public health professionals and it coordinates public health policy areas. The municipal health boards implement health policy at the local level.

Other coordinating bodies. Two more coordination commissions subordinated to central government (the State Mental Health Commission and the State Health Affairs Commission) are mentioned in legislation; however, *de facto*, they are not functioning. Reviving the activities of these commissions is one of the priorities of the Minister of Health.

Regional level

Devolution of central government to the regional level has been taking place since the mid-1990s, with county administrations being in charge of implementation of the state health programmes and governing many secondary level health-care providers. In 2010, the counties were abolished, and the responsibility for public health-care providers was shifted to municipal or national governments. Currently, the five territorial branches of the NHIF and the network of 10 public health centres are the only remaining regional level authorities in the health sector.

Local level

Until 1996, local municipalities played the principal role in health-care funding. Later, however, this role diminished, as municipalities prioritized other areas under strict budget constraints: as both secondary education and social assistance (two major costly functions) are under local government control, these areas clearly monopolized budgetary allocations to the detriment of health-care delivery. At present, municipalities are responsible for organizing

the provision of primary and social care to their populations. They have been granted property rights for outpatient facilities and nursing homes. Municipalities also are owners of small and medium-sized hospitals within their localities. In addition, municipalities have a wide range of responsibilities in the implementation of local health programmes and public health activities. The municipality board approves health programmes and sets health budgets, while the director of administration ensures programme implementation. The position of municipality physician has been established, with supervisory and decision-making authority in the field of primary health care.

A lack of institutional capacity in relation to the volume of responsibilities had been recognized at the local level. In response, from 2006, municipal public health bureaus have provided public health services to municipality residents (see section 5.1).

Private sector

The private sector plays a substantial role in dental care, cosmetic surgery, psychotherapy, some outpatient specialties and primary care; the last as a considerable part of family medicine is provided by private practices contracted by the NHIF. Since 2008, the NHIF has increasingly been contracting private providers for specialist outpatient care. Private providers of inpatient care (with rare exceptions) mostly engage in day surgery. In the pharmaceutical sector, the wholesale and retail trade is dominated by private enterprises. Private health insurance is permitted, but its role is very limited. There are several private insurance companies that offer travel insurance with coverage for health costs for Lithuanian citizens and health insurance for foreigners residing in Lithuania.

Professional organizations

There are more than 165 associations of medical professionals, with the majority (about 150) being specialized professional societies of physicians, dentists, pharmacists, nurses and public health specialists, plus organizations of health-care administrators and a few trade unions. There are also numerous associations of health service providers. Professional organizations are engaged in lobbying rather than dealing with professional standards and continuing education of their members. However, there has been progress in this field. In 2006, physicians' organizations obtained the right to issue clinical guidelines (with obligatory approval from the medical universities and the Ministry of Health). Furthermore, some training is now provided through professional organizations (e.g. the Lithuanian Medical Association, Nursing Association).

Voluntary organizations

Among voluntary organizations, the Red Cross Society, the Caritas Federation, the Diabetes Association, the Association of the Blind and Visually Impaired and the Society of Chernobyl Victims have been influential in public debates. In 2012, there were about 80 patients' organizations, with 30 of them united in the Council of Representatives of Patients' Organizations. Another umbrella organization is POLA, established in 2011, which unites 12 NGOs working in the area of oncology. Some patient organizations are active in lobbying the interests of certain patient groups. The church has a limited role in the health sector. Only one hospital in Vilnius is administered by the Catholic Church. In addition, a few rural nursing homes are administered and financed by the church.

2.4 Decentralization and centralization

In the 1990s, many health administration functions in Lithuania were decentralized from the Ministry of Health to the counties. However, more recently, increasing centralization of administration could be observed. The concentration of administrative functions in fewer governing institutions is partially linked with the government's 2008–2012 Sunset Commission, which aimed at rationalization of public administration spending (Government of the Republic of Lithuania, 2009a).

Devolution

Municipalities are responsible for the organization of provision of primary care, social services and some public health functions. They own the majority of polyclinics and the small and medium-sized hospitals. There are several drawbacks to the current devolution process, such as the shortage of qualified managerial staff in municipalities and the lack of managerial tools to govern local providers (even those owned by municipalities). As a result, hospital administration often dominates the municipal council in local decision-making. In addition, coordination between municipalities is poor and opportunities to merge facilities and achieve any economies of scale are not taken. This can be partially explained by communities seeking to protect local employment as well as to secure funding inflow in times of high unemployment and serious financial constraints. However, as of 2012, the number of small local hospitals is decreasing as the result of nationally adopted targets for minimum numbers of specialized care procedures.

Deconcentration

The deconcentration process mainly took place between 1994 and 1995. During this time, county governor administrations were made the main bodies responsible for planning and administration of secondary health care. From 1997, the focus of administrative authority over the regional hospitals was shifted from the Ministry of Health to the counties. The move to the counties resulted in both decentralization of the Ministry of Health functions and partial centralization of certain functions previously carried out by the municipalities. Similar processes took place with the abolition of counties in 2010.

In 1997, funding responsibilities were moved from the Ministry of Health to the NHIF, as it became the main purchaser of services. However, subsequently, the ministry strengthened its financial decision-making by bringing the NHIF under its supervision in 2002.

Delegation

Delegation as a method of decentralization was of little importance in Lithuania's health reform process. The Red Cross Society, professional associations of physicians and patient organizations are some of the very few examples of NGOs acquiring some responsibilities in health care.

Privatization

There was substantial privatization of state assets in Lithuania in the 1990s. Despite this, privatization of the health sector has been limited. Until the 2000s, there were no consistent attempts to privatize health-care providers. Later, private GP development was enhanced by investments and by contracts with the NHIF. The biggest impact of privatization has been seen in the outpatient sector. There have been a few instances when former units of public polyclinics were converted into private providers. Abolition of licence is a precondition for privatization of a health-care facility; therefore, interruption of activities (e.g. in bankruptcy) is an imminent step in privatization. Since the mid-2000s, an interest in public–private partnerships has increased in the country. However, there were only four cases of concession of pharmacy premises in Klaipeda Municipality. An attempt to privatize two Vilnius polyclinics through a concession has failed, mostly under pressure from the staff and the patients concerned about the consequences.

2.5 Planning

A framework of strategic planning and programme budgeting has been in use in public administration in Lithuania since 2002. Such programmes in the health sector include three-year strategic plans (currently 2013–2015) and annual plans; reporting on the plans' implementation takes place on an annual basis. The plans are directly linked with the budget allocation of corresponding institutions.

The decisions of the Ministry of Health in health planning are mainly indicative rather than legally binding. The ministry produces policy declarations and legal acts and establishes general framework on scope, conditions and requirements for service provision, as well as on the network of health-care institutions. In health workforce planning, the role of the ministry is limited to organization and planning of professional training (Ministry of Health, 2010c) as it lacks the tools to influence universities and other educational institutions. A recent report shows the need to review the current workforce planning approach (Lithuanian University of Health Sciences, 2011).

Overall, a more normative rather than a needs assessment-based approach prevails in health-care planning from both the Ministry of Health and the NHIF (e.g. decisions on hospitals/inpatient unit closure, service development and territorial resource allocation). However, the planning of health-care services has been increasingly based on consumption indicators and is strongly oriented towards reducing consumption variations among municipalities.

Local governments in municipalities do not have enough capacity for planning the services under their responsibility and are experiencing a lack of authority and resources to enforce their decisions.

A focal point for the World Health Organization (WHO) International Health Regulations (WHO, 2005) in Lithuania is the Health Emergency Centre under the Ministry of Health. It coordinates the preparedness activities and the dispatch functions of the emergency medical services, administers the State Medical Reserve and ensures its target use in case of crisis and emergencies.

2.6 Intersectorality

The Lithuanian Health Programme stresses the importance of coordinated actions of various sectors and institutions. Adoption of interinstitutional programmes and formal consultations are the main mechanisms for intersectoral planning and implementation. Currently, there are more than

90 programmes and related action plans on the list approved by the Ministry of Finance. Some of them have a substantial health component and health-related impact, for example the State Alcohol Control and the State Tobacco Control Programmes adopted in 1998–1999, seeking enforcement of legislation on alcohol and tobacco control. These programmes included activities within various ministries, agencies and NGOs. The tobacco programme contributed to a 10% decrease in smoking prevalence among men and prevention of any growth in prevalence in women between 1998 and 2008, while the alcohol programme was reported to contribute to the decrease in the number of crimes committed under the influence of alcohol in 2004–2010 (National Health Board, 2011). The measures on road safety have contributed to a reduction in deaths from road traffic accidents between 2008 and 2010 (Centre for Health Education and Disease Prevention, 2010).

The main issue with intersectoral cooperation lies with budget allocation. Most of the programmes and respective action plans imply financial allocations to the main "coordinating" institution, while other participants are expected to fulfil their obligations without additional resources. Programmes involving major investments, for example the National Drugs Prevention and Control Programme with budget allocations to the education sector (for development of social education) and police (for development of information technology capacity), can be considered more of an exception. Analysis of intersectoral cooperation revealed a number of other shortcomings, including lack of clarity in priority setting, poor quality of plans and lack of control over implementation (Public Policy and Management Institute, 2012).

Naturally, the Ministry of Health has the most interactions on population health issues with the Ministry of Social Security and Labour, as the latter is in charge of safety at work, welfare of vulnerable groups (children, youth, disabled and the elderly) and support of at-risk groups (e.g. drug addicts). Certain progress in developing an integrated approach to nursing and long-term care issues has been achieved. This includes the establishment of social care beds in nursing hospitals in order to assure the continuity of care.

The State Labour Inspectorate is in charge of enforcing compliance with standard acts regulating occupational safety and health, labour relations, prevention of accidents in the workplace and occupational diseases. It inspects approximately 6–7% of registered businesses every year as well as providing consultations and training in occupational health. However, a report on the

efficacy of the national occupational health system highlighted a lack of licensed occupational health physicians in Lithuania (Government of the Republic of Lithuania, 2009b).

Regional public health centres have conducted health impact assessments for planned (listed by the Ministry of Health) and other activities since 2004 for local projects (e.g. construction and territory planning). The Health Education and Disease Prevention Centre assesses impact at the national level. In 2010–2013, the centre is implementing a project on the development of health impact assessment in Lithuania, which is financed from the EU Social Fund. The project aims to include situation and feasibility analysis, elaboration of methods and capacity building.

The State Food and Veterinary Service was established in 2000 following reorganization of the State Veterinary Service and the State Hygiene Inspection under the Ministry of Health, and the State Quality Inspection under the State Service for Competition and Protection of Consumer Rights. It currently carries out food control on all food-handling stages "from stable to table". It elaborates and implements the government's policy on food safety and quality, as well as on animal health and welfare, partially through inspections. The service, with more than 1500 employees consists of 14 departments and 1 subdepartment, 51 territorial state food and veterinary services, 13 border inspection posts and the National Food and Veterinary Risk Assessment Institute.

2.7 Health information management

2.7.1 Information systems

Health data in Lithuania are mainly collected by the public agencies subordinated to the Ministry of Health: the Health Information Centre, currently a unit within the Institute of Hygiene, and the NHIF. Health-care institutions provide data on health status, service utilization and resources. The Department of Statistics of Lithuania (Statistics Lithuania) collects all relevant population statistics, such as routine demographic data and survey information. Most databases are arranged according to European and international standards and are comparable at international level. Death registration data are generally considered to be of a high quality in Lithuania (Mathers et al., 2005).

The Ministry of Health governs a few information systems, including the e-health services and information exchange system, the pharmaceutical control system, the health-care institutions licensing system, the communicable diseases system, the radiation safety system, and a system for financial management and health insurance (SVEIDRA) administered by the NHIF. The NHIF information system contains a broad range of data related to health-care services provision and financing. In addition, SVEIDRA contains information on providers' performance, although mostly suited for the NHIF purposes. The Register of Insured Persons was established in 2008 to improve accuracy, and the primary health-care institutions system has been updated to enable patients to choose a provider more easily. The Financial Management Information System launched in 2010 is aimed to link with the Register of Insured Persons, Population Register and other systems in order to enhance NHIF budget administration. The Statistics Department runs an integrated information system where, among statistics on other sectors, certain aggregated data on population health, health resources and expenditure are available. The Health Information Centre at the Institute of Hygiene collects statistics on mortality, health-care resources and service utilization at national, regional and local levels. There are some gaps in data collection (e.g. on private service provision) and so some data are incomplete. More details on information technology are given in section 4.1.4.

2.7.2 HTA

There is no dedicated institution in charge of HTA in Lithuania. Certain HTA functions are undertaken by the SHCAA and the Pharmaceutical Reimbursement Commission (Sorenson, Kanavos & Karamalis, 2009). The Health System Law (1994) explicitly forbids the use of non-assessed health technologies, while the Health Care Institutions Law (Parliament of the Republic of Lithuania, 1996a) requires all technologies to be permitted and/or approved for use in Lithuania. It also stipulates that the Ministry of Health is responsible for the appropriate rules and procedures regarding HTA. However, the systematic application of HTA in the country has been delayed until the present time. Slow development of HTA has been attributed to the narrow definition (relating to medical equipment and pharmaceuticals only) and lack of political leadership (Jankauskiene, 2009), as well as to the lack of educational and training opportunities (Sorenson, Kanavos & Karamalis, 2009). Funding of €2 million (mostly from the EU Social Fund) has been allocated to the Health Care Quality Assurance and the Health Technologies Assessment projects, implemented by the SHCAA and Institute of Hygiene, respectively, since 2013 and aiming to develop a strategy for HTA in Lithuania (Ministry of the Interior, 2012).

2.8 Regulation

Traditionally, the Ministry of Health has been a major player in health system regulation through setting standards and requirements, licensing and approving capital investments. Outside the ministry, the number of regulatory agencies has declined in the period from 2008 to 2012 through a government policy to reduce bureaucracy and related costs. At present, the SMCA is the single pharmaceutical regulatory agency (after the Pharmacy Department under the Ministry of Health became a division within the ministry). In public health, the SPHS carried out regulatory functions until it was abolished in 2012, with some functions transferred to the Ministry of Health. The NHIF regulates financial flows and purchasing. The State Medical Audit, responsible for quality assurance and licensing, has been merged with the SHCAA, which is also in charge of licensing health professionals (with the exception of pharmacists, who are licensed by the SMCA, and dentists, who are licensed by the Dental Chamber). The Lithuanian Bioethics Committee continues to control and oversee patient rights and safeguard professional conduct.

2.8.1 Regulation and governance of third-party payers

In 2002, the NHIF was brought under the control of the Ministry of Health. Territorial NHIF branches purchase health-care services and reimburse medicine costs according to contracts with providers. The Ministry of Health determines services paid by the NHIF according to the Health Insurance Law, and their payment mechanisms set the rules of health-care provision, set reference prices for health-care services and for reimbursement of pharmaceuticals, establish the rules for provider contracts, and make budgeting and financial management decisions. The NHIF is accountable to the Ministry of Health and the Ministry of Finance (see Fig. 2.1). In purchasing policy, the NHIF follows the priorities set by the Ministry of Health. It funds many programmes through allocations outside of common contractual agreements, which is a more explicit way of supporting policy implementation. The NHIF is also responsible for payment for health-care services provided to insured citizens while visiting or temporarily staying in other countries of the EU or the European Economic Area (EEA). On the international level, the NHIF is involved in negotiations on and assures implementation of the relevant EU directives, for example the EU Directive 2011/24/EU on application of patient rights in cross-border health care (see section 2.9.6).

In the parallel health-care systems, integrated health provision models are employed. The Ministries of Defence, Interior and Justice decide on health-care service provision and allocations for health-care providers from their budgets.

Regulation of private insurers falls under the overall national financial regulatory framework (see section 3.5). Since 2012, the Bank of Lithuania is in charge of private insurance matters due to the abolition of the Lithuanian Insurance Supervision Commission.

2.8.2 Regulation and governance of providers

The vast majority of health-care providers (except for parallel health systems of the Ministries of Defence, Interior and Justice) are not budgetary institutions but public non-profit-making enterprises. This legal status for health-care facilities was introduced by the Law on Health Care Institutions in 1996. Currently, the Ministry of Health and municipalities are owners of the public health-care facilities (see Fig. 2.1). The owners have the power to reorganize and abolish their facilities, employ an administrator through public tender, make decisions on asset management, determine salaries and medicine costs (as a share of total expenditure) and define volumes of obligatory services. The last function is particularly difficult to implement in practice because of the dominance of the NHIF in contracting and paying for services. In reality, the owners use fewer governance instruments than they are legally equipped with, mainly using those concerning assets management and using hardly anything to influence health-care provision and performance directly. Besides the rights gained as an owner of health-care facilities, the Ministry of Health licenses providers, sets requirements for health-care provision (both generic and specific) and controls compliance with the standards. Together with the Ministry of Finance, the Ministry of Health proposes to the government on budget allocations for providers, and together with the NHIF it decides on the minimum requirements for provider networks.

The Health Care Institutions Law states that the public health service provider must have an administration (Parliament of the Republic of Lithuania, 1996a). Appointing a head of administration is one of the few real tools of influence for owners over the providers' governance. Related provisions have been reviewed many times, and at the end of 2011 the parliament decided that appointment of the head of administration should be based on a public tender, and the duration of the appointment should be limited to five years.

Other managerial structures obligatory for the public health-care provider (e.g. the steering board, the physicians' board and the nursing board) perform advisory roles.

In parallel health-care systems, health-care providers are budgetary institutions directly subordinated to the corresponding ministries. They function according to the overall regulatory framework of budgetary institutions, defined by the Ministry of Finance, as well as in line with the relevant provisions of the Health Care Institutions Law. For example, the Ministry of Health, together with a ministry running a parallel system, sets the rules for service provision and controls compliance. At the same time, general rules for licensing of facilities and professionals apply to health-care institutions as well as to any other organizations delivering health care (i.e. private clinics and social care institutions).

The SHCAA performs many regulatory functions on licensing, registering and inspecting providers. It can also accredit health-care providers at their request, provided they have been functioning longer than three years. At present, the SHCAA is implementing an accreditation framework and five accreditation standards, financed from the EU structural funds. However, providers lack incentives to seek accreditation, as the purchasing arrangements do not regard the quality of the services delivered.

Health-care institutions and professionals are mainly concerned with meeting the minimum requirements (e.g. the minimum number of hours of professional training for retaining their licence). There have been many attempts to improve quality assurance but few initiatives have received proper funding. Currently, the system is mostly based on inspection. A whole chapter of the Health Care Institutions Law describes inspection rules in relation to all health-care providers. Control functions are granted to the Ministry of Health, the NHIF, the SHCAA and the Bioethics Committee, and the inspection authorities can, among other measures, stop service provision and introduce forced temporary administration. There is also a legal requirement for municipalities as owners, as well as for the administration of health-care institutions, to make internal audit arrangements seeking to assure safety and quality of care.

The quality of standards and guidelines developed by the Ministry of Health have been criticized for lacking an evidence-based approach and proper pathway structure, and for having a one-sided focus on only medical aspects of treatment (Justickis & Saladis, 2011).

2.8.3 Regulation and planning of human resources

Obligatory licensing of health-care professionals has four major categories: physicians, nurses, dentists and pharmacists. The SHCAA licenses and registers health-care professionals. The Centre for Quality Assessment of Higher Education is an independent public institution, established by the Ministry of Education and Science, that implements external quality assurance policy in higher education in Lithuania and assesses qualifications to assist free movement of the workforce. The Ministry of Education and Science and the Ministry of Health are jointly responsible for indicative planning of the health-care workforce, with limited possibilities for directly influencing autonomous educational institutions (see more on human resources in section 4.2).

2.8.4 Regulation and governance of pharmaceuticals

The introduction of a new Pharmacy Law in 2006 required revision of the entire legislation in the area and incorporated all relevant EU legislation. One of the main changes was shifting the licensing of pharmaceuticals from the Ministry of Health to the SMCA. The SMCA, the Ministry of Health and the NHIF are currently the main actors in the regulation of pharmaceuticals in Lithuania. The Ministry of Health has the most important role as it decides both on strategic planning and on whether a product will be reimbursed and at what price. The Pharmaceuticals Reimbursement Committee, consisting of representatives from the Ministry of Health, the SMCA and the NHIF, advises the Minister of Health on reimbursement decisions.

According to the Health Systems Law of 1994, the SMCA carries out regulatory and control functions by granting marketing authorization, classifying prescription status (prescription-only versus over-the-counter drug), conducting pharmacovigilance, inspecting the pharmaceutical industry and pharmaceutical product distribution companies (including pharmacies), controlling the quality and advertising of pharmaceuticals and supervising clinical trials. The SMCA registers pharmaceuticals and keeps a list of licences of pharmaceutical companies, pharmacies and pharmacists. The activities of the SMCA only concern human medicines. The control of veterinary medicine and related activities is carried out by the State Food and Veterinary Service.

The NHIF is in charge of contracting pharmacies and reimbursing medicine costs, as well as for procuring high-cost pharmaceuticals via public tenders.

New evaluation criteria for reimbursed pharmaceuticals were introduced in 2007. The main criteria for reimbursement are medical benefit provided by the pharmaceutical (effectiveness, safety and severity of the disease treated, taking into account data from published clinical trials), results of pharmacoeconomic evaluation and the impact of reimbursement of that pharmaceutical on the budget of the NHIF (an estimation is made for each indication submitted for reimbursement). Most of this information is provided by the applicant company, and usually no additional analysis is carried out. The final decision is made by the Minister of Health, supported by the technical evaluations from the Pharmaceuticals Reimbursement Commission and the NHIF.

In 2007, price negotiations on pharmaceuticals were introduced. Prices of reimbursed pharmaceuticals are regulated only through a reference pricing system. Since 2010, the reference manufacturing price should not exceed 95% of the average manufacturer's price in the eight reference EU countries (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Poland, Romania and Slovakia). Pharmaceuticals are grouped on the basis of the International Nonproprietary Name (INN), method of use, form, purpose and length of action. The reference price for the group is the cheapest priced product in the group. The wholesale and pharmacy retail prices of reimbursed pharmaceuticals are regulated by adding a mark-up approved by the Ministry of Health. When the pharmaceutical price is higher than the reference price, the patient pays the difference as a co-payment. In addition, the patient has to pay a user fee for every pharmaceutical except for insulin (Krukiene & Alonderis, 2008).

Responding to the growing expenditure on reimbursed pharmaceuticals and the economic crisis, the Plan for the Improvement of Pharmaceutical Accessibility and Price Reductions was approved by the Minister of Health in 2009. In accordance with the Plan, new requirements were introduced on generic pricing (30% below the originator for the first generic and at least 10% below for the second and third); prescribing by INN, with some exceptions; and the obligation for pharmacies to provide data on prices to patients and have the cheapest product in stock. In addition, since 2008 there have been price volume agreements for new pharmaceuticals (Garuoliene, Alonderis & Marcinkevicius, 2011).

The prices of all non-reimbursed prescription pharmaceuticals and over-the-counter pharmaceuticals are regulated by adding maximum retail and wholesale mark-ups set by Governmental Decree. In addition, marketing authorization holders and parallel importers, or their representatives, have to declare to the Ministry of Health the price at which a non-reimbursed medicinal

product will be distributed in Lithuania and submit the prices of this product in eight reference countries (see above). The declared prices of non-reimbursed medicinal products and the maximum retail prices, which pharmacies should not exceed, are published on the web site of the Ministry of Health.

Pharmaceutical information included in patient information leaflets has to be officially authorized by the SMCA. Advertising for prescription-only medicines is prohibited. Transparency International survey in Lithuania (Transparency International Lithuania, 2007) and media reports (Simaite, 2009; Vysniauskiene, 2011) on ties between physicians and pharmaceutical companies have led to the introduction of control measures over promotional activities, including restrictions on payments for physicians' participation in promotional events, as well as annual reports on promotional expenditure to the SMCA.

There is a legal requirement that medicinal products ordered by phone and online shall only be dispensed on pharmacy premises with obligatory clear information about the product in Lithuanian, as required for all medicines.

Prescribing guidelines were introduced in 2002, and by 2009 included 27 conditions. The guidelines are recommendations that are typically produced by universities and physicians associations and approved by the Ministry of Health.

2.8.5 Medical devices and aids

Public facilities have to adhere to procurement rules for purchasing any supplies, including medical devices. The Public Procurement Office is in charge of compliance with legal requirements, with more transparency increasingly being introduced for tendering procedures through the use of a publicly available web site.

The registration of and control over the use of medical equipment is regulated according to the relevant national and EU legislation. The SHCAA registers suppliers of medical equipment and companies licensed to perform technical service of medical equipment. The SHCAA also collects data on expensive medical devices, costing over €29 000 (100 000 litas), or those bringing an annual revenue from the NHIF to providers of more than €290 000 (1 million litas). The information collected includes financial and usage intensity indicators for public providers; private providers not contracted by the NHIF only report starting and final dates of the usage of the equipment. A parliamentary commission dealing with corruption (Parliament of the Republic of Lithuania

Anticorruption Commission, 2011) called for more thorough collection of detailed information on existing medical equipment across providers in order to ensure more rational spending and effective use of the equipment.

2.8.6 Regulation of capital investment

A major part of the long-term assets of public health-care facilities (land, buildings, etc.) is in state or municipal ownership. An owner has to approve important managerial decisions regarding the long-term assets. However, currently there is no clarity on responsibilities for management of the state assets and for maintenance of the infrastructure. In practice, capital investments are financed through the state investment programmes. The rules for allocating state capital investments are defined by the Ministry of Finance, which develops three-year state and local budgets, while the Ministry of Health approves the proposed investment projects. There is no systematic assessment of the investment strategy, and investment decisions often lack transparency. Since 2004, capital investments in the health sector have been mostly paid from the EU structural funds, and these investment decisions have been more transparent given the accountability obligations and open access to information. Even so, on the operational level, most of the funding is allocated not in a competitive way but according to the decisions of the public authorities.

2.9 Patient empowerment

2.9.1 Patient information

The NHIF provides information on health-care services to patients, including information on insurance, benefits, providers and waiting times. All public authorities have web sites and, according to the Statistics Lithuania survey (2011a), more than half of providers present information about their services on the Internet. To a certain degree, the progress in availability of information online reflects increasing competition between providers. However, there is room for improvement and information dissemination could become more targeted to patients' needs. A population survey conducted by the NHIF in 2011 revealed that patients mostly acquire information about services by visiting providers, and more than 80% have never looked for this information on the Ministry of Health or the NHIF web sites. However, the Internet has become an important source of information, with 63% of patients accessing health-related information online (Vanagas & Klimaviciute-Gudauskiene, 2012).

2.9.2 Patient choice

At present citizens have a formal choice of primary and secondary care provider. Actual opportunities to choose depend on availability of providers and so in the rural areas this freedom sometimes is only theoretical. A recent population survey (Murauskiene et al., 2012) showed that reputation and skills of physicians, availability of medical equipment and attitude of staff are the most important factors when choosing a provider.

2.9.3 Patient rights

The Law on the Rights of Patients and Compensation for the Damage to Their Health was adopted in 1996 (Parliament of the Republic of Lithuania, 1996c). Patient rights include the right to high-quality health-care services, the right to choose a provider and physician, the right to information, the right not to know, the right of access to medical records, the right for privacy, the right to anonymous care and the right to receive compensation for damage to health (Parliament of the Republic of Lithuania, 1996c). The law also requires that no care can be provided without a patient's consent. A survey conducted in 2006 showed that medical professionals were well aware of patient rights, although they did not always respect them, partially through the lack of knowledge and assertiveness of patients; just over half of patients were aware of the existence of a law on patient rights at that time (Ducinskiene et al., 2006). A population survey conducted by the NHIF in 2010 showed that 12% of respondents felt their right to health care had not been met (NHIF, 2012b).

The State Consumer Rights Protection Authority coordinates the activities of state institutions with regard to protection of consumers. The authority follows the requirements set by the EU. It has a special division for paid medical services.

2.9.4 Complaints procedures

Patient complaints can be investigated at the provider level, at the Ministry of Health (the Commission on Evaluation of the Damage Caused to Health of Patients) or, if a patient disagrees with the Commission's decision, in court. Neither patients nor the Lithuanian Physicians' Association are in favour of the existing system, which is based on establishing physician's fault and seeking compensation in courts. Some argue that the current model is ineffective and inaccessible (*Lietuvos Sveikata*, 2011).

2.9.5 Public participation

Despite formal requirement for participation of representatives of patient organizations on the boards and commissions of health-care institutions, public participation and its influence in decision-making in the health sector is limited. Patients have their representatives at the Ministry of Health and in the Commission for Compensation at the NHIF. Regional biomedical research ethics committees have to ensure that patients' perspectives are represented in biomedical research projects by including a member from a patients' organization. The *Eurobarometer* survey showed that 40% of Lithuanian residents evaluate their overall quality of health care as good (European Commission, 2010b). A national survey conducted by the NHIF in 2011 showed that 14% of respondents did not trust the health insurance scheme, while the index of satisfaction with the system was 6.3 out of 10 (NHIF, 2012b).

2.9.6 Patients and cross-border health care

The NHIF is responsible for all cross-border patient mobility issues in Lithuania. This includes payment and claiming for the costs of citizens of other EU countries who are treated in Lithuania, as well as paying for Lithuanian citizens treated abroad.

Because Lithuania is an EU Member State, individuals covered by the insurance system are entitled to receive services that are covered by statutory insurance in other EU and EEA countries. Based on EC Regulation 883/2004, a Lithuanian citizen covered by health insurance can use the European Health Insurance Card to receive health services abroad, paid by the NHIF, when on a temporary stay (e.g. as a tourist).

On producing an European Health Insurance Card, insured Lithuanians on a temporary stay abroad and in need of treatment are entitled to reimbursement of health care under equal conditions and equal tariffs as those for the nationals of the other state under the legislation of that state, including financial participation (cost-sharing). The reimbursement does not cover travelling costs. By the end of 2011, 246 000 cards have been given out. In 2011, 5020 invoices for treatment under the European Health Insurance Cards had been paid by the NHIF, with an average of €555 per bill. In the same year, there were 297 EU nationals treated in Lithuania, leading to an expenditure of more than €500 000 (NHIF, 2012a).

The EU Directive 2011/24/EU on application of patient rights in cross-border health care was adopted in 2011 and was intended to facilitate access to safe and high-quality cross-border health care in another EU country and to

ensure patient mobility. The Directive specifies the freedom of patients to seek medical services abroad and to be reimbursed for such services by their home Member State. The NHIF will be responsible for reimbursement of costs for Lithuanian citizens treated in another Member State when Lithuania brings in the legislation necessary to comply with this Directive at the end of 2013.

3. Financing

Total health expenditure as a share of GDP increased from 5.4% in 1995 to 6.6% in 2011. In the late 2000s, the economic crisis and the need to reduce the public deficit affected public spending, including that on health care. The cuts that followed mainly focused on reduction of the cost of health service provision and pharmaceutical expenditure. Reduced NHIF revenues from falling employment were partially compensated for, by an increased state contribution for the economically inactive population.

Since 1997, the NHIF has been the main health system's financing agent, accounting for 61% of the total expenditure on health in 2010. However, about half of NHIF revenue comes from the national budget in the form of transfers for population groups insured by the state. In addition, the state budget covers long-term care at home, health administration, education and training, capital investment and public health services, which in total accounted for 11% of total health expenditure in 2010. Therefore, in 2010, taxes were the main source of health financing, accounting for 40% of the total health expenditure, followed by social insurance contributions (32%). Since 2011, the contributions from the economically active population have been increasing again.

The state health-care system is intended to serve the entire population, and the Health Insurance Law requires all permanent residents and legally employed non-permanent residents to participate in the compulsory health insurance scheme without a choice to opt-out. About 60% of the total population is insured by the state. Compulsory health insurance provides a standard benefits package for all beneficiaries. There is no positive list of health services provided in state-financed health-care facilities. Emergency care is provided free of charge to all permanent residents irrespective of their insurance status. For pharmaceuticals, drugs prescribed by a physician are reimbursed for certain

groups of the population (e.g. children, pensioners, disabled, etc.) as well as for patients suffering from certain diseases. All other insured adults must pay the full cost of both prescribed and over-the-counter drugs out of pocket.

A combination of payment methods exists for publicly funded health services. Primary care is financed predominantly through capitation, with a smaller share from fee-for-service and performance-related payments. Outpatient care is financed mainly through case payment, and through fee for service for diagnostic tests. Inpatient care is financed mainly through case payment (diagnosis-related groups (DRGs) were introduced in 2012) and historical budgets. Public health is mainly financed through historical budgets. There is a cost-sharing element across most areas of health service provision. The role of VHI is negligible.

OOP expenditure constitutes 26% of the total expenditure on health, more than 70% of which is for pharmaceuticals. Some facilities charge patients for treatment, most often for diagnostic tests; however, there is no legal base for some of these charges. Services covered in the negative list (acupuncture, abortions, occupational health check-ups, etc.) are subject to direct payments. Surveys indicate that informal payments are quite widespread in the health-care sector in Lithuania.

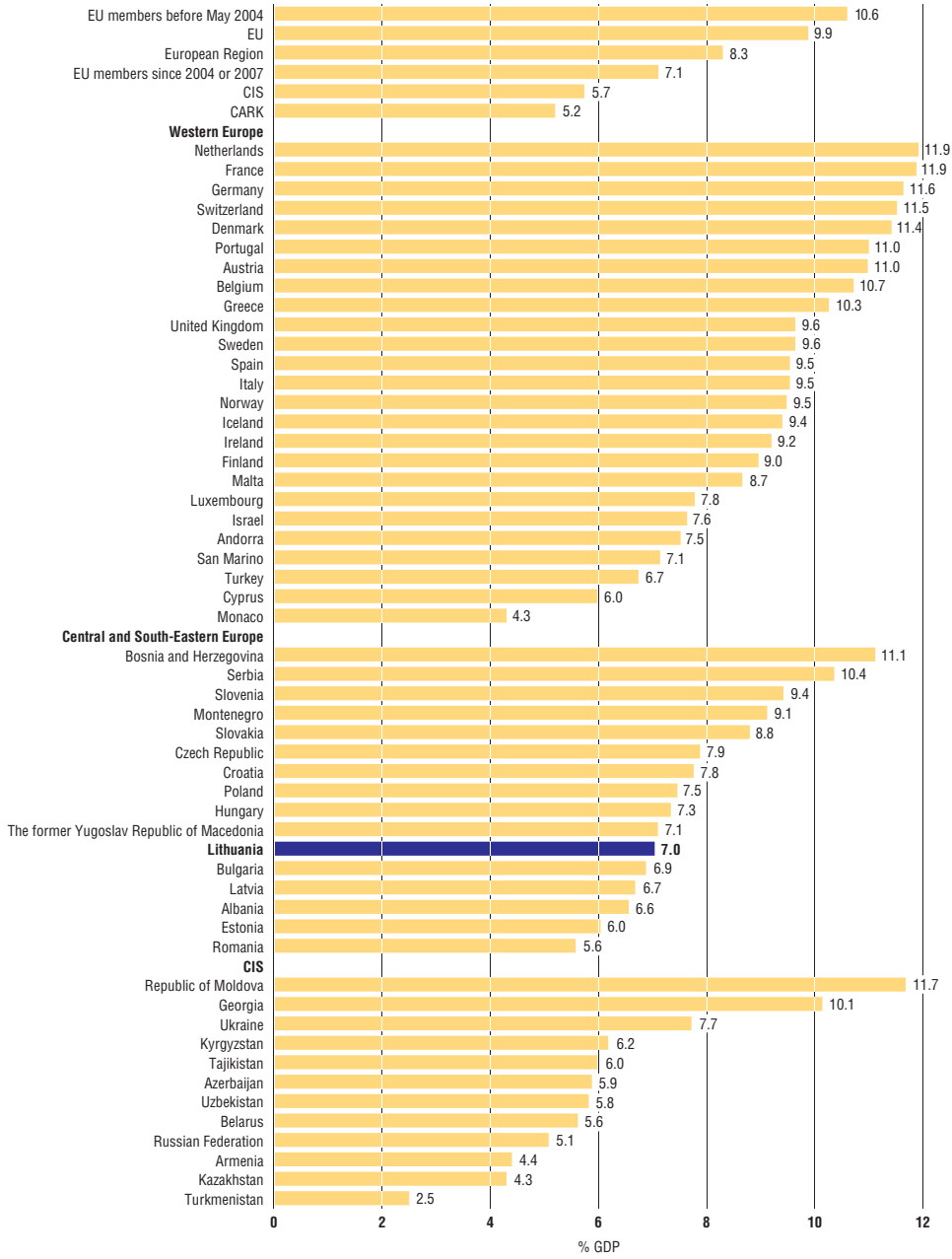
Lithuania has received substantial financial support from external sources. In the 1990s, it was mainly through three programmes – PHARE, ISPA and SAPARD – and since 2004 Lithuania has access to EU structural funds as a Member State. EU funding between 2004 and 2013 has reached over €1.5 billion.

3.1 Health expenditure

In 2010, total health expenditure accounted for 7% of GDP, which is similar to the average for the new EU Member States (7.1%), and less than the average for the 15 EU Member States before May 2004 (EU-15) (10.6%) (Fig. 3.1). Total health expenditure increased between 1995 and 2000, decreased to 5.7% in 2004, and increased again subsequently to 7.5% of GDP in 2009 (Fig. 3.2). In 2010–2012, the proportion of total expenditure spent on health fell, to 6.6% in 2012. Total health expenditure per capita (measured in purchasing power parity US dollars) in Lithuania has remained stable in 2008–2010, amounting to about $1300 (Fig. 3.3). Since 1995, total health expenditure per capita in Lithuania has more than tripled (Table 3.1) (WHO Regional Office for Europe, 2013).

Fig. 3.1

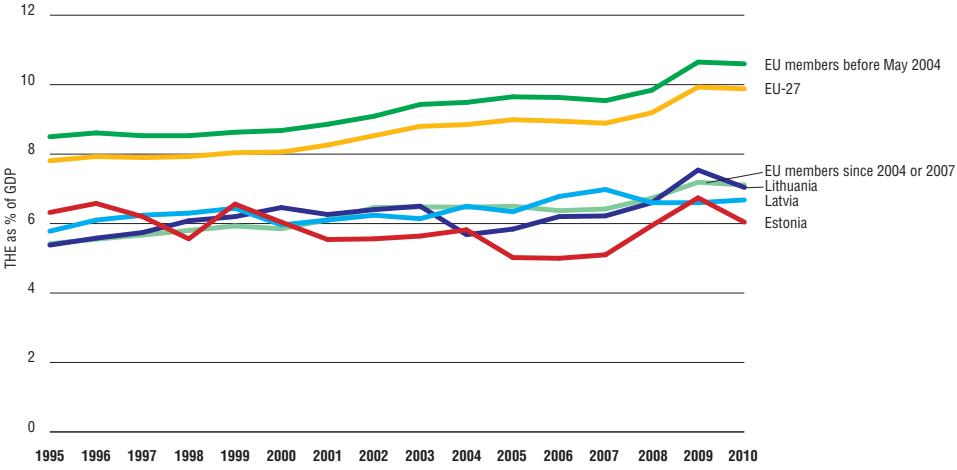
Total health expenditure as a percentage of GDP in the WHO European Region, 2010, WHO estimates



Source: WHO Regional Office for Europe, 2013.
Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States.

Fig. 3.2

Trends in total health expenditure as a share of GDP in Lithuania and selected countries, 1995–2010



Source: WHO Regional Office for Europe, 2013.
Note: THE: Total health expenditure.

Table 3.1

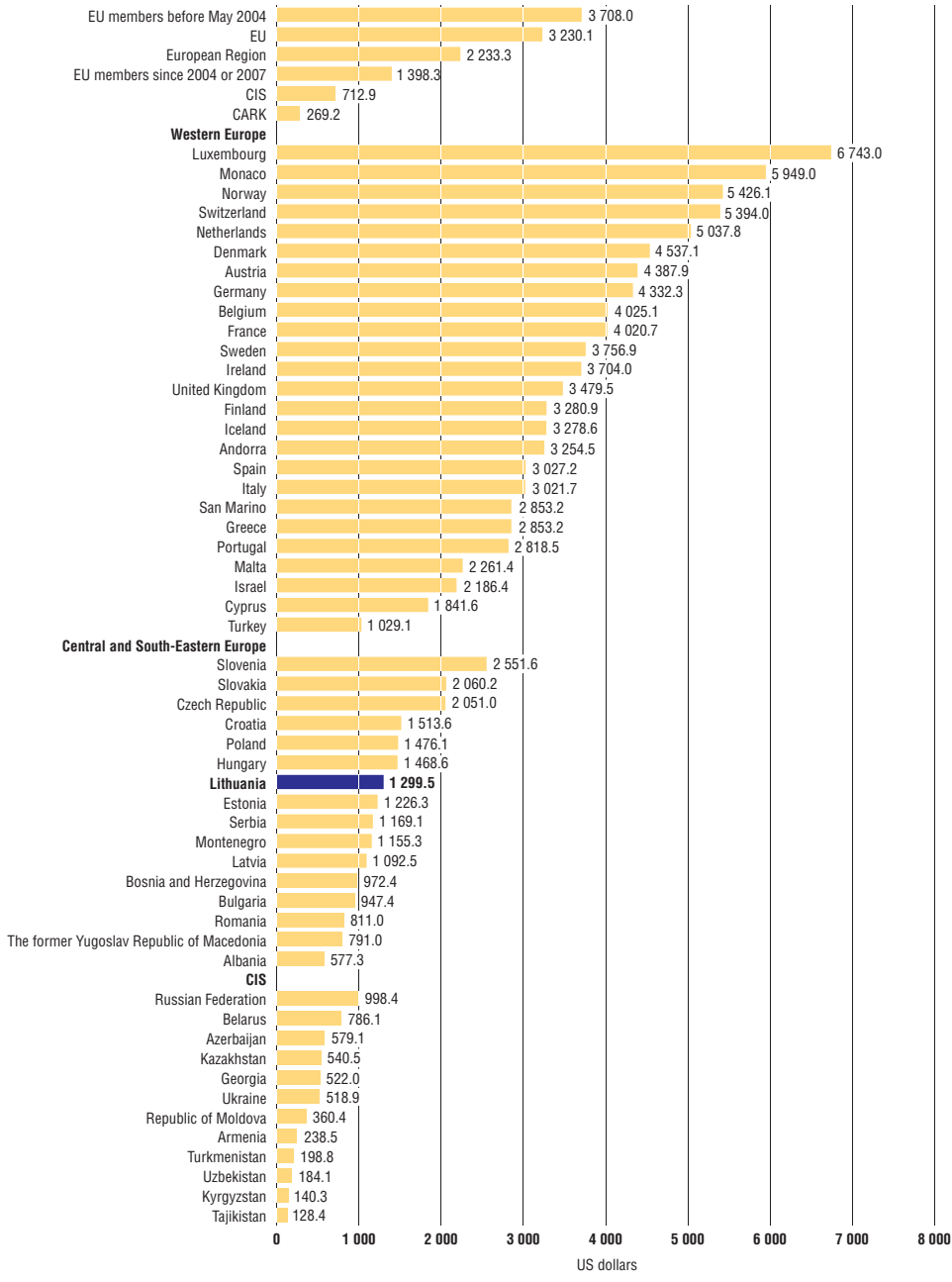
Trends in health expenditure in Lithuania, selected years

	1995	2000	2005	2010	2011
THE (PPP$ per capita), WHO estimates	334	560	832	1286	1337
THE (% GDP), WHO estimates	5.4	6.5	5.8	7.0	6.6
Public sector health expenditure (% THE), WHO estimates	74.2	69.7	67.8	72.9	71.3
Private sector health expenditure (% THE), WHO estimates	25.9	30.3	32.2	27.1	28.7
Public sector health expenditure (% total government expenditure), WHO estimates	11.6	11.6	11.9	12.6	12.6
Public sector health expenditure (% GDP), WHO estimates	4.0	4.5	4.0	5.1	4.7
Private household OOP payment on health (% THE)	22.4	26.1	31.7	26.4	27.9
Private household OOP payment on health (% private sector health expenditure)	86.6	86.2	98.5	97.4	97.4
VHI (% THE)	0.0	0.1	0.4	0.6	0.7
VHI (% private expenditure on health)	0.0	0.3	1.1	2.4	2.4

Source: WHO, 2013.
Notes: PPP: Purchasing power parity; THE: Total health expenditure.

Fig. 3.3

Health expenditure per capita in the WHO European Region, 2010, WHO estimates



Source: WHO Regional Office for Europe, 2013.
Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States; PPP: Purchasing power parity.

Health-care financing in Lithuania has faced several major challenges since the early 1990s. In the 1990s, health expenditure was driven up largely by the rising energy costs and prices for pharmaceuticals; it then stabilized in the early 2000s. Recently, the 2008 economic crisis and the need to reduce the public deficit have affected public spending. The overall government budget declined through losses in tax revenue and the budget deficit tripled between 2008 and 2009 to 9% of GDP. This, in turn, led to pressure to reduce government spending across all sectors, including health care. The cuts mostly focused on reduction in costs in health service provision and pharmaceutical expenditure. Reduced NHIF revenues from falling employment were partially compensated by increased state contribution for the economically inactive population (van Ginneken et al., 2012).

Public sector health expenditure as a share of GDP fluctuated between 4% and 5% between 1995 and 2005. Since then it has increased, reaching 5.2% of GDP in 2010. It still accounts for 73.5% of the total health expenditure, which is similar to the 12 countries that joined the EU in 2004 and 2007 (EU-12) (72.5%) and lower than the EU-15 (77.3%) (Fig. 3.4).

In 2010, 81% of public expenditure on health was attributed to medical services, of which over 50% was spent on inpatient care, 20% on outpatient services and 9% on home care. Health administration accounted for 2.8% of public expenditure on health, while public health and prevention accounted for only 1.1% (Table 3.2).

Table 3.2

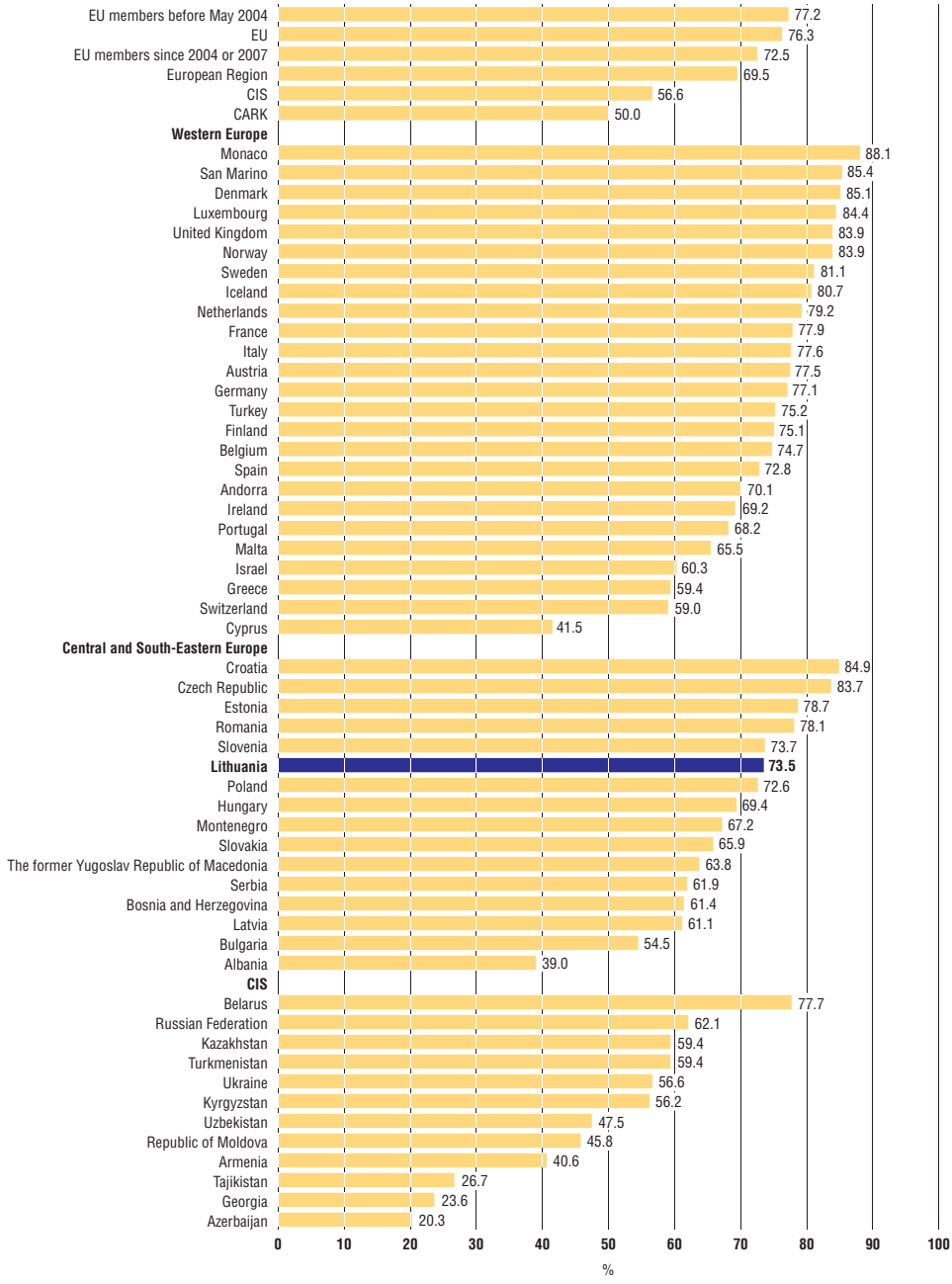
Public health expenditure on health by service programme, 2010

	% Public health expenditure	% Total health expenditure
Health administration and insurance	2.88	2.07
Education and training	2.76	1.98
Health research and development	0.11	0.08
Public health and prevention	1.11	0.80
Medical services:		
inpatient care	44.30	34.28
outpatient/ambulatory services	20.45	20.68
home and domiciliary health services	8.51	6.11
ancillary services	7.87	6.03

Source: European Commission, 2013.

Fig. 3.4

Public sector health expenditure as a share of total health expenditure in the WHO European Region, 2010, WHO estimates



Source: WHO Regional Office for Europe, 2013.
Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States.

3.2 Sources of revenue and financial flows

With the establishment of the social insurance scheme in 1991, health system financing in Lithuania was changed from fully tax funded into partly contribution financed. The SSIF was made responsible for collecting contributions in the form of payroll tax earmarked for health and financing health care, spa treatment and reimbursement of pharmaceuticals. Since 1996, the role of the SSIF in health-care financing was limited to collecting the earmarked payroll tax, but it continued to pay sick leave and disability pensions. From 1996, the collected tax was transferred to the NHIF, which has since played a major role in financing the Lithuanian health-care system. The NHIF established a single-payer health insurance scheme covering all Lithuanian residents and legally employed non-permanent residents. Fig. 3.5 outlines the key institutions and financial flows in the Lithuanian health system.

The NHIF is the main financing agent for the health system, accounting for 61% of the total expenditure on health (Table 3.3). However, a large proportion of NHIF revenue comes from the national budget in the form of transfers for population groups insured by the state (e.g. children, students, unemployed, disabled; see section 3.3.1 for details) and allocations for specific programmes. These accounted for 29% of total health expenditure in 2010. In addition, the state budget covers long-term care at home, health administration, education and training, capital investment and public health services, which in total accounted for 11% of total health expenditure in 2010. This means that, in 2010, taxes were the main source of health financing, accounting for 40% of the total health expenditure, followed by social insurance contributions (32%) and OOP payments (26.4% (Fig. 3.6 and Table 3.3). OOP payments consist mostly of direct payments because the role of VHI is very small, albeit increasing (see sections 3.4 and 3.5 for more details). Since 2011, the contributions from the economically active population have been increasing again, and so have OOP payments.

Fig. 3.5
Financial flows in the Lithuanian health system

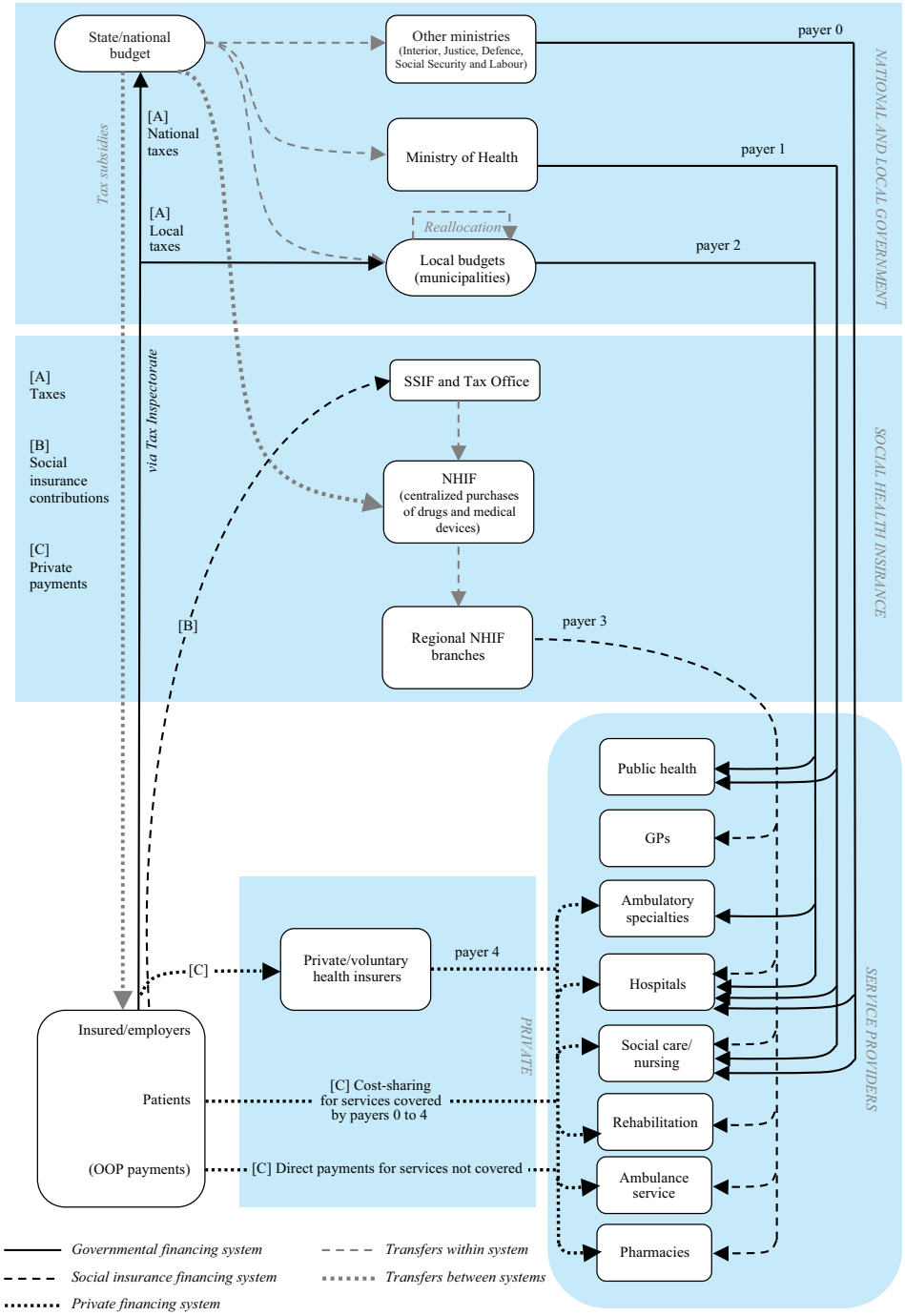


Table 3.3

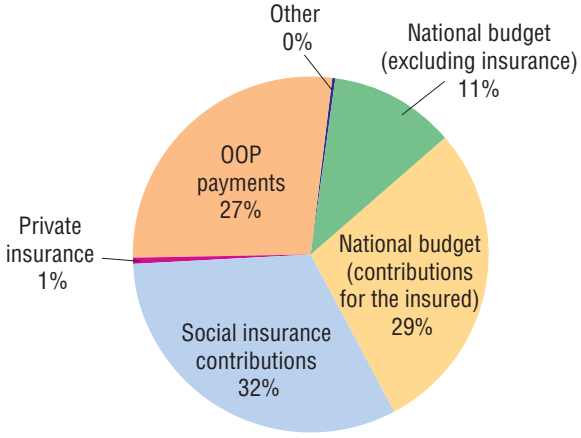
Sources of revenue as a percentage of total expenditure on health, selected years

	1995	2000	2005	2006	2007	2008	2009	2010
Public								
National budget (excluding health insurance)	61.4	8.2	10.1	11.6	14.6	14.0	12.0	12.0
Compulsory health insurance fund	12.8	61.5	57.7	58.0	58.4	58.4	60.9	60.9
Private								
OOP payments	22.4	26.1	31.7	30.0	26.6	27.0	26.5	26.4
VHI	0.0	0.1	0.4	0.4	0.4	0.5	0.6	0.6
Other	3.5	4.1	0.1	0.1	0.1	0.1	0.1	0.1

Source: WHO, 2013.

Fig. 3.6

Percentage of total expenditure on health according to source of revenue, 2010



Source: Calculated from Statistics Lithuania data and Law No. XI-506 on the 2010 Compulsory Health Insurance Fund Budget.

3.3 Overview of the statutory financing system

3.3.1 Coverage

Breadth: who is covered?

The Lithuanian health-care system is predominantly publicly financed. According to Article 53 of the Constitution, "the State shall take care of people's health and shall guarantee medical care and services in the event of sickness. The procedure for providing medical care to citizens free of charge at state

medical facilities shall be established by law." The state health-care system is intended to serve the entire population, and the Health Insurance Law requires all permanent residents and legally employed non-permanent residents to participate in the compulsory health insurance scheme without an option to opt-out. A certain contradiction, however, exists in that, according to the Law, universal access free of charge is guaranteed on the basis of residence, yet if contributions are not paid, a patient only receives emergency care free of charge.

The state covers vulnerable population groups to ensure their access to health care. Approximately 60% of the total population is insured by the state, including those eligible for any kind of pension or social assistance, children under 18 years of age, students, women on maternity leave, single parents, registered unemployed, disabled people and their carers, and people suffering from certain communicable diseases. Eligibility for state health insurance coverage must be demonstrated upon registering for primary care. Territorial branches of NHIF are responsible for developing and maintaining the registration systems.

Individuals who qualify for state coverage are covered from the moment that their eligibility is proven, while those in employment are covered as soon as they start making contributions. For other economically active groups, there is an initial waiting period of three months after contributions begin, or after paying a lump sum equivalent to three minimum monthly wages. The coverage expires after a month from the end of the contributions.

VHI exits as a supplementary scheme and is discussed in section 3.5.

Scope: what is covered?

Compulsory health insurance provides standard benefits package for all beneficiaries, and the freedom to choose health-care providers is intended to counteract possible disparities in local health-care delivery. Traditionally, there has been no explicit positive list of health services provided in the state-financed health-care facilities. While the state guarantees free access to basic population services, the definition of these services is rather implicit, and criteria for prioritization of services have not been established beyond a long-term broad emphasis on shifting care into primary and outpatient settings. However, this situation is gradually changing as the Ministry of Health is introducing new clinical standards and changes in price lists.

According to provisions in Article 49 of the Health System Law of 1994, emergency care is provided free of charge to all permanent residents irrespective of their insurance status. Foreigners and non-permanent residents are entitled

to emergency care free of charge in accordance with existing international agreements. In January 2000, the Minister of Health issued a decree defining a list of health conditions subject to free emergency care.

The Ministry of Health developed a limited price list for health-care services charged to the patient in state-financed health-care facilities in 1996. These services include, among others, therapeutic abortion, certification of health status, acupuncture, treatment of alcohol abuse, cosmetic procedures, certain nursing services, and dentistry (dentures).

A broad range of cash benefits (e.g. sick leave, which is applicable also to carers; disability pensions, maternity benefits) is available for people insured by the state social insurance. There is a system of allowances provided from the national budget (maternity, disability, funeral allowances, etc.), and networks of state and local long-term social care institutions (including those for the disabled and the elderly) are in place. Benefits are covered mainly by the budget and eligibility is based on means testing. Social rehabilitation and day-care networks have also been developed. Financial support from the local budgets is available for those in need of permanent care, mostly in the form of payments for institutional care or social services at home.

Depth: how much of benefit cost is covered

Attempts to broaden the negative list of health-care services as well as to introduce co-payments for doctors' visits and bed-days have failed because of political opposition and the understanding that reducing unnecessary demand may compromise access for vulnerable population groups, particularly in the context of dramatic income inequality and a high proportion of people at risk of poverty. However, there are legal provisions for direct payments by the patient to cover the difference between the reimbursement limit and the actual price for some expensive or ancillary services and pharmaceuticals (see section 3.4).

While Lithuania has adopted a relatively generous approach with respect to coverage of health-care services, this is not the case for pharmaceuticals and medical aids. Currently, a positive list of drugs is in place with reference to drug prices, fixed by the Ministry of Health. Drugs prescribed by a physician may be reimbursed for certain groups of the population (e.g. children, pensioners, the disabled) as well as for patients suffering from certain diseases (e.g. mental illnesses, diabetes, cancer, stroke, myocardial infarction, TB, HIV/AIDS). The NHIF uses different reimbursement levels for prescription costs for outpatient treatment: (1) full reimbursement of the reference price (for children 18 years or younger, the disabled and/or elderly people with a large need for specific care), (2) full or partial (90%, 80% or 50% of cost) reimbursement for patients

diagnosed with specific diseases, and (3) 50% reimbursement for pensioners and the disabled unless they fall into any of the prior categories. Insured adults who do not fall into any of the exception groups must pay the full cost of both prescribed and over-the-counter pharmaceuticals through OOP payments. The costs of various prostheses, expensive pharmaceuticals and medical devices centrally procured by NHIF are reimbursed in accordance with arrangements set by the Ministry of Health (see sections 2.8.4 and 2.8.5).

3.3.2 Collection

All residents must participate in the compulsory health insurance scheme. Three main groups were originally distinguished: (1) the regularly employed population (with employers paying earmarked taxes on behalf of employees), (2) other economically active population groups (with different arrangements for various groups of self-employed, farmers, etc.), and (3) economically inactive population groups insured by the state. Since 2009, after several adjustments, the contributions have been set as displayed in Table 3.4.

Table 3.4
Health insurance contributions

Population group	Share of personal income	Insurer's share
Employees, public servants, business owners	6% of taxable income	3% of taxable income
Copyright owners, sportsmen, artists	6% of taxable income[a]	3% of taxable income
Self-employed	9% of taxable income[a]	n/a
Self-employed with business certificate	9% of set monthly minimum wage	n/a
Farmers	3% or 9% of set monthly minimum wage	n/a
Permanent residents with other kinds of income (dividends, rent, from sale of property)	6% of the amount charged by personal income tax[a]	n/a
Others	9% of set monthly minimum wage	n/a
Economically inactive population (insured by the state)	n/a	36% (in 2013) of the official average monthly gross income lagged by 2 years

Notes: n/a: Not applicable; [a]But not less than 9% of minimal monthly wage.

Currently, health insurance contributions are mostly collected by the SSIF, while the State Tax Inspectorate collects contributions set as a share of a minimum monthly wage. All collected contributions are then pooled by the NHIF. Both collecting agencies are obliged to transfer the money within three days or risk a fine.

As mentioned in section 3.3.1, a large proportion of the population is insured by the state. The state contribution is transferred directly to the NHIF. There have been many legal changes related to the size of the state contribution. In 2003, the minimum size of the annual state contribution was set at 35% of the average monthly insured individual's income. In 2006, the denominator was switched to average gross monthly wage lagged by two years, with the size of the contribution steadily increasing from 26% in 2007 to 35% in 2012, with a ceiling of 37% to be reached in 2014.

The proportions of health insurance revenue from employers, employees and the state were relatively stable between 1998 and 2008. As a result of the global financial crisis and increasing unemployment, the revenue from employees has fallen from 52% to 42%. The loss has been compensated by transfers from the state budget, which cushioned some of the decrease in compulsory health insurance budget revenue in 2009 and 2010 (Mladovsky et al., 2012). Therefore, the counter-cyclical mechanism of compulsory health insurance contributions made by the state on behalf of the unemployed and economically inactive people was a major factor helping to sustain funding for the health insurance budget despite falling revenues from the employed as a result of decreasing wages and increasing unemployment.

3.3.3 Pooling of funds

NHIF

Various approaches to pooling were considered prior to the adoption of the Health Insurance Law in 1996. The idea that prevailed was the creation of a compulsory health insurance fund separate from the state budget. The fund is administered by the NHIF, which is accountable to the Ministry of Health (see sections 2.3 and 2.8.1). Two upper thresholds are applied when the NHIF budget is set: up to 2% of total NHIF expenditure for administration costs and up to 10% of the NHIF revenue as financial reserve. The Ministry of Health annually presents a budget draft, together with a two-year forecast, to the government for approval. Once approved, the budget is adopted as law by the parliament, as is the Law on Central and Local Government Budgets and the Law on Social Insurance Budget. A similar procedure (supplemented with an audit) is applied to the annual budget performance reports. Currently, there is a legal requirement to balance the budget every three-year period.

National budget

At the national level, the Ministry of Finance allocates funds to the Ministry of Health, which in turn elaborates annual financial plans according to the priorities of the state's health programmes and three-year investment programmes. Local government budgets are mostly allocated from the central level, while some revenue is collected through direct taxation on individual income, part of which is earmarked for use at the local level. Local government decides on the exact share of resources to be spent on health care.

Allocating resources to purchasers

Since 1997, the NHIF branches have been the main purchasers of health care. They pay contracted health-care providers for provision of services and reimburse prescription medicine for outpatients and medical rehabilitation and sanatorium treatment costs. The regional branches of the NHIF contract providers to serve the local population. The budgets of regional branches are calculated according to strictly monitored sub-budgets for health-care services, primary health care, ambulance services, long-term nursing, outpatient specialist care, inpatient care, pharmaceuticals, medical rehabilitation and sanatoria treatment, dental prostheses, health programmes and administration.

Until the early 2000s, resource allocation was largely determined by historical criteria, so regions with a better-developed institutional network provided more services and attracted more public resources. Given that the primary health-care providers are paid largely on a capitation basis (82% of income), relevant resource allocation to NHIF branches is set according to population size with adjustments for age and rural residence. Similarly, a population-based formula is applied to the budget for ambulance services. Finally, for long-term nursing care, expenditure depends on the share of the elderly population (above 65 years) in the regions. For inpatient care, risk adjusters taking into account demographic indicators, including population size, age and gender, have been included in budgetary allocations since 2002. In 2004, an order by the Minister of Health defined the risk allocation formula. This has since been modified a few times; Table 3.5 shows areas of services and adjustment criteria for resource allocation for the NHIF regional branches.

Since 2010, the population base has been switched from residents to those insured by the NHIF. However, a state audit report (National Audit Office of Lithuania, 2011b) revealed flaws in the registration system, which led to excessive allocations in primary care, and state auditors recommended reviewing the calculations.

Table 3.5
Resource allocation for territorial NHIF branches

Area	Adjustment
Primary health care	Population size Population age (under 1, 1–4, 5–6, 7–17, 18–49, 50–64, 65+) Rural residents
Ambulance services	Population size Rural residents Migration
Nursing and long-term care	Population size Population age (0–64, 65+)
Specialist outpatient and inpatient services; expensive examinations and procedures	Population size Population age (under 1, 1–4, 5–9, 10–14, 15–19, 20–29, 30–39, …, 70–79, 80+)[a]

Note: [a]The values are set for each group by dividing the actual cost of the previous year's services by the number of the population at the corresponding age.

In addition to the allocation formulae, the NHIF branches receive funds (usually around 1.5% of the total budget) to influence prioritization of services among providers. The aim is to achieve increased flexibility; however, the allocation and distribution mechanisms lack clarity and transparency.

3.3.4 Purchasing and purchaser–provider relations

Regional NHIF branches are responsible for contracting and paying health-care providers and pharmacies. They plan service provision annually by taking into account actual utilization of services and variations among municipalities, the NHIF priorities in reimbursement, service costs and forecasted allocation for the regional budgets.

Contracts with providers were initially designed as a tool to manage the volumes of the services provided. At the end of 2009, the Ministry of Health issued a new set of rules aiming to further regulate annual contracting in accordance to the priorities of the health system and to limit inpatient and expensive procedures.

Every July, information about the NHIF priorities for services reimbursement is announced, and, specialist health-care providers submit their applications for the contracts over the next month (together with licences, indicative structure and volume of services, information about employed specialists, etc.). By November, regional planning is finalized; afterwards, the contracts are drafted, proposals are discussed with the regional supervisory boards and negotiations are held with the providers until the end of the calendar year.

A state audit (National Audit Office of Lithuania, 2011b) has found that the contracting decisions do not take into account performance and quality of care. Although the work on developing quality indicators in health care has started and a set of performance assessment indicators for inpatient care providers was adopted by the Ministry of Health in 2012 (see section 7.4.2), it will take time to integrate them into contracting practice.

In spring 2012 and 2013, the NHIF commission controlled the process of contracting the providers by territorial branches. However, a need to make contracting arrangements more explicit still remains.

3.4 Out-of-pocket payments

There are no ceilings for OOP spending in Lithuania. According to household survey data (Statistics Lithuania, 2013a), in 2000–2008 an average of 75% of OOP payments was for pharmaceuticals, while 4% was for optics and 4% for other medical goods. About 10% of the average annual OOP spending was for dental services, whereas other outpatient services took 5%, including 3% for physician services. Payments for inpatient (hospital and sanatoria) services constituted approximately 2% of the total.

3.4.1 Cost-sharing (user charges)

The Law on Health Insurance makes provisions for cost-sharing for services covered by the NHIF (Parliament of the Republic of Lithuania, 1996b). The main legal cost-sharing measure involves co-insurance for outpatient pharmaceuticals and some medical aids for groups of patients who are exempt from direct payments (see sections 3.3.1 and 3.4.2). The amount of co-insurance is a fixed proportion of the reference price of a service, medication or medical aid.

There have been several changes in co-insurance rates and eligibility under the state health insurance scheme. Major changes centred around prescription for outpatient medicines (in addition to 100% and 80% reimbursement rates, rates of 90% and 50% were introduced) and medical rehabilitation and spa treatment, where 80% and 50% reimbursement rates, respectively, replaced 100% for medical rehabilitation and 90% for sanatoria treatment. In 2010, cost-sharing constituted about 32% of the total expenditure for reimbursed medicines (Garuoliene, Alonderis & Marcinkevicius, 2011).

Furthermore, when the pharmaceutical price is higher than the reference price, the patient pays the difference as a co-payment. In 2011, co-payments for reimbursed pharmaceuticals and medical goods constituted €44 million (152 million litas), an 8% decrease compared with 2010 (NHIF, 2012a). The substantial decrease in co-payments was preceded by the introduction of the Plan for the Improvement of Pharmaceutical Accessibility and Price Reductions (approved in July 2009), which included a number of measures on pharmaceutical pricing and reimbursement (see section 2.8.4).

Lastly, a small charge (€0.30) is required to register with a primary health-care physician. If a patient chooses to change physician within six months after registration, there is a further administrative charge of about €3.

Patients have free access to non-emergency outpatient consultation or hospital admission (secondary and tertiary health care) upon referral from a primary health-care physician (there are some exemptions to this rule; for example, no referral is required for a free visit to a dermatologist/venereologist). Without a referral, the patient must pay a fee for the consultation or hospital treatment, as set by the NHIF.

Dental services provided in public facilities or by private dentists contracted with the NHIF are free for children, whereas adults must pay the costs of materials used during treatment.

There are no official statistics on user charges for areas other than pharmaceuticals and medical goods. Some facilities charge patients for treatment, most often for diagnostic tests – a practice that leads to continuing political discussions. The Ministry of Health's position in 2011 was that certain user charges in public health facilities may contradict constitutional provisions guaranteeing free access to treatment (Ministry of Health, 2011). However some researchers suggest that patient charges in public facilities are broad in scope and should be regulated rather than ignored (Murauskiene, Veniute & Palova, 2010). Moreover, there are legal provisions for charging patients the difference between the basic price of a treatment and the actual cost in case they opt for more expensive treatment components. However, in many cases, there are no clear evidence-based guidelines for formulating treatment protocols; consequently, the difference between standard treatment and voluntary preferences lacks clarity.

3.4.2 Direct payments

Outpatient pharmaceuticals are subject to direct payment for the majority of the population unless they fall into the exception groups specified in section 3.3.1. Spending on pharmaceuticals constitutes the bulk of private expenditure on health care. Total private OOP expenditure on pharmaceuticals and medical goods in 2010 amounted to €370 million (64% of total expenditure on pharmaceuticals and medical goods dispensed in the outpatient setting) (European Commission, 2013). However, this figure also includes medicines partially paid for out of pocket with the rest of the price reimbursed by the NHIF.

Some services in public facilities are subject to direct payments. These are covered in the negative list of health-care services and mainly include ancillary services (acupuncture, occupational health check-ups, abortions, additional care in obstetrics units, substance abuse treatment, cosmetic surgery, dental prostheses and other procedures).

The Health Insurance Law of 1996 stipulated that people without statutory insurance should pay out of pocket for all non-emergency health services.

In private health-care facilities (except services rendered under contracts with the NHIF branches), market pricing and direct payment are applied.

3.4.3 Informal payments

The tradition of making gratitude payments was inherited from the Soviet period. This tendency continued after regaining independence in 1990. A population survey conducted in the Baltic States in 2002 showed that in Lithuania 8% of patients gave unofficial payments while 14% of patients gave gifts in their last contact with health services (Cockcroft et al., 2008). In Estonia and Latvia, the proportion of unofficial payments was lower (0.7% and 3%, respectively), while similar proportions of patients (13% and 14%, respectively) offered gifts. The Transparency International Lithuania report of 2009 showed that 14% of respondents said they gave informal payments in public health-care facilities (Transparency International Lithuania, 2009).

A 2011 survey commissioned by the NHIF showed that 56% of respondents personally paid for health-care services in the past 12 months (45% did it more than once) (NHIF, 2012b). Most frequently, patients paid for a specialist consultation (31% of respondents), GP consultation (24%), surgery (18%) or for a diagnostic examination (14%). Payments for surgery and child birth were the most expensive (€60–145 on average), while specialist consultations,

examinations, hospital admissions and anaesthesia required average payments of €15–59. The lowest payments (up to €15) were solicited for paediatrician visits and GP appointments.

A survey conducted in 2010 in Lithuania under the FP7 project ASSPRO CEE 2007 (*Assessment of Patient Payment Policies and Projection of their Efficiency, Equity and Quality Effects: The Case of Central and Eastern Europe*) demonstrated that 72% of respondents had negative attitudes towards informal payments (Murauskiene et al., 2012). The study also showed that about 40% of outpatients paid for services, but less than half of the payments were informal. For inpatients, the payment rate was higher, about 60%, and a larger portion of these payments (about 70%) was informal.

Although there is some inconsistency in terminology used in different surveys, the results point to a widespread use of informal payments, particularly in inpatient care. In addition, the existing legislation lacks clarity on user charges in health care, and many payments are quasi-formal. Politically, the issue of co-payments set by public providers is considered in the context of corruption. In spring 2012, based on an initiative of the Parliament Anticorruption Commission, a working group in the Ministry of Health proposed to make legal amendments for enforcing a mechanism of penalizing the heads of the public facilities that accept informal payments (Parliament of the Republic of Lithuania Anticorruption Commission, 2011).

3.5 Voluntary health insurance

The share of total health expenditure spent on VHI is low, less than 1% (see Table 3.3), and most of those who hold VHI receive it as an employment benefit from their companies. In 2008, about three-quarters of all VHI was to cover risks during travel and stays abroad, and the remaining 25% amounted to premium payments of €7.5 million (26 million litas) and pay-outs of €4.3 million (15 million litas), with 23 000 insured people. The number of those insured by VHI decreased during the following year, when only 18 000 were insured, while pay-outs exceeded premiums: €7 million (24 million litas) and €5.2 million (18 million litas), respectively (Buivydas et al., 2010).

VHI is regulated by the 1996 Law on Insurance. This legislation states that the insured person(s) may be anyone who agrees to pay insurance premiums, while insurers may be the State Insurance Agency, joint stock companies, insurance societies or mutual insurance societies. An attempt to develop complimentary

VHI within the state health insurance scheme was not successful, mainly because of the formally generous scope of services provided free of charge and negative attitude of the population towards additional payments in health care.

3.6 Other financing

3.6.1 Parallel health systems

There are parallel health systems subordinate to the Ministry of Defence (for members of the military), Ministry of Interior (for the police force) and Ministry of Justice (for prisoners). The Ministry of Finance funds health-care delivery under the supervision of the Ministry of Defence and the Ministry of Interior, which run the parallel health-care provider networks. The hospital run by the Prison Department is mainly financed as a budgetary organization through the Ministry of Justice budget. It also attracts more funds under intersectoral initiatives, such as those for TB and HIV/AIDS control, as well as through participation in projects focused on communicable diseases and addictions.

3.6.2 External sources of funds

In the 1990s, the main sources of external funding were loans from the World Bank (e.g. for the establishment of private dental practices), commercial banks (for pharmaceuticals and equipment) and charity donations (pharmaceuticals, nutrition, second-hand equipment). Substantial technical assistance has been provided by international organizations (WHO, PHARE, UN Development Programme) and through bilateral aid (e.g. from Denmark, Germany, Sweden and Switzerland).

The Lithuanian Health Project (2000–2006) supported the government's health reform policy agenda at a time when Lithuania was in dire need of external donor support. It was financed by a World Bank loan, a grant from the Swedish International Development Agency and a grant from the Government of Japan. Actual project costs were about US$ 30 million and it took six years to complete. This project helped to improve a network of primary health care, develop day surgery, and improve performance of and access to ambulance services and mental health providers.

Lithuania has also received substantial support from the EU ever since it achieved independence in 1991, principally through three programmes – PHARE, ISPA and SAPARD – which offered both funding and technical

assistance. In addition, Lithuania has access to EU structural funds as a Member State since 2004. All of this assistance has helped the government to implement its health policies, including the Strategy for Restructuring Health Care Institutions. EU funding of the projects has reached over €1.5 billion in the period between 2004 and 2013 (see Chapter 6).

In addition to the support aimed directly at health care mentioned above, health-care providers receive financial support from other structural fund activities, such as the EEA, Norway Grants and the Swiss–Lithuanian Collaboration Programme. Over recent years, these have added a further €180 million to financing of health-related projects, targeting energy saving through premises renovation as well as human capacity development and training.

3.6.3 Other sources of financing

The Social Security Fund, central and local budgets, and employers cover cash benefits related to disability. The Ministry of Social Security and Labour is responsible for managing nursing homes for the elderly and the disabled, and it finances medical support within these institutions. Between 2005 and 2010, the funding for this purpose increased by nearly a third, from €57 million to €73 million.

The same ministry is in charge of occupational health arrangements. The State Labour Inspectorate monitors compliance with work safety regulations, and the SSIF provides cash benefits in cases of occupational injury or disease. In 2009, the budget of the SSIF allocated about €900 000 for the implementation of occupational risk prevention measures (improvement of workplaces, technological processes or other measures aimed at eliminating and/or reducing occupational risk to the maximum level permitted by law). According to the Ministry of Social Security and Labour (2010), 51 companies have taken advantage of the programme, using €750 000.

NGOs are mainly financed from the national budget, national and international projects and pharmaceutical companies. However, exact information on NGO financing is not available.

3.7 Payment mechanisms

3.7.1 Paying for health services

A combination of methods is employed for payments for health services. Table 3.6 outlines the main provider payment mechanisms in Lithuania.

Table 3.6
Provider payment mechanisms

	Ministry of Health	Other ministries	Municipality (health)	NHIF (territorial branches)	Private/ voluntary insurers	Cost sharing	Direct payments
GPs	–	–	–	Cap 82%, FFS 7%, P4P 6%, PF 4%	–	Yes	–
Acute hospitals	–	HB	–	CP (DRGs from 2012)	FFS	Yes	–
Other hospitals	–	–	–	CP	FFS	Yes	–
Outpatient specialist care	–	–	–	CP (mainly), FFS (diagnostics)	FFS	Yes	Yes
Dentists	–	–	–	CP	FFS	Yes	Yes
Pharmacies	–	–	–	Reference price	–	Yes	Yes
Public health services	HB	–	HB	–	–	–	Yes
Social care	–	HB	–	–	–	Yes	–

Notes: Cap: Capitation; CP: Case payment; FFS: Fee for service; HB: Historical budget; PF: Project financing; P4P: Pay for performance.

Public health

National public health institutions are financed from the state budget. These include 10 regional public health centres, specialized public health institutions directly subordinated to the Ministry of Health, the State Food and Veterinary Service, the State Labour Inspectorate and the Drug, Tobacco and Alcohol Control Department (see section 2.3). Budget shortfalls are common in these institutions. For example, in its annual 2010 report, the SPHS (total allocation of €7.7 million) reported that actual financing was lower than in the budgetary estimations (SPHS, 2011). As a result of the financial crisis, the overall public health budget was cut by about 10% between 2008 and 2010 (van Ginneken et al., 2012).

Public health centres are financed entirely from the state budget. Specialized budgetary public health institutions may have additional revenue from licensed public health practice, including mandatory health training (e.g. hygiene, first aid), health impact assessment, public health safety expertise and vermin control.

Municipal public health bureaus are financed from both targeted Ministry of Health budget allocations and local budgets. Over recent years, the Ministry of Health has allocated around €1.2 million annually from the state budget to public health in municipalities and an increasing share of financing has come from local government (Sceponavicius, Asokliene & Kavaliunas, 2010). One of the most important legal and financial instruments to foster the establishment of bureaus and development of their services was the State Programme for Developing Public Health Care at Local Level (2007–2010), which provided funding from the state budget through the ministry to municipalities on a contract basis. During 2006–2009, €3.4 million (11.6 million litas) was allocated for that purpose. More than €4 million (15 million litas) has been allocated from EU structural funds for improvement of the bureaus' infrastructure. The Hygiene Institute received about €900 000 (3 million litas) from the same source to provide professional training for public health and nursing care professionals over a five-year period. In addition, the NHIF is required to allocate at least 0.3% of its total funding to municipal public health programmes.

Primary/ambulatory care

The NHIF pays for ambulance services according to population numbers and for transport related to child deliveries (per case). In addition, health-care providers pay for patients' transportation. Call centres are paid per capita, according to the size of the catchment area.

Payment on a capitation basis accounts for 82% of the total revenue in primary care. In 2000, the Ministry of Health and the NHIF developed financial incentives for primary care, including reduction of hospitalization rates for the catchment population and meeting the targets for childhood immunization rates. In 2005, a new list of bonus payments was established, including care for pregnant women, children and the disabled; selected diagnostic tests and nursing at home procedures; and emergency care for the non-registered population. Since 2008, additional fee-for-service payments for prioritized and prevention services have been applied. In 2009, the focus of bonus payments was to reduce hospitalization of patients with chronic diseases, to create incentives for more outpatient care provision and to improve the implementation of preventive programmes. In order to retain access to primary health care

during the financial crisis, the bonus payments for good performance as well as bonus payments for registered rural populations were not reduced in 2009, in contrast to other services, which saw a reduction in financing.

Payment for prevention services can be covered from several sources, for example through capitation payment, fee for service within prioritized services or prevention programme funding.

Specialized ambulatory/inpatient care

Outpatient services are reimbursed on a per-case basis and fee for service for diagnostic tests. A case is defined as an episode consisting of up to three visits to a specialist related to the same illness and is called a consultation. Almost all recurrent costs of outpatient institutions, including the majority of laboratory tests, are covered by the price of the consultation. The reimbursement system moved from a single outpatient consultation fee to a differentiated secondary and tertiary setting.

Before the introduction of DRGs in 2012, hospitals were paid for admitted patients according to the volume of services delivered or the cases aggregated by major specialty (surgery, intensive care, long-term nursing, etc.). Mental health care and TB treatment were paid per bed-day. Acute cases were paid according to indexed reference price (30%, 50%, 100%, 200%), depending on fulfilment of the treatment plan (30%, 50% or 100%) or length of stay (200%). Since 1999, ceilings on the quantity of services provided within the contracts between hospitals and territorial NHIF branches have been introduced, followed by ceilings to the global hospital budgets transferred from NHIF, which led to minor reductions in inpatient admission rates.

In order to encourage a shift to day surgery/care and an outpatient setting, the following categories of payments for inpatient admissions have been gradually introduced since 2002: (1) services for which full reference price was reimbursed according to the contracted volume of provision, with partial reimbursement for services delivered above the contracted volume; (2) prioritized services with no volume restrictions; (3) selected set of services reimbursed at a rate of half the reference price when rendered in an inpatient setting.

Since 2012, a new DRG system – the *Australian Refined Diagnosis Related Groups*, version 6.0 (Australian Department of Health and Ageing, 2008) – has been used in hospitals for reimbursement of acute inpatient care and day surgery services. The classification, which includes 698 DRGs, allows for inclusion of intensive care and high-cost tests and procedures and takes into account comorbidities and complications, as well as interventions, patient's age,

discharge status and some other variables. There is no distinction according to the level of hospital (secondary or tertiary). In 2012, the DRG system was launched in 68 hospitals across the country, as well as in 2 polyclinics and 13 private facilities rendering day surgery services. The payment according to DRGs was postponed until 2014 to allow hospitals to adapt to the new system. After one year, it was reported that the average length of stay (6.92 days) did not change significantly; there have also been issues with the costing and coding fields (NHIF, 2012c).

Long-term and nursing hospitals are reimbursed on a bed-day basis. Patients may be treated in these hospitals for up to 120 days and later should be transferred to homes for the elderly, where a co-payment for services may be applied.

Medical rehabilitation is paid according to reference prices. Since 2010, the lists of reference prices per bed-day, outpatient visit and rehabilitation at home for adults and children are applied.

The NHIF provides additional financing through health programmes, including the National Blood Programme (for compensations for blood donors and promotion of free blood donations), the Human Organs and Tissues Transplantation Programme, and programmes for areas such as emergency care, cancer screening, addictions, children's dental services and immunoprophylaxis.

Pharmaceutical care and medical devices

Only prescription-only medicines registered in Lithuania or the EU according to a positive list can be reimbursed by the NHIF on the basis of individual prescriptions. Even if there is 100% reimbursement, the NHIF pays the pharmacy the reference price while the pharmacy retail price is often higher; consequently, even in a situation of full reimbursement, a patient often bears a co-payment amounting to the difference between the retail and reference price of a medicine.

In 2011, 11.7 million prescriptions were given to 1.2 million patients. Of the total €190 million, €97 million was used for reimbursement of medicines for elderly people and €10 million for those for children. An average reimbursement was €154 per patient, and €183 per elderly patient. The major areas of spending were for medicines for hypertension, type II diabetes, asthma, schizophrenia and prostate cancer (NHIF, 2012a).

Certain expensive medicines, prostheses and other medical devices are annually procured by the NHIF. These accounted for €58 million in 2011 (NHIF, 2012a). Among centrally procured medicines are antiretroviral drugs and pharmaceuticals for colon cancer treatment. Since 2007, NHIF has also centrally purchased influenza vaccine.

Orthopaedic appliances are either procured by the NHIF (being free of charge for the patient) or reimbursed to the patient according to the reference prices, with reimbursement rates varying between 50% and 100% depending on the severity of the condition. In 2011, total allocation for partial compensation amounted to €11.5 million (NHIF, 2012a).

Reimbursement arrangements for teeth prostheses were changed in 2009 when patients, not providers, became eligible for reimbursement. Taking into account long waiting lists (112 000 people in autumn 2009), this decision was made to give patients more opportunities in choosing providers. In 2010, expenditure amounted to €7.7 million (decreasing by almost €1 million from 2009) while the number of patients receiving teeth prostheses increased by 7000 (NHIF, 2011).

3.7.2 Paying health workers

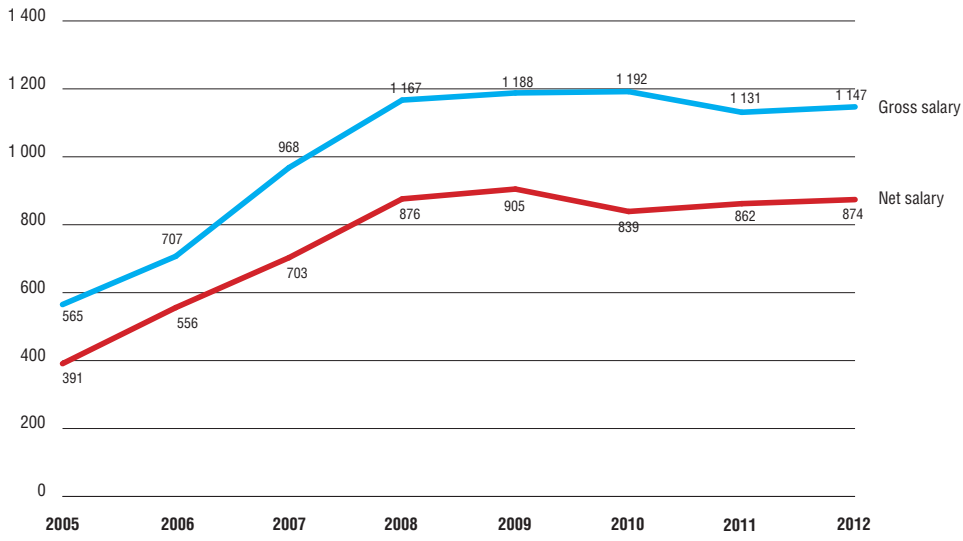
Physicians and nurses employed in public hospitals and polyclinics are paid on a salaried basis. The salary scales for administrators of health-care institutions, physicians, nurses and other staff are set according to a decree from the Minister of Health. In addition, nationwide regulation of salaries for public health personnel (i.e. personnel not involved with health-care services provision) was introduced. Currently, many public health specialists are civil servants and, therefore, their wages are set according to the regulations of the civil service.

Based on the Health Care Institutions Law of 1996, public health-care institutions are registered as non-profit-making legal entities. As their funding shifted from a line budget system to a system where revenues mainly depend on services provided, financial management of public providers was also liberalized. The administration of a non-profit-making institution is free to decide on internal expenditure structure as well as on wage policy in the frame of collective bargaining, with the exception of the minimum wage, which is set by the government and is the same for all sectors of the economy. The owner of the institution (municipality or the Ministry of Health) can set the wage policy with the administration and set the wage for the facility director (chief physician). In June 2011, an amendment to the Health Care Institutions Law introduced rules for calculating wages for the heads of health-care institutions working under contracts with the NHIF. The fixed component of their wage is set according to the average civil service wage and the level of institution (secondary or tertiary) or the number of employed staff. The variable component of the salary cannot exceed 20% of the fixed component and depends on the performance of the institution, mainly measured by financial indicators set by the Minister of Health.

There is a lack of transparency in remuneration of employees of health-care institutions. For many years, public debate focused on the small salaries paid in the public health-care sector. The concern was raised mainly in the context of increasing movement of medical personnel out of the country for economic reasons. In response, the government allocated more than €400 million through the NHIF in 2004–2008 to increase the wages of medical professionals. According to NHIF statistics (unpublished data), in this period the average monthly wage of nurses increased from €256 to €641, the average wage of physicians increased from €410 to €1075, and the average wage of health-care institution staff changed from €276 to €683. National statistics show an increasing trend in average monthly physician wage in 2005–2012 followed by a 7% decrease in 2010 (Fig. 3.7). In 2011, an average monthly net salary in Lithuania was €462, while in the health and social sectors net salaries were €505 and €346, respectively. Notably, wages for women in the health and social sectors are, on average, less than those for men by approximately 25%.

Fig. 3.7

Average monthly physician salary (gross and net of tax) 2005–2012



Source: Statistics Lithuania, 2013b.

There is no personal income regulation for private family physicians acting as independent contractors with NHIF, or for other private providers of health-care services.

4. Physical and human resources

Between 1990 and 2011, the total number of hospitals in Lithuania declined and the majority of hospital premises were renovated. By 2010, the number of beds in acute care was reduced to 498 per 100 000 population – half the number of beds existing in 1992; at the same time, the number of nursing and elderly home beds has gradually increased. Hospital admissions have fallen but, at 22 per 100 population, still remain high in comparison with the other Baltic States and EU averages. Average length of stay in acute hospitals decreased from 14.7 days in 1992 to 6.4 days in 2010.

In 2010 Lithuania had 5 MRIs and 18 CT scanners per million population. However, there was no comprehensive review of availability and state of medical equipment in the country and the utilization rate of existing equipment was not directly measured.

The vast majority of health-care providers use computers and the Internet; half of them have internal computer networks and almost all of them use specialized software. An increasing number of people are researching health issues on the Internet. Three large public investment projects in the national e-health system (the development of e-health service, electronic prescription service and medical image exchange system) are currently underway.

Overall, the health workforce has decreased by approximately 18%: from 65 000 in 1990 to 47 000 in 2010, mostly through a large decrease in nursing personnel. Unequal distribution of medical personnel throughout the country presents a serious problem. Countrywide in 2010, the density of practising physicians per 100 000 population ranged from 906 to 54, but even within regions the density varies by up to a factor of 7, similarly for nurses and midwives.

Recent research on migration shows that about 3% of health professionals left the country between 2004 and 2010. A number of policy actions (increase in salaries, increase in enrolment for training programmes, change in medical

residency status and professional re-entry programmes) have prevented major outflows of physicians from the health sector and country. Yet the ageing workforce will increasingly pose a challenge.

4.1 Physical resources

4.1.1 Capital stock and investments

Between 1990 and 2011, the total number of hospitals in Lithuania decreased from 197 to 145, and currently there are 66 general hospitals, 49 nursing hospitals, 26 specialized hospitals and 4 rehabilitation hospitals (Health Information Centre, 2012). The majority of hospital premises were renovated between 1990 and 2010, with improvements mostly linked to policy objectives such as energy savings, equipment upgrades and the hospital restructuring programme. Many ongoing projects funded from EU structural funds and other external funders have a component for hospital facility renovation.

Investment funds for public providers mainly come from public sources. In 2011, capital expenditure constituted 4.3% of total expenditure on health (there has been an increase since capital expenditure fell from 4% in 2008 to 1.3% in 2009 and 2.7% in 2010) (Health Information Centre, 2013). There are several channels for capital investment: the state investment programme, funded by the government; the services restructuring programme, funded by the NHIF; and, since 2004, the EU structural funds. The last are the main source of capital investments for 2007–2013, with the total volume in the health sector amounting to €240 million. The main priorities for this period are specialist outpatient care development; restructuring of inpatient care and the ambulance system; the optimization of the laboratory network; and public health areas related to prevention of heart disease, injuries, mental ill health and cancer (Ministry of Health, 2005).

For 2007–2013, 98% of the available resource from the structural funds for health was allocated to public providers, despite objections from private providers that deliver services under contract with the NHIF and have to finance their own capital investments.

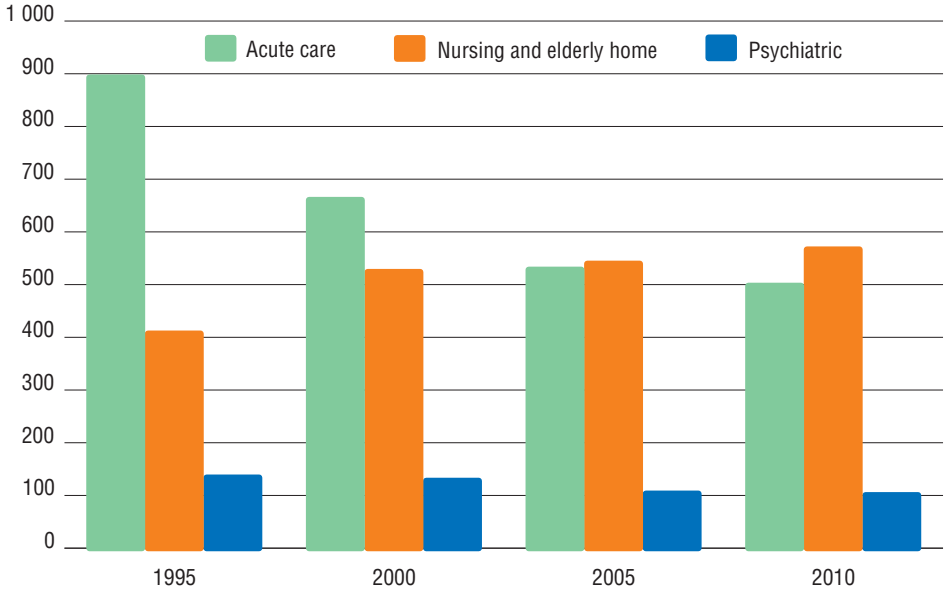
In 2010, the National Audit Office of Lithuania surveyed 48 hospitals in the country and found that about two-thirds were fully or partially satisfied with investment arrangements. However, a similar proportion reported shortcomings, especially the lack of a long-term policy and continuity in implementation of

the investment project, as estimated investment project cost exceeds actual funding. In addition, hospitals reported complex planning procedures, delays in decision-making, lack of transparency in project selection and the absence of needs assessment in the rationale for investments (National Audit Office of Lithuania, 2010).

4.1.2 Infrastructure

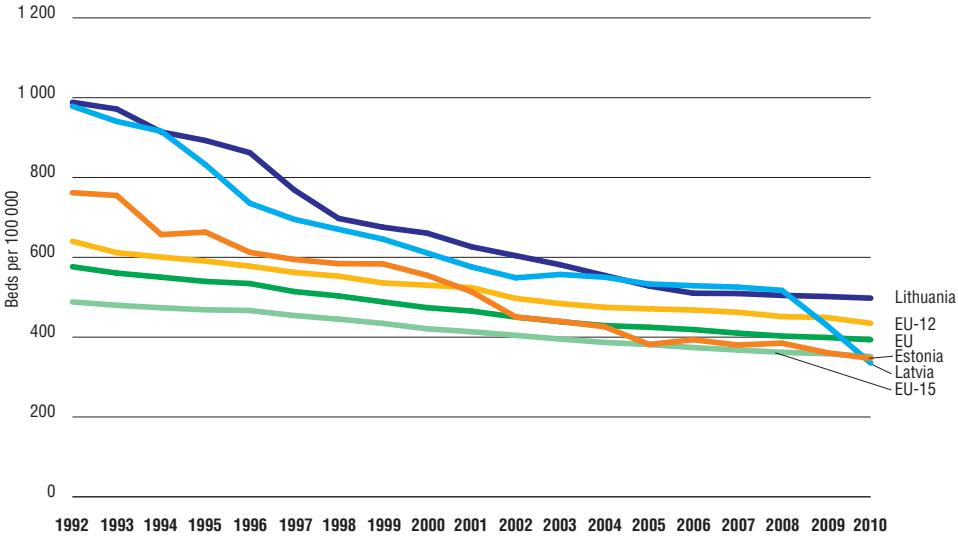
By 2010, the number of beds in acute care reduced to 498 per 100 000 population – half the number of beds existing in 1992. Despite a sharp decline, the number of beds in acute hospitals in 2010 was still higher in Lithuania than in the neighbouring countries and the EU averages. Since 1995, psychiatric beds declined by 25%, to 100 per 100 000, while nursing and elderly home beds have gradually been increasing, reaching 567 per 100 000 by 2010 (Figs 4.1 and 4.2).

Fig. 4.1
Mix of beds in acute hospitals, psychiatric hospitals and long-term care institutions, selected years



Source: WHO Regional Office for Europe, 2013.
Note: Nursing and elderly home beds for 1996 instead of 1995.

Fig. 4.2
Beds in acute hospitals per 100 000 population in Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

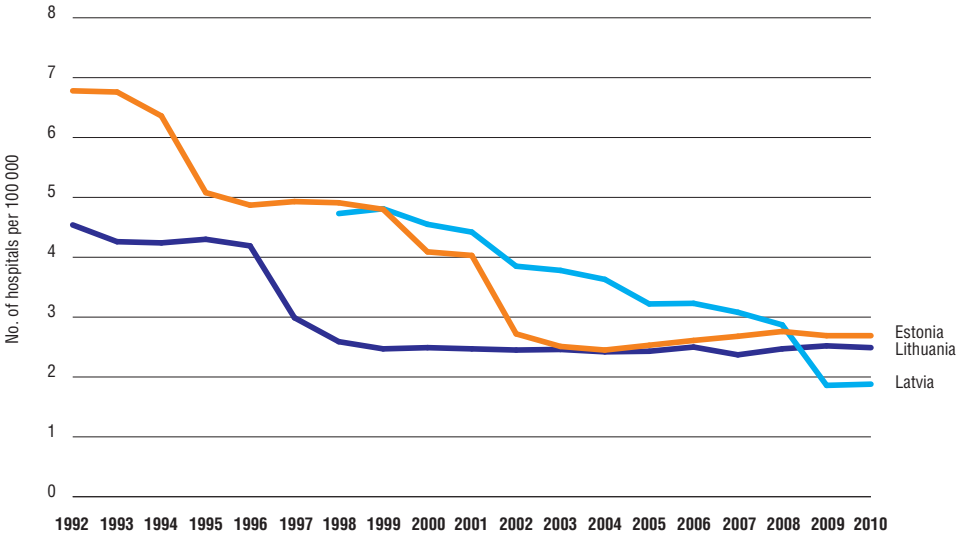
The number of acute hospitals nearly halved by the late 1990s and has remained stable since, amounting to 2.5 per 100 000 population in 2010, a figure similar to Estonia and higher than neighbouring Latvia (Fig. 4.3). Since 2003, restructuring of inpatient care has been carried out in Lithuania, leading to a number of closures and mergers of health-care facilities (see section 6.1).

The hospital admissions rate is one of the main indicators used in health reform assessment in Lithuania. For many years, the target of 18 inpatient admissions per 100 inhabitants has been used in plans to optimize health-care provision. Although admission rates have fallen after peaking at 25 per 100 inhabitants in 1999, they remain high in comparison with the other Baltic States and the EU averages, still being 22 per 100 inhabitants (Fig. 4.4).

The Baltic States followed a similar trajectory in reductions in hospital stay: from 17 days in Lithuania and Latvia and 16 in Estonia in 1992 to 8.2 days in Lithuania, 8.5 days in Latvia and 7.7 days in Estonia in 2010, which is comparable to EU averages (Fig. 4.5). Similarly, average length of stay in acute hospitals in Lithuania decreased from 14.7 days in 1992 to 6.4 in 2010. At the same time, bed occupancy rate in acute care in 2010 was 72%, which was slightly lower than in preceding years (WHO Regional Office for Europe, 2013).

Fig. 4.3

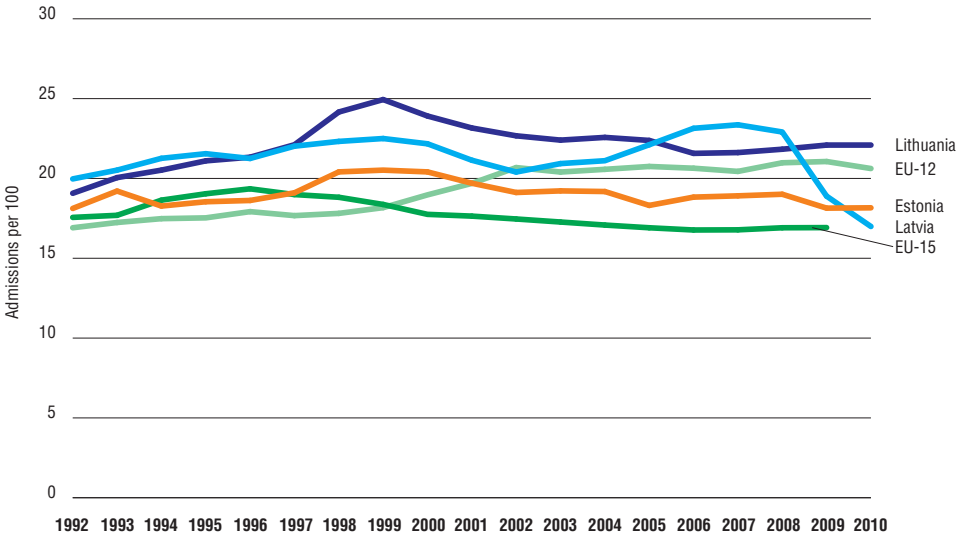
Number of acute hospitals per 100 000 population, Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

Fig. 4.4

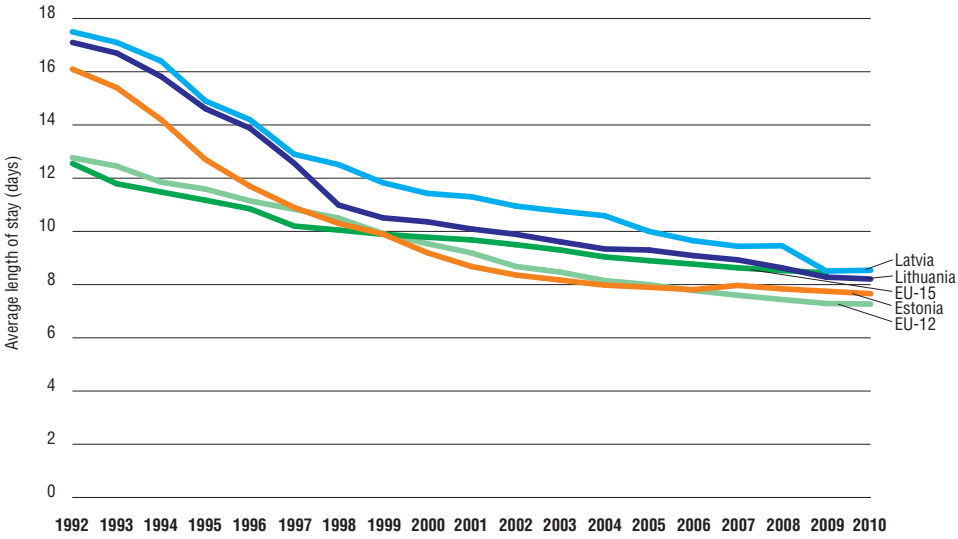
Inpatient admissions in Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

Fig. 4.5

Average length of hospital stay in Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

Since its introduction in 2001, day care accounts for an increasing proportion of admitted patients. In 2011, it represented 71 000 patients, or 10% of the total inpatient admissions for active treatment (Health Information Centre, 2012). According to a World Bank review (2009), there is scope for a larger share of outpatient and day-care treatment.

4.1.3 Medical equipment

According to this World Bank report, there was no comprehensive review of availability and state of medical equipment in the country and the utilization rate of the existing equipment was not directly measured (World Bank, 2009).

In 2010, Lithuania had 5 MRI units and 18 CT scanners per million inhabitants, which is less than the EU average of 10 MRIs and 20 CT scanners per million inhabitants in the same year (European Commission, 2013). A state audit (National Audit Office of Lithuania, 2010) reported that 20 public health-care providers spent over €53 million on expensive pieces of equipment in 2006–2009. Decisions on purchasing positron emission tomography (PET) units have been the subject of much debate, mostly related to need and allocation of the equipment. Despite an estimation that a single unit should

suffice for the whole country, two PET units, acquired for Kaunas (in 2012) and Vilnius (in 2013) university hospitals, are currently financed from the EU structural funds.

4.1.4 Information technology

Two-thirds of households and 95% of enterprises have Internet access in Lithuania, while 65% of the population uses the Internet (European Commission, 2013). The vast majority of health-care providers use computers and the Internet; over half have internal computer networks and almost all of them use specialized software. An increasing number of people are researching health issues on the Internet (Minister of Health, 2010). In 2011, 55% of health-care institutions had an electronic patient database; 35% used information technology for medical research, and 85% used information technology for administrative purposes. In addition, 57% of health-care institutions had web sites and 13% offered e-registration for an appointment. In 2011, 41% of employees of health-care institutions used computers and 38% had access to the Internet at their workplaces (Statistics Lithuania, 2013b).

An e-health strategy was adopted in 2007. The core of the e-health system consists of a database of electronic medical records interfacing with the national and Ministry of Health databases (see section 2.7), the NHIF database, the State Information System and health-care providers. Although e-health development is one of the stated priorities of the national strategy for the development of an information society, the field lacked motivation, leadership and coordination (Janoniene, 2008). The National Electronic Health System Development Programme for 2009–2015 was prepared and approved in 2010 (Minister of Health, 2010). The National Audit Office of Lithuania (2011a) in its report on the e-health strategy concluded that progress made over 2008–2011 has been insufficient and the Ministry of Health actions have been inefficient. In response, the ministry cited previous absence of legal arrangements as a major barrier for establishing a countrywide information system that could deliver basic e-health functions, and it assured that the remaining arrangements should be completed by the end of 2012 (Vireliunaite, 2011).

In 2011, the Regulations of the Information System of E-health Services and Co-operation Infrastructure were approved by the Lithuanian Government and the Ministry of Health was appointed as the owner of the e-health system, while the State Enterprise Centre of Registers became responsible for the system's management (Government of the Republic of Lithuania, 2011). Three

large public investment projects are currently being implemented in relation to the e-health system: the development of e-health services, the electronic prescription service and the medical image exchange system.

4.2 Human resources

4.2.1 Health workforce trends

The main trends for the health workforce in Lithuania are shown in Table 4.1 and Figs 4.6–4.10. Overall, the health workforce has decreased by approximately 18%: from 65 000 in 1990 to 47 000 in 2010, mostly through a large decrease in nursing personnel (Health Information Centre, 2013). The overall number of physicians per 100 000 population in Lithuania fluctuated between 360 and 375 in the period between 1992 and 2010 (Fig. 4.6). In 2010, it was 372 – higher than in Estonia, Latvia and the EU averages. The number of nurses per 100 000 population over that period has decreased from 944 to 722 – higher than in Estonia, Latvia and the EU-12 (Fig. 4.7) and lower than the average for the EU-15 (Fig. 4.8). The number of dentists has increased from 55 to 75 per 100 000, a figure similar to the EU-15 average (Fig. 4.9). The number of pharmacists increased from 52 to 66 per 100 000 in the period from 1994 to 2003 (Fig. 4.10). The reporting then changed from physical persons to pharmacists licensed to practise, resulting in a break in the series (data not shown because of this lack of comparability). In 2010, there were 88 licensed pharmacists per 100 000 population (European Commission, 2013).

Table 4.1

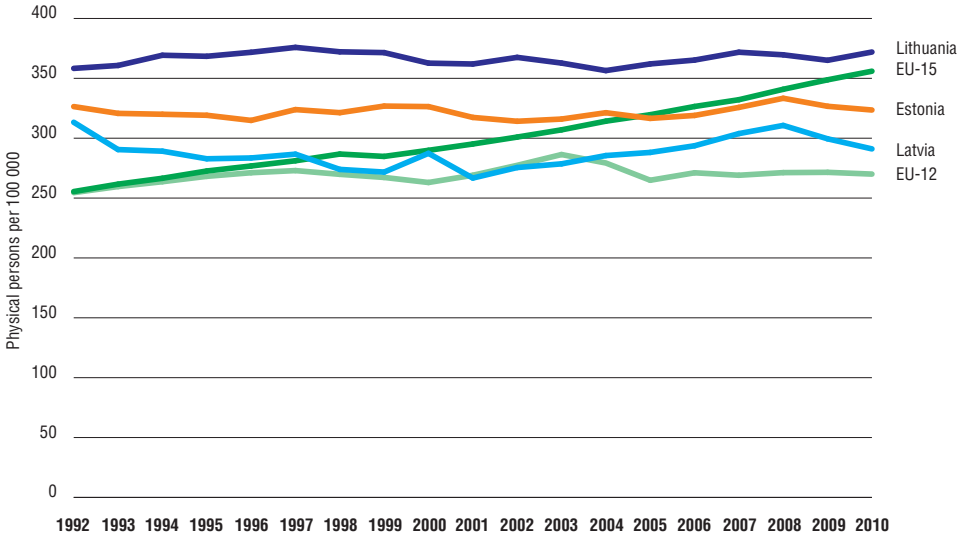
Health workers (practising) in Lithuania per 100 000 population, 1992–2010

	1992	1995	2000	2005	2010
Primary care	86	85	94	94	95
Specialist physicians	296	293	278	258	255
Nurses	894	894	763	710	695
Midwives	50	50	39	30	27

Source: European Commission, 2013.

Fig. 4.6

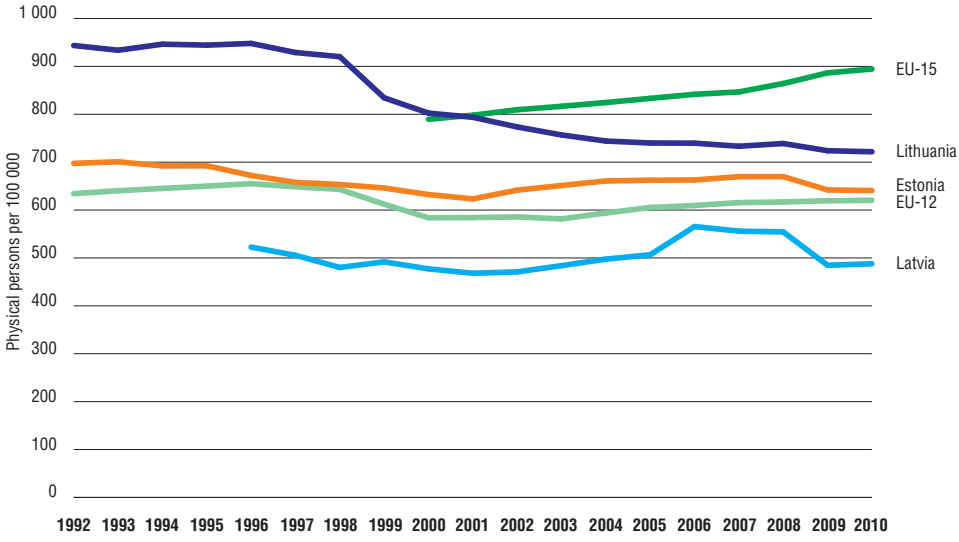
Physicians per 100 000 population in Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

Fig. 4.7

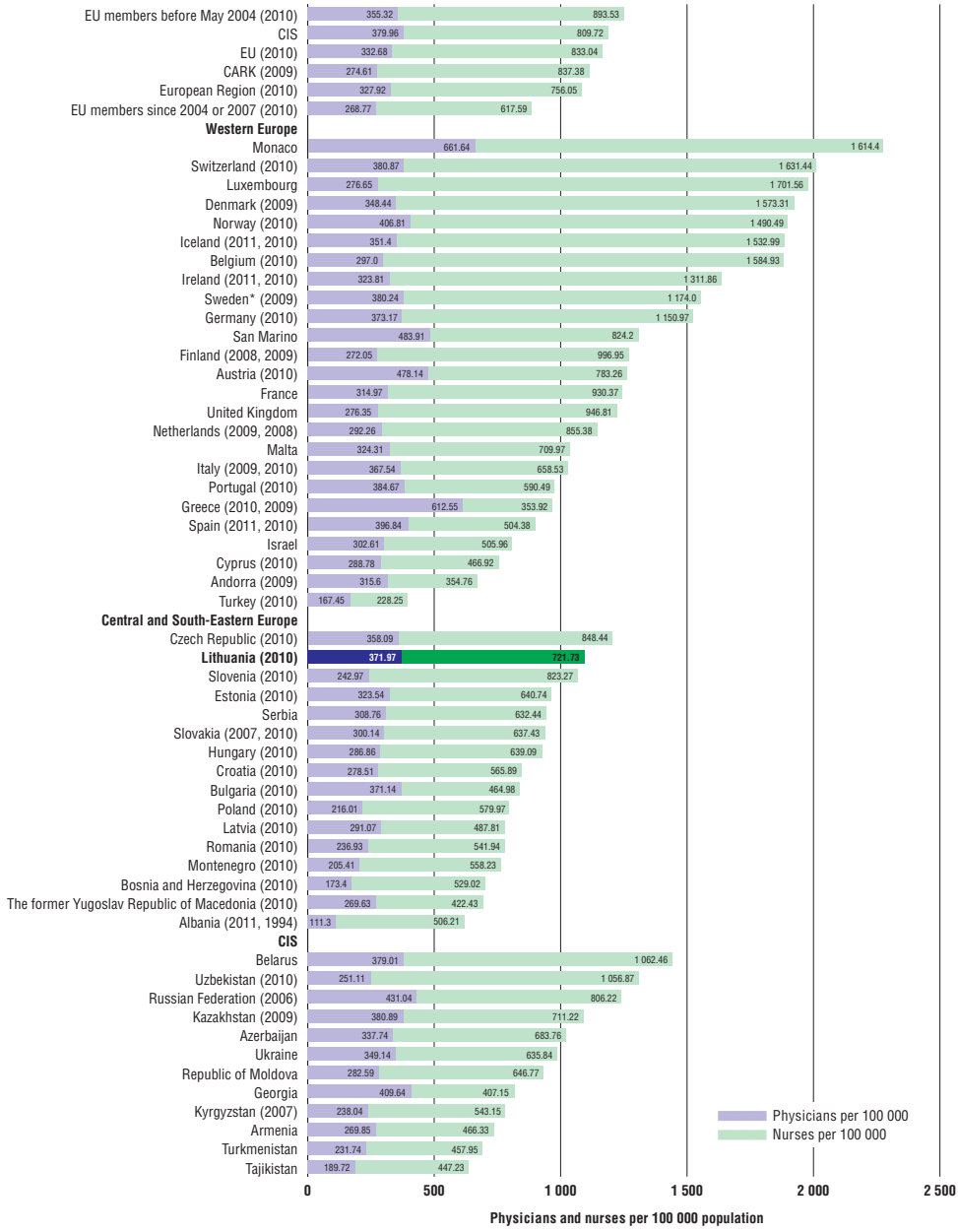
Nurses per 100 000 population in Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

Fig. 4.8

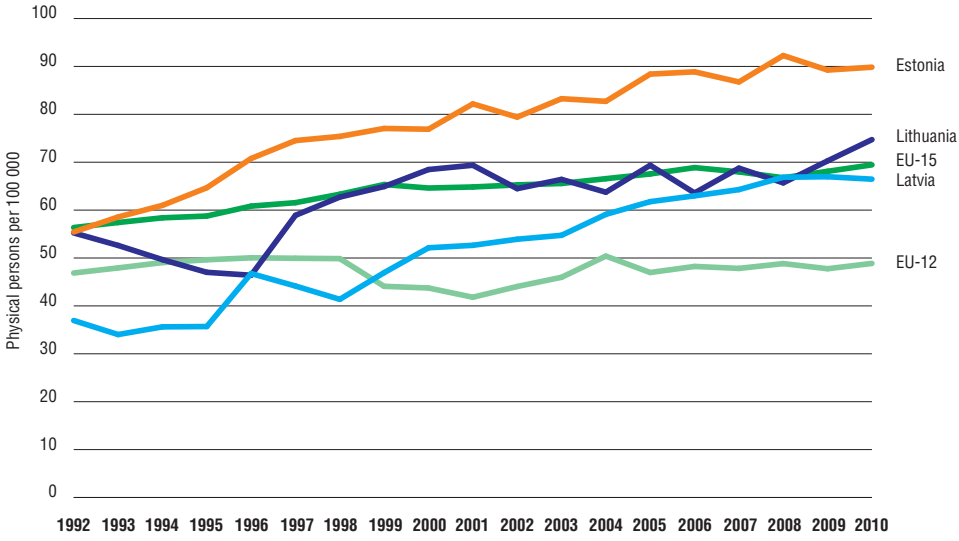
Physicians and nurses per 100 000 population in the WHO European Region, 2011 or latest available year



Source: WHO Regional Office for Europe, 2013.
Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States.

Fig. 4.9

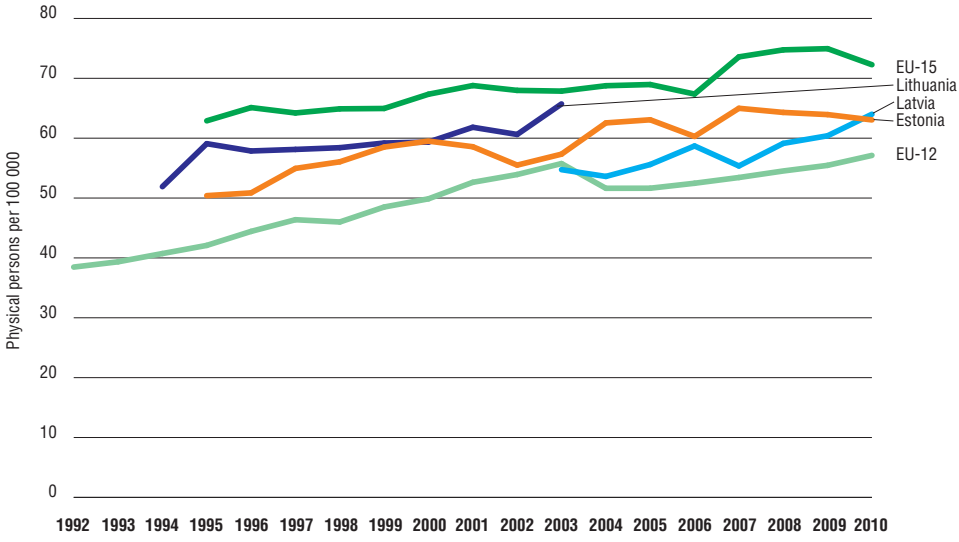
Dentists per 100 000 population in Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

Fig. 4.10

Pharmacists per 100 000 population in Lithuania and selected countries, 1992–2010



Source: WHO Regional Office for Europe, 2013.

Unequal distribution of medical personnel throughout the country presents a serious problem. Countrywide in 2010, the density of practising physicians ranged from 906 to 54 per 100 000 population, but even within regions the density varies by up to a factor of 7; a similar situation is found for nurses and midwives. Moreover, the Lithuanian health workers' trade union stresses that health system reforms, particularly hospital network reorganization (e.g. declining functions of hospitals in rural areas), are leading to increased unemployment among health professionals, mostly nurses.

Another cause of physician shortages in Lithuanian provinces is the absence of a centralized model for medical personnel planning and training. At present, universities have *de facto* control over physician training because of the lack of comprehensive, national-level human resource planning. The dominant position of university clinics in physician training inevitably results in imbalances in physician availability throughout the country.

Forecasts indicate that 40–60% of medical professionals currently working will exit the health workforce before 2025 because of their age; they will need to be at least partially replaced by newly trained specialists (Starkiene, 2012).

Ongoing human resources issues in Lithuania are the availability of trained health-care workers and migration. Other problems include ageing of physicians (currently, the average age varies from 49.6 years for family doctors to 56.2 years for internal medicine specialists), lack of medical residents in some specialties (obstetrics–gynaecology, neurology and ENT), high (about 20%) student drop-out rates and shortcomings in workload management.

4.2.2 Professional mobility of health workers

The issue of health worker migration has been the subject of broad debate in Lithuania, particularly since joining the EU in 2004. A study conducted in 2006 showed that the main drivers for emigration among health and social care workers were low wages, excessive workload, poor working arrangements and unsatisfactory work environment (Public Policy and Management Institute, 2006).

Health worker migration data showed that the number of doctors requesting professional certificates valid abroad was 357 in 2004 as Lithuania entered the EU, 186 in 2005 and 139 in 2009. For nurses, it was 107 in 2004, 166 in 2005 and 267 in 2009 (Padaiga, Pukas & Starkiene, 2011a). However, the number of certificates does not reflect the number of health workers actually leaving the country. A study showed that in the first two years since joining

the EU about 0.6% of nurses, 0.5% of physicians and almost 2% of dentists left Lithuania annually (Starkiene et al., 2008). Their main destination was the United Kingdom, followed by the Nordic countries. By contrast, the numbers of work permits issued to foreign nationals were negligible: in 2005–2008; only 15 medical doctors, 6 nurses and 2 dentists sought permission to practise in Lithuania (Padaiga, Pukas & Starkiene, 2011b).

A more recent analysis (Lithuanian University of Health Sciences, 2011) reported that 3% of health professionals left the country between 2004 and 2010. Among surgeons, gynaecologists and obstetricians, these percentages are higher: 8.5%, 4.7% and 6%, respectively. Nevertheless, Starkiene et al. (2013) suggest that human resource policy in health care during the 2000s has followed evidence-based recommendations and that policy actions (increase in salaries, increase in enrolment for training programmes, change in medical residency status and professional re-entry programmes) have prevented major outflows of physicians from the health sector and country. In spite of this, the ageing workforce will increasingly pose a challenge.

4.2.3 Training of health workers

Physicians are trained at the Lithuanian University of Health Sciences (known as Kaunas University of Medicine until 2010) and the Faculty of Medicine at Vilnius University. The number of graduates from these schools has been increasing annually and in 2010 reached around 1500, with another 500 completing residency training. Since 2001, Klaipeda University and the Lithuanian Sports University are included on the list of higher education institutions providing training for health professionals (e.g. public health, nursing and physical therapy). There are also six colleges providing vocational training for nurses and other health-care personnel.

In 1992, formal training for physicians was extended to include residency training programmes following the six-year undergraduate period, and in 1995 it was harmonized according to EU standards. According to the Government Resolution of 2003, current medical training programmes cover undergraduate and postgraduate levels: six years for the diploma (five years for odontology and pharmacy and four years for public health, nursing, midwifery and rehabilitation) and three to six years for residency training programmes depending on specialty. A master's degree in public health, nursing or rehabilitation can be obtained in two years, and doctoral studies span a four-year period. Non-university training programmes last from two to three and a half years. Since 1995, a proportion of students have had to pay for studies.

Specialist training for GPs, lasting 33 months, was first implemented in 1991, while retraining courses (lasting up to 52 weeks) started in 1993. The Ministry of Health planned to retrain the majority of GPs by 2010, with a target of 2500 trained or retrained GPs (Minister of Health, 2003). However, only 1849 GPs were actively employed in that year (Health Information Centre, 2012). A number of obstacles impeded the achievement of the target: a lack of teachers, difficulties for practising physicians to leave their jobs and families for retraining, and the significant financial burden of living expenses despite the government financing the costs of courses.

There are six vocational training institutions for nursing, midwifery and social care in Lithuania, teaching around 3500 students annually. There are also university degree programmes in nursing, with around 300 graduates annually. There have been a number of recent changes to improve nursing training. The curriculum now places greater emphasis on health promotion activities and community care. Nursing students also gain more practical skills, in part thanks to a larger role for qualified nurses in training. Nurses are increasingly promoted as semi-independent health practitioners.

5. Provision of services

The public health system in Lithuania consists of 10 public health centres, subordinated to the Ministry of Health, and a number of specialized agencies with specific functions (radiation protection, emergency situations, health education and disease prevention, communicable disease control, mental health, health surveillance, and public health research and training). At the local level, municipal public health bureaus carry out public health monitoring, health promotion and disease prevention.

Primary care is delivered by a GP or a primary care team. The development of the GP gatekeeping function has been an important goal of the primary health-care reforms. The municipalities administer the entire network of primary health-care institutions through one of two models. In the centralized model, one primary health-care centre manages a pyramid of smaller institutions. In the decentralized model, GP practices or primary care teams are legal entities holding contracts with the NHIF.

Specialist outpatient care in Lithuania is delivered through outpatient departments of hospitals or polyclinics as separate legal entities, as well as through private providers. Specialties with most outpatient attendances are ophthalmology, neurology, ENT, orthopaedics and cardiology.

A major service restructuring has been occurring in specialist services since 2003. Day care, day surgery and outpatient rehabilitation services were significantly developed; specialized hospital units were closed in many local hospitals and services were transferred to multiprofile hospitals. Some institutions were merged.

Emergency care is commonly provided by GPs during services hours. Alternatively, and during the GP out-of-hours times, it is provided by emergency departments of hospitals.

The number of pharmacies increased from 465 in 1993 to 1498 in 2011, and the vast majority of them are privately owned. The number of authorized medicines has also increased to 4659 registered pharmaceuticals in 2010. The level of reimbursement for pharmaceuticals in Lithuania remains low, and access to innovative medicines was shown to be lacking.

In response to the poor mental health of the population, the government adopted national mental health-related programmes and upgraded the infrastructure. In 2012, there were 4 specialized mental health-care hospitals, 5 addiction centres and 20 departments within general hospitals delivering both inpatient and outpatient mental health-care services. In addition, since 1998 a network of local mental health-care centres has been developed.

5.1 Public health

The principal guidelines for the public health service have been outlined in the Health System Law (1994), Lithuanian Health Programme (1998–2010) and the National Public Health Strategy (2006–2013). In 2002, the parliament adopted the Public Health Law and the Public Health Monitoring Law. Other relevant legal documents regulating public health service activities include the Law on Consumer Protection (1994), the Law on Prevention and Prophylaxis of Communicable Diseases (1996), the Law on Alcohol Control (1995), the Law on Tobacco Control (1995), the Law on Product Safety (1999), the Law on Food (2000), the Law on Dangerous Substances Control (2001) and the Occupational Health and Safety Law (2003).

The Public Health Surveillance Service was established within the Ministry of Health in 1994 to replace the Soviet-era sanitary-epidemiological service. In 2000, the SPHS was established under the supervision of the Ministry of Health. It was abolished in 2012 and its functions transferred to a network of 10 regional public health centres and the Ministry of Health. The role of public health centres ranges from health protection to public health strengthening, including public health safety, dealing with health emergencies, consumer rights protection, environmental safety, and prevention and control of communicable diseases. Vilnius Public Health Centre is also responsible for the safety of cosmetic products, food supplements, mineral water and biocides.

In addition, a number of specialized public health agencies have also been reformed or restructured. For example, the Communicable Disease Prophylactics and Control Centre has been merged with the Lithuanian AIDS Centre, and the Lithuanian Health Information Centre has been incorporated into the Hygiene Institute.

Currently, the following public health institutions are under the supervision of the Ministry of Health:

- the Radiation Protection Centre, which is responsible for supervision, assurance and coordination of radiation protection services;
- the Health Emergency Situations Centre, which coordinates preparedness and participates in health emergency management; it is also a WHO collaborating centre on International Health Regulations;
- the Health Education and Disease Prevention Centre, which provides technical support and carries out prevention activities for noncommunicable diseases and injuries as well as education of health professionals and the general public;
- the Centre for Communicable Diseases and AIDS, which implements national policy in prevention and management of communicable diseases; organizes and implements epidemiological surveillance of communicable diseases; organizes and coordinates population-based immunization services; and works in the field of informal education;
- the State Mental Health Centre, which engages in implementation of mental health policy and public mental health measures, including coordination of primary mental health care and monitoring and strengthening population mental health;
- the National Public Health Surveillance Laboratory, which was established in 2003 to test air in housing and workplaces, sewage, sanitary and drinking water, food and non-food products, cosmetics and personal hygiene products, materials and products in direct contact with food, biocides, detergents and chemical products for households; it also performs clinical, diagnostic and environmental laboratory tests, as well as testing of electromagnetic radiation, noise and vibration; and
- the Hygiene Institute, which provides research and training in public health and is made up of the Public Health Technology Centre, the Occupational Health Centre and the Health Information Centre; the last handles health statistics and epidemiology, including state registers of deaths and causes of death, of occupational diseases, and of blood donors.

At the local level, municipal public health bureaus are responsible for a number of functions, including health promotion and disease prevention, population health monitoring, and planning and implementing local public health programmes. The bureaus also collaborate with NGOs, communities, families, other sectors and stakeholders. Currently, there are 33 public health bureaus serving 57 municipalities out of 60 (Kavaliunas, Sceponavicius &

Asokliene, 2012). The majority of employees in public health bureaus are public health professionals working with schools; consequently, bureaus have focused on community and child health.

Public health bureaus are set a broad mission, with goals and priorities to promote public health and well-being at the local level. They aim at strengthening the public health planning role of local government by including evidence, community consultation and evaluation. Therefore, development of the bureaus has provided a mean by which local governments, in partnership with the service providers, other stakeholders and the community within the municipality, can plan and implement public health services and programmes (Kalediene et al., 2011).

At the primary health-care level, some public health functions, such as health promotion, primary prevention and immunization, are carried out by GPs. They, along with other medical specialists and dentists, implement national screening programmes financed by the NHIF. Women aged 25–60 years are offered cervical cancer screening every three years, and those aged 50–69 years are offered breast cancer screening every two years. Men aged 50–75 years (and over 45 for those at risk) are eligible for prostate cancer checks every two years. In addition, biannual colorectal cancer screening is available for adults aged 50–75 years; annual screening for those with high cardiovascular risk is available to men aged 40–55 years and women aged 50–65 years, and a dental programme that provides for teeth coating is offered to children aged 6–14 years. These programmes are opportunistic rather than population based. Recently, the NHIF cited evidence that describes most of these programmes as efficient (Momkuviene, 2011).

An integral part of public health policy implementation is carried out through international programmes and projects. Substantial funding has been obtained for strengthening public health system capacities in compliance with EU regulations. In 2013, there are about 50 ongoing projects in public health, financed from the EU structural funds or other international mechanisms (EU Health Programme, WHO, International Atomic Energy Agency), including the development of health impact assessment, professional training, communicable disease prevention, monitoring injuries, reducing health inequalities, strengthening preparedness for emergencies, improving radiation protection, expanding public health laboratory functions and improving mental health.

The main problems in public health services include bureaucratic and financial constraints, lack of intersectoral cooperation, staffing problems and qualifications of the personnel responsible for implementing public

health functions. The establishment, funding and activities of local public health depend greatly on political will. Furthermore, the implementation of the Lithuanian Health Programme at the local level is not well defined and often fails to incorporate the effect of short-term strategies on the intermediate and long-term goals of the Programme and the Lithuanian National Public Health Strategy. The quality of public health services and activities is also an urgent issue. However, the development of methodology to assess allocation needs for concrete measures in public health care in municipalities is among governmental priorities (Kalediene et al., 2011).

5.2 Patient pathways

A patient usually enters the health system through their GP or directly through a specialist doctor if urgent care is needed; for non-urgent care and with no GP referral a user fee is paid. When elective surgery is needed, a patient can choose a service provider and a consultant. Inpatient and outpatient rehabilitation facilities are available to improve a patient's recovery. A typical patient pathway for hip replacement surgery is described in Box 5.1.

Box 5.1 Pathway for hip replacement surgery in Lithuania

In Lithuania, a woman suspected of needing a hip replacement due to arthritis would take the following steps.

1. After a free visit, her GP refers her to a specialist (orthopaedist–traumatologist) at a public hospital.
2. She has free access to specialist physicians as well as to hospitals contracted by the NHIF (she can check waiting times for all relevant providers at the NHIF website).
3. If elective surgery is the best choice, a consulting physician is obliged to inform the patient about the rules for waiting lists and reimbursement, and the patient decides which hospital she will be admitted to. She will either wait according to the queue (to get the prosthesis free of charge) or buy the prosthesis (and get reimbursed at the level of the cheapest centrally procured analogue device after the surgery).
4. If she has to wait for the hospital appointment, the patient is prescribed any necessary medications (only the reference prices of those on the positive list will be reimbursed).
5. Following surgery and primary rehabilitation at the hospital, the patient could be referred either to inpatient (which should start no later than five days after discharge) or outpatient rehabilitation, consisting of physical therapy with a physical medicine and rehabilitation physician. The need and duration of rehabilitation depends on severity, measured through Bartel and/or Keitel indexes. Moreover, outpatient rehabilitation and/or home rehabilitation could follow inpatient rehabilitation if needed.
6. A nurse from the patient's GP practice may visit the patient at home, and the municipality pays for social assistance (in the form of either services or informal caregivers).

5.3 Primary/ambulatory care

Primary care can be delivered by a GP or by primary care teams, which include a specialist in internal medicine (a therapist), a paediatrician, an obstetrician–gynaecologist and a surgeon. No new primary care physician teams are being established, and the emphasis is slowly shifting towards GP-provided primary care. According to NHIF data, in 1998 there were 230 GPs (7%) and 3059 physicians (93%) working under team arrangements (including 1412 internal medicine physicians, 993 paediatricians, 417 gynaecologists and 237 surgeons), while in 2010, there were 2003 GPs (60%) and 1388 primary care team specialists (422 internal medicine physicians, 431 paediatricians, 325 gynaecologists and 210 surgeons) (NHIF, 2011). In this period, the population served by GPs increased by 5.3 times, and 73.3% of the population was registered with a GP by 2008. Since 2005, primary care practice size has depended on the proportion of children in the catchment population and varies between 950 and 1550 registered patients per practice. The maximum norms for midwives and surgeons are 10 000 and 16 000, respectively, while the maximum norm for a dentist is 4000. Currently, patients have the right to choose any physician employed by the primary health-care facility.

The municipalities administer the entire network of primary health-care institutions, according to two primary health-care models.

The centralized model. One primary health-care centre manages a pyramid of smaller institutions. These are usually based in smaller towns and rural areas and include group practices or GP surgeries, ambulatories, paramedical centres ("medical posts") employing one paramedic and/or one midwife, and inpatient nursing facilities.

The decentralized model. Most of the above-mentioned institutions (with the exception of paramedical centres linked to GP offices or ambulatories) are not branches of a municipal primary health-care centre but legal entities holding contracts with the NHIF.

Due to the different approaches to outpatient health-care organization (decentralized under the management of municipalities as owners of public health-care institutions), network arrangements vary substantially throughout the country. Commonly, the physicians (GPs or physicians working within primary care teams) and nurses in large cities deliver care in polyclinics and private practices. Polyclinics employ 10–20 different types of specialist physician, and they are responsible for almost all primary and secondary outpatient care, including some outpatient surgery. Polyclinics are equipped

with radiography, ultrasound scanners and other diagnostic equipment. Some polyclinics have undergone an institutional separation: free-standing primary health-care centres have been established while outpatient specialist units have been merged with hospitals.

Since 1998, policy proposals have focused on the establishment of private GP practices, which would involve publicly financing primary health care with private GPs through territorial NHIF branches. The development of private general practice was supported by certain political decisions (e.g. the application of the same payment rules for private and public providers for value added tax) and investments (e.g. the refurbishment of about 40 private GP surgeries under the PHARE project in 1999 and EU structural fund investments to 137 general practices in 2006–2009).

Between 1998 and 2010, the total number of primary health-care providers contracted by the territorial branches of the NHIF increased more than 2.5 times, reaching 390; the number of public providers grew from 141 to 169, and the number of private providers increased from 5 to 221 (NHIF, unpublished data). Private providers constituted 57% of all relevant contracted institutions, and they serve about a third of the population. In 2011, the public provider network covered 92 primary care health centres, 32 GP practices, 164 ambulatories and 632 medical posts (Health Information Centre, 2013).

The development of the GP gatekeeping function is an important goal of the new approach to primary health care. For free access to specialist care, patients require a signed referral from their GP or primary care physician. Currently for non-urgent care, only a dermatologist/venereologist and, since mid-2012, a psychiatrist can be seen at no charge without a referral. While it is very difficult to change the traditional patterns both in patient behaviour and in scope of treatment provided by physicians, a substantial share of visits to the primary care physician relates to the formal requirement to obtain a referral.

In 2011, there were 4.7 visits per capita to primary care physicians (Health Information Centre, 2013). Adult patients were responsible for 75% of these. More than 60% of the total was to GPs, while 33% was visits to physicians within primary health-care teams, and 7% was visits to psychiatrists (NHIF, unpublished data).

According to the 2009 World Bank report, efforts to strengthen primary care in Lithuania should be accelerated through an expansion service package and incentives to treat patients, provision of equipment, and increase of capacity and/or authority to provide more comprehensive services (World Bank, 2009).

Therefore, while primary health care in Lithuania has made substantial progress since the early 1990s, a number of challenges for further development still remain. According to the national strategic documents and the Ministry of Health action plans, areas requiring more focus include disease prevention and timely diagnosis, continuous and integrated care, and improving performance through better measurement and financing.

5.4 Specialized ambulatory care/inpatient care

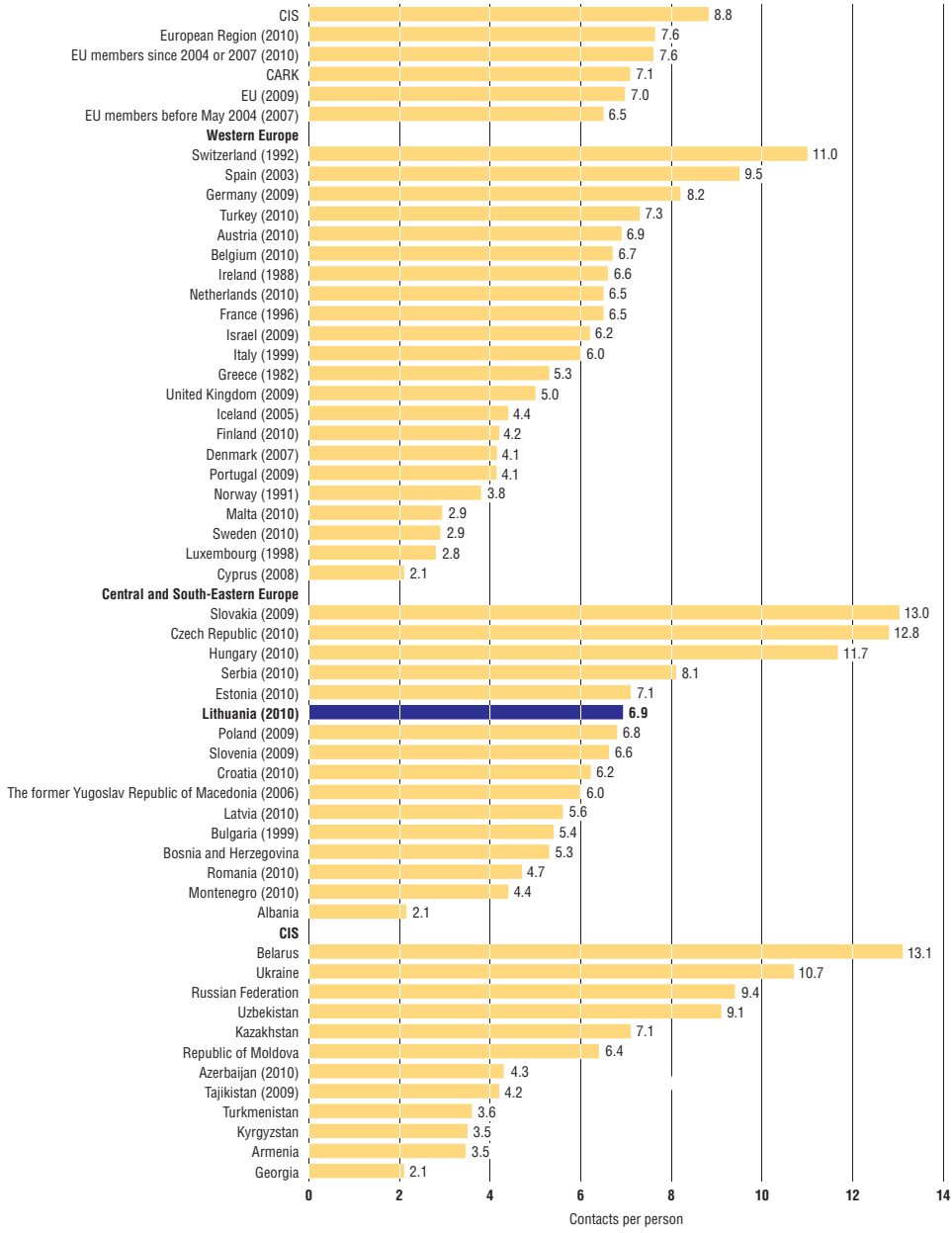
Specialist outpatient care in Lithuania is delivered mainly through polyclinics. In 2011, in addition to 25 free-standing polyclinics that provide primary and secondary care, there were 66 outpatient departments within hospitals, 37 specialized polyclinics and 354 private specialist clinics (Health Information Centre, 2012).

As seen in Fig. 5.1, the rate of outpatient contacts per capita is close to the EU average. This number (6.9) includes outpatient visits to both primary and specialist physicians rendering care in all types of outpatient facility (including hospital units) as well as emergency care. Visits to medical specialists made up about 34% of all outpatient visits, equivalent to about 2.2 visits per capita in 2011. Specialties with most outpatient attendances were ophthalmology, neurology, ENT, orthopaedics and cardiology (Health Information Centre, 2013).

The transfer of resources concentrated in specialized hospitals to general hospitals and the outpatient sector over the years has resulted in a reduction of the total number of hospital beds and conversion of facilities to other uses. In 2011, there were 145 hospitals with a total of 26 364 beds. There were 66 general hospitals, 49 nursing inpatient facilities, 26 specialized hospitals and 4 rehabilitation hospitals. The number of hospitals, beds and the average length of stay have decreased substantially since the mid-1990s (see section 4.1). In addition, there are fewer providers as legal entities, mainly as a result of the hospital network restructuring process in 2009–2012, which pursued a merger of smaller and single-profile institutions with larger multiprofile hospitals (see section 6.1). Table 5.1 shows the number of beds and average length of stay in public inpatient health-care institutions.

Fig. 5.1

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



Source: WHO Regional Office for Europe, 2013.
Notes: CARK: Central Asian Republics and Kazakhstan; CIS: Commonwealth of Independent States.

Table 5.1
Public hospitals in Lithuania in 2011

	No. institutions and branches/ No. legal entities	No. beds	Average length of stay (days)
General hospitals	66/62	18 917	6.93
City hospitals	22/19	–	–
District and region hospitals	44/43	–	–
Nursing hospitals	49/14	2 858	52.66
Specialized hospitals	26/11	4 415	22.11
Communicable diseases	1/0	55	5.89
TB	8/1	990	73.38
Cancer	2/1	583	7.48
Mental diseases	10/4	2 528	29.44
Addiction diseases	5/5	259	15.04
Rehabilitation hospitals	4/2	610	19.97

Source: Health Information Centre, 2012.

However, according to the World Bank report in 2009, hospital infrastructure in the country still remained oversized and needed to be better adapted to the needs of the population. Further scope for efficiency gains in inpatient care lies in restructuring of TB care as well as in reducing the number of services provided in small general hospitals.

The private hospital sector in Lithuania is very small. In 2001, there were only 105 private hospitals beds (mostly specialized in rehabilitation, cardiology and surgery), treating approximately 1700 patients. In 2010, there were 14 private medical providers with a total of 180 beds. With the exception of small private nursing hospitals, all private hospitals have the legal status of profit-making publicly traded companies. Some of these hospitals are contracted by the territorial NHIFs, mostly for day surgery. This, together with other conditions for operation (relevance of provision requirements, investment policy, etc.), is a subject of debate among policy-makers and the Ministry of Health Working Group, who question the fairness of contracting and purchasing decisions.

Restructuring of inpatient care in Lithuania has been planned since 2001, with technical support provided under a World Bank loan. It was implemented in three stages over the following 10 years. Goals included restructuring the health-care institution network by reducing inpatient services, accelerating the expansion of a wider range of outpatient services and improving the efficiency of facilities.

While the country's hospitals were being restructured, day care, day surgery and outpatient rehabilitation services were substantially developed; specialized hospital units (e.g. infectious diseases, psychosomatic disorders, ophthalmology, ENT, gerontology) were closed in many local hospitals, and services were transferred to multiprofile hospitals; in some cities, hospitals were merged.

The first stage (2003–2005) brought a significant decrease in inpatient beds (about 5000 in general and specialized hospitals), hospital admission rates (23.3 to 20.9 per 100 inhabitants) and average length of stay (by 2.2 days) (Baltakis, 2009). Provision of outpatient services increased by 6%; inpatient care volume decreased by 8%; nursing care increased by 15%, and 600 day-care facilities were established (Government of the Republic of Lithuania, 2006). The second stage (2006–2008) was marked by a slight increase in the number of inpatient beds (about 1%) and a 2% increase in hospital admissions due to the expansion of nursing, long-term and palliative care in hospitals, while the number of acute hospital beds further decreased by 2%. In 2010, the National Audit Office of Lithuania reviewed inpatient care provided in 2006–2009 against targets set for the second restructuring stage (3–5% decrease in inpatient services, 10% increase in day care, treatment of common diseases in facilities close to the patient's home, and a concentration of modern technologies in university clinics). The review concluded that the common target of 18 hospitalizations per 100 inhabitants was not achieved in either the first or second stage of restructuring; there was also an apparent lack of consistency regarding the targets and criteria setting (National Audit Office of Lithuania, 2010). The targets set for the third stage (2009–2012) of the restructuring programme included a minimum 5% increase in outpatient care delivery and an 8% increase in day care in order to facilitate a decrease in the hospitalization rate to 18 hospitalizations per 100 inhabitants. Between 2009 and 2010, the NHIF reported a 2.5% increase in provision of outpatient services, a 14.6% increase in day care, a 9% increase in day surgery and a 5.9% increase in short-term admissions, while inpatient services volume decreased by 2%. Two other criteria (quality, safety and accessibility care, and increased financing) have not been defined in a measurable way.

The vision for the hospital sector of the future envisages the concentration of advanced medical services at the tertiary care level (mostly in university hospitals), of specialized services in regional level hospitals and of general medical services in district or community hospitals. Policy stays focused on the further development of outpatient specialist care and day care. However, concerns have been raised over actual implementation of the reforms on inpatient care planning (e.g. assessment of shortcomings in nationwide needs);

on application of service closure criteria (such as requirements for a minimum annual volume of surgery of 600 and of child deliveries of 300, and a maximum distance of 50 km to a hospital providing inpatient surgery), and on the possible impact of the network restructuring on access to care (National Audit Office of Lithuania, 2010).

For many years, ministerial agencies such as the Medical Audit Inspectorate and the SHCAA were in charge of external quality assurance in health care; the former institution mostly dealt with investigation of likely malpractice cases and the latter addressed facility licensing issues. While licensing of medical professionals and facilities are obligatory, accreditation is a voluntary procedure. In September 2011, the Medical Audit Inspectorate was combined with the SHCAA. Its renewed statute stipulated responsibility for both patient safety and quality assurance of health care (mostly through enforcing compliance with legislation and regulations). In addition, the regional branches of the NHIF are responsible for verifying health-care providers' compliance with contractual agreements.

Between 1998 and 2008, internal quality control at provider level was organized under local audit provisions. A study published in 2006 found that the system was operating successfully in about a third of small local hospitals but more frequently in larger hospitals. Lack of financial resources, information and training were cited as barriers to implementation of quality assurance programmes (Legido-Quigley et al., 2008). This framework was replaced by the introduction of minimum quality requirements set by the Ministry of Health: a list of documentation (e.g. description of patient complaints and provision of essential care); an obligation to register, analyse and implement preventive measures for adverse events; a requirement to follow the ministry's approved diagnostic and treatment guidelines as well as the rules of the local medical audit; and the maintenance of overall responsibility for quality control being in the hands of the director of the facility.

There were a few attempts (commonly underfinanced and inconsistent) to develop and implement national quality assurance programmes based on different approaches. For example, a Hospital Infections Management Programme for 2007–2011 was adopted with the main goal of reducing prevalence of hospital infections by 15% through improvements in surveillance (covering 80% of hospitals), regulation and training. However, between 2005 and 2011, the occurrence of hospital infections in patients increased from 3.4% (data from 35 hospitals) to 4.2% (data from 76 hospitals) (Minister of Health, 2007b; Health Information Centre, 2011).

In 2007, the National Audit Office of Lithuania concluded that there was no single comprehensive system for quality assurance in health care. Although more than 40 health-care providers voluntarily have adopted quality management systems (mostly ISO-9001 standards), there still are no clear nationwide incentives for quality improvement at health-care facilities. The Committee on Development of the National Patient Safety Platform (2009) noted that there was no central agency collecting statistics on adverse events and patient complaints and referred to a survey conducted in 2008 that found that one-tenth of medical professionals did not know about adverse events and that 5% of medical professionals reported that they occurred quite frequently (several times per month). In response, at the end of 2012, the Ministry of Health adopted a set of indicators aiming to improve the quality of service and performance evaluation in inpatient care (Minister of Health, 2012).

Another important aspect of improving health-care provision, raised as a high priority issue (National Health Board, 2009), relates to continuity of care, considering the increasing burden of chronic disease and comorbidities. Lithuania, similarly to Estonia and Latvia, has not yet established chronic disease management as a distinct concept. Instead, chronic care is embedded within the primary care system (Elissen et al., 2013). Attempts have been made to improve the integration between primary and secondary care (e.g. provision of guidelines for family physicians for treatment of mild depression). However, most treatment guidelines and standards address specialist care, in part because of its relatively high cost.

5.4.1 Day care

In 1997, the Ministry of Health issued a list of day-care services to be provided in public hospitals and reimbursed by the NHIF. It included interventions (haemodialysis, cataract) and services (obstetrics, adult oncology, paediatrics, trauma and orthopaedics). By 2009, the list contained three specialties for children (including onco-haematology) and seven specialties for adults (including dermatology/venereology and haematology). A separate list has been created for surgical interventions treated in day care (first approved by the Ministry of Health in 2003).

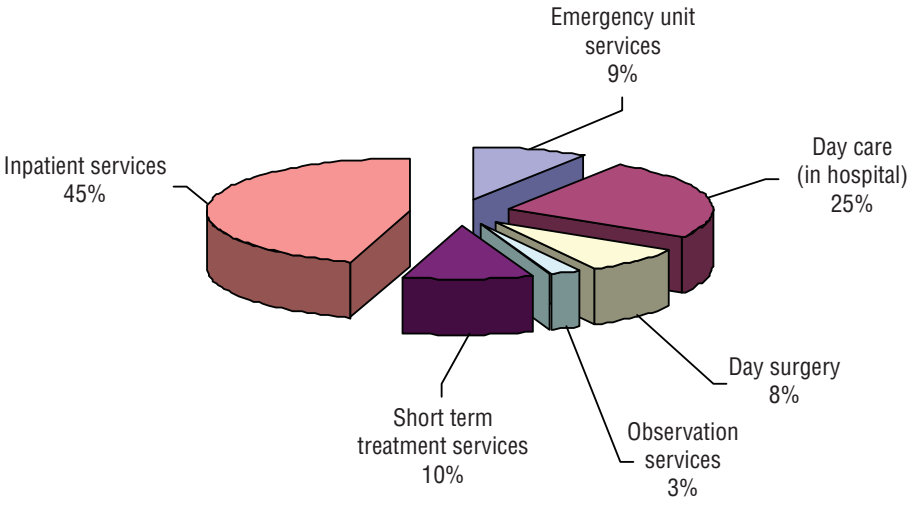
The reference prices for day surgery were initially set at approximately 50% of the price for similar inpatient services, and there were not sufficient incentives for the implementation of day surgery in hospitals. The latest (2009) edition of the list covers six groups with 141 procedures that can only be performed in health-care institutions licensed to provide health services at

secondary level or higher, with intensive care arrangements. The reimbursement rate (reference price paid by the NHIF) varies 10-fold between the easiest and the most complex group.

Increase in day-care service volume is considered one of the most important objectives in delivery of health-care services. A 10% increase in day surgery was a target for the second stage of health-care restructuring (see section 5.4). Between 2006 and 2009, the total number of day-care procedures increased from 27 791 to 86 440. Despite this rapid increase, day surgery still has a minor share in the total hospital service provision. In 2010, hospital inpatient services represented 45% of total hospital services (Fig. 5.2).

Fig. 5.2

Actual provision of hospital services in 2010



Source: NHIF, unpublished data.
Note: Specialist outpatient services are excluded from the calculation; short-term services are provided during 72 hours and observation services could not be provided for more than 24 hours.

Incentives to increase day-care volume are currently financed through capital investments, a share of a World Bank loan allocated to establishment of day surgery centres, and a portion of EU structural funds allocated to equipment of day surgery and mental health day-care units in public and private hospitals. Markedly, as private hospitals are mostly engaged in day surgery provision, administrations of public hospitals have raised issues regarding the fairness of regulatory and funding arrangements.

5.5 Emergency care

The scope and requirements for provision of emergency care, including urgent care and ambulance work, are regulated by the Ministry of Health. Emergency care is commonly provided by GPs during services hours. Alternatively, and during the GP out-of-hours times, it could be provided by emergency departments of hospitals.

Ambulance care is organized by a territorial principle in all Lithuanian municipalities. In 2010, within the Ambulance Care Reform framework, population catchment areas of ambulance care providers were set at 18 000 inhabitants in urban areas and 16 000 in rural areas, with the possibility to increase the population served if at least 80% of calls are served in less than 15 and 25 minutes for urban and rural areas, respectively. In addition, a minimal capacity of two ambulance teams per provider was set. Different reference prices were set according to population density and transportation distance for child delivery. In 2012, the number of ambulance call centres is planned to be reduced from over 60 to 10.

In 2011, there were 56 municipal ambulance services or ambulance units of primary health centres or polyclinics, as well as four private ambulance organizations (mostly profit-making joint-stock companies). Providers were quite small, with about two-thirds of ambulance centres/units managing up to four teams (National Audit Office of Lithuania, 2008a). On average, one team served six to seven calls per 24 hours (nine calls in the cities). In 2012, the number of teams in ambulance care is expected to decrease through merging of municipal ambulance care providers.

In 2010, there were 190 ambulance dispatches per 1000 inhabitants; 75% of calls were for urgent illnesses, 13% for injuries, and 11% for patient transportation. Ambulance care and patient transportation services had 3016 employees, 205 physicians, 1124 nurses and 1037 drivers (Minister of Health, 2011).

The National Audit Office of Lithuania (2012) stated that strategies on ambulance service development (2002 and 2005) have not been successfully implemented, partially through failures in activities planning. In response, detailed procurement rules for upgrading vehicles have been adopted. Currently, under the 2012–2014 programme, 36% of all vehicles should be upgraded, leading to an expected 5–10% decrease in waiting time and substantial savings in repair costs.

5.6 Pharmaceutical care

The NHIF funds expenditure on medicines used during inpatient treatment and reimburses costs on medicines prescribed for outpatient patients (see section 3.7). The onset of the financial crisis in 2008 forced Lithuanian policy-makers to seek more efficiency in the pharmaceutical sector and to reduce public expenditure on pharmaceuticals; this was approached through the Plan for the Improvement of Pharmaceutical Accessibility and Price Reductions (Ministry of Health, 2009a). As a result, while the number of prescriptions between 2008 and 2010 increased by 9%, expenditure on pharmaceuticals and medical devices covered by the NHIF decreased over the same period from €198 million to €189 million, and OOP payments for prescription pharmaceuticals reduced from €101.6 million to €87.2 million (Garuoliene, Alonderis & Marcinkevicius, 2011). This reduction was achieved through the following measures.

- Introduction of new requirements for generic pricing such that the first generic had to be priced 30% below the originator, while the second and third generics must be priced at least 10% below the first generic to be reimbursed.
- Prescribing by active substance is mandatory, with some exceptions. There is also a possibility to prescribe biological medicines (e.g. insulin), composite medicines (three and more active substances) and some others by brand name if the medical advisory committee of a health-care institution provides a valid reason. All pharmacies are obliged to provide patients with the data on prices via computer screens, to offer the cheapest pharmaceutical to a patient, to order a particular product from the distributor upon a patient's request and to have the cheapest product according to the NHIF list.
- Price-volume agreement schemes to be agreed and valid for a minimum of three years for all new pharmaceuticals that will increase the NHIF pharmaceutical budget compared with current treatment approaches for the target population groups.

At the same time, there are concerns about the appropriateness of prescribing: according to the list of the top-10 pharmaceuticals (most popular INN by defined daily dose consumption), there is high consumption of benzodiazepines and low consumption of statins. High consumption of over-the-counter pharmaceuticals (30% share of all expenditure) also indicates a need for a more rational use of pharmaceuticals (Garuoliene, Alonderis & Marcinkevicius, 2011). In addition, a

World Bank report on pharmaceutical policy suggested that, while the financial crisis presents a unique opportunity for Lithuania to reduce drug expenditure, a communication strategy directed at the public and professional audiences and explaining the rationale and benefit of the selected policy measures is needed to support implementation of selected measures (Seiter, 2011).

In 2011, pharmaceuticals for heart and vascular diseases constituted 43% of total consumption, with the next largest group being drugs for nervous system disorders (13%), and then for digestive system diseases (12%) (SMCA, 2012).

In the 1990s, the pharmaceutical market grew rapidly and the number of authorized medicines was increasing. Since 2000, the number of renewals has exceeded the number of new authorizations. In 2010, there were 4659 registered pharmaceuticals. Legal entities should be licensed for pharmaceutical activities (e.g. manufacturing, wholesale, pharmacy) according to the rules set by the government (see section 2.8.4).

The products of 18 local manufacturers represent about 2% of all the pharmaceutical market in Lithuania (Animus Agilis, 2011). The local pharmaceutical industry is represented mainly by small and medium-sized enterprises. They are manufacturers of generics, herbal medicines, bioactive pharmaceutical ingredients and blood products. Among the biggest local producers are Sanitas (acquired by Valeant Pharmaceuticals International in 2011), with more than 200 employees producing 192 generic products, and SICOR Biotech, employing more than 150 staff for developing and manufacturing biopharmaceuticals. The 10 biggest manufacturers belong to the Lithuanian Pharmaceutical Enterprises Association, which was established in 1994. Currently, Lithuanian pharmaceutical manufacturers participate in and seek to initiate new technology development projects partially funded by the EU funds.

There were 89 registered wholesalers in the country in 2010 who met good distribution practice requirements. The largest wholesalers are members of the Pharmaceutical Wholesalers Association. Wholesalers deliver pharmaceuticals to community and hospital pharmacies, and, since 2006, directly to hospitals and polyclinics if they do not have a hospital pharmacy.

The number of pharmacies in Lithuania has grown markedly from 465 in 1993 to 1498 in 2011 (Health Information Centre, 2012). Most of them are privately owned, and only a few (four in 2008) are public. Pharmacies are divided into community and hospital pharmacies (with or without drug

preparation function), plus university pharmacies. Legislative changes in 2002–2003 had a profound impact on expansion of the community pharmacy network: the requirement for a pharmacy owner to be a university-graduated pharmacist was eliminated together with a restriction on minimal distance (500 m) between pharmacies. The growth of pharmacies was mainly through expansion of branches, while the number of free-standing pharmacies gradually decreased. In 2008, about 20% of pharmacies were independent (Krukiene & Alonderis, 2008). According to the Provincial Pharmacies Association, small and medium-sized pharmacies are in a weaker position because they have less negotiating power with wholesalers and manufacturers and there is a ban on selling state-reimbursed medicines (which represent half of the total turnover) with mark-ups (Mrazauskaite, 2011).

Hospital pharmacies are funded by the hospitals and do not dispense medicines to patients. Not every hospital has a hospital pharmacy for inpatients (there were 61 hospital pharmacies for inpatients in 2008); however, the majority of health-care providers have ordinary community pharmacies in their premises.

In the mid-1990s, access to pharmaceuticals in remote areas became a subject of concern. In contrast to the large number of pharmacies in cities, people living in rural areas faced difficulties in accessing drugs. In response, the Ministry of Health in 1997 implemented a policy to ensure an adequate supply of pharmaceuticals through primary health-care centres having an obligatory contract with a pharmacy.

According to *Euro-Canada Health Consumer Index* (Eisen & Bjornberg, 2010), the indicator for access to medicines in Lithuania received a low score (50 points from an available 150), while cost of reimbursement for pharmaceuticals and access to innovative medicines was judged as poor. A population survey in 2011 showed that 57% of respondents did not clearly understand the rules of reimbursement for pharmaceuticals; 32% thought that the system was fair; and 28% were aware of generics (Dziuzaite, 2012). The majority of respondents (48%) based their medicine choice on their physician's advice and 13% on the pharmacist's advice, while 32% were choosing the cheapest medicine.

5.7 Rehabilitation/intermediate care

Medical rehabilitation in Lithuania has been developed in three stages: first, the introduction of physiotherapy; second, the development of multiprofile rehabilitation; and third, the development of a comprehensive rehabilitation system (Krisciunas, 2005).

Licensed providers of rehabilitation services are paid by the NHIF. The cost of the first rehabilitation stage (interventions provided at the health-care facility where the patient is treated) is included in the price of the treatment. Further (second-stage) rehabilitation is provided in specialized rehabilitation units in general hospitals and in specialized hospitals and sanatoria. Rehabilitation units have to meet the criteria for minimum number of beds and the requirement of service availability for six days per week. The third rehabilitation stage requires either outpatient or tertiary level rehabilitation.

There were four rehabilitation hospitals (with 610 beds in total) and eight other medical rehabilitation facilities (four for children and four for adults) in the country in 2011. The number of rehabilitation beds increased from 1092 in 2002 to 1682 in 2011. There is an 80% occupancy rate for beds in rehabilitation hospitals, on average, and the average length of stay is about 20 days. In sanatoria, the bed occupancy rate is lower (74%), while average length of stay is higher (21 days) (Health Information Centre, 2012).

In 2011, inpatient rehabilitation services were provided for about 57 000 patients (17.7 per 1000 population), which is a 14% increase in volume since 2010. Outpatient rehabilitation service volume amounted to 29 000 cases and increased by 8% in 2011 (Health Information Centre, 2012). With 8.9 services per 1000 inhabitants it amounts to about half of inpatient service volume.

Increasing availability and quality of outpatient rehabilitation is one of the objectives of health system development. It is being implemented through the establishment of outpatient rehabilitation units in municipal health-care facilities, allocation of capital investments towards infrastructure and regulatory measures (e.g. prohibiting primary health-care providers from referring adult patients to specialized inpatient rehabilitation, thus directing patient flows towards outpatient rehabilitation). Another objective in delivery of rehabilitation services is improvement of access to services for children by broadening indications for rehabilitation, creating possibilities for small children to be accompanied by carers and providing information on the availability of services through the Internet.

5.8 Long-term care

Long-term care is provided in two sectors: health and social care.

In the health-care sector, long-term care is mostly as inpatient services in nursing or general hospitals, irrespective of age. Between 2005 and 2011, the number of beds in nursing hospitals increased from 2735 to 2858, while the number of hospitals decreased from 59 to 49. During the same period, the total number of nursing beds (both in nursing hospitals and in other health-care facilities) increased from 10.4 to 14.5 per 10 000 population (Health Information Centre, 2012). There is a duration ceiling of 120 days per year for an inpatient nursing care episode, as services provided in public hospitals are paid from the NHIF.

In response to the increasing need for nursing provision, regulations and additional payments from the NHIF were introduced in 2008 for nursing services at home provided by primary care nurses. Since then, community primary health-care institutions have been in charge of nursing services in a patient's home.

In 2007, the limit of 1.2 nursing beds per 1000 inhabitants was increased to 2 nursing and supportive care beds per 1000. In 2010, the bed ratio was 1.4 per 1000, while the Ministry of Health (2008) estimated the need for a further 116 nursing and supportive care beds in the country. An increasing need was explained by considerations of population ageing.

The main social care focus up to 1990 was on institutional care for the elderly and those physically and mentally disabled. During the next 10 years, the number and variety of public care institutions increased; nongovernmental care institutions appeared and the development of noninstitutional forms of care started to receive attention. In 2012–2013, long-term social care services are provided mostly for elderly and disabled people in need of care, according to their ability to function independently. Social services development policy is guided by the Ministry of Social Security and Labour while municipalities are in charge of social services provision.

In 2011, there were 141 public long-term social care institutions for adults with disability and the elderly, and for children and young adults with disability (Table 5.2) with 11 184 residents. The Strategy on Reorganisation of Public Social Care Institutions (Ministry of Social Care and Labour, 2002) stipulates standards of residential care, with a maximum of four people per room and a maximum capacity of 300 residents in a care institution.

Table 5.2
Long-term care institutions, 2011

	Institutions		Residents	
	1995	2011	1995	2011
Care for the elderly, total	64	100	3 282	4 413
State		2		112
Municipal		55		2 846
Charity and private		41		1 140
Other		2		315
Nursing for disabled adults, total	20	36	4 365	6 062
State		26		5 879
Municipal		4		101
Charity and private		6		82
Care for disabled children	5	5	822	709

Source: Statistics Lithuania, 2013b.

Social services provided at home are mainly publicly funded but are subject to co-payments, depending on the age and disability status of the recipient as well as household income. As an alternative to the delivery of home services, cash assistance can be paid. The co-payments for the institutional care for adults are set at 50–80% of the resident's income.

Coordination of efforts between social and health-care sectors has been a great challenge for many years. Progress could be seen in the integration of primary and social care after the Minister of Health and the Minister of Social Security and Labour issued a decree on the rules for joint provision of nursing and social services in 2007. Team work has been proclaimed as a principle and as a practical approach to long-term care arrangements. While this demonstrates that the framework and basics of the common work planning have been set for both nursing and social care providers, in practice coordination of the institutions involved has not been assured.

5.9 Services for informal carers

While the NHIF funds some services for mothers taking care of their ill children during hospitals stays and rehabilitation therapy, all other existing benefits and services for carers are covered by social insurance. Therefore, carers are eligible to receive sickness benefit for nursing a family member during a period of illness if the physician decides that such care is necessary. Municipalities aim to pay social support centres to deliver "care relief" service for informal carers;

alternatively, cash allowance may be paid to carers of people with special care needs, although it is largely being replaced by provision of actual services (Ministry of Social Security and Labour, 2010).

While a number of social projects have been devoted to the expansion of formal home-based long-term care, most care provided for the elderly and disabled is still carried out by family, friends and volunteers, and the demand for informal care is high (Marcinkowska, 2010). According to the State Family Concept adopted in 2008, there is a need for provision of more personalized services to families in order to enable carers to combine employment and family responsibilities. Some progress in developing such services has been achieved in both social and health sectors through the creation of day centres for the disabled and expansion of activities to support carers, particularly those taking care of mentally disabled people.

However, there is a substantial gap in meeting the needs of carers, particularly in rural areas. Carers with severely disabled family members are at increased risk of poverty and may lack health and social coverage if they give up employment.

5.10 Palliative care

Palliative care was introduced as a concept in 2006 under the National Cancer Control and Prevention Programme. Regulatory arrangements for palliative care provision under contracts with NHIF were introduced in 2007. They included a description of indications for referral, relevant procedures and provision standards (e.g. a team of at least three professionals, including physician, nurse and social worker; a list of equipment for health-care facilities; minimum duration of consultations at a patient's home). According to the legislation, there should be a maximum of 6 palliative care beds per 100 000 population. In 2010, over 19 000 palliative care episodes were paid for by the NHIF. No duration ceiling is applied for palliative care provision.

Additional financing (including investments from EU structural funds) has been allocated for palliative care service provision and improvement of the infrastructure.

5.11 Mental health care

Poor mental health has led to calls for an increase in the supply of good-quality mental health services in the country. The government responded by adopting three mental health-related programmes (2008–2010 Programme on Implementation of the National Mental Health Strategy, 2008–2010 National Family Health Programme and 2008–2010 National Prevention of Violence Against Children and Support for Children Programme) and infrastructure development. In 2012, there were 4 specialized mental health-care hospitals, 5 addiction centres and 20 departments within general hospitals that delivered both inpatient and outpatient mental health-care services. In addition, there is one independent hospital for forensic investigations. Between 1998 and 2011, the number of admissions for mental health conditions decreased by about a quarter, with 36 500 in 2011 (Health Information Centre, 2013). All inpatient mental health-care providers as well as addiction centres have their own outpatient services.

In addition, a network of community mental health-care centres has been developed since 1998. Originally these mostly were units of primary health-care centres, making it easier for GPs to refer patients and have more involvement in mental health care. Later they were separated into free-standing outpatient facilities with specialist focus on mental health, still retaining some features of primary care (similar patient registration procedures, funding by capitation).

Patients suffering from addictions are treated in five public addiction centres located in the largest cities. The addiction centres are budgetary institutions. Recently, almost all of the centres (previously national level institutions) have shifted to become the responsibility of the municipalities. While creating a network of institutions devoted to treating addiction problems is an important step in care of dependency diseases, municipalities hardly prioritize allocation of local budgets for patients with addiction problems. The centres are financed from multiple sources, including the NHIF, the Ministry of Health, local budgets and other sources; however, sustainability of these arrangements is a concern.

The number of mental health centres has steadily increased throughout the country and in 2013 reached 104. More than 70 are integrated into primary health-care centres or polyclinics, and over 30 are private providers (mostly profit-making companies); a few are associated with hospitals, and two centres are established in the parallel health-care systems of the Ministry of Defence and the Ministry of the Interior. When converting into or establishing as new

independent legal entities, the centres mostly followed financial incentives to overcome unfavourable consequences of cross-subsidization with facilities to which they were being integrated.

At the beginning of 2011, the number of staff (in full-time employment) in mental health was 218 psychiatrists (including 181 for adults and 37 for children), 202 nurses, 157 social workers and 105 psychologists. Since 2002, maximum catchment population has been 20 000 for psychiatrists and mental health nurses, 25 000 for social workers and 40 000 for psychologists (as the original standard of 20 000 was not achievable because of a lack of psychologists).

Because of the large flow of patients with mild disorders to the mental health centres and lack of resources (including the staff numbers and skill mix), interventions are commonly limited to a short consultation with a psychiatrist and administration of medicines. In 2010, 19.4 visits per 100 inhabitants (639 000 in total) were registered in community level centres. In the same year, psychiatrist specialist consultations in outpatient departments of hospitals were not frequent, with a total number of 41 000 visits (1.25 per 100 inhabitants). Psychotherapeutic treatment of rather limited scope is provided by public health-care providers as secondary and tertiary consultations, as well as in individual or group courses. It is also available (particularly in the largest cities) in the private sector (where patients pay fee for service unless the provider is contracted by the NHIF).

Substantial progress has been made in the development of intensive rehabilitation for children, mostly as day-care services provided through a community-based network. In addition, crisis intervention and stabilization for children and assertive community treatment have been piloted.

In 2007–2013, the government invested €29 million in establishing 20 day-care centres in the most deprived regions, 5 crisis intervention centres in the largest cities and 5 comprehensive differentiated psychiatric centres for children and families, as well as modernization of emergency units in mental hospitals (Minister of Health, 2007a).

There are more than 20 NGOs providing services and advocacy for children, young adults and women, as well as for mentally ill or disabled patients. Moreover, there are numerous organizations supporting victims of violence. Five telephone lines (three of them paid for by the Ministry of Social Security and Labour) and four Internet support services are also working in this area.

High levels of stigma and discrimination linked to mental health problems remain in the country, which undermines seeking help, recovery and social integration.

5.12 Dental care

Dental care experienced the most significant privatization of the health service areas. The number of private dental facilities is steadily increasing, from 862 in 2000 to 1024 in 2011. In 2011, the private facilities employed 2208 dentists (more than 60% working primarily in the private sector) (Health Information Centre, 2012).

A substantial portion of public dental care is provided as a part of primary health care. In 2007, 92% of public primary care facilities and 53% of private primary health-care facilities provided dental care directly; others contracted dentists from outside. Besides dental care units in primary health-care centres and polyclinics, there are seven specialized public facilities. In 2011, the total number of visits to dentists amounted to 3.3 million, with the average of one visit per capita. The rate of visits is significantly higher in cities than in rural areas: 1.3 and 0.8 visits per capita, respectively (Health Information Centre, 2013).

Between 2004 and 2007, the number of patients with NHIF-compensated teeth prostheses increased by 11%, from 14 894 to 16 498, while the reimbursement per prosthesis increased more than six-fold. The number of patients on waiting lists over the same period doubled from 48 000 to 103 000 (National Audit Office of Lithuania, 2008b). In 2009, new reimbursement rules transferred payments directly to patients rather than providers to encourage competition and introduced variable tariffs. In 2010, 22 659 patients received compensation for teeth prosthesis.

In response to the poor oral health of children, the NHIF launched a prevention programme (teeth coating free of charge) in 2004. In 2005–2007, the funding allocations for the programme were set to increase; however, actual spending decreased as a result of organizational arrangements (as municipal programme), poor public awareness and trust, and lack of specialists. Children's oral health checks in 2005–2007 showed a high incidence of decayed teeth – about 75–83% – and an increase in the number of complicated cases (National Audit Office of Lithuania, 2008b).

The National Audit Office of Lithuania (2008b) expressed concern that the 2010 targets of the Lithuanian Health Programme (10% decrease in decay prevalence and 15% decrease in decay intensity) would not be achieved and concluded that regulation and governance in dental care should be improved.

In contrast to public facilities, there is little control over the activities of private providers. Furthermore, there is no comprehensive monitoring system, nor any clear assessment of the needs and scope of care provided.

5.13 Complementary and alternative medicine

In March 2011, the first alternative medicine forum was organized. The participants advocated more attention for alternative medicine provision. A few months later, the Lithuanian Healthy Living and Natural Medicine Chamber was established, consisting of 16 committees divided into two groups: a health promotion and disease prevention group and an alternative medicine method in treatment and diagnostics group. Currently, neither relevant specialist training nor licensing of professionals exists, and the chamber has called for the Ministry of Health to establish proper regulation and quality assurance in the field.

5.14 Health services for specific populations

Military personnel are treated within a parallel health-care system under the Ministry of Defence. Uninsured refugees are covered through contributions to the NHIF from the Ministry of Social Affairs and Labour under the Refugees Social Integration Programme. Groups at risk of exclusion from public health-care services include imprisoned injecting drug users, with no access to methadone treatments (Murauskiene, Geciene & Stankute, 2011); commercial sex workers (as only one NGO runs a street clinic, in Vilnius); and homeless people. There are about 10 harm reduction programmes in the country (four providing outreach services); only five programmes are continuously financed by municipalities while the others rely on charity donations and project-based funding.

6. Principal health reforms

In the 1990s and early 2000s, some landmark health laws were adopted, including the Health System Law (1994), the Health Care Institutions Law (1996), the Health Insurance Law (1996) and the Law on Public Health Care (2002). Together they established the regulatory framework for the Lithuanian health system. The compulsory health insurance scheme was introduced in 1997 and administered by a single payer – the NHIF.

The 1995 Primary Health Care Development Strategy focused on strengthening and expanding the GP system, decentralizing primary care and improving prevention. In addition, GP training programmes and development of infrastructure started. Since 2001, patients have been required to register with a GP or a primary care institution, and since 2002 GPs have acted as gatekeepers and coordinate access to health care. The implementation of a comprehensive primary care planning, financing and management model was delayed until the mid-2000s because of lack of funding.

In 2003–2012, the network of hospitals was restructured, as part of wider health-care service reforms. It started with expansion of ambulatory services and primary care, introduction of day care and day surgery, and development of long-term and nursing services. During this period there were 42 mergers, while 11 surgical and 23 obstetrics departments were closed; in addition, ambulance service reform was initiated.

In mental health, reforms in the 1990s mainly focused on creating a regulatory framework and creating a body responsible for coordination of mental health policy. Since 2000, development of outpatient services and community health services, integration of inpatient psychiatric services into general hospitals and the reduction of specialized psychiatric hospital capacity were prioritized. The Mental Health Strategy 2007 aims to improve population mental health through provision of effective, rational and evidence-based mental health services to patients and their carers.

The privatization of supply and delivery of pharmaceuticals in the 1990s was stimulated by a growing market and has led to an improved supply of drugs but also to growing expenditure on pharmaceuticals. Upon EU accession in 2004, harmonization with EU legislation brought important changes to the pharmaceutical regulatory framework in Lithuania: in authorization, pharmacovigilance, drug classification, distribution and advertising. In response to the economic crisis, the Plan for the Improvement of Pharmaceutical Accessibility and Price Reductions was adopted in 2009. It led to a reduction in public and OOP spending on pharmaceuticals, and improved access to medicines.

The concept of public health was introduced in Lithuania's Health Programme in 1998, and the main law regulating public health was adopted in 2002. In 2007, public health bureaus were established in municipalities to support health promotion and population health status monitoring at the local level. A network of ten regional Public Health Centres went through numerous structural changes by converting into administrative authorities, responsible for public health and environmental safety as well as prevention and control of communicable diseases. The State Public Health Care Service, which earlier coordinated this network, was abolished.

Future reforms up to 2020 envisage development in the following areas: health improvement and disease prevention; expansion of the health-care service market through competition; increasing transparency, cost–effectiveness and rational use of resources; and ensuring evidence-based care and access to safe and quality services.

6.1 Analysis of recent reforms

Box 6.1 outlines the key reforms.

Health reforms after regaining independence were shaped by a number of policy documents. The key document, the National Health Concept (Supreme Council of the Republic of Lithuania, 1991), outlined new approaches to health care, including introduction of the concept of health insurance, prioritizing disease prevention and developing primary care.

Another core document, the Lithuanian Health Programme (Parliament of the Republic of Lithuania, 1998), introduced a set of three major objectives for population health: (1) to reduce mortality and increase average life expectancy, (2) to improve quality of life, and (3) to increase health equity. The programme covered major health issues, including cancer, injuries, cardiovascular and

Box 6.1 Key reforms in health care

1992–2002: Establishment of legal and regulatory framework

- Health System Law (1994)
- Health Care Institutions Law (1996)
- Health Insurance Law (1996)
- Public Health Law (2002)

1997: Introduction of social health insurance

Compulsory health insurance scheme introduced and administered by a single payer, the NHIF

2000–2010: Primary care development

2002: GPs acquire a gate-keeping function

2003–2012: Reforming service provision; provider network restructuring and optimization of health-care institutions network (key stages)

2003–2005: expanding ambulatory care, long-term and nursing care

2006–2008: developing day care and day surgery

2009–2012: optimizing provider network and service restructuring

2006–2007: Defining public health care at local level (municipalities)

2009: Adoption of the Plan for the Improvement of Pharmaceutical Accessibility and Price Reductions

2009: Changes to health insurance contributions

2010–2012:

2011: publication of the Dimensions of Lithuania's Health System's Development 2011–2020 and setting of future priorities

2012: introduction of DRG payments

communicable diseases, mental and oral health, and risk factors, with a particular focus on reduction of alcohol and tobacco consumption and drug abuse.

Currently, a new Lithuanian Health Programme 2020 is under development. The programme aims at improving population health through safer social environment, healthy lifestyle and effective health care. It is being designed with an intersectoral approach, and more responsibility for population health has been transferred to other related sectors.

Anticipating EU accession, the state Long-term Development Strategy outlined several development goals for the year 2015 (Parliament of the Republic of Lithuania, 2002). The Strategy set out the following broad themes for health system development:

- developing legislation on public health and promotion of healthy lifestyles;
- reducing mortality and prolonging average life expectancy;
- strengthening governance and financing of health-care providers; and
- ensuring that only safe, effective and affordable medicines complying with EU standards are available in the Lithuanian market.

The health system development objectives and tasks named in the documents described above were brought together into a separate Strategy on Implementation of Healthcare Reform Goals and Objectives, which was approved by a decree of the Minister of Health in 2004. At the same time an action plan for the implementation of the strategy in 2005–2011 was approved. The action plan provided statistics and projections regarding population health and health care, as well as a set of indicators for evaluation. Health challenges prioritized in the action plan (cardiovascular diseases, injuries, suicides and communicable diseases) were further detailed in strategic documents seeking EU structural funding.

Legal framework

In the 1990s and early 2000s, some landmark health laws were adopted, including the Health System Law (1994), the Health Care Institutions Law (1996), the Health Insurance Law (1996) and the Law on Public Health Care (2002). Together they established the regulatory framework for the Lithuanian health system as well as the foundation for subsequent health legislation. The Health System Law introduced the national health insurance system (state and municipal health-care providers and private providers that are contracted by the NHIF), its organization and governance. In parallel, specific health laws were elaborated regulating issues such as public health, mental health, medical practice, drug misuse, nursing, dentistry, pharmaceutical activities and communicable diseases. Since the early 2000s, the legislative process has mostly produced amendments to these laws plus the regulations (by-laws and ministerial decrees) needed for implementation and enforcement of basic legislation.

Health financing

One of the major aims of the reforms was restoration of social health insurance, which existed in independent Lithuania before the Second World War. A contribution-financed system was hoped to ensure a more stable flow of resources for the system than the old historical budgeting arrangements, which assigned little priority to the health sector. Between 1992 and 1996, payment arrangements were piloted by a new prototype health insurance fund. In 1996, the Health Insurance Law established the compulsory health insurance scheme. Instead of a multipayer system with competing funds, the government

installed a centralized single payer, the NHIF. Gradually, the NHIF assumed responsibility for reimbursement and payment mechanisms, and performance rules for the NHIF and its branches were introduced to monitor its performance. In 2003, the NHIF, previously accountable to the Lithuanian Government and an independent steering board, became subordinate to the Ministry of Health. The State Tax Inspectorate was a major collecting agent until 2008, when this role was largely taken over by the SSIF. Until 2009, health insurance contributions were an integral part of personal income tax and social insurance tax. However, to improve collection of health contributions and raise population awareness regarding the size of obligatory health insurance tax, the health insurance contribution became a separate tax in 2009. As of 2012, a regular insurance contribution amounts to 9% of income (see section 3.3.2).

In 2007, the government decided to replace the existing case-mix system in hospital financing with a more refined DRG system. After pilots in selected hospitals in 2011, a system of 698 DRGs was rolled out across the country in 2012 in parallel with a gradual clarification of the contracting rules.

Provision of services

Primary care

Under the Soviet system, primary care was provided in polyclinics and health centres owned by the municipalities. Pay was low, coordination of care poor and fragmented, and primary care doctors and nurses unmotivated; this often led to poor quality of care. To remedy this situation, the 1991 National Health Concept laid the basics for the establishment of primary care, and family medicine was introduced as a new specialty in 1992.

The Primary Health Care Development Strategy was prepared in 1995 with the aim of strengthening and expanding the role of GPs, decentralizing primary care and focusing on prevention. A study by Polluste et al. (2013) found that the vision and goals of initial primary care reform were not clearly defined. The implementation of the strategy was outlined only five years later in the Primary Care Programme 2000–2010. In the first stage of the restructuring (2000–2004), a comprehensive primary care planning, financing and management model was supposed to be implemented together with training programmes for GPs and development of the infrastructure. However, this stage was only partly implemented because only a third of the necessary funds needed for its implementation were allocated (National Audit Office of Lithuania, 2005). While a shift from capitation to a mixed system with fee for service has been implemented, the necessary infrastructure upgrade lagged behind. However, funding from other international sources (see section 3.6.2) was able to partly offset the shortage of state funding, mostly for capital investment.

For example, the EU PHARE project provided support for medical equipment upgrades for private GP practice development while the World Bank financed the Lithuanian Health Project. Approximately 228 public GP practices and primary care centres were equipped between 2000 and 2005. Since 2004, the development of primary care infrastructure (renovation of premises, supply of medical equipment and installation of an information system) has been financed from EU structural funds. Since 2001, patients have been required to register with a GP or a primary care institution and since 2002 GPs have acted as gatekeepers and coordinate access to health care. However, the implementation of a referral system led to some dissatisfaction among the patients.

The second stage of primary care reform was planned for 2005–2010. Aiming to restart the reform that was stalled in the first stage, the Minister of Health approved an order in 2006 that envisaged the abolishment of medical group practices by 2009. However, this decision was highly criticized by paediatric organizations and parents; consequently, the decision to abolish group practices was reversed, but the creation of new groups was halted. The competences of family practitioners have been expanded to allow them to carry out certain laboratory tests and to prescribe pharmaceuticals that could hitherto only be prescribed by specialists. The competences and number of nursing staff working with a family practitioner have also been expanded.

One of the objectives of primary health-care reform was to separate provision of primary health-care services from outpatient secondary care provided in polyclinics. This separation has been successful in rural areas, where most care is now delivered through GPs and only a few polyclinics remain. In the cities, however, many patients use GPs only to get a referral (van Ginneken et al., 2012).

Specialist outpatient and inpatient care

Since the Soviet system had emphasized hospital care, building up family medicine-based primary care needed to be coupled with a reduction in hospitals and hospital beds. The Health Care Institutions Law (1996) enabled the formation of an autonomous provider network. In 2001, the first Hospital Master Plan, which was drafted as part of a World Bank project, foresaw a dramatic reduction in hospitals and hospital beds. The Plan provoked heated discussions and even indignation among politicians and medical professionals. Nevertheless, since 2003, restructuring of the health-care provider network formed a substantial part of health-care reforms.

The restructuring programme involved expansion of primary and ambulatory care, development of day care and day surgery, and optimization of the provider network. These reforms were planned in three key stages, although there was

some overlap. The first stage (2003–2005) focused on expansion of ambulatory services and primary care, introduction of alternatives to inpatient services, optimization of inpatient care and development of long-term and nursing services. The second stage (2006–2008) focused on further developing family medicine, restructuring of inpatient services and developing day care and day surgery. A third stage (2009–2012) had the goals of optimizing the network of health-care institutions and restructuring health-care services. Since 2003, 42 mergers have been carried out; 11 surgery and 23 obstetrics departments have been closed; and ambulance service restructuring has been initiated (Kumpiene, 2012). The restructuring took longer than anticipated initially and not all planned elements have been fulfilled. Changes were achieved mostly indirectly through general regulation (e.g. adoption of extensive requirements for the care provision) and by applying different financing tools. Lack of clarity in legislation caused a high degree of uncertainty in the system and significant space for power-driven decisions, as some authorities owning health-care institutions (state, municipalities or other sector ministries) resisted closures and mergers.

Mental health

During the first decade of independence, the mental health of the Lithuanian population worsened markedly, accompanied by spiking suicide rates, and spread of alcohol dependency and drug abuse. The inherited Soviet model of psychiatric care, based on isolation of the mentally ill, has created a major stigma. An attempt to improve mental health was severely hampered by misconceptions about patients with mental health problems and mental diseases as well as by limited financial and institutional capacity of municipalities. In the first decade after independence, mental health care in Lithuania developed in stages. First, in 1989–1993, new types of mental health institution were established by NGOs and professional organizations. Second, in 1994–1996, a regulatory framework was drawn up, including the Mental Health Law (1995), which created a basis for improvements in quality of care and prevention of the misuse of psychiatric care. This was followed by several policy documents, including the Public Health Programme for Children with Development Diseases, which initiated the creation of a network of institutions for early rehabilitation of children with developmental disorders. During the third stage (1997–2000), the State Mental Health Centre at the Ministry of Health was established (1999), which became the main institution coordinating mental health policy. In the same year, the government approved the Programme on Mental Disease Prevention, which outlined the priority for the development of outpatient services, the integration of inpatient psychiatric services into general hospitals and the reduction of capacity in specialized psychiatric hospitals. In

line with the Programme, the development of community mental health services in municipalities was initiated. However, it was not until the start of the overall hospital reorganization in 2003 that specialized mental health services saw any substantial changes in structure and financing. More recently, the Mental Health Strategy was approved by parliament in 2007, with the objective of improving population mental health through provision of effective, rational and evidence-based mental health services to patients and their carers (Parliament of the Republic of Lithuania, 2007). The Strategy identified main challenges to its implementation, including the lack of financing, intersectoral collaboration and qualified specialists, as well as socioeconomic inequalities.

Pharmaceutical sector

Until 1990, the entire pharmaceutical sector was state owned. Since 1991, Lithuania has opened the market to more expensive, EU-produced drugs while prohibiting cheaper imports from the former USSR countries as these did not meet EU standards. The privatization of supply and delivery of pharmaceuticals has been stimulated by a growing market, but this has also tended to favour more expensive medications. Prescribers have not been prepared for the wide range of new products available and have been susceptible to marketing techniques. Overall, this has led to an improved supply of drugs, but expenditure on pharmaceuticals has risen sharply, becoming more than 33% of total health-care expenditure in 2005.

Upon EU accession in 2004, harmonization with EU legislation brought important changes into the pharmaceutical regulatory framework: in authorization, pharmacovigilance, drug classification, distribution and advertising. New requirements for market authorization were introduced according to EU Directive 2001/83/EC, resulting in a decrease in the number of authorized pharmaceuticals. During the pharmacy network privatization and expansion, the initial shortage of pharmacists was countered by allowing pharmacy technicians to prepare and dispense medicines. The adoption of EU Directive 2005/36/EC, however, meant that pharmacy services could only be provided by a trained pharmacist. This provision was then integrated into the new Pharmacy Law (2006), although the application of these restrictions was postponed until 2016 to give pharmacies and pharmacy technicians time to prepare and retrain.

Another important change introduced in the 2006 Pharmacy Law to harmonize with the EU framework was related to advertising of pharmaceuticals. The law broadened the definition of drug advertising to include (and thus outlaw) visits of pharmaceutical representatives to prescribers; dissemination of samples that are not meant for sale; encouragement of prescribing by means

of presents, personal benefits or monetary bonuses in return; sponsorship of events where health care and pharmacy professionals participate; and sponsorship of radio and television programmes where information on drug substances is broadcasted.

Pharmaceutical pricing and reimbursement (see sections 3.3 and 5.6) has gradually improved through the development of positive lists, expansion of coverage to include specific population groups and approval of lists of base prices for reimbursable medicines. In 2002, Minister of Health Decree No. 159 outlined a procedure for inclusion of medicines and diseases into the positive list and allowed manufacturers or other interested parties to initiate changes in the list, as previously this right was granted only to health-care specialists and representatives of state agencies. However, the Decree did not set clear reimbursement criteria and rules. Therefore, despite many improvements in pricing and reimbursement procedures for medicines, these procedures have been repeatedly criticized for a lack of transparency.

In response to the economic crisis, the Ministry of Health approved the Plan for the Improvement of Pharmaceutical Accessibility and Price Reductions in July 2009. The Plan established generic pricing rules and INN prescribing and required patients to be provided with information on prices for the cheapest alternatives (see section 5.6). Preliminary data show that the implemented measures have had a positive impact in reducing expenditure on reimbursable outpatient pharmaceuticals as well as on co-payments (Garuoliene, Alonderis & Marcinkevicius, 2011). However, intensive regulation of drug prices may have a negative impact on the availability of some medicines, as the Lithuanian pharmaceutical market is very small and, therefore, unattractive to the pharmaceutical industry.

Public health

Lithuania's Health Programme was launched in 1998, introducing a concept of public health. The Law on Public Health Care, which defines public health-care principles, implementation methods and service structure, was approved by parliament in 2002. The law led to questions about its implementation because of its lack of clarity on how healthy lifestyle interventions have to be delivered and for a lack of integration into other sectors and shared responsibility, as the health-care sector was held solely responsible for the poor health of the population.

Amendments to the Law on Public Health Care in 2007 defined public health functions at national and local levels and paved the way for municipalities to establish public health bureaus, responsible for the provision of the local public health services, mainly health promotion, population health monitoring

and child health. The State Programme for Developing Public Health Care at Local Level (2007–2010) provided legal and financial mechanisms for the development of the bureaus' services. According to officials at public health bureaus, the service has shown many benefits (Tarvydiene, 2011), including timely information about the health status of the population and increasing health awareness of the population. The main challenges facing public health bureaus were lack of public health specialists, shortage of funds and lack of regulation of cooperation between personal health care and public health-care specialists.

Following parliamentary decisions in 2011 and the 2008–2012 government policy to reduce bureaucracy, the SPHS was abolished in 2012 (see section 2.3). Overseeing the work of public health centres, representation in the EU and international collaboration have been passed to the Ministry of Health, while functions related to public health care, control and licensing were passed to the 10 public health centres.

6.2 Future developments

A policy document, Lithuania's Health System Development Dimensions 2011–2020, was adopted in 2011 and defined the main directions for health system development until 2020 (Parliament of the Republic of Lithuania, 2011a). The document is intended to provide consistency to the future development of the system and make it more efficient and competitive. The key areas of focus are health improvement and disease prevention; expansion of the health-care service market through fair competition; increasing transparency, cost–effectiveness and rational use of resources; and ensuring evidence-based care and access to safe and quality services. The Health System Development Dimensions document suggests three stages of future development: (1) structural changes, including reduction in the numbers of hospitals, hospital beds and physicians; (2) the introduction of budgetary ceilings for health-care providers; and (3) increase in cost-sharing through VHI, legalizing co-payments and introduction of fair competition and effective management principles in health care.

According to the Ministry of Health, primary health-care development will remain a priority in the future. One of the important areas is maximization of primary care performance. The aim is to increase the efficiency of family doctors by linking their incomes with activity and to reduce payment per capita (in 2009 payment per capita took 85% of health insurance funds allocated for primary health-care outpatient services).

7. Assessment of the health system

The main objectives of the health system are to improve population health, access to health-care services and the quality of services. The focus has shifted from treatment towards prevention and healthy lifestyles. Primary care needs to play a central role in increasing efficiency in service delivery. In addition, economic progress and EU integration is expected to lead to increased funding for technology upgrades and health professionals' wages.

Health insurance contributions have traditionally been an important source of revenue, but the share that this provided has substantially declined since the fall in employment and incomes in 2008–2010. In response, the state increased its contribution on behalf of economically inactive and vulnerable groups (children, elderly, disabled, unemployed, etc.). This provided a degree of vertical equity and progressivity in the system. However, relatively high OOP payments represent a substantial regressive component.

Population surveys indicate a varying degree of overall satisfaction with the health system, from comparatively low (European Commission's *Eurobarometer*) to relatively high (national surveys). Increasing waiting times reported in population surveys point to organizational barriers. There is little evidence on equity of access to health care by socioeconomic group. While family doctors formally serve as gatekeepers, there is an option to access a specialist doctor directly for a fee. This, in turn, may have an impact on equity of access to specialist care.

The evaluation of the Lithuanian Health Programme (1998–2010) showed that by 2010 some of the targets set for population health had been achieved: average life expectancy increased to 73 years, infant mortality decreased twice as fast as expected and the incidence of TB decreased by 30%. Partial success has also been achieved in reducing deaths from injuries and premature mortality from cancers and ischaemic heart disease. No substantial reductions have been

achieved in mortality from circulatory diseases in those under 65 years of age, from breast cancer or from suicides; nor has there been significant reduction in the prevalence of cervical cancer and mental illness. Mortality from conditions amenable to health care (deaths that should not occur in the presence of timely and effective medical care) have increased in men and barely reduced in women between 1991 and 2008. Preventable mortality (deaths that could be prevented through changes in lifestyle and intersectoral measures that have impact on public health) have also increased over the same period. Lithuania is the country with the largest gender gap in life expectancy at birth in the EU. In 2011, men were expected to live 68 years compared with 79 years for women.

Health resource allocation is based largely on population size adjusted for age, sex and urban/rural distribution for primary care, and on service utilization for secondary care. Prioritization of health resource allocation often reflects a politically driven rather than evidence-based decision-making process. In terms of technical efficiency, despite recent reorganizations, there is still more scope for treating patients more efficiently outside the inpatient sector.

There is a lack of transparency and accountability in the system. Although, a number of reports and assessments commissioned by the Ministry of Health have addressed such issues, there has been no progress to date.

7.1 Stated objectives of the health system

Political and legal documents describing the objectives of Lithuania's health system mostly focus on improvement of population health outcomes. According to the Health System Development Dimensions 2011–2020 (Parliament of the Republic of Lithuania, 2011a), the mission of the health system is to motivate people to lead a healthy life, to create incentives for disease prevention and to provide quality care through efficient usage of resources. The Lithuanian Health Programme 2020, which is under preparation at the time of writing, adds health equity to the aims of longer life expectancy, lower mortality and better quality of life. The Law on the Health System states the aims for the entire health sector. These mostly focus on population health: prevention of death, disease and disability; longer healthy life expectancy; improvement of quality of life; and increase in economic and social productivity. It also sets a goal of reduction of inequalities in health between social and professional groups.

Existing health strategies do not have an intersectoral approach, with the exception of a few policies for alcohol and drug control, addiction prevention and road traffic safety. For the period 2008–2012, the government underlined two priorities for intersectoral cooperation: an integrated approach between the health and social sectors in nursing and long-term care and a coordinated effort between the education and health sectors in medical professional training and employment.

The political environment plays a strong role in health sector development. The 15th Lithuanian Government Programme (2008–2012) stated that health reforms are aimed at implementation of modern public health and patient-oriented approaches, rational administration and financing for better accessibility and quality of the services, and elimination of corruption and bureaucracy. The main attention was paid to financing aspects of solidarity (e.g. increasing the state contribution for people insured by the state and stricter eligibility criteria for health insurance coverage), transparency (introduction of co-payments for health services, establishing an information system on contributions and expenditure on individual level), efficiency (allocations of funds for priority areas) and mobilization of resources (creating conditions for supplementary VHI and private capital participation). Reports on actual implementation of reforms mostly reflect progress in restructuring services and the provider network, as well as in pharmaceutical policy (Ministry of Health, 2013). A VHI scheme and regulation for co-payments have not been introduced at the time of writing, which is largely a consequence of negative attitudes among the population (Buivydas et al., 2010).

The Strategy on Implementation of Healthcare Reform Goals and Objectives (2004) and the Implementation Plan (2005–2011) specify the following objectives:

- improving access to and quality of health-care services;
- shifting the focus of public and medical professionals from diagnostics and treatment towards health prevention and healthy lifestyles;
- substituting inpatient care with outpatient services;
- treating at least 75–80% of health problems in primary care;
- optimizing and rationalizing resource allocation through restructuring provider networks and services; and
- increasing funding for equipment upgrading and medical professional wages in line with economic progress and EU integration.

No comprehensive assessments of reforms and health system performance have been conducted. Yet some evidence can be found in the following sources:

- annual reports of major public authorities (e.g. Ministry of Health, NHIF);
- reports of the National Audit Office of Lithuania Inspectorate, which typically prioritizes selected issues;
- evaluations related to investments from the EU structural funds, including a recent series of studies undertaken to improve public awareness and dissemination;
- some research initiatives, mostly under international projects, as well as surveys commissioned by authorities;
- annual reports of the National Health Board, which contain collections of publications devoted to important public health topics; and
- situation analyses as introductory parts of policy documents.

7.2 Financial protection and equity in financing

7.2.1 Financial protection

The Lithuanian health system is financed through a variety of taxes and contributions. NHIF receives and allocates about 80–85% of the total public funding on health. The health insurance contributions are the main source of revenue but its share has substantially decreased since the rise in unemployment in 2008–2010, with an increasing share of funding coming from the state budget. With the economy picking up again, this trend has reversed and the contributions from an economically active population now constitute a larger share.

Household surveys showed that private per capita household expenditure on health was close to 5% of total household expenditure in 2003 and 2008, with the major share of this expenditure being spent on pharmaceuticals. Average private per capita household expenditure on health was distributed quite evenly across household expenditure deciles (Table 7.1).

Direct payments in the private sector as well as frequent and sometimes substantial OOP payments for services provided by public providers may constitute financial barriers to accessing health care. The evidence on barriers to accessing services mainly comes from population surveys. For example, according to the Eurostat 2011 Income and Living Conditions Survey (European

Table 7.1
Private monthly per capita household expenditure on health as a share of total household expenditure (in deciles) in 2003 and 2008

Deciles	2003		2008	
	Monthly per capita expenditure (€)	Share of household expenditure per person	Monthly per capita expenditure (€)	Share of household expenditure per person
Lowest 10%	1	0.03	2	0.03
2nd 10%	2	0.03	4	0.04
3rd 10%	3	0.04	6	0.04
4th 10%	4	0.04	7	0.05
5th 10%	6	0.05	9	0.05
6th 10%	6	0.05	10	0.05
7th 10%	8	0.05	12	0.05
8th 10%	9	0.05	13	0.05
9th 10%	12	0.05	18	0.05
Highest 10%	19	0.05	31	0.05

Sources: Statistics Lithuania, 2009, 2004.

Commission, 2013), 4.3% of the population had unmet medical needs and a quarter of these responders found services too expensive. In the most deprived quintile, the unadjusted prevalence of unmet medical need reached 6.4%, almost half of these responders could not access care for financial reasons, compared with the prevalence of 3.5% among the least deprived group, in which only 1 in 30 respondents found services too expensive.

A number of surveys (see section 3.4.3) show that informal payments are widespread and may absorb a substantial share of patient's income, particularly when both outpatient and inpatient treatments are required.

7.2.2 Equity in financing

In Lithuania, the main source of health-care financing is compulsory health insurance contributions, which are set proportionally to income levels. Vulnerable groups (about 60% of the population: children, elderly, disabled, unemployed, etc.) are covered by the state. This provides a degree of vertical equity and redistribution effect in the system.

However, as demonstrated above, large OOP payments add a substantial regressive component, as lower income and higher-need groups spend more proportionally on health care. Partly this is compensated by a reimbursement of 50–100% of the cost of the prescribed medication for the disabled, pensioners, those with chronic conditions, and so on.

The budgets of territorial NHIF branches are determined according to a formula that adjusts for population size, age and urban/rural distribution, plus the cost of services in the past year (see section 3.3 and Table 3.5).

7.3 User experience and equity of access to health care

7.3.1 User experience

Various sources evaluate overall public satisfaction with the health system differently. The population survey conducted for the Ministry of Health (Social Information Centre and European Reseach, 2011) showed a high level of patient satisfaction (a score of 3.8–4.3 out of 5), with outpatient services, day surgery and ambulance services being evaluated the highest. It is important to note that these are services prioritized in the health reforms. Another population survey conducted in 2010 (Social Information Centre and European Reseach, 2012) also showed a high degree of satisfaction with health-care services and access to health care in both outpatient and inpatient setting. Against this, about half of people think that, while access for poor people is assured, it is of lower quality for poorer people (NHIF, 2012b). In addition, international comparisons (European Commission, 2011) revealed comparatively low levels of overall public satisfaction with the health system, as only 40% assessed the system positively. According to the *Euro Health Consumer Index 2012* (Health Consumer Powerhouse, 2012), Lithuania's health system ranked 26 out of 34 countries in 2012. A degree of caution needs to be applied in interpreting these findings, as the results of national and international surveys are not directly comparable.

There is an indication of organizational barriers in the form of waiting times. Between 2009 and 2011, there was an increase from 35% to 58% in patients who identified waiting times as a barrier to access specialist services. The official data on waiting times are not available (NHIF, 2012b).

Public participation in health-care reforms and decision-making remains an issue in Lithuania. There is a need for a broader social partnership that includes patient involvement in improvement of health system performance. Despite notable progress in the expansion of patient rights, there are failures in communication between the public and health professionals.

7.3.2 Equity of access to health care

There is little evidence on equity of access to health care by socioeconomic group. While GPs formally serve as gatekeepers, there is an option to access a specialist doctor directly for a fee. This may have an impact on equity of access to specialist care. In addition, as discussed in section 7.2, existing unregulated OOP payments also pose barriers to accessing health care, particularly for those with lower incomes.

Some evidence is available on geographical access to health-care services. Table 7.2 shows a higher concentration of doctors in Vilnius and Kaunas regions – 52 and 58 per 10 000 population, respectively – compared with 15 per 10 000 in Taurage region. The difference mainly reflects the distribution of secondary and tertiary care specialists. Family physicians and nurses are distributed more evenly across the regions: ranging between 4.8 per 10 000 population in Panevezys region and 7.5 in Kaunas region for family doctors and between 51 per 10 000 population in Taurage region and 82 in Klaipeda region for practising nurses. Vilnius, Kaunas and Klaipeda regions also have the higher number of acute hospital beds on a population basis, while nursing beds are

Table 7.2
Distribution of human resources and beds by region, 2011

Indicator	Alytus	Kaunas	Klaipeda	Marijampole	Panevezys	Siauliai	Taurage	Telsiai	Utena	Vilnius	Lithuania
Medical professionals per 10 000 population											
Practising doctors	27.4	58.1	33.7	21.3	26.8	23.6	15.4	17.8	23.3	52.1	38.8
Dentists	5.7	12.0	7.5	5.9	6.0	5.1	4.7	5.7	6.2	9.1	8.0
Family doctors	4.5	7.5	5.8	5.3	4.8	5.4	4.6	5.7	5.1	5.7	5.8
Paediatricians	3.1	4.4	3.3	2.9	3.4	2.8	1.8	1.4	2.3	4.5	3.6
Surgeons	1.8	3.5	3.4	1.2	2.0	2.0	1.1	1.5	2.4	3.7	2.8
Practising nurses, including midwives	67.5	80.3	82.3	52.6	77.4	72.7	51.2	57.4	61.5	80.0	74.1
Beds per 10 000 population											
Hospital beds (excluding nursing)	44.9	84.9	89.4	34.8	73.4	57.8	32.3	31.2	50.3	84.5	70.5
Paediatric beds	3.2	5.6	5.6	3.6	3.8	4.6	4.9	3.5	4.7	4.5	4.7
Surgical beds	6.5	11.9	11.3	3.8	8.2	7.0	4.1	3.5	6.2	15.5	10.3
Obstetrics beds	1.7	3.6	2.8	1.4	2.3	1.9	1.3	2.2	1.2	2.8	2.5
Nursing beds	14.3	12.9	14.2	14.9	16.3	16.6	15.9	15.5	16.6	13.5	14.5

Source: Health Information Centre, 2013.

distributed evenly throughout the regions. The bed distribution is in line with the recent reforms of health services provision. Concerns have been raised, however, regarding the lack of physicians and an ageing workforce in rural areas (Klaipeda Regional Health Insurance Fund, 2013).

Available data on health-care utilization show no clear pattern of over- or underuse of health-care services among regions, apart from higher secondary and tertiary specialist consultation rates in Vilnius and Kaunas (Table 7.3). It is important to bear in mind the small size of the country and the proximity of regions.

Table 7.3

Health-care utilization by broad age group, type of care and region, 2011

Region	Primary care consultations per 100 population			Specialist care (secondary/tertiary) consultations per 100 population			Hospitalizations per 1 000 population			
	0–17	18–64	65+	0–17	18–64	65+	0–17	18–44	45–64	65+
Alytus	765	451	714	152	183	277	193	121	220	434
Kaunas	585	376	744	210	217	394	228	130	234	455
Klaipeda	567	361	658	214	178	291	260	143	234	531
Marijampole	577	363	679	149	170	300	204	116	218	452
Panevezys	590	364	613	192	185	305	218	139	230	484
Siauliai	642	364	643	169	157	272	249	144	233	468
Taurage	468	298	637	144	165	275	227	128	240	455
Telsiai	551	374	653	148	159	261	197	135	227	435
Utena	624	374	582	141	170	254	224	129	230	516
Vilnius	704	379	658	259	221	380	234	124	203	424
Lithuania	623	373	669	201	194	328	234	133	227	468

Source: Health Information Centre, 2013.

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

The evaluation of the Lithuanian Health Programme 1998–2010 (National Health Board, 2011) showed that by 2009–2010 some of the targets set for population health have been achieved: average life expectancy exceeded 73 years, infant mortality decreased at twice the expected rate and the incidence

of TB decreased by 30%. Partial success has been seen in reducing mortality from injuries, and in reducing premature mortality (for those under 65 years old) from cancers and ischaemic heart disease. No substantial reductions have been achieved in mortality from circulatory diseases in those under 65 years of age, breast cancer and suicides, nor in reducing prevalence of cervical cancer and mental illness.

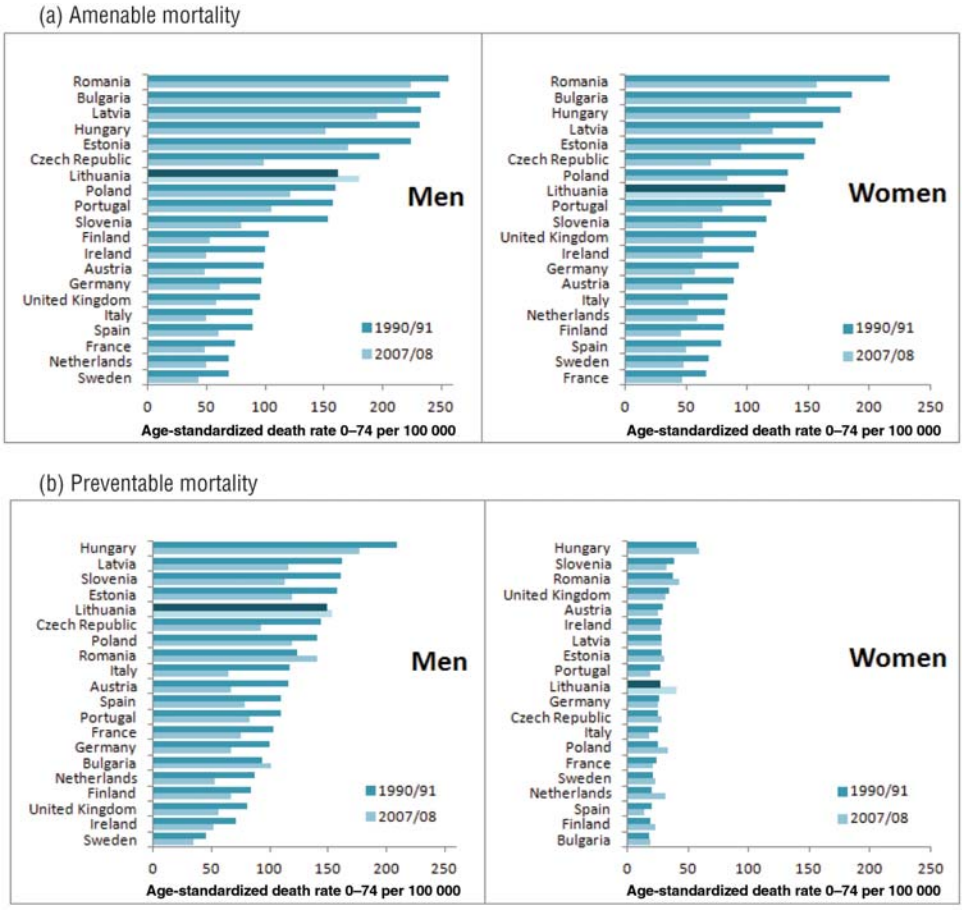
Analysis of the life expectancy gap between the Baltic States and Finland (Karanikolos et al., 2012) showed that improvements in life expectancy in Lithuania since the early 2000s have been very fragile, and while some progress has been achieved in mortality in younger age groups, the mortality gap in those older than 55 years, particularly men, between Lithuania and Finland has been widening. Jasilionis et al. (2011) showed that Lithuania, in contrast to its Baltic neighbours Latvia and Estonia, has failed to improve trends in life expectancy for most of the 2000s. They suggested that the negative mortality changes in 2000–2007 were reinforced by the striking rise in alcohol-related deaths, and improvement in 2008–2009 resulted from introduction of anti-alcohol measures.

In addition, the World Bank report (2009) concluded that Lithuania lagged behind similar countries in terms of health outcomes. Notably, it mentioned low life expectancy; high incidence of TB; high mortality from diseases of the circulatory system, in particular ischaemic heart disease; high mortality from external causes, particularly suicide; and alcohol- and smoking-related mortality.

Analysis of mortality from conditions amenable to health care (deaths that should not occur in the presence of timely and effective medical care) in 20 countries of the EU has shown that Lithuania is the only country where amenable mortality has increased in men between 1990–1991 and 2007–2008, while the reduction in women has been minimal (Nolte et al., 2012). Preventable mortality (deaths that could be prevented through changes in lifestyle and intersectoral measures that have an impact on public health) have also increased over the same period, both in men and women (Fig. 7.1)

The results of the survey of *Health Behaviour among the Lithuanian Adult Population* (Grabauskas et al., 2011) showed an improvement in self-reported general health in Lithuania between 1996 and 2010; however, the risk of noncommunicable diseases remained high because of the high prevalence of smoking, low physical activity and the occurrence of overweight and obesity.

Fig. 7.1
Changes in (a) amenable and (b) preventable mortality between 1990–1991 and 2007–2008 in selected EU countries



Source: Adapted from Nolte et al., 2012.

7.4.2 Health service outcomes and quality of care

A significant part of recent health reforms has focused on promoting outpatient care delivery and quality of care. These have also been frequently mentioned on reform agenda. At the end of 2012, the Minister of Health (2012) signed an order on the utilization of performance assessment criteria for institutions providing inpatient care. This contains a list of quantity and quality indicators, in line with the PATH (Performance Assessment Tool for Quality Improvement in Europe) recommendations. The quantity indicators include average length of stay for selected diagnoses, proportion of surgical procedures performed

in day surgery, use of operating theatres, frequency of caesarean section, hospital mortality from myocardial infarction and stroke, frequency of pressure sores and infection control indicators. The quality indicators include patients' satisfaction measures, hospital infection prevention and control, registration and analysis of adverse events, measures for specific patient groups (newborns, myocardial infarction) and risk assessment for health-care personnel. These indicators will be introduced in stages over 2013–2014.

Childhood vaccination rates since the early 2000s have been around or higher than 95% for most of the immunizations included in the routine calendar. Seasonal vaccination against influenza is recommended for high-risk groups (including those over 65 and residents of nursing and social care homes). Since 2007, the vaccine is purchased by the state and distributed free of charge among providers.

According to the Lithuanian Heart Association, more than 7000 people experience acute myocardial infarction annually in Lithuania. In 2010, 1182 died, with one fifth of deaths being in the under 65s. In the same year, mortality from myocardial infarction and stroke within 30 days of admission to hospital was 10% and 13%, respectively (Health Information Centre, 2013). The *Euro Health Consumer Index 2012* ranked Lithuania poorly on case fatality for acute myocardial infarction, cancer deaths relative to incidence, preventable years of life lost, undiagnosed diabetes and depression (Health Consumer Powerhouse, 2012).

Information available on inpatient admissions shows that management of chronic conditions in primary care in Lithuania has room for improvement as, in the presence of well-functioning primary care, the number of inpatient admissions for these conditions should be minimal (Table 7.4).

Table 7.4

Inpatient admissions for patients with selected chronic conditions, 2011

Chronic condition	Inpatient admissions	Hospital admission rate (per 1 000 population)	Average length of stay (days)	In-hospital mortality (per 1 000 inpatients)
Asthma	6 238	1.94	11.2	2.7
Chronic obstructive pulmonary disease	8 849	2.75	8.7	44.0
Congestive heart failure	22 420	6.96	18.4	109.2
Hypertension	15 433	4.79	6.8	4.2
Diabetes	7 648	2.37	10.3	20.1

Source: Health Information Centre, 2013.

In terms of patient safety, the adopted approach on enforcement of measures through patient complaints and court investigations lacks a focus on prevention, while the adverse events registration system is not properly functioning in health-care facilities. The evidence on health-care-related harm is fragmentary. For example, in 2008, 1477 postmortems showed that 16 deaths were from diagnostic mistakes. There were 55 complications after blood transfusion, one of which led to the patient's death. Registration of hospital infections contained 1333 cases, while a report on patient safety showed a 3.4% hospital infections rate in 2007 and 15% in intensive care units in 2008 (SHCAA, 2009).

Notably, a survey conducted in 2011 showed that the vast majority of the population assessed GP, specialist outpatient and inpatient services as good quality (81%, 79% and 80%, respectively). At the same time, just 56% of medical professionals positively assessed the quality of health care in the country (Social Information Centre and European Reseach, 2012).

7.4.3 Equity of outcomes

Lithuania is the country with the largest gender gap in life expectancy at birth in the EU: 11 years. In 2011, men were expected to live 68 years compared with 79 years for women. At age 65, women in Lithuania are expected to live 4.9 years longer than men: 18.5 and 13.6 years, respectively. This is the second-largest gap in the EU after Estonia, and is the same as that of Latvia (WHO Regional Office for Europe, 2013). Mortality structure by cause varies between men and women. In men, in 2011, the main causes of death were cardiovascular diseases (48% of the total), followed by cancers (22%) and external causes (13%); in women, 65% of all deaths were from cardiovascular diseases, 18% from cancers and 4% from digestive diseases (Statistics Lithuania, 2013b).

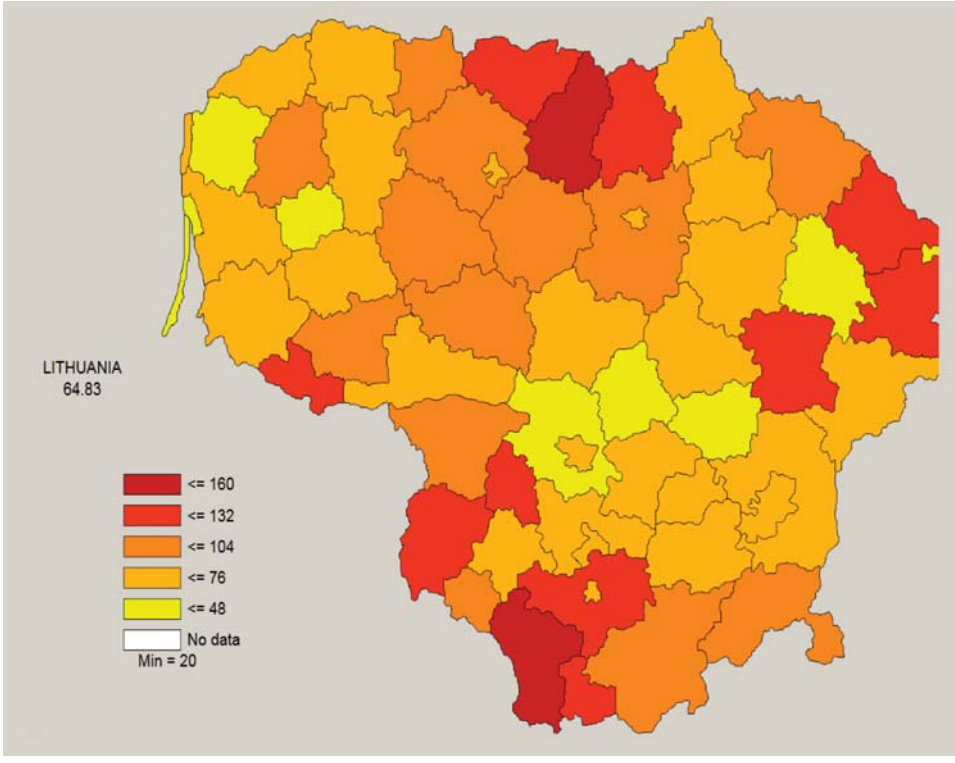
In a comparison of 22 EU Member States (Mackenbach et al., 2008), Lithuania showed no income-related inequalities and some education-related inequalities in the prevalence of poorer self-assessed health, together with education-related inequalities in the mortality rate for both men and women. Similarly, Finbalt health monitor results (Klumbiene, 2011) showed that 64% of men and 69% of women with university education assess their health as good, compared with 51% of men and 40% of women with secondary education. In women, the inequality gap in self-assessed health by education has increased since the early 2000s. The EU Survey of Income and Living Conditions (European Commission, 2010a) suggests that employment status is also an important determinant for inequalities in health in Lithuania, as 5.1% of unemployed men assessed their health as bad or very bad, compared with

3.8% of those employed. Again, in women the gap is even wider, as 10.3% of those unemployed assessed their health as bad or very bad, compared with 4% of employed women.

Despite the relatively small size of the country, there are geographical variations in health in Lithuania. Age-standardized mortality rate for greatest causes of death is higher in rural than in urban residents. Fig. 7.2 demonstrates large geographical variations in premature mortality from ischaemic heart disease across municipalities in Lithuania, which varies six-fold: from 25 per 100 000 in Rietavas region to 154 per 100 000 in Pakruojis region.

Fig. 7.2

Map of age-standardized premature mortality from ischaemic heart disease in Lithuanian municipalities per 100 000, 2011



Source: Health Information Centre, 2013.

Some health prevention programmes have focused on reducing geographic inequalities in the country. For example, a large project on reduction of mortality from acute myocardial infarction, financed from EU structural funds, has been implemented in eastern Lithuania.

7.5 Health system efficiency

7.5.1 Allocative efficiency

Prioritization of health resource allocation often reflects a politically driven rather than evidence-based decision-making process. A case of substitution therapy implementation in the country illustrates how a political initiative to abruptly prohibit the treatment appeared to ignore a large body of evidence (including national studies) (Murauskiene, Geciene & Stankute, 2011).

The implementation of the resource allocation formula in secondary care provides another example. It has formally been in place as a condition of the World Bank loan to the health sector. The formula is based on gender and age distribution and, together with resource allocation for primary care (largely capitation based), it accounted for a part of the total resource allocation at the regional level. Recent capital investment allocations from the EU structural funds in 2004–2013, particularly for outpatient care providers, took into account some geographical disparities in health and health service utilization. However, after meeting the loan conditions, no further changes to the formula have been made. Complete reporting on actual allocations is also scarce, and *de facto* health-care providers can influence allocation of resources.

The challenges in intersectoral allocations are more recognized. However, no efficient mechanisms are in place, and the pursuit of Health in All policies and involvement of other sectors currently exist on paper rather than in practice (see section 2.6).

7.5.2 Technical efficiency

Average length of stay in hospitals steadily decreased from the early 2000s, while the bed occupancy rate remained largely unchanged (see section 4.1). The scope of day surgery is increasing through the use of incentives for the development of day care. However, infrastructure in the hospital sector is still oversized and needs to be better tailored for the needs of the population (World Bank, 2009). The World Bank report also states that while hospital productivity is at a reasonable level, there is more scope to treat patients outside hospital.

The public sector covers only 35% of costs of all pharmaceuticals and medical devices in Lithuania. A 2005 population health survey revealed that 38% of the adult population consumed medicines prescribed by physicians, while 58% of adults used non-prescribed medicines, mostly vitamins and food supplements,

pain-relieving medicines, and those for cold, influenza or sore throat relief (Statistics Lithuania, 2006). Recent reforms aimed at reducing pharmaceutical expenditure through INN prescribing and wider use of generics has achieved a decrease in cost, seemingly without reducing access to pharmaceuticals (Garuoliene, Alonderis & Marcinkevicius, 2011). However, according to the *Euro Health Consumer Index 2012* (Health Consumer Powerhouse, 2012), Lithuania, together with Bulgaria and Albania, shared the lowest rank for accessibility of pharmaceuticals.

The supply and efficiency of human resources in Lithuania is assessed mostly at the national level, taking into account inflow (medical training), outflow (migration, retirement, deaths or exits to other professions) and geographical distribution. A recent pilot study (Lithuanian University of Health Sciences, 2011) demonstrated substantial differences in intensity and content of work in outpatient specialties and highlighted a need for more time allocated for direct patient contact, particularly in primary care where more than half of the working time of primary care personnel is allocated to other duties (e.g. paperwork). The report suggests that, although currently there is no visible shortage of physicians, this is because the workload often exceeds one full-time equivalent physician and there are those practising medicine after retirement. In order to maintain the workforce, the authors propose an increase in medical training. Similarly, the World Bank report (2009) also suggested the development of a medium- to long-term human resources strategy for the health sector, mostly focusing on nurse–physician ratios, skills mix and broader arrangements including contracting and performance-based payment mechanisms; this was considered necessary to improve responses to future population needs. A recent study (Starkiene et al., 2013) reviewing human resources policy in health care in Lithuania in 2000–2010 suggested that, while specific evidence-based recommendations on workforce retention (increase in student enrolment, increase in salaries) have been implemented, the nonspecific recommendations (e.g. creation of incentives to encourage physicians to move to rural areas, well-managed migration policy) have not been converted into policy action because of the lack of functioning financial and monitoring mechanisms.

Another area of potential improvement in technical efficiency lies in decision-making on public investments, which needs to have a more consistent and substantiated approach. For example, investments with a clear long-term vision of development are more likely to improve efficiency than fragmentary investments in the absence of consistent needs assessment.

7.6 Transparency and accountability

There is a lack of transparency in the system despite the progress in patient empowerment and increase in public participation. Lithuanians' dissatisfaction with the health system results from, among other factors, its level of corruption (World Bank, 2009). A Transparency International survey also demonstrates a high level of corruption, as 31% of respondents perceived health care as being among the most corrupt sectors in the country (Transparency International Lithuania, 2009). In addition to lack of regulation of formal payments in outpatient care, one study (Cockcroft et al., 2008) showed that 8% of patients informally paid in cash for treatment and a further 14% gave gifts to medical staff.

In addition, the World Bank review (2009) highlighted several health system governance issues: weak quality management and control, fragmented and ineffective overall quality assurance and control, and the considerable influence of providers as a pressure group over the direction and management of the health system. It should be noted that governance issues are increasingly addressed in various studies and publications (e.g. audits of the NHIF and the National Audit Office of Lithuania, other thematic assessments recently commissioned by the Ministry of Health).

8. Conclusions

The reforms since the early 1990s have brought about very important changes to the Lithuanian health system. Early on, a new regulatory legal framework was created for the health system and health-care institutions. A new system of health financing, based on social health insurance, was introduced and administered by the NHIF as a single payer. Although health insurance contributions account for a substantial proportion of revenue, it is a mixed system as a similar share of contributions by the state on behalf of the economically inactive population is derived from tax. The dominating source depends on the economic cycle: during the economic crisis, state contributions accounted for the bulk of the health insurance revenue, but lately this trend has reversed and the contributions from the economically active population now constitute a larger share.

Primary care and general practice have been established and expanded, particularly in rural areas. However, to date, a full transition to family medicine has not been achieved, and GPs do not always act as effective gatekeepers. Since 2003, reforms aimed at improving efficiency in the hospital sector have sought to provide alternatives to inpatient care by increasing care delivery in outpatient settings, day care, day surgery and short-term hospitalizations. However, different ownership forms and a powerful provider lobby have made it very hard to implement such changes. Consequently, until now, the overreliance on inpatient care is reflected in the number of acute care hospital beds and the rate of inpatient admissions, which remain among the highest in the EU.

Population health status has generally improved since the early 1990s, yet high mortality still remains a cause for concern. Lithuania is lagging behind most countries of the EU on life expectancy. Deaths from ischaemic heart disease, suicides, alcohol-related causes, as well as mortality amenable to health-care intervention, are among the highest in the EU. Increasing alcohol

consumption, fuelled by lax legislation, lack of law enforcement and easy accessibility, has recently been tackled through intersectoral efforts, leading to some improvement in alcohol-related deaths.

Counter-cyclical health insurance contributions made by the state on behalf of the economically inactive population increased the size of the state contributions during the financial crisis, which allowed Lithuania's health system to weather the crisis without reducing population coverage or scope of services provided. The biggest impact fell on health service providers, health professionals and public health, as they faced cuts to payments for services, wages and budget, respectively. Reduced pharmaceutical prices led to savings in both public and household expenditure.

Cost-sharing is relatively high compared with other EU countries, mainly because payments for pharmaceuticals are reimbursed fully or partially only for a section of the population, while others bear the full cost. In addition, informal payments are still widespread in the sector. There is some evidence that cuts in reimbursement from the NHIF as a result of the financial crisis have led to an increase in OOP payments for diagnostic tests and treatments, which, in turn, may reduce accessibility to services and exacerbate health inequalities.

A number of challenges remain in Lithuania's health-care system. The primary care system needs strengthening so that more patients are treated instead of being referred to a specialist, which will also require a change in attitude by patients. Transparency and accountability need to be increased in resource allocation, including financing of capital investment and in the payer–provider relationship. Finally, population health, albeit improving, remains weak, and major progress can be achieved by reducing the burden of amenable and preventable mortality.

9. Appendices

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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 2007 edition, the Health for All database started to take account of the enlarged EU of 27 Member States.

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

A typical HiT 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 IT 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.

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- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
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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

Liubove Murauskiene is a Director of the Training, Research and Development Centre. Her main area of work is social research and international consultancy projects for health and social sectors. She holds a PhD in social science and is a lecturer at Vilnius University.

Raimonda Janoniene is a chief specialist at the Institute of Hygiene, specializing in health technology assessment. Her prior experience involves performance assessment in health sector and health policy development.

Marija Veniute is a researcher and senior lecturer at the Public Health Institute of Vilnius University as well as a senior consultant at the Training, Research and Development Centre, specializing in public health, mental health and health systems research. She holds a Master of Public Health degree and PhD from Vilnius University.

Ewout van Ginneken is a Senior Researcher in the Department of Health Care Management at the Berlin University of Technology and the Berlin hub of the European Observatory on Health Systems and Policies. He holds a Master of Health Sciences, Health Policy and Administration degree from Maastricht University, and a PhD in Public Health from the Berlin University of Technology.

Marina Karanikolos is a research fellow at the European Observatory on Health Systems and Policies and the London School of Hygiene & Tropical Medicine. She specializes in the impact of the financial crisis on health and health systems performance assessment.

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