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Russian Federation

Health system review

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Preface

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

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

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

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

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

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

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

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

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Thanks are also extended to the WHO Regional Office for Europe for their European Health for All database from which data on health services were extracted; to the OECD for the data on health services in western Europe; and to the World Bank for the data on health expenditure in central and eastern European countries. Thanks are also due to national statistical offices that have provided data. The HiT reflects data available in September 2011, unless otherwise indicated.

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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 HiTs is led by Josep Figueras, Director, Elias Mossialos, Martin McKee, Reinhard Busse and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Gabriele Pastorino. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White, Jane Ward (copy-editing), Pat Hinsley (typesetting) and Aki Hedigan (proofreading).

List of abbreviations

CIS	Commonwealth of Independent States
DLO	Supplementary Medicines Provision (*Dopolnitel'noe Lekarstvennoe Obespechenie*)
EML	Essential and Most Important Medicines List
EU	European Union
FAP	*Feldsher*–midwife posts (*Feldsher-akusher punkt*)
FMBA	Federal Medical and Biological Agency
GDP	Gross domestic product
GMP	Good manufacturing practice
GP	General practitioner
HIV	Human immunodeficiency virus
INN	International nonproprietary name
IT	Information technology
MHI	Mandatory health insurance
NGO	Nongovernmental organization
NPPH	National Priority Project – Health
NPS	New Payroll System
OECD	Organisation for Economic Co-operation and Development
ONLS	Scheme for provision of necessary medicines (*Obespechenie neobhodymyh lekarstlennymi sredstvami*)
PGG	Programme of State Guarantees for Medical Care Provision Free of Charge
RLMS	Russian Longitudinal Monitoring Survey
Rospotrebnadzor	Federal Consumer Right Protection and Human Wellbeing Surveillance Service (*Federal'naya sluzhba po nadzoru v sfere zashtity prav potrebiteley i blagopoluchiya cheloveka*)
Roszdravnadzor	Federal Service on Surveillance in Healthcare and Social Development (*Federal'naya sluzhba po nadzoru v sfere zvdravoohraneniya i sotsial'nogo razvitiya*)
TB	Tuberculosis
UNICEF	United Nations Children's Fund
VHI	Voluntary health insurance
VZN	Scheme for high-cost conditions (*Vysokozatratnye nozologii*)
WHO	World Health Organization
WTO	World Trade Organization

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Abstract

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

At independence from the Soviet Union in 1991, the Russian health system inherited an extensive, centralized Semashko system, but was quick to reform health financing by adopting a mandatory health insurance (MHI) model in 1993. MHI was introduced in order to open up an earmarked stream of funding for health care in the face of severe fiscal constraints. While the health system has evolved and changed significantly since the early 1990s, the legacy of having been a highly centralized system focused on universal access to basic care remains.

High energy prices on world markets have ensured greater macroeconomic stability, a budget surplus and improvements in living standards for most of the Russian population. However, despite an overall reduction in the poverty rate, there is a marked urban–rural split and rural populations have worse health and poorer access to health services than urban populations. The increase in budgetary resources available to policy-makers have led to a number of recent federal-level health programmes that have focused on the delivery of services and increasing funding for priority areas – including primary care provision in rural areas. Nevertheless, public health spending in the Russian Federation remains relatively low given the resources available. However, it is also clear that, even with the current level of financing, the performance of the health system could be improved. Provider payment mechanisms are the main obstacle to improving technical efficiency in the Russian health system, as most budget

funding channelled through local government is input based. For this reason, the most recent reforms as well as legislation in the pipeline seek to ensure all health care funding is channelled through a strengthened MHI system with contracts for provider payments being made using output-based measures.

Executive summary

Introduction

The Russian Federation is the largest country in the world by surface area and covers over 17 million km^2 spanning both Europe and Asia. The country is rich in natural resources, having major deposits of oil, natural gas, coal, timber and many strategic minerals. Exploitation of these natural resources is central to the country's economy. After the economic instability of the 1990s, following the dissolution of the Soviet Union, the economy grew steadily, accompanied by moderate inflation, a balanced budget and significant trade surplus. Poverty rates in the cities fell rapidly as the macroeconomic situation improved, but the urban–rural divide also widened to the extent that by 2004 poverty had become a largely rural phenomenon. The sustainability of the oil-price-driven economic recovery has been severely challenged since 2008 with the global economic crisis and resultant fall in global fuel prices.

The population of the Russian Federation peaked in 1992 at 148.3 million and it has been shrinking ever since. This has been caused by a falling fertility rate and relatively low birth rate coupled with a high death rate. The low birth rate and low fertility rate are common to other post-Soviet countries; however, the high death rate has been more severe in the Russian Federation than in neighbouring states, and it has most seriously affected men of working age. Life expectancy in the Russian Federation declined strongly following the dissolution of the Soviet Union in 1991, but almost recovered by 2009. It has been shown that these fluctuations are not artefact and there is very strong evidence that alcohol consumption, including the consumption of non-beverage alcohol, played a key role in the initial decline in life expectancy, and continues to have a detrimental impact on population health.

Organization and governance

The Russian health system inherited its infrastructure from the Soviet Union, and adopted a MHI model in 1993 in order to open up an earmarked stream of funding for health. While the organization and governance of the health system have evolved and changed since independence, the legacy of having been a highly centralized system focused on universal access to basic care still informs much of the discourse and practices in the system.

The Ministry of Health and Social Development (MoHSD) with its associated federal agencies and services (particularly Rospotrebnadzor (Federal Consumer Rights Protection and Human Wellbeing Surveillance Service) Roszdravnadzor (Federal Service on Surveillance in Healthcare and Social Development), the Federal Medical and Biological Agency (FMBA), and the Federal MHI Fund) are the dominant institutions in the Russian health system. Each level in the state organizational hierarchy reports to the state body directly superior to it. In each region, the gubernatorial administration also has a health department that oversees regional-level health facilities and monitors municipal-level health departments and their respective facilities. Municipalities oversee those health facilities they own. In addition to the hierarchy and assets of the MoHSD, several ministries continue to operate "parallel" health systems of ministerial polyclinics, hospitals, sanatoria and public health facilities.

Regulation and planning have been radically affected by decentralization policies including the introduction of MHI in the early 1990s. However, as a result of broader policy measures, recent recentralization efforts have reinvigorated the regulatory reach and planning capacity of the MoHSD. Each of these functions is currently shared among numerous actors: the MoHSD, federal services and agencies, regional and local health authorities, the Federal MHI Fund, Territorial MHI Funds and private health insurance companies involved in MHI and voluntary health insurance (VHI). Strategic planning for health and the health system is the responsibility of the MoHSD; although there have been moves to shift planning away from input-based to output-based criteria, at present the implementation of "outcome-oriented budgeting' is limited by the budget planning capacity across the Russian Federation.

Patients making decisions about the purchase of health insurance (e.g. range of services covered, costs, quality or type of provider) in the Russian Federation have limited access to the information they need to make an informed decision. Ascertaining the quality of services is also difficult as the results of quality control exercises, provided by Roszdravnadzor and the MHI system, are not

routinely published and the lack of competition between providers and insurers means there are few visible quality indicators. In general, patients rely on word of mouth and personal recommendations.

Financing

Health financing in the Russian Federation is a relatively even mix of financing from compulsory sources (general taxation and payroll contributions for MHI) and out-of-pocket payments. The coverage of the population is nominally universal, free and guaranteed as a constitutional right. However, the responsibility for enforcing this constitutional right is, in practice, shared between the central, regional and local authorities. The scope of the constitutional right to medical care free of charge is determined by the state medical benefit package – the Programme of State Guarantees for Medical Care Provision Free of Charge (PGG). The state guarantees are determined by government decrees issued each year. The PGG has two parts: the basic MHI package and the package of care to be financed by budgetary funds. The basic MHI package covers the everyday health needs of the population, while the budget package covers specialized and high-technology medical care, outpatient pharmaceutical costs for certain groups as well as emergency care. Despite a clear theoretical delimitation between the coverage provided by the budget system and the coverage provided by the MHI, in practice this delimitation is less strict. Local and regional authorities are still generally responsible for maintaining the network of polyclinics and hospitals, including covering the costs of general repairs, equipment, wages, drugs, and so on.

The range of benefits covered is comprehensive. There is no volume limitation for care included in the MHI/state package and only a negative list of care provided for a fee, which is beyond the scope of the guaranteed "basic" package of care. Notable exceptions are outpatient prescription drugs, which must be purchased out of pocket by all apart from a small number of "vulnerable" groups. The comprehensiveness of the benefit package is, however, undermined by the persisting scarcity of resources and reported generalized informal payments.

The two main sources of compulsory financing for the Russian health system are general government revenues, and a payroll contribution to the MHI scheme, in the form of an earmarked share of the unified social tax. General government revenues are derived from many sources, but revenues from the

export of oil and gas predominate. Russian patients also contribute heavily to health financing through both formal and informal direct payments, particularly payments for outpatient prescription pharmaceuticals.

The MHI Funds pool contributions and transfer them to insurance companies on the basis of a weighted capitation formula, although the actual reimbursement methodology varies widely. The third-party insurer ideally engages in selective contracting with providers, so as to encourage competition between facilities as well as lower costs, higher-quality care and better primary care and prevention services. The insurance companies enter into contracts with providers based on case payments, which were expected to create pressures for efficiency. For payments from the regional or local budgets, the organizational relationship is integrated as the providers are directly owned by the relevant tier of government. The activities of providers are, therefore, largely controlled through hierarchical management structures at the local and regional levels.

Physical and human resources

The Russian Federation inherited an extensive network of medical facilities as a legacy of the Semashko system with considerable overcapacity; since 1991, the whole network of medical facilities has shrunk. Through the 1990s, there was a gradual reduction of both hospital and outpatient facilities as a result of voluntary policies linked to the introduction of MHI reforms and severe resource constraints. Since 2000, there has been more rapid change, in large part resulting from the closure of the vast majority of small village (*uchastkovye*) hospitals.

Obsolescence and maintenance remain persistent problems among a significant number of health facilities. The condition of facilities under the MoHSD are surveyed on an annual basis and these surveys are used to inform capital investment funding, but the funds available are very limited, even when there has been significant economic growth in the country. The lack of such basic services as mains sewerage and hot water undoubtedly impact negatively on quality of care, and the lack of telephone connections has significant implications for the development and maintenance of information systems. Those facilities most likely to lack such basic services are predominantly in rural areas, where few other buildings locally would have access to such services either.

All countries of the former Soviet Union inherited a relatively large medical workforce at independence and a large number of physicians per capita. However, the situation in the Russian Federation differs from that in many of

the country's neighbours in that the number has not just been maintained but has actually increased, and it is now one of the highest in the WHO European Region. By contrast, the number of midlevel health personnel working in the health system fell following independence and did not recover until 2009.

Provision of services

The Russian Federation inherited a large network of primary care facilities that, in theory, covers the whole territory of the country. As in the Soviet era, in remote rural areas patients are covered by *feldsher*–midwife posts (FAPs) while in urban areas they are covered by a primary care physician in the local polyclinic. There is a hierarchy of clinics and hospitals at the municipal, regional and federal levels to which complex cases can be referred. A system of primary care with general practitioners (GPs)/family doctors has been initiated in some districts following the introduction of the concept as early as 1992, but most still have the system of primary care internists (*terapevty*) and primary care paediatricians working together with a team of narrow specialists at the primary care level. There is no region where general practice or family medicine is the predominant model, and in a quarter of regions the percentage of GPs in the total number of active primary care physicians was less than 3%. GPs work alone (particularly in remote rural areas), in group practices or alongside narrow specialists in polyclinics.

The network of secondary and tertiary facilities combines hospitals, hospital outpatient clinics and specialist outpatient centres based in polyclinics. The infrastructure inherited from the Soviet era remains largely intact in urban areas, despite some bed and facility closures, but in rural areas there has been a more substantial cut in the number of facilities and beds, with the closure of many small village hospitals. Care is still organized on a territorial basis. There is overprovision of secondary and tertiary care, particularly of inpatient facilities.

Principal health reforms

There have been a number of recent reform initiatives at the federal level, which have focused on the delivery of services, increasing funding for priority areas, such as the federal reimbursement programme for pharmaceuticals (*Dopolnitel'noe Lekarstvennoe Obespechenie* Supplementary Medicines Provisions – DLO) and the National Priority Project – Health (NPPH). The aim

of the DLO was to improve access to pharmaceuticals for particular vulnerable groups as part of wider changes to the benefits system. The NPPH was launched in 2006 with the key aim to improve population health by improving material, technological and human resources provision in the health sector. In 2007–2008, pilot projects were introduced in 19 regions as part of the NPPH in order to try and identify effective health financing reforms to improve efficiency that could then be rolled out nationwide. There have been subsequent attempts to roll out a New Payroll System (NPS) to reject the unified salary scale and introduce a more flexible payroll system that would provide more opportunity to link wages to work performance. However, take up was limited because the methodological background for switching to the NPS was not sufficiently developed and the criteria and procedures for evaluating the performance of health workers had not been defined. Consequently, this transition in many institutions was purely formal.

Significant changes to the MHI system have also been introduced, although it is too early to assess the impact of these changes. Legislation passed in 2009 provides for a significant increase in employers' contribution to the MHI for working citizens and the gradual centralization of contributions on the federal level. Also, from 1 January 2011, a new MHI law provided for the total centralization of MHI funds on the federal level and the Federal MHI Fund became the insurer; all resources, including contributions from regional budgets for the insurance of the non-working population, now belong to the Federal MHI Fund. Consequently, regional MHI funds only administer Federal MHI Fund's resources for the implementation of the MHI basic programme on their territory. All rules for the implementation of MHI are set on the federal level.

Assessment of the health system

The replacement of public expenditure on health by out-of-pocket payments since the dissolution of the Soviet Union reflects, on the whole, a trend towards the less equitable distribution of health care resources and creates conditions for the growing inequality in financial access to medical services for various groups in the population. Some of this inequity is geographical as the Russian Federation is characterized by a very uneven distribution of health financing across regions. Despite the efforts of the federal centre, regional inequality has only been growing. The accessibility of medical assistance for rural populations is much lower than it is for the urban populations, and wealthier people consume

medical services more frequently than the poorer sections of the population even though the poorer people have worse health. Public opinion surveys generally show a lack of client satisfaction with the Russian health system.

There is considerable diversity in health outcomes across different regions of the Russian Federation. There were threefold and fourfold differences, respectively, in such important indicators as perinatal and infant mortality. Urban communities have better health than rural communities and men die much younger than women. However, there have still been marked improvements in key population health indicators such as infant mortality, perinatal mortality, under-5 mortality and maternal mortality.

Although the low level of public health spending in the Russian Federation has been highlighted as problematic, it is also clear that performance of the health system could be improved even with the current level of financing. The efficiency of social spending in the Russian Federation, including health expenditure, has been assessed as poor because similar health outcomes in terms of mortality as in the Russian Federation are observed in other countries spending 30–40% less on health. Provider payments mechanisms are the main obstacle to improving technical efficiency in the Russian health system as most budget funding channelled through local government is input based. For this reason, recent reforms have sought to ensure all health funding is channelled through a strengthened MHI system.

There is also much scope to improve the allocative efficiency of the Russian health system. Input data show that the Russian health system significantly favours inpatient care at the expense of primary care services. Resource usage indicators also point to reduced allocative efficiency; for example, the hospitalization rate is much higher than the similar rate in other countries of the WHO European Region. This high rate of hospitalization along with the high rate of emergency care calls (frequently – for patients with chronic disease complications) testify to the low efficiency of primary care. Recent reform efforts have sought to strengthen primary care services and the balance of allocation to primary care relative to specialist care, but there is no evidence yet that this policy has been successful.

1. Introduction

1.1 Geography and sociodemography

The Russian Federation is the largest country in the world by surface area and covers over 17 million km^2. It has a coastline of 37 653 km and land boundaries of over 20 000 km bordering the following countries: Azerbaijan, Belarus, Democratic People's Republic of Korea, Estonia, Finland, Georgia, Kazakhstan, Latvia, Lithuania, Mongolia, Norway, People's Republic of China, Poland and Ukraine (Fig. 1.1). The climate across the Russian Federation is very varied, including temperate in the steppes in the south, humid continental in European Russia, subarctic in Siberia, tundra in the polar north and subtropical on the Black Sea. The exclave of Kaliningrad on the Baltic coast is also a subject of the Russian Federation, although it does not have contiguous borders. Forests and woodland cover 51% of the land, and only 13% is arable, as the larger parts are either too cold or too dry for agriculture. The Russian Federation is rich in natural resources, having major deposits of oil, natural gas, coal, timber and many strategic minerals. However, the climate, terrain and distances pose considerable obstacles to the full exploitation of these resources (Tragakes & Lessof, 2003).

The population of the Russian Federation peaked in 1992 at 148.3 million and it has been shrinking ever since (WHO Regional Office for Europe, 2011). This has been caused by a falling fertility rate and relatively low birth rate, coupled with a high death rate (Table 1.1). The low birth rate and low fertility rate are common to other countries that have been going through social, economic and political transition; however, the high death rate has been more severe in the Russian Federation than in neighbouring states, and it has most seriously affected men of working age. The underlying reasons for this demographic situation and its implications are outlined below (see section 1.4).

Fig. 1.1

Map of the Russian Federation

Source: United Nations, 2004.

Table 1.1

Trends in population/demographic indicators for the Russian Federation, selected years

	1980	1990	1995	2000	2005	2009
Total population (millions)	139.00	148.30	148.10	146.30	143.20	141.90
Population, female (% of total)	53.90	53.20	53.10	53.30	53.60	53.80
Population aged 0–14 years (% of total)	21.60	23.00	21.40	18.20	15.10	14.80
Population aged ≥65 years (% of total)	10.20	10.10	11.90	12.40	13.80	13.10
Population average annual growth rate (%)	0.71	0.39	– 0.13	0.00	– 0.49	– 0.07
Population density (per km^2)	8.50	9.00	9.00	8.90	8.70	8.70
Fertility rate, total (births per woman)	1.90	1.90	1.30	1.20	1.30	1.60
Birth rate, crude (per 1000 people)	15.90	13.40	9.30	8.70	10.20	12.40
Death rate, crude (per 1000 people)	11.00	11.20	15.00	15.40	16.10	14.20
Age dependency ratio	46.80	49.40	50.00	44.00	40.60	38.60
Rural population (% of total population)	30.20	26.60	26.60	26.60	27.10	27.20
Literacy rate (%) in population aged 15+ years[a]	98.80	99.20	99.40	99.60	99.40[b]	99.60

Sources: World Bank, 2011c; [a]WHO Regional Office for Europe, 2011.
Note: The age dependency ratio is the ratio of the combined child (aged 0–14) and elderly (aged 65+) population to the working age (aged 15–64) population; [b]Data for 2004 instead of 2005.

There have been major population movements in the Russian Federation since the dissolution of the Soviet Union. There has been a high level of "return migration" of ethnic Russians from neighbouring countries of the former Soviet Union and a large number of economic migrants seeking better job opportunities have come from neighbouring states. There have also been large internal movements as Soviet restrictions on place of residence have been lifted. Consequently, there is now greater population mobility than in the Soviet era and more people have been moving from rural to urban areas (Wegren, 2007). People have also been relocating from cities in the far north to places with a less harsh climate, both independently and as part of relocation programmes. The conflicts in Chechnya have also led to significant internal population displacements, which have impacted on neighbouring federal subjects.

The official language is Russian; however, there are over 100 different languages spoken on the territory of the Russian Federation, which is a reflection of the country's considerable cultural and ethnic diversity. In total, there are over 150 minority nationalities. According to the 2002 census the largest groups are Russian (79.8%), Tatar (3.8%), Ukrainian (2%), Bashkir (1.2%), Chuvash (1.1%) and others (12.1%). Most Russians are non-believers or non-practising believers, but the largest religious group is Russian Orthodox, which is followed by an estimated 15–20% of the population, Islam is followed by 10–15% and other Christian denominations are followed by 2% (Central Intelligence Agency, 2010). Only Russian Orthodoxy, Islam, Judaism and Buddhism are formally considered "national faiths".

1.2 Economic context

The immediate economic aftermath of the end of the Soviet Union included hyperinflation, which hit 2500% in 1992, and a collapse in industrial output and gross domestic product (GDP) in the Russian Federation; indeed GDP dropped for seven years in a row, a cumulative decline of 40% from the 1990 level (Rutland, 2005) (Table 1.2). There was a significant increase in unemployment, from an official base level of zero under the Soviet system. Problems in the labour market were compounded by high levels of "hidden" unemployment, wage arrears and payment in-kind as large unprofitable enterprises tried to resist market pressures. However, wage arrears in the early 1990s were also a very serious problem for state employees such as teachers and health workers as the government struggled to cover budget deficits.

Table 1.2

Macroeconomic indicators, selected years

	1990	1995	2000	2005	2006	2007	2008	2009	2010
GDP (in billions of current US$)	517	396	260	764	990	1300	1660	1220	1480
GDP, PPP (in billions of current international $)	1190	832	1000	1700	2140	2390	2880	2680	2810
GDP per capita (current US$)	1647	1288	1229	3771	5292	6772	8514	7241	8764
GDP per capita, purchasing power parity (current international $)	5116	3657	4792	8699	9839	10 904	11 370	11 429	12 050
GDP growth (annual %)	-3.00	−4.10	10.00	6.40	8.20	8.50	5.30	−7.80	4.00
General government expenditure (% of GDP)[a]	–	43.70	25.50	27.40	31.00	33.80	33.80	41.10	–
Cash surplus/deficit (% of GDP)	–	–	–	–	8.00	6.20	5.60	5.30	–
Tax revenue (% of GDP)	–	–	–	–	16.60	16.60	15.80	12.90	–
Value added in industry (% of GDP)	48.40	37.00	37.90	38.10	37.20	36.40	35.90	32.80	–
Value added in agriculture (% of GDP)	16.60	7.20	6.40	5.00	4.50	4.40	4.40	4.70	–
Value added in services (% of GDP)	35.00	55.90	55.60	57.00	58.20	59.10	59.70	62.50	–
Labour force (total, millions)	76.80	72.20	72.30	74.40	75.10	76.10	76.00	75.90	–
Unemployment, total (% of total labour force)	–	9.50	10.60	7.10	7.10	6.10	6.30	8.20	–
Gini coefficient	–	–	–	37.51		43.68	42.27	–	–
Real interest rate (%)	–	72.30	−9.60	−7.20	−4.10	−3.30	−5.20	12.50	–
Official exchange rate (roubles per US$, period average)	–	4.56	28.13	28.28	27.19	25.58	24.85	31.74	30.37

Sources: World Bank 2011c; [a]WHO, 2011.

The pattern of Soviet industrialization meant that at independence the Russian economy faced a number of difficulties in transforming the economy from one based on the administrative command system to one based on market relations. Soviet legacies included a focus on heavy industries at the expense of light industries and the service sector, but also industrial development that had occurred with little or no regard for profitability, environmental impact or opportunity cost. The last is epitomized by the "factory towns" where a town was built around one large enterprise, which also provided the housing, child care and even some health care for the workers and their families. These towns have faced great hardships where the factories at their core have proved unviable in the market economy and there are few local opportunities for diversification.

Macroeconomic stabilization did not occur until 1995, when inflation was brought under control, and the economy began to experience some recovery in 1997; however, the East Asian financial crisis of that year caused a slump in world oil prices that eroded the Russian current account surplus. This, in turn, combined with the budget deficit and led to a dramatic devaluation of the rouble, accompanied by a default on government debts and the collapse of the private banking sector (Rutland, 2005). The "rouble crisis", as it became known, was extremely painful for the Russian population, but in the longer term, the devaluation of the rouble did cut imports (which became much more expensive) thus enabling Russian industry and agriculture to recapture some of their old markets (Rutland, 2005). This, in turn, led to a rapid improvement in living standards, which boosted Russian agriculture through an increase in food consumption and, following the devaluation, a reduction in food imports. Government support programmes also helped to increase food production and improve efficiency in agriculture (Wegren, 2007). However, severe drought in 2010 cut agricultural output by 12.1% and there was a subsequent steep increase in food prices (World Bank, 2011b).

Following the economic instability of the Yeltsin era, during Putin's Presidency the economy grew steadily, accompanied by moderate inflation, a balanced budget and significant trade surplus; by 2004, real wages were 28% above pre-1998 levels (Rutland, 2005). Measuring poverty rates in the Russian Federation over time is problematic because of the various changes in the way poverty has been measured to reflect a more accurate national picture. The growth of wage arrears and the informal economy in the early 1990s meant that expenditure-based – rather than income-based – poverty measures were introduced. In 2000, weightings of the consumer basket of goods were revised and estimates of subsistence minimums by region were introduced; this shifted the poverty line upward and revealed the extent of regional inequalities (Mosley & Mussurov, 2009). The Russian Government declared their aim to halve the number of citizens living in poverty between 2002 and 2007, and poverty rates in the cities certainly fell rapidly as the macroeconomic situation improved, but the urban–rural divide also widened to the extent that by 2004 poverty had become a largely rural phenomenon (Gerry, Nivorozhkin & Rigg, 2008). The impact of economic growth has been uneven across the Russian Federation, highlighting variations between regions and economic sectors and resulting in "poverty elasticity", where growth in some regions has been pro-poor whereas in others it has had a detrimental effect (Mosley & Mussurov, 2009). The national poverty rate continued to fall in 2010 despite increasing food prices, largely through anti-crisis measures, which included substantial increases in pensions and wages, but also because overall

the unemployment rate was lower than expected. Unemployment fell from 9.1% in January 2010 to 7.6% in January 2011, based on the International Labour Organization definition of unemployment (World Bank, 2011b). However this masks strong regional diversity; at the end of 2010, the regional unemployment rate varied from just 1.6% in Moscow city to 47.5% in the Republic of Ingushetia (World Bank, 2011b).

The sustainability of the oil-price-driven economic recovery has been severely challenged following the global economic downturn and resultant fall in global fuel prices, which began in 2008. The downturn highlighted the lack of diversity in the Russian economy, and its subsequent vulnerability to volatile international commodities markets, despite the founding of the Stabilization Fund in 2004 to help to insulate the economy from such external shocks (Ministry of Finance, 2010). Oil and gas made up less than half of total exports in the year 2000, but by 2010 this has grown to two-thirds of total exports with a further 15% coming from other extractive industries (World Bank, 2011a).

1.3 Political context

The Russian Federation left the Soviet Union in 1991, under the presidential leadership of Boris Yeltsin. The Russian Constitution was approved by national referendum in 1993, and the first elections to the Federal Assembly were held in the same year. The Russian Federation is a presidential federal political system. The executive branch is led by the President of the Russian Federation, who is elected by popular vote for a four-year term (increasing to a six-year term from the 2012 electoral cycle), but who cannot serve more than two consecutive terms. The bicameral Federal Assembly is the legislative branch, which consists of the Federation Council (166 seats appointed by the top executive and legislative officials in each of the 83 federal subjects to serve four-year terms) and the State Duma (450 seats elected by popular vote to serve four-year terms). The judiciary consists of the Constitutional Court, the Supreme Court and the Supreme Arbitration Court, and all judges are appointed for life by the Federation Council on the recommendation of the president.

The nature of the Russian Constitution is strongly presidential; the president has considerable power and government is not responsible to parliament (the State Duma) but to the president. Parliamentary constraints on the actions of the president and government are limited to rejecting the president's choice of prime minister, and no confidence votes in the government as a whole. Presidential power is defined and limited by the terms of the 1993 Russian

Constitution, which can only be changed by referendum. Presidential powers were further strengthened under Vladimir Putin, who was in power for two terms from March 2000 to May 2008 when he was succeeded by his favoured candidate, Dmitry Medvedev. Vladimir Putin is currently serving as the chair of the government – the Prime Minister.

The nature of the Russian political system, and popular disaffection with party politics, means that in the Russian Federation political parties play a lesser role than elsewhere (White, 2005). For example, President Dmitry Medvedev, like Presidents Vladimir Putin and Boris Yeltsin before him, is not a member of a political party. Many of the smaller grassroots parties were severely marginalized following reforms to election laws, which included the introduction of a minimum threshold of 5% (increased to 7% from 2007) in order to get a seat in the State Duma. The biggest parties in the present government are currently United Russia (*Edinaya Rossiya*), the Communist Party of the Russian Federation (KPRF), Just Russia (*Spravedlivaya Rossiya*) and the Liberal Democratic Party of Russia (LDPR). United Russia is the "party of power" but it is not, however, a conventional political party; the party of power grows through and is defined by its support of the president rather than a defined ideology and a network of grassroots party members (White, 2005). Rapid and chaotic privatization in the early 1990s led to the emergence of a new class of powerful economic magnates known as "oligarchs", who had huge influence over politics towards the end of the Yeltsin era. However, the political influence of this group was curbed under his successor, President Vladimir Putin (Sakwa, 2008).

The political system is federal, and as of January 2006, when several subjects were merged, there are 83 subjects or regions of the Russian Federation (46 *oblasts*, 21 republics, 9 *krais*, 4 autonomous *okrugs*, 1 autonomous *oblast* and the cities of Moscow and St Petersburg). All subjects of the Russian Federation have equal rights. In the early Yeltsin years, the regions were allowed to take as much sovereignty as they could swallow, and some ended up making moves to leave the Russian Federation altogether. As a result, in the 1990s, the regions had considerable autonomy, although the republics (the leaders of which had the strongest power bases) and the net donor regions (those which give more revenues to the central budget than they receive) had the strongest bargaining position and were afforded the most leeway. There were concerted efforts under Putin to reign in some of the more independent subjects of the Russian Federation and address federal asymmetry by introducing an extra tier of administration: grouping the subjects into seven federal administrative districts (*federal'nye okruga*) headed by specially appointed presidential representatives. In 2010,

an additional federal administrative district was established by presidential decree. The aim has been to recentralize power, or effective vertical executive control, and reintegrate the Russian legal/constitutional space (Hahn, 2005). The envoys for the federal administrative districts were charged with ensuring that federal agencies at the regional level function in accordance with federal directives and policies rather than looking to local government structures.

In 2005, the process of political recentralization began within the framework set out by the Federal Law on General Principles of Organization of Legislative and Executive Bodies of State Power of a Subject of the Russian Federation (No. 95, 4 July 2003) and the Federal Law on Main Guarantees of Electoral Rights and Rights to Participate in Referendum (No. 159, 11 December 2004).

Since 2005, governors of the regions have not been elected but assigned by the regional parliaments on the recommendation of the President. In 2009, the procedure for instituting a regional governor was significantly changed in order to strengthen the institutional capacity of political parties to form executive powers. In accordance with the new procedure, three candidates for the post of regional governor are recommended to the president by the political party that won on the regional elections. If the party does not propose any candidates, the president selects from the list of candidates proposed by the plenipotentiary representative of the president in the federal *okrug* (Federal Law No. 41, 5 April 2009; Presidential Decree No. 441, 23 April 2009).

As a consequence of this recentralization, regional leaders now have stronger incentives to comply with ministerial programmes and policies as they are answerable to the presidential administration rather than the local electorate. However, since 2005, there has not been a rapid turnover of regional leaders, and political life outside the capital still follows its own dynamic, and the nature of this dynamic differs in every region. The diversity is such that there is no "typical" region that may be taken as representative of certain patterns or tendencies. The subjects (regions) are subdivided into municipalities. In 2009, there were 23 907 municipalities, including 1829 municipal *rayons*, 512 urban *okrugs* and 21 330 settlements (Federal State Statistics Service, 2010a). These lower levels of government have little political power in national terms, but they are very important in shaping the lives of their local population.

In 1997, the Russian Federation became one of the Group of Eight (G8) countries and became a permanent member of the Paris Club; the country has had accession status with the World Trade Organization (WTO) since 1993 and the OECD since 1997. The Russian Federation is a full member of the United Nations, with a seat on the United Nations Security Council;

the Commonwealth of Independent States (CIS) and the Organization for Security and Cooperation in Europe. The country has ratified most major international treaties that have an impact on health, including the Convention on the Rights of the Child and the WHO Framework Convention on Tobacco Control (as of June 2008). As the Russian Federation is a leading industrialized country (as reflected in its membership of G8), the Millennium Development Goals do not constitute a formal basis for development planning by the Russian Government. The Russian Federation applied for membership the Council of Europe in 1992 and has been a full member since 1996. However, concerns over the abuse of human rights in Chechnya have led to calls for Russian membership to be suspended, and the European Court of Human Rights had issued 115 judgments by September 2009 on cases concerning serious human rights abuses in the North Caucasus. In nearly all cases, the Court held the Russian Federation responsible for "disappearances", extrajudicial executions and torture, and for failing to properly investigate these crimes (Human Rights Watch, 2009).

The Russian Federation scored 2.2 on the 2009 Corruption Perception Index, where 10 would be a country with no corruption; this was the same score as Ukraine, Sierra Leone and Zimbabwe in 2009 (Transparency International, 2010). The Corruption Perception Index score for the Russian Federation in 2008 was 2.1. President Medvedev has made targeting corruption a major part of his domestic political strategy, issuing a National Anti-Corruption Plan within one month of his inauguration in May 2008. After many years of rhetoric, systematic efforts to research and combat corruption are now underway in the Russian Federation, but implementation of the new anti-corruption legal framework will be extremely challenging (Transparency International, 2009).

1.4 Health status

Although mortality data for the Russian Federation are reasonably complete and reliable, as in many countries of the former Soviet Union, a restricted definition of live birth is used rather than the WHO definition, which means that neonatal mortality can be underestimated in official figures by about 50% and infant mortality can be lower by about 25% (Shkolnikov & Jdanov, 2010). Similar restrictions apply to the definition of maternal mortality, which give a lower maternal mortality rate in official figures than would be found if the standard WHO definition were applied (UNICEF, 2010). In 2008, the United Nations Children's Fund (UNICEF) estimated the infant mortality rate in the Russian Federation at 12 per 1000 live births and the under-5 mortality

rate at 27 per 1000 live births (official corresponding indicators were 8.5 and 10.8, respectively). The maternal mortality rate from UNICEF was 28 per 100 000 live births in 2005, compared with official Russian estimates of 25.4 (UNICEF, 2010). However, official data and UNICEF estimates show the same downward trend in both infant and maternal mortality rates since the mid 1990s (Table 1.3).

Table 1.3
Mortality and health indicators, selected years

	1990	1995	2000	2003	2004	2005	2006	2007	2008	2009
Life expectancy at birth, female (years)	74.3	71.6	72.3	71.8	72.3	72.4	73.2	73.9	74.2	74.7
Life expectancy at birth, male (years)	63.7	58.1	59.0	58.6	58.9	58.9	60.4	61.4	61.8	62.8
Life expectancy at birth, total (years)	69.2	64.5	65.3	64.8	65.3	65.3	66.6	67.5	67.9	68.7
Mortality rate, female (per 1000 female population)	8.9	13.3	13.5	14.1	13.7	13.8	13.3	12.9	12.9	12.6
Working age mortality rate, female (per 1000 females 16–54 years)	2.0	3.0	2.9	3.4	3.3	3.4	3.0	2.9	2.8	2.7
Mortality rate, male (per 1000 male population)	16.9	16.9	17.3	18.9	18.6	18.8	17.4	16.7	16.6	16.0
Working age mortality rate, male (per 1000 males 16–59 years)	7.6	12.8	11.5	12.7	12.7	13.0	11.7	10.9	10.7	10.0
Infant deaths (per 1000 live births)	17.4	18.1	15.3	12.4	11.6	11.0	10.2	9.4	8.5	8.1
Probability of dying before 5 years of age (per 1000 live births)	21.3	22.5	19.3	15.7	14.5	13.9	13.0	11.8	10.8	10.2
Maternal deaths (per 100 000 live births)	47.4	53.3	39.7	31.9	23.4	25.4	23.8	22.0	20.7	22.0

Source: Federal State Statistics Service, 2010b.

Life expectancy in the Russian Federation declined strongly following the dissolution of the Soviet Union in 1991, but had almost recovered by 2009. Although the decline was seen for both men and women, the fall in male life expectancy was particularly grave and has been very closely documented. It has been shown that these fluctuations are not artefacts, and there is very strong evidence that heavy alcohol consumption, including the consumption of non-beverage alcohol, played a key role in the initial decline in life expectancy (Leon et al., 1997), and continues to have a detrimental impact on life expectancy, particularly for men of working age (Leon et al., 2007). Another key population health issue is tobacco consumption. The ratification of the Framework

Convention on Tobacco Control in June 2008 was a significant step forward for public health in the Russian Federation as smoking rates among men have traditionally been high (61.3% in 2002–2005); although rates among women were much lower (15% in 2002–2005), Russian women have been the prime target group for international tobacco companies, which have expanded rapidly in the post-Soviet space (WHO Regional Office for Europe, 2010). Between 1990 and 2000, cigarette consumption in the Russian Federation increased by an unprecedented 81% despite a declining population (Danishevski, Gilmore & McKee, 2007). Deaths from external causes are also significant; for example, in 2004, the Russian Federation had one of the highest road accident death rates in Europe (25.2 per 100 000), and men of working age were disproportionately affected (World Bank, 2009) (Table 1.4).

Table 1.4

Main causes of death (all ages per 100 000 population), 1990–2009 (selected years)

Main causes[a]	1990	1995	2000	2005	2006	2007	2008	2009
Communicable diseases								
Infectious and parasitic diseases (A00–B99)	12.1	20.7	24.9	27.2	25.1	24.2	24.3	24.0
Tuberculosis (A17–A19)	7.9	15.4	20.5	22.5	20.0	18.4	17.9	16.8
Noncommunicable diseases								
Circulatory diseases (I00–I99)	618.7	790.7	845.1	908.0	864.7	833.9	835.5	801.0
Malignant neoplasms (C00–C97)	192.2	200.9	202.9	199.4	200.9	201.2	201.9	204.9
Digestive organs, malignant (C15–C26)	81.0	80.6	78.0	76.0	75.6	76.2	76.2	76.8
Respiratory diseases (J00–J99)	59.4	73.9	70.2	66.2	58.1	54.8	56.0	56.0
Digestive diseases (K00–K93)	28.7	46.1	44.4	65.5	62.8	61.7	63.7	62.7
External causes (V01–Y89)	134.0	236.8	219.0	220.7	198.5	182.5	172.2	158.3
Transport accidents (V01–V99)	29.2	26.3	27.2	28.1	26.8	27.5	25.0	21.2
Suicide (X60–X84)	26.5	41.4	39.1	32.2	30.1	29.1	27.1	26.5

Source: Federal State Statistics Service, 2010b.
Note: [a]Causes from the ICD-10 classification (WHO, 1994).

Fluctuations in life expectancy have been driven largely by the changes in the mortality rates for cardiovascular diseases and external causes, and young and middle-aged men in lower socioeconomic groups living in regions undergoing the most rapid economic transition have been those most seriously affected (Chenet et al., 1998; Walberg et al., 1998; Shkolnikov, McKee & Leon, 2001). Mortality rates for men are extremely high relative to countries at similar income and development levels, and there is a large health gap between the Russian Federation and other G8 countries.

Cardiovascular diseases, cancers and external causes (including injuries and poisonings) are the three main causes of mortality in the Russian Federation (see Table 1.4). Male mortality is significantly higher than female mortality, and cancer deaths are more prevalent among women than deaths from external causes. Many deaths from external causes are in some way linked to alcohol consumption, but the Russian road traffic mortality rate is a particular policy concern as it is very high by international standards (21.1 per 100 000 population in 2008) and half of these deaths are among people aged 15–44 years (Marquez & Bliss, 2010). The most recent disability-adjusted life expectancy data for the Russian Federation show that, although Russian women live considerably longer than Russian men, they do so in poor health; in 2007, the disability-adjusted life expectancy for women was 65.5 years while for men it was just 54.3 years. These levels are very low compared with other countries of the WHO European Region (WHO Regional Office for Europe, 2011).

Although noncommunicable diseases account for the vast majority of mortality and morbidity in the Russian Federation, communicable diseases also pose a serious threat to population health. Tuberculosis (TB) infection rates increased dramatically following the dissolution of the Soviet Union and are now one of the main focuses for the health system and international aid efforts (Marquez et al., 2010). While the epidemiological situation has stabilized, it remains challenging as levels of multidrug-resistant TB are high and the TB epidemic has also intersected with the well-established epidemic of HIV/AIDS (Perelman & Mikhailova, 2008).

Following problems with routine immunizations in the 1990s, the previously high levels of coverage for vaccine-preventable communicable diseases have been re-established. In 2008, 97.1% of infants had the combined vaccination against diphtheria, pertussis and tetanus; 98.3% against TB; 98.1% against polio; and 97.8% against hepatitis B (WHO Regional Office for Europe, 2011). Data for mumps and rubella for 2008 were not available and they cannot be extrapolated from the measles vaccination rate as the triple measles, mumps and rubella vaccine is not routinely used. Vaccination against *Haemophilus influenzae* type b is not included in the schedule.

2. Organization and governance

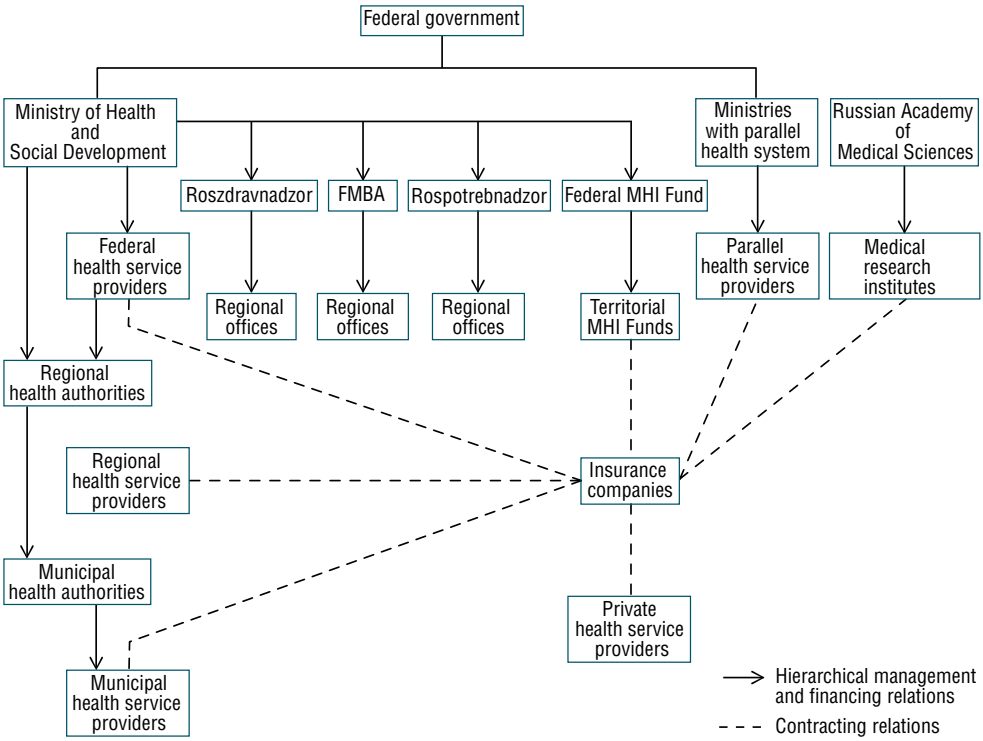
2.1 Overview of the health system

The Russian health system inherited its infrastructure from the Soviet Union. While the organization and operating principles of the health system have evolved over the past 20 years, the legacy of having been a highly centralized system focused on universal access to basic care still informs much of the discourse and operations of health care in the Russian Federation.

The Ministry of Health and Social Development (MoHSD), with its associated federal services Rospotrebnadzor, Roszdravnadzor, the Federal Medical and Biological Agency (FMBA), and the Federal Mandatory Health Insurance (MHI) Fund are the dominant institutions in the Russian health system. Each level in the state organizational hierarchy reports to the state body directly superior to it (Fig. 2.1).

In each region, the gubernatorial administration has a health department that oversees regionally owned health facilities (multipurpose and specialized hospitals, specialized clinics, outpatient facilities, diagnostic centres, specialized emergency care facilities, etc.) and monitors municipal-level health departments and their respective facilities. Municipalities oversee those health facilities they own. In urban municipalities, the medical facility network comprises general and specialized hospitals, polyclinics, emergency care facilities, diagnostic centres, and so on. The network in rural municipalities usually consists of general hospitals (the central *rayon* hospital), *rayon* hospitals and small village (*uchastkovye*) hospitals. Primary care in rural facilities is provided by the outpatient departments of rural hospitals and *feldsher*–midwife posts (*feldshersko-akusherskiy punkt* (FAP)), which are usually supervised by the nearest rural hospital. In addition to the hierarchy and assets of the MoHSD, several ministries continue to operate "parallel" health systems of ministerial polyclinics, hospitals, sanatoria and public health facilities.

Fig. 2.1
Overview of the Russian health system



Public funding for the health system flows through two channels: the budget (or general revenues) system, managed by federal, regional and local health authorities, and the MHI system, which is managed by the Federal and Territorial MHI Funds (see Chapter 3).

2.2 Historical background

The Russian Federation inherited a Semashko model health system. Although there was quite extensive health care coverage prior to the October Revolution in 1917, it was the introduction of the Semashko system that really set the context for the current health system. The Soviet Semashko system was organized around the guiding principle of universal access to health care free at the point of use. It was a tax-based system with highly centralized planning

of resources and personnel based on a hierarchy of facilities at the district, regional, republican and all-union levels. All health workers were employed by the state, and private practice was not allowed. There was an emphasis on the continuous expansion of staff and facilities, and an extensive system of parallel health services that were attached to large industrial enterprises, certain ministries (e.g. Transport Ministry, Ministry of Internal Affairs) and the Communist Party elite. The extensive coverage and universal access to free care meant that the Semashko system was equitable, despite qualitative differences in provision between geographical regions and mainstream and parallel health services. However, it was also inefficient and resource intensive – particularly in its reliance on inpatient care. Also, while the Semashko system proved reasonably effective in the control of communicable diseases, with the epidemiological shift towards a noncommunicable disease burden, the system was insufficiently flexible and primary care and health promotion too weak to enable the control of noncommunicable diseases, which predominated towards the end of the Soviet era (Figueras et al., 2004).

In the late 1980s, the attempt to decentralize the management of medical facilities and to increase both their efficiency and their responsiveness to the population was undertaken. The experiment known as the New Economic Mechanism was introduced in the health system in three pilot regions: the *oblasts* of Kemerovo and Samara, and Leningrad (now St Petersburg). The reform goals were to optimize the structure of medical care, giving priority to primary care, and to grant medical care providers new authority and responsibility. Territorial medical associations were established in each location as the agencies responsible for managing and providing care for a particular unit of the population. The concept of a territorial medical association was similar to that of a health maintenance organization in the United States in that the association became a budget holder and assumed responsibility for providing care for an enrolled population. Typically, the territorial medical association comprised polyclinics, hospitals, specialized clinics, women's consultation clinics, maternity hospitals, children's sanatoria, emergency care stations, and so on. The budget for each association was determined according to a capitation formula, derived from the basic demographic characteristics of the enrolled population. Polyclinics played the leading role in the territorial medical associations as the budget holders, allocating funds for services that hospitals and other institutions provided. Hospitals derived income from contracts with polyclinics. Hospital services were priced according to a complex system of clinical and statistical groups. These diagnostic-related groups were based on the profile of the disease, complications and treatment patterns required, and

the duration of care. All providers were allowed to supplement their revenues in the public system by selling services to private patients and contracting with industrial enterprises to provide services to their employees. These experiments were quite bold, both institutionally and politically, and showed some promising results. For example, inpatient utilization declined in favour of care in polyclinics, and work performance increased. The fundamental aspects of these experiments, including the financial arrangements are still to be found in these pilot areas today.

With the break-up of the Soviet Union in 1991 and the start of a transition to market economics, there was a need to reform health financing in the Russian Federation to reflect the shift and, more significantly, to confront the severe funding shortage in health care by securing a steady flow of funds earmarked for health. A system of MHI was chosen as the solution. Physicians, whose income levels had always been low and now were unable to keep up with rapid inflation, supported the swift introduction of a health insurance system in the belief that this would improve their income. A nascent insurance industry in other sectors similarly supported the notion of market-based health insurance. In line, therefore, with the rapid introduction of market-oriented reforms in other sectors of the Russian economy, it was decided that a system of MHI would be introduced that would rely heavily on market forces to correct the many inefficiencies and financing problems inherited from the Semashko model of care.

Under the pressure of severe fiscal difficulties, the Supreme Soviet of the Russian Soviet Federative Socialist Republic (RSFSR) passed the Law on Health Insurance of the Citizens of the RSFSR in June 1991 as an initial attempt to provide a statutory framework for the far-reaching changes that were planned for health financing. This law was considered to have some fundamental weaknesses. The 1991 law was substantially revised, amended and passed in April 1993 (referred to here as the Health Insurance Law). The key objectives of the legislation were to provide new sources of non-budget financing in order to augment the existing budgetary sources, to provide a mechanism for the pooling of all funds and to continue to provide universal access and comprehensive coverage for the population while introducing patient choice of provider and insurer. The achievement of these objectives was to be facilitated through improved management of the health system and the introduction of incentive mechanisms that would rely heavily on the market principle of competition among insurers and providers, respectively.

The new financing system envisaged by the health insurance legislation was to include the following elements (Tragakes & Lessof, 2003):

- a change in health financing through the establishment of a non-budgetary source of revenues – payroll contributions – to be paid by employers to insure the working population and thereby increase the total funds available for health without displacing any of the existing sources of funds; at the time of implementation, the payroll contribution rate was set at 3.6% of the wage bill;
- introduction of regional and local government contributions to cover the non-working population (amount unspecified);
- establishment of MHI funds at national and regional levels to pool funds received from employer and government contributions; the Federal MHI Fund received 0.2% of the wage bill for equalization purposes and Territorial MHI Funds received 3.4% plus the regional and local government contributions to purchase cover from health insurance companies on the basis of risk-adjusted capitation;
- establishment of the MHI benefit package, which would subsequently be defined by the federal government while regional authorities were given the right to define benefits in addition to those granted at the federal level;
- care to be purchased by public and private health insurance companies and branches of the Territorial MHI Funds, the latter if there are none of the former and only until such private insurers are established;
- insurers to contract public or private providers and to pay them according to performance-related criteria, in line with annually renegotiated tariffs agreed by the Territorial MHI Funds, regional health authorities, local governments, medical associations and health insurance associations;
- consumer choice of insurance company, medical provider and physician working in a medical facility; and
- VHI permitted to cover services outside the basic MHI package.

The Health Insurance Law was envisaged as a flexible instrument that attempted to organize an independent nongovernment health system that nonetheless remained under public control, allowing for the development of a variety of organizational arrangements to suit the preferences and institutional capabilities of each of the regions. It was expected to lead to increased, and more efficiently used, resources while preserving the equity of access and comprehensive coverage that were hallmarks of the Soviet system. There were a number of anticipated benefits to emerge from implementation of the Health

Insurance Law. First, as it was stipulated that health insurance financing was to supplement and not replace budget financing, total funds for health were to increase. According to calculations from the ministry of health at the time, the health insurance component of funding could initially add 30% to the planned health sector budget (Sheiman, 1994). Moreover, health insurance financing was intendedto constitute a stable and predictable source of funds that would not fluctuate with the budget, nor would it compete with other sectors for its budget allocation. This would, therefore, solve the problem of funding according to the residual principle that had been used in the past.

The key structural feature that would lead to increased efficiency and quality was the separation of health care purchasers from providers. The development of the purchaser function through the establishment of insurers who could contract with providers would give rise to a complete overhaul of the existing incentive structure, replacing the old command-and-control system of administration with a flexible competitive system that would ultimately be driven by the needs and demands of consumers. This would materialize through the development of competition on two levels: (a) insurers would compete for consumer subscribers to their insurance plans, and the consumers would make their selection of insurer on the basis of the particular provider institutions with which the insurer had contracted, as well as on the insurer's ability to carry out a quality-control function; and (b) hospitals, polyclinics and all providers in general, whether private or public, would compete with each other for contracts with insurers. Rather than having a guaranteed income based on a budget, they would receive payments specified by the contracts with insurers. Insurers would have the incentive to select efficient providers who would deliver high-quality services. Providers, competing for contracts with insurers, would have incentives to deliver higher-quality services.

In theory, the market mechanism would address not only the issues of inefficiency and poor quality but also the problem of excess capacity, since the inefficient, higher-cost or poorer-quality providers would disappear as the lack of contracts with insurers would force them out of business. Further, much of the above would depend crucially on the introduction of consumer choice, a feature that was absent under the Soviet system where patients were assigned to a local polyclinic and physician. Ultimately, free consumer choice would drive the competitive mechanism, and the system would become responsive to the consumer.

Implementation of the health system reform legislation began in 1993 with the establishment of the Federal MHI Fund and the Territorial MHI Funds and insurance companies. However, implementation of the MHI system proceeded

unevenly, and was met with numerous financial, bureaucratic and operational problems, in addition to fraud (Tragakes & Lessof, 2003). Decentralization of financing and administration meant that the Ministry of Health had minimal involvement with health insurance implementation at the *oblast* level. The financing and purchasing mechanism envisaged by the law was fully implemented in the regions only in the late 1990s. However, in most regions there is still a combination of old and new financing elements, with enormous regional variations in terms of the pace of transition and relative success of implementation (see Chapter 3).

The initiation of health insurance payroll tax collection resulted in an initial windfall for the health sector, and it appears that in the early years of its operation (1993–1994) the health insurance system contributed to increasing revenues for the health system. In 1993, public funds increased by 35%, as expected (Shishkin, 1998). In 1994–1995, however, some local governments began to cut back on their budget allocations for health on the grounds that medical facilities were now being financed from health insurance revenues. By 1997, public funding was 27% below 1993 levels (Shishkin, 1998). Additional factors contributing to this development included the vagueness of the legislation concerning the contribution levels of the regional health authorities, and the serious economic difficulties faced by many regions. Thus health insurance financing lost at least some of its intended supplementary role and became instead a partial replacement of budget funding. Revenues from the insurance component of financing stabilized and even increased in some regions. It is possible that health insurance funding may have protected the health system from meeting with even larger cuts (Shishkin, 1998). It is, in fact, likely that public funds available for health would have fallen substantially in the absence of health insurance, as evidenced by the substantial falls in funding experienced by other social sectors that rely exclusively on budgetary funds (e.g. education).

The introduction of competition between insurers on the one hand and providers on the other was a cornerstone of the reform. In the case of insurers, competition was very limited (see section 3.3.4). There were not many insurance companies in sparsely populated rural areas. In the regions where there is more than one insurance company, what has emerged is not competition but rather a division of the insurers' spheres of influence. In St Petersburg, for example, the population is divided into sectors, and each company has been given one sector. In these situations, the Territorial MHI Funds contract with insurance companies for rigidly assigned catchment areas, thus precluding elements of choice for employers or consumers. Where the insurers are guaranteed their

members, there is limited incentive to monitor cost and quality and engage in selective contracting, upon which provider competition is contingent. In the 1993 health insurance legislation, it was envisaged that providers were to compete with each other in order to secure contracts with the insurers, and that consumer choice of provider (another competition-stimulating element) is circumscribed by the choice of insurer. If the insurer does not engage in selective contracting and if consumers only choose the provider indirectly through their choice of insurer, there can be no provider competition. Provider competition was also limited by the geographical monopolies of many hospitals and clinics, particularly in rural areas. Only limited competition seems to have developed even in large urban areas.

Selective contracting, although crucial to the success of the new financing system, met with opposition on several fronts. Health authorities resisted it because their authority diminished as market mechanisms took hold. In addition, hospital and polyclinic administrators often resisted it because, despite the potential for greater revenues, it threatened the established way of doing things and created uncertainties. Even the Russian people remain uncomfortable with the notion of choice between competing provider institutions, preferring passive dependence on the state (Twigg, 1998) or reliance on informal networks (Manning & Tikhonova, 2009).

Extremely rapid decentralization of health care administration has resulted in a loss of the state's regulatory capacity (see section 2.4). Whereas the Ministry of Health supported the introduction of health insurance legislation, it subsequently made no effort to address the issue of the relationships among the various actors of the system, practically impeding the development of a legal and regulatory basis for MHI (see section 2.7). This neglect of the reform process facilitated the ensuing massive decentralization (see section 2.4). Further, excessive reliance was placed on the market mechanism as a panacea for the ills of the health system, without due regard for the importance of state regulation. For example, there has been a strong reliance on a competitive structure in the absence of regulatory controls to ensure that insurance companies are fulfilling their intended roles. Similarly, there is weak regulatory control of the MHI funds. While the legislation permits insurers to contract with both public and private providers, it does not make a clear institutional or regulatory separation between MHI and VHI, or between public and private finance at either the insurer or the provider level. The blurring of these distinctions created opportunities for the exploitation of poorly informed consumers, manipulation of the benefits package financed by public contracts and cooption of public finances by insurers and providers (Chernichovsky & Potapchik, 1997).

The indistinct delimitation of the responsibilities of the actors at different levels of the government and health insurance structures, along with poor policy coordination, exacerbated the inefficient use of resources (Shishkin, 1998).

The introduction of new health financing institutions led to the emergence of conflicting interests and a power struggle between the old and new structures. In 1994, most regional health authorities began to demand the right to take control of spending the money accumulated by the Territorial MHI Funds. At the same time, however, some regions were positive towards the reform, and support was stronger in regions with greater financial and administrative capacity. In 1995 and 1996, there were efforts by top medical officials to revise the health insurance legislation in order to curtail the power of the newly established insurance institutions. Proposals included abolishing the autonomy of the MHI funds and eliminating private insurers from public financing. Successful lobbying by the emergent insurance pressure groups representing both private insurers and the MHI funds blocked these efforts in parliament.

In spite of the numerous difficulties, a number of positive developments have been set in motion through the implementation of financing reform. Contractual relations with clear cut commitments on all sides helped to foster a sense of accountability. Implementation of the new system has necessitated the development of new administrative and information management skills. Computerized information systems covering patients, providers, insurers, services and standards are increasingly being developed. Performance-related methods of payment, although not yet universally introduced, have begun to make inroads and have greatly raised awareness of their efficiency-promoting potential. There is an increased cost-consciousness. Elements of external quality control are beginning to appear; here, too, there is an increased awareness of the issues involved and of the need for greater discipline. There is also an increased awareness of patient rights, with the possibility of seeking legal recourse with the support of insurance companies (Tragakes & Lessof, 2003). Nevertheless, overall, the move towards insurance-based health financing may be considered incomplete, and by 2011, the Russian Federation has been left with a complex MHI system that has not achieved all the reformers' aims.

2.3 Organization

In accordance with the Constitution of the Russian Federation (1993), health issues are under the joint jurisdiction of the Russian Federation and the Subjects of the Russian Federation (article 72). The "Foundations of the Legislation of

the Russian Federation on the Protection of Citizens' Health" (No. 5487, 22 July 1993) envisage the following delineation of responsibilities among different levels of government:

Federal authorities

- Federal authorities in the area of health protection are responsible for the:
- development of federal regulations in the area of health protection and compliance with them;
- regulation and protection of human rights in the area of health protection;
- development of unified health policy and of the federal health programmes;
- organization of tertiary care provided in the federal medical facilities;
- organization of medical care for certain population groups as defined by federal legislation;
- issue of state orders for tertiary care provided by the federal medical facilities;
- management of federal health care property;
- organization of state sanitary and epidemiological surveillance;
- provision of donor blood, pharmaceuticals, immunobiological and other medical products for federal medical facilities;
- measures to save lives in emergency situations;
- achievement of a unified policy in pharmaceutical and medical industry development;
- setting of medical care standards, standards for equipping medical facility and other standards in the health system;
- organization and monitoring of compliance with quality standards in the areas of medical care, pharmaceuticals, donor blood, and so on;
- development and approval of the state medical benefit package;
- coordination of activities by the state, regional and municipal authorities, federal subjects, municipal and private health systems;
- development of unified training programmes for medical and pharmaceutical workers, determining the nomenclature of specialties in health care and nomenclature of medical facilities; and
- licensing of certain activities in the health system.

Regional authorities

The regional authorities are responsible for the:

- development of regional regulations in the area of health protection and ensuring compliance with them;
- protection of human rights in the area of health protection;
- development and approval of regional health programmes;
- development, approval and realization of regional medical benefit packages;
- formation of regional health authorities and the development of the regional medical facility network, providing logistical support to regional medical facilities;
- planning of budget allocations to health;
- setting of medical and economic standards in accordance with federal standards, which cannot be lower than federal standards;
- organization of specialized medical care provided in dermato-venereal, TB, narcological, oncological clinics, and other specialized medical facilities (excluding federal specialized medical facilities);
- organization of medical care for certain population groups as defined by regional regulations;
- organization of specialized emergency care services (air ambulance);
- provision of pharmaceuticals, immunobiologicals and other medical products for regional medical facilities;
- organization of the donor blood system and cost-free provision of donor blood to regional and municipal medical facilities located in the territory of the region;
- organization of MHI for the non-working population;
- conducting of sanitary and epidemiological measures in accordance with federal regulations;
- coordination of the activities of the regional and municipal authorities, subjects of the state, municipal and private health systems; and
- measures to save lives in emergency situations.

Under current legislation the regions have the right to approve laws in the area of health that do not contradict federal law, clarifying certain provisions of the federal laws or determining those norms that are not reflected in the federal laws.

The legislative assemblies approve the regional laws in the area of health care, approve the budgets of federal subjects (including resources allocated to health care and contributions for the insurance of the non-working population) and the budgets of the Territorial MHI Funds. The regional health care management bodies (health care departments or regional ministries – usually in republics) develop and implement regional programmes in the area of public health, which often are congruent with federal programmes but take into account the specific features of a particular region; develop territorial programmes of governmental guarantees; in the majority of cases approve municipal orders for providing health care services at municipal facilities; approve regulatory acts governing medication support for the population living within the territory of the region; and manage those health care facilities under them.

Municipal authorities

Municipal authorities are responsible for the:

- formation of municipal health authorities, development of the municipal medical facility network determination of the nature and scope of municipal facility activities;
- organization of primary care provision and the provision of emergency services (except for air ambulance services), medical care for pregnant women and deliveries, plus issuing municipal orders for municipal medical facilities;
- provision of pharmaceuticals, immunobiologicals and other medical products for regional medical facilities;
- improvement of access to medicines; and
- public health education for the population and information for the population about communicable disease prevalence.

The municipal health management bodies in urban municipalities are the health care departments; in rural ones, the chief physicians of the central district hospitals. The heads of municipal health management bodies are appointed by the heads of the local administration authorities.

Parliament

The parliament consists of the lower house (the State Duma) and the upper house (the Federation Council) and is responsible for the adoption of the federal legislation, *inter alia*, in the area of health. Within the State Duma, there is the Health Protection Committee and within the Federation Council there is the Committee on Social Policy and Health Care.

The State Duma Health Protection Committee includes the following subcommittees:

- health care, medical science and budgetary funding
- education and training for health care providers
- rehabilitation treatment and balneology
- maternal health protection
- child health protection
- MHI and expenditure policy
- drug circulation, medicosocial insurance and medical industry.

The main purposes of the Committee are:

- development and preliminary consideration of draft law bills, determination of priority bills and preparation of the bills for consideration by the State Duma;
- preparation of draft orders of the State Duma in the area of health protection;
- preparation of conclusions regarding draft federal laws and orders of the State Duma, as well as applications and appeals that have been submitted to the State Duma;
- analysis of the implementation of the legislation on issues within the competence of the Committee;
- organizing and conducting parliamentary hearings, conferences, meetings, "round tables", workshops and other activities on issues within the competence of the Committee; and
- preparation of conclusions and suggestions related to the relevant sections of the draft federal law concerning the federal budget.

An interregional board has been developed at the Committee, dealing with issues concerning legislation in the area of health; the members are representatives of regional legislative and executive bodies related to health management, heads of health facilities, and so on.

The Committee of the Federation Council on Social Policy and Health Care is responsible for developing the Federal MHI Fund budget and its implementation and the protection of citizens' health and health care, including budgetary financing for health; health insurance; drug manufacturing, circulation and utilization; public health; and issues related to spas and resorts.

Presidential Executive Office

The Presidential Executive Office includes the Experts Directorate, which, among other issues related to the development of the country's economy, deals with the development of health care. The Experts Directorate prepares analytical materials and recommendations that are required for the President to fully implement his powers. In 2005, a Committee dealing with the implementation of priority national projects and demographic policy was created at the Presidential Executive Office, although this issue was under discussion as early as 2000. The Committee was created in order to ensure cooperation between federal government authorities, government authorities of the Subjects of the Russian Federation, local government authorities, nongovernmental organizations (NGOs) and scientific/research and other organizations in the study of issues related to the implementation of national priority projects and demographic policy. The Committee is an advisory body.

The main purposes of this Committee are the:

- preparation of proposals to the president of the Russian Federation regarding the development of national priority projects and the main trends in demographic policy, including state support to families, mothers and children and defining measures aimed at their implementation;
- study of the conceptual basis, goals and objectives of the national priority projects and issues related to demographic policy, including state support to families, maternity and childhood, as well as determining the means, forms and stages of their implementation; and
- analysis of the practical implementation of national priority projects and impact assessments of the measures aimed at achieving the demographic policy objectives, as well as the development of proposals to improve activities in these areas.

The decisions made by the Committee are forwarded to the president, to the government, to the Federation Council, to the State Duma and to the regional government authorities.

The Government Office

The Government Office is the government authority that supports the activity of the government and the prime minister, and monitors the fulfilment of the decisions made by the executive authorities. Issues related to the area of health are the responsibility of the Department of Social Development. The Department of Social Development is responsible for:

- ensuring, with the participation of executive bodies and other governmental authorities, the development and submission to the prime minister of draft documents on the main activity areas of the government, and monitoring their fulfilment by the executive authorities;
- preparing expert reports for draft regulations and other documents submitted to the government, for which the decision of the government is needed;
- monitoring the fulfilment of the government's decisions by the executive authorities;
- conducting, in accordance with instructions issued by the prime minister, the deputy prime ministers or the chief of the Government Office, meetings with the participation of heads of the relevant federal executive authorities and the regional executive authorities, other organizations, specialists and scientists;
- ensuring collaboration between the government and the chambers of the parliament in the implementation of legislative drafting activities;
- forwarding to federal ministries, federal services and federal agencies draft federal laws submitted by the regions (which have the right to initiate legislation), in order to prepare conclusions and amendments to the draft bills, and official statements from the government; and
- reviewing appeals submitted by citizens and organizations to the government, and referring these appeals to the appropriate governmental bodies and local authorities for action.

Ministry of Finance

The Ministry of Finance (MoF) has a significant role in determining funding levels for health, although it operates on the basis of funding requests from the MoHSD. The MoF is responsible for developing the state budget, including the budget of the MoHSD and its subordinated agencies, and submitting the budgets to the State Duma for approval. The MoF also has a department responsible for the social sphere and science, and the Federal Insurance Surveillance Service, which is responsible for licensing health insurance companies, is subordinated to it.

Ministry of Economic Development

The Ministry of Economic Development through its Department of Economics of Social Development and Priority Programmes is responsible for development assistance for the realization of national priority projects and programmes (see section 6.1), including the analysis and monitoring of national priority projects, the examination of federal targeted programmes and ministerial targeted programmes, the analysis of economic aspects of development strategies, the examination of draft regulations and the development of proposals for institutional changes. The Department has a health division.

The Ministry of Health and Social Development and subordinated bodies

While the power of the Ministry of Health deteriorated in the decade following the dissolution of the Soviet Union, it has been reasserted as part of President Putin's plan to rebuild the authority of the federal government. The ministry has undergone frequent changes in its organizational structure since 1991, from the merger of departments to the creation of new bureaucracies, to the subsequent full-scale integration of labour and social protection functions in 2004. The Ministry of Health was merged with the Ministry of Labour in 2004 to form the MoHSD, which is the highest administrative level of the state health system. In addition to this, in 2004 some functions previously granted to the ministry were transferred to federal governing bodies established under the jurisdiction of the MoHSD (see Fig. 2.1). The main objective of these administrative reforms carried out at the federal level was to separate the policy-making and regulation functions. Regulatory functions were transferred to newly established federal agencies and services (see section 2.4).

The Statute of the Ministry of Health and Social Development of the Russian Federation (On Regulation of the Ministry of Health and Social Development of the Russian Federation (No. 321, 30 June 2004); approved by resolution of the Government of the Russian Federation) states that the MoHSD has the core functions of elaborating state policy and legislative regulation in the following spheres:

- health, including prevention and the control of infectious diseases (including HIV/AIDS); medical care and medical rehabilitation; pharmaceutical activity; quality, effectiveness and safety of drugs; sanitary–epidemiological well-being; provision of medical care for workers in certain branches of the economy with especially hazardous working conditions; medical and biological assessment of the impact of especially hazardous factors of a physical and chemical nature; health resorts (spas), and others;

- social development, including living standards and income level of the population, demographic policy, pension and retirement provision; social security and protection, including the social protection of families, women and children;
- labour, including working conditions and protection, social partnership and labour relations, employment and unemployment, labour migration, alternative civilian service, state civil service; and
- protection of consumer rights.

The MoHSD exercises the following main authorities:

- introduces to the government draft federal laws, presidential and government regulations, and draft federal health programmes;
- independently adopts the following key regulations in health:
  - statutes of the territorial offices of the federal services and federal agencies under its jurisdiction,
  - qualification requirements for health workers and the specialization nomenclature in health,
  - procedures for medical care provision, covering primary, secondary, tertiary care levels,
  - public health regulations,
  - medical standards, equipping standards and other standards in health care,
  - procedures for the implementation of new diagnostic and treatment technologies,
  - procedures for upgrading the professional knowledge of medical and pharmaceutical workers,
  - procedures for maintaining the state drug register,
  - the national immunization schedule;
- contracts with organizations for purchasing goods and services, including the purchasing of tertiary care provided in the federal-level facilities;
- analyses state policy implementation and interpretation of legislation;
- manages databases, including the federal registers (e.g. the state drug register, the essential drug list, and so on);
- manages state facilities;

- develops and implements federal health programmes; and
- performs the functions of the main manager and receiver of the federal budget funds, assigned for the maintenance of the ministry and implementation of its functions.

In addition, in 2010 the MoHSD was made responsible for executing federal targeted programmes funded through the federal budget:

- prevention of socially-significant diseases (2007–2011), with subprogrammes on
  - diabetes
  - TB
  - vaccine prophylaxis
  - HIV/AIDS
  - cancer
  - viral hepatitis
  - sexually transmitted diseases
  - mental disorders
  - arterial hypertension;
- Children of Russia, subprogramme "Healthy Generation";
- improving traffic safety (subprogramme on medical care for people injured in road traffic accidents);
- construction of perinatal centres; and
- construction and equipping of federal centres of child haematology, oncology and immunology.

The MoHSD carries out its activities through subordinate organizations and with other federal institutions of executive power, institutions of the executive power of the regions, local government institutions, public associations and other organizations. The minister is appointed by the president on the recommendation of the prime minister. In the health sector, the MoHSD coordinates and regulates the activities of the following state services and agencies in addition to the Federal MHI Fund: Rospotrebnadzor, Roszdravnadzor and FMBA.

Rospotrebnadzor (Federal Consumer Right Protection and Human Wellbeing Surveillance Service)

Rospotrebnadzor is the body responsible for regulation and monitoring in the following areas:

- surveillance and control to ensure the sanitary and epidemiological well-being of the population and the protection of the consumers' rights, including:
  - state health and disease surveillance and conformity with health legislation,
  - monitoring conformity with legislation protecting consumers' rights,
  - ensuring conformity with the rules about selling certain types of goods, carrying out particular types of work and providing certain services, as specified in the legislation,
  - quarantine control at border crossing checkpoints of the Russian Federation,
  - accreditation of test laboratories verifying conformity with the quality and safety standards for flour, pasta and baked goods, as well as checking their verification activities and issuing certificates in accordance with the legislation of the Russian Federation;
- licensing for certain activities in conformity with the legislation of the Russian Federation;
- registering:
  - new chemical and biological substances which have not been used before, as well as products made from them that may be potentially hazardous for humans (with the exception of medications),
  - certain types of product that may be potentially hazardous for humans (with the exception of medications),
  - certain types of product, including food products, that are brought to the territory of the Russian Federation for the first time,
  - people who had suffered from radiation exposure and who had been exposed to radiation as a result of the Chernobyl and other radiation catastrophes and incidents;

- determining the causes and conditions leading to the emergence and spread of communicable diseases and large-scale outbreaks/poisonings;
- informing the federal, regional and local authorities and the population about the sanitary and epidemiological situation and any measures taken in order to ensure the sanitary and epidemiological well-being of the population;
- preparing proposals for the introduction and revocation of quarantines within the territory of the country and its regions;
- maintaining sociohygienic monitoring;
- organizing the state sanitary and epidemiological service of the Russian Federation;
- checking on the activities of legal persons, individual entrepreneurs and citizens as to the fulfilment of the requirements of sanitary legislation, legislation concerning the protection of consumer rights and the rules regulating the sales of certain types of goods; and
- acting as chief steward and recipient of resources allocated through the federal budget designated for the upkeep of Rospotrebnadzor and the implementation of its incumbent functions.

Rospotrebnadzor conducts its activities directly and through its territorial offices in conjunction with other federal authorities, regional authorities, local authorities, community organizations and others. The head of Rospotebnadzor is appointed by the government on the recommendation of the minister of health and social development.

Roszdravnadzor (Federal Service on Surveillance in Healthcare and Social Development)

Roszdravnadzor is the body responsible for monitoring and surveillance in health care and social development. It conducts its activities directly and through its territorial offices in conjunction with other federal authorities, regional authorities, local authorities, community organizations and others. The head of Roszdravnadzor is appointed by the government on the recommendation of the minister of health and social development; it has regional offices and four research institutes. Roszdravnadzor has the following responsibilities:

- surveillance of pharmaceutical activities and compliance with government standards, and technical specifications concerning products for medical purposes;

- monitoring conformity with government standards for social services;
- monitoring:
  - conformity with quality standards for medical care,
  - the production, manufacturing, quality, effectiveness, safety, circulation and use of pharmaceuticals,
  - manufacture, circulation and use of goods for medical purposes,
  - the conduct of preclinical and clinical studies of pharmaceuticals, and the application of laboratory and clinical practice rules,
  - procedures for conducting medical examinations,
  - procedures for assessing the degree of professional ability lost through work-related accidents and occupational diseases,
  - procedures for organizing and conducting medicosocial examinations, as well as the rehabilitation of disabled people,
  - the conduct of forensic and legal psychiatric examinations;
- organizing expert quality, effectiveness and safety tests for pharmaceuticals;
- authorizing:
  - the implementation of new medical technologies,
  - the import of drugs (used for medical purposes) to the territory of the Russian Federation,
  - the export of drugs (used for medical purposes) from the territory of the Russian Federation,
  - the import of non-registered medications to the Russian Federation with the aim of conducting clinical trials,
  - conducting clinical drug trials;
- licensing drug production and issuing certificates to allow the import/export of narcotics and psychotropic substances showing compliance with the requirements of the legislation;
- registering medications and medicinal items and drug marginal prices for essential medicines;

- keeping the state register of pharmaceuticals, the state register of prices for essential medicines, and a list of health facilities that have the right to conduct clinical drug trials;
- conducting the attestation and certification of specialists working in areas related to drug circulation;
- monitoring the activities of medical facilities, pharmacies, pharmaceutical wholesalers, organizations providing social care for the population, other organizations and individual entrepreneurs dealing with health care and social protection of the population; and
- acting as chief manager and recipient of resources from the federal budget that are allotted for the maintenance of Roszdravnadzor and for the implementation of its incumbent functions.

Federal Medical and Biological Agency

The Federal Medical and Biological Agency (FMBA) is the body responsible for monitoring the sanitary and epidemiological well-being of employees in certain branches of the economy with dangerous working conditions and the populations of certain regions, as well as providing medical and public health services for these groups. FMBA conducts its activities directly and through its territorial offices as well as through its own medical and educational facilities. The head of FMBA is appointed by the government on the recommendation of the minister of health and social development. The FMBA has the following responsibilities:

- state sanitary and epidemiological surveillance throughout the territories served as determined by the government;
- determining medicosanitary requirements regarding the products (work, services), and information concerning what constitutes state secrets or is classified as protected information with limited access;
- detection and elimination of particularly dangerous factors of a physical, chemical or biological nature affecting the health of the employees of the organizations and populations of territories served;
- medicosanitary activities aimed at the prevention, detection of the causes, localization and elimination of the consequences of emergency situations, radiation, chemical and biological accidents and incidents, the spread of communicable diseases and large-scale noncommunicable diseases (such as poisonings);
- sociohygienic monitoring;

- registering people who have suffered from the impact of particularly hazardous factors of physical, chemical and biological nature, including those who had been exposed to radiation as a result of the Chernobyl and other radiation catastrophes and incidents;
- informing the state authorities of the Russian Federation, the governmental authorities of the Subjects of the Russian Federation, the local administration authorities and the population regarding the sanitary and epidemiological situation and the measures being taken in order to ensure sanitary and epidemiological well-being within the served organizations and throughout the served territories;
- preparing, in accordance with established procedures, the proposals regarding introduction (revocation) of limiting measures (quarantine) within the served organizations and throughout the served territories;
- signing government contracts for the supply of goods, service provision, conducting research, design-and-experimental and technological jobs, including those in medicohygienic support for work in the area of comprehensive recycling of chemical and nuclear power facilities, as well as work carried out within the framework of the Federal Space Programme;
- acting as proprietor of the federal property required to support the pursuance of FMBA's duties;
- acting as the state contracting authority regarding federal target, science and technical, innovative and special programmes and projects related to FMBA's scope of activities;
- organizing the provision of medical, medicosocial and pharmaceutical care for the employees of the organizations served and the population of the territories served;
- conducting medicosocial expert evaluations,
- ensuring compensation for harm to health of employees of the served organizations and the population of served territories as a result of particularly hazardous factors of a physical, chemical and biological nature (including those from industrial accidents and catastrophes);
- organizing medicobiological and chemico-analytical non-military weapon tests and cartridges for such, as part of assessing the acceptable impact on humans of such weapons;
- keeping a register of employees whose work deals with chemical weapons and a radiation-epidemiological register of employees at organizations served and the population of the served territories;

- organizing professional training for the FMBA staff, their professional development, continued education and onsite training;
- organizing congresses, conferences, workshops, exhibitions and other activities within the designated scope of activity; and
- acting as chief steward and recipient of resources allocated from the federal budget for the upkeep of the FMBA and the implementation of its incumbent functions.

The network of FMBA facilities comprises 41 regional offices, 33 research institutes, 2 scientific and production centres, 85 medical facilities, 11 sanatorium and spa facilities, 56 hygiene and epidemiology centres, 7 blood donation facilities, 7 educational facilities, 86 facilities providing medical and social expertise, and 12 pharmacies.

The Federal MHI Fund

The Federal MHI Fund is an independent state noncommercial financial and credit organization under the jurisdiction of the MoHSD. The Federal MHI Fund is managed by a management board and the minister of health and social development is the chair. The director of the Federal MHI Fund is appointed by the government on the recommendation of the minister. The Federal MHI Fund supervises and regulates the Territorial MHI Funds at the regional level. The Federal MHI Fund:

- carries out regional adjustment under the basic programme for MHI;
- develops proposals to improve regulatory acts affecting MHI and the size of payments for MHI;
- accumulates the financial resources of the Federal MHI Fund;
- monitors, together with the Territorial MHI Funds and the authorities of the State Taxation Service of the Russian Federation, the timely and complete transfer of insurance contributions to MHI funds;
- monitors, together with the Territorial MHI Funds, the management of financial resources in the MHI system, *inter alia*, by conducting the appropriate audits and special-purpose inspections;
- conducts managerial and research activities;
- participates in the development of the basic programme for MHI;
- collects and analyses information, *inter alia*, the financial resources of the MHI system, and submits the appropriate materials to the Government of the Russian Federation;

- organizes the training of specialists for the MHI system;
- studies and summarizes the practice of using regulatory legal acts affecting MHI;
- supports the organization of scientific research work in the area of MHI;
- takes part, when requested by the Government of the Russian Federation, in international collaboration on issues related to MHI;
- annually submits draft federal laws to the Government of the Russian Federation for the approval of the budget for the Federal MHI Fund for the corresponding year and its implementation; and
- conducts purchasing for the implementation of social support measures for certain categories of people regarding the provision of certain pharmaceuticals.

Territorial MHI Funds

Territorial MHI Funds are also independent state non-commercial financial and credit organizations. The directors of Territorial MHI Funds are appointed by the regional governor in agreement with the Federal MHI Fund. The territorial MHI Funds:

- pool resources for the MHI system (contributions from employers, payments for the insurance of the non-working population, supplements from the Federal MHI Fund, subsidies and subventions from the federal budget resources, and any other revenues);
- contribute to the development of territorial programmes for the government guarantees under the territorial MHI programme;
- sign contracts with health insurance companies for the provision of services to those insured;
- approve differentiated per capita norms for health insurance companies;
- take part in the development of tariffs for health services;
- determine the reimbursement mechanisms for health services;
- calculate the provision of services to those insured outside their territory;
- monitor the use of MHI resources by health insurance companies and health care facilities;
- conduct medico-economic monitoring, medico-economic expert assessment and evaluation of the quality of health services; and
- educate the population about their rights in the MHI system.

The parallel system

The parallel system consists of medical facilities run by ministries other than the MoHSD that have traditionally provided health services to their employees and families. The presidential administration, ministries of defence, the interior, the economy and others have outpatient and inpatient facilities, and some of them have public health facilities. Funding for the parallel systems comes from ministerial budgets set by the ministry of finance.

The private sector

From a legal perspective, there are no administrative barriers to private medical care that are applied specifically when the facility owner is not the state. Existing laws allow for the participation of private providers in publicly financed medical care. At the regional level, however, officials may exclude private firms for ideological reasons, or to protect state facilities from competition. In addition, while there is no formal barrier preventing private medical facilities from participation in MHI, regional insurance companies may fear "unspoken administrative opposition" to concluding contracts for the provision of medical care with non-state medical facilities (Rabtsun, 2008). There are also economic barriers preventing private providers from participating in MHI – namely the low MHI tariffs for the reimbursement of care provided, which cover only part of the true cost. This is a consequence of the partial substitution of the old budget finance system by the new MHI system and existence of the so-called dual-channel financing (MHI plus budget) of health facilities (see Chapter 3).

Official data show there were 124 private hospitals (out of a nationwide total of 6545 hospitals) with a total capacity of 3900 beds in 2008 (Federal State Statistics Service, 2010f). The majority of private hospitals (120) are in cities, with just a few (four) in rural areas. The share of private providers is much higher for outpatient care. In 2008, there were 2432 private outpatient providers (of a nationwide total of 12 278 outpatient facilities). In addition, there were 72 private FAPs out of a nationwide total of 39 300. During 2007–2008, the number of private providers in inpatient and outpatient sectors fell by 32% and 53%, respectively. All health insurance companies working in the MHI system are private and in 2009 there were 106 insurance companies working in the MHI system (Federal MHI Fund, 2010).

Professional groups

While the Soviet Union had a wide range of scientific and professional associations, the state curtailed their independence in order to avoid creating alternative sources of legitimacy. The medical profession was thus "deprofessionalized" and

never served as a lobby for medical personnel in the Soviet period. Since 1991, a number of entities have been founded, although competition among them has inhibited the emergence of clear leadership and power. The Russian Medical Association is, however, beginning to voice a distinct and united professional view on medical and health policy issues. Associations of specialists have been formed on both a regional and a national level. Nurses and midwives have proven less successful in articulating or securing recognition for their collective views. These limitations notwithstanding, doctors are lobbying on health legislation, and their support is increasingly sought by the insurance industry. Pharmacologists have been more successful in forming associations, although their dependence on the industry lobbies of retail or wholesale companies somewhat mitigates their potential influence. More recently, the role of the Pirogov Movement of Russian Physicians in dialogue with society and authorities has been increasing. This public–professional movement consolidates the activities of many professional organizations such as the Russian Medical Association, Russian Medical Society, the First Russian Association of Private Practice, National Medical Chamber, Society of Pharmacoeconomic Research, Society of Evidence-based Medicine Specialists, the Russian Medical Union and others.

The voluntary sector

Patient associations are becoming more prominent, having been initially concentrated on specific medical problems (e.g. diabetes) and geographical locations (e.g. associations of parents with disabled children in Moscow city districts). These groups are vocal and active in promoting the interests of their members but have yet to create a groundswell of official concern for patient rights in general. More recently, the All-Russian Alliance of Patients was established in 2009. The Alliance held the first congress of patients and patient organizations in Moscow in May 2010. More than 100 organizations participated in the congress: patient groups, disabled groups, scientific organizations, medical associations, insurance companies, state authorities and others. The goal of the congress was to unite efforts, to develop a common strategy for patient rights protection and to develop a declaration of patient rights in the Russian Federation (see section 2.8).

Commercial players

The pharmaceutical industry has been the most prominent commercial lobby trying to sway ministerial policy and legislation. In addition, as many doctors can no longer afford subscriptions to professional journals to stay abreast of changes in their field or have sufficient knowledge of English to access

international journals, many have come to rely on the materials and advice of pharmaceutical company representatives who visit their medical facilities with samples (Vlassov & Danishevskiy, 2008).

Policy formulation, implementation and evaluation

Within the competence of each of the state authorities, information regarding the approved regulatory and legal documents is promptly published on the Internet web sites of the legislative (State Duma and Federation Council) and executive authorities (the government, MoHSD and its subordinate organizations). Recently, in order to encourage broad discussion for the prepared regulatory documents, the MoHSD published the draft projects of the regulatory documents on its web site. A similar system operates at the regional and often at the municipal levels.

2.4 Decentralization and centralization

Following the break-up of the Soviet Union, almost all forms of decentralization have been a part of reforms in the Russian Federation. In the health sector, only the sanitary-epidemiological system was not much affected by administrative reform and remained more or less centralized throughout.

Devolution

In 1991–1992, broader changes in the general administration and budgetary system overtook the administration of the health system. The Law on Krai and Oblast Councils and Krai and Oblast Administrative Bodies stipulated that the rights of *krais* and *oblasts* were equal to the republics of the Russian Federation in the sphere of social and economic development and management of their property, land and natural resources. According to both this law and the Law on Local Authorities in the RSFSR, *oblast*- and local-level administrations managed their own medical services; they appointed heads of territorial health authorities as well as heads of appropriate medical facilities, and developed programmes for improving the population's health and preventing disease without the approval of the federal ministry.

Accordingly, below the regional level, the councils of peoples' deputies of the appropriate administrative territorial units are entitled to develop, approve and implement their budgets independently. Consequently, these territorial units decided their own health budgets and did not need federal ministry of health

confirmation or Federal ministry of finance approval. In practice, however, planning officers in local governments, lacking any alternative resource allocation model, continued to construct budgets in much the same way as they did before. Consequently, while changes occurred in principle, inertia continued to dominate the process of resource allocation. The federal authorities were divested of any control over the process. Input expenditure norms for facilities such as beds per population were last approved in 1987.

In 2003–2004, overall administrative reform was introduced in the Russian Federation (see section 1.3). The main objective of the administrative reform was to assign certain authorities and responsibilities to each of the levels in the hierarchy. Handing over responsibilities from one level of authority to another was to be accompanied by the handing over of the respective financial resources for their implementation. During this period, the following federal laws which determine the main principles of division of authorities between federal, regional and municipal level were adopted:

- Federal Law on General Principles of Organization of Legislative and Executive Bodies of State Power of a Subject of the Russian Federation (No. 95, 4 July 2003);
- Federal Law on General Principles of Organizing Local Government in the Russian Federation (No. 131, 6 October 2003); and
- Federal Law on Monetization of Benefits (No. 122, 22 August 2004) (referred to below as the Monetization of Benefits Law), which described changes in existing legislation to be introduced through adaptation of above-mentioned laws and also introduced a principle of monetization of benefits (see section 5.6).

In 2005, an economic recentralization process began. In 2006, the National Priority Project – Health (NPPH) was introduced (see section 6.1). The NPPH is mainly financed from the national budget with some co-financing from regional budgets. The majority of NPPH measures are to be carried out at regional and local levels (e.g. salary bonuses for primary care physicians and nurses and purchasing ambulances are fully financed from the federal budget). The allocation of additional federal budget funds for NPPH financing led to a substantial increase in the share of federal health expenditure in total public health expenditures (see Chapter 3). The Federal Law on Mandatory Health Insurance in the Russian Federation adopted in November 2010 (referred to here as the Law on Mandatory Health Insurance) foresees further functional and financial centralization (see section 6.1).

At the lowest level of health system, the level of medical providers, by contrast a process of devolution is envisaged. From 2011, more responsibilities and managerial flexibility are to be given to the federal, regional and municipal medical facilities by giving them the right to change their legal status (see section 6.1).

Delegation

Another significant form of decentralization in the Russian Federation is delegation, prompted by the introduction of health insurance legislation leading to the establishment of MHI Funds. The rationale was to create a purchaser–provider split based on competitive market forces that would promote efficiency but remain under public control (see section 2.2). However, in 2004, the Federal MHI Fund was placed under the jurisdiction of the MoHSD as part of the process of recentralization of power. General administrative reforms started in 2004 envisaged the separation of the policy-making function from the regulatory functions as well as service provision. The key restructuring decree (Government Decree on Regulation on the Ministry of Health and Social Development of the Russian Federation; No. 321, 30 June 2004) differentiates between the ministry (responsible for "setting the rules"), agencies (responsible for regulation) and services (responsible for providing services at the federal level) (see section 2.3).

Privatization

The transfer of ownership of facilities in the health system has been concentrated among pharmacies, pharmaceutical wholesalers, the manufacturers of medicines and medical equipment, and some dental polyclinics. However, the large-scale divestiture of assets has not taken place.

2.5 Planning

Strategic planning for health and the health system is the responsibility of the MoHSD (see section 2.3). There have been moves to shift planning away from input- to output-based criteria, but at present the implementation of "outcome-oriented budgeting" is limited to the first stage of budgeting process: budget planning. The system of regulatory and legal documents approved for the implementation of the outcome-oriented budgeting tools and operating at the federal level do not determine the order of actions nor the mechanism of responsibility in case the target indicator values are found to differ from their planned characteristics.

One of the main planning tools regarding the provision of medical care is the development of the programme for state guarantees regarding free medical care. Article 20.1 of the fundamental legislation regarding health protection for the citizens (1993) defines the Programme of State Guarantees for Medical Care Provision Free of Charge (PGG) for the citizens of the Russian Federation and determines the types and norms of the volume of medical care, norms for the financial costs per volume unit of medical care and per capita financing norms, as well as the order and structure for the development of tariffs for medical care. The programme describes the conditions for providing medical care as well as the quality and accessibility criteria regarding medical care. The government approves the PGG and reviews the report regarding its implementation submitted by the MoHSD on an annual basis. In accordance with the PGG, the regional authorities approve territorial programmes of state guarantees that include territorial MHI programmes. The territorial programmes of state guarantees may include additional conditions, types and volumes of providing medical care.

In 1998, the government approved the Programme of State Guarantees for Medical Care Provision Free of Charge for 1999 (Government Order No. 1096, 11 September 1998). This document listed the types of medical care to be provided free of charge (emergency care, outpatient/polyclinic services, inpatient care), generalized conditions on which they are to be provided (e.g. hospital care for acute conditions and exacerbations of chronic diseases; poisonings and injuries requiring intensive treatment, 24-hour medical observation and isolation for epidemiological reasons) and volume indicators for medical care per 1000 people that should be covered financially by the state. Later the government introduced a number of minor changes into this programme, and in 2005 it began approving the programme for each subsequent year.

The indicators for the volumes of medical care approved in the PGG remained unchanged until 2010–2011 when the approved indicators began to decrease: the planned volume of hospital care decreased slightly from the 2009 level; the planned volumes for outpatient care and care provided in day hospitals increased slightly; and the planned indicators for emergency care remained the same. Between 1999 and 2009, the approved cost norms for the volume unit of medical care grew consistently. The increase in cost norms have varied between different types of care. The largest increase has been in the cost norms for an outpatient care unit, and the least increase for the cost norms of an emergency care unit. Since 2009, the approved programmes of state guarantees do not make provision for the growth of cost norms for medical care volume units, or the per capita norms for programme financing. Since 2009, the PGG,

in addition to determining the types and norms for the volume of medical care and financial costs per volume unit of medical care (the per capita norms for financing) began to include the following:

- requirements for the structure of the territorial programmes of state guarantees;
- criteria for quality and accessibility of the medical care provided within the framework of the PGG;
- recommendations regarding the use of effective reimbursement methods for medical care, targeted towards output measures; and
- the approximate contribution from the regions to MHI for non-working citizens.

For a long time, the volume indicators approved in the PGG per type of medical care remained unchanged. This was because for a long period it was not possible to meet the projected indicators. For the most costly types of medical care (inpatient and emergency care), the volumes of medical care actually provided exceeded the approved indicators, even with decreasing volumes of hospital care. In 2009, the volume of hospital care actually provided almost matched the approved volume. There has also been a growth in the volumes of medical care provided in day-care hospitals. Between 2006 and 2009, the volume of care provided in day-care hospitals increased by 12% and approached the planned level (see section 5.4.1).

The increase in employers' MHI contributions and the strengthening of the role of the federal centre in health (see section 6.1) facilitated the strengthening of planning in this area. In accordance with ministerial orders, the regional health management authorities developed and submitted regional programmes to the MoHSD for the modernization of medical care for the years 2011 and 2012. The regional programmes are the basis for decision-making regarding the distribution of resources provided by the Federal and Territorial MHI Funds in 2011 and 2012 for the implementation of the regional modernization programme for medical care covered by the basic MHI programme. It is expected that the allocation of subsidies to Territorial MHI Funds will only be made if contracts between the MoHSD, Federal MHI Fund and the regional authorities are signed that stipulate the co-financing of the programmes from regional budgets. The goals for plan development were quality improvement and increasing the accessibility of medical care. The regional plans aimed to implement standards regarding the provision of medical care, strengthen the material and technical basis of health facilities and implement modern information systems. All the regional

programmes were developed according to a unified structure and included the following main sections.

1. Analysis of the health status of the population, the main problems in the regional health system, and how programme methods will be used to resolve them;
2. A system of activities to implement the regional modernization programme:

    2.1. Strengthening the material and technical infrastructure of health facilities. This section envisages reforming the health infrastructure and bringing it into conformity with the proven health needs of the population. A ministerial order provided the basis for calculating the equipment needs for the adequate development of the material and technical base (see section 2.7.2).

    2.2. Implementation of modern information systems. This section makes provisions for the creation of an accounting system for medical services provided to individuals, electronic patient health records, electronic appointment booking systems and telemedicine data exchange; the implementation of an electronic document circulation system; the maintenance of a unified register of health providers; and provision of electronic "passports" for health facilities and a "passport" for the health system in the region.

    2.3. Implementation of standards for the provision of medical care. This section stipulates a phased transition towards providing medical care in accordance with standards for medical care as defined by the MoHSD. In November 2010, 612 standards had been approved for adults and children; at present they are recommendations rather than being obligatory. On the basis of these standards, the regions approve medicoeconomic standards that are the basis for payment. The Law on Mandatory Health Insurance approved in late 2010 (see section 6.1) envisages the introduction of unified standards for the whole country and a similarly unified payment schedule (taking into account the regional cost factors).

3. Assessment of the effectiveness of programme implementation. This section includes medical effectiveness indicators (a fall in morbidity rates, preventable mortality, etc.), indicators for accessibility and effective resource utilization (an increase in the bed occupancy rate, a reduction in the waiting time for elective hospitalizations, etc.), the implementation of standards, network optimization indicators, the implementation of information systems, and so on.

In accordance with the Federal Mandatory Health Insurance Fund Order (No. 11, 26 May 2008) on the organization of monitoring for the volumes and quality of the health services as applied to the implementation of MHI, Territorial MHI Funds and health insurance companies under MHI may exercise certain powers within the limits of their competence.

A Territorial MHI Fund may:

- develop a system of measures aimed at improving the quality of health services and utilization of MHI financial resources on the basis of data from expert activity in the regions, the control of volumes and the quality of health services in the course of implementing MHI;
- coordinate the interaction between the MHI subjects and participants throughout the region as part of monitoring the volumes and quality of health services;
- organize and institute methodological work related to the functioning of the system for monitoring the volumes and quality of health services and the protection of insured people's rights;
- monitor implementation of contracts between the subjects of MHI;
- monitor the activity of health insurance companies in ensuring the rights of the insured people to receive accessible health services of reasonable quality under the MHI programme;
- develop and support a timely register of experts on quality of health care services;
- analyse any complaints and appeals of those insured, other representatives of the MHI subjects, as well as the results of the monitoring of the volumes and quality of health services carried out by health insurance companies and the Fund;
- prepare materials required to take the appropriate measures if the rights of insured citizens are violated by health care organizations or health insurance companies;
- inform regional and municipal authorities about the outcome of the monitoring of volumes and quality of health services in the course of MHI implementation, informing the population of the region regarding the rights of insured citizens under the system of MHI; and
- appeal to the Ministry of Finance to suspend (withdraw) the licence to participate in MHI of health insurance companies if necessary.

A health insurance company under MHI may:

- organize and implement monitoring for the volumes, time frame and quality-expert evaluation of medical services and drug supplies provided to the insured people by health care organizations that have established contractual relations with the health insurance company;
- ensure that the health care organization's accounts as issued for payment and for the terms of the current contracts signed between the health insurance company and the health care organization comply with the territorial MHI programme, the tariff agreements and the means and order of reimbursement for health services;
- conduct an expert evaluation of the quality of health services following complaints about the quality of care received on behalf of insured people or the insurers;
- analyse the results of the expert evaluation of the quality of health services, as presented by the health care organizations working within the MHI system, including the output indicators for health care organizations;
- bring claims against health care organizations if a violation of the rights of the insured person is identified and provide compensation for the damage inflicted on the insured people;
- study the satisfaction of the insured people with the volume, accessibility and quality of health services; and
- summarize and analyse the results of health service volume and quality assessment and its expert evaluation.

2.6 Health information management

The collating of national statistics is the responsibility of the Federal State Statistics Service (*Federal'naya sluzhba gosusardsvennoi statistiki* (Rosstat)). The Federal State Statistics Service gathers a wide range of statistical information about health including the health status of the population, resources in the health system and their utilization, the training of health care providers and labour reimbursement in health, economic aspects of the system's activities, the consumption of goods and services and others. Data collection is by mandatory report forms for national statistics, as well as by selective surveys. The standard national statistics forms are issued on the

orders of the Federal State Statistics Service. Once every two years, the Federal State Statistics Service publishes a "Health care in the Russian Federation" report that covers not only health indicators and data on the health system but also measures of living conditions and standards, the prevalence of disease risk factors and the attitude of the population to their health. The main indicators of the population's health and of the health system activity are published annually in other general publications issued by the Federal State Statistics Service, such as the annual statistical yearbooks.

Departmental statistics for the MoHSD include statistics and information gathered according to forms issued by ministerial order. The statistical information is collected, processed and analysed to allow the authorities to make managerial decisions and to plan their activities. The MoHSD brings together statistical reports for a significantly wider range of activities than just those covered by the Federal State Statistics Service, although it cannot include data on the parallel systems as these are managed by other ministries and departments. The statistics service in the MoHSD produces reports using departmental statistics in addition to national federal statistics in order to achieve a fuller assessment of the health sector's activities. The department statistics covers reports on the activities of emergency medical services, blood services, forensic medicine, day-care hospitals, supplementary health checks for the working population and other reports on the implementation of activities under the NPPH (see section 6.1).

Between 2004 and 2007, there was no structural unit at the MoHSD responsible for statistical accounting, but in 2008 a department for statistical accounting, reporting and quality control was recreated at the Ministry. After the Presidential Decree on the Evaluation of the Effectiveness of the Executive Authorities' Activity in the Subjects of the Russian Federation (No. 825, 28 June 2007) came into force, the regions submitted their own data to the government directly, but they differed significantly from the information they also provided to the MoHSD. Consequently, since 2009, these indicators have been presented only by the MoHSD according to unified, approved protocols. Within the ministerial system, medical information and analytical centres (formerly the medical statistics bureaus) in almost all regions are responsible for the collection, processing and analysis of the statistical and report information. From the regional centres, the information is submitted to the leading institution – the Central Research Institute for Health Care Organization and Information Support (*Tsentral'nyi Nauchno-Issledovatel'skyi Institut Organizatsii i Informatizatsii Zdravoohraneniya,* TsNIIOIZ) – where the reports submitted

by the regions are checked and analysed by the senior statisticians; only then are they submitted to the MoHSD. The ministry then submits data on activities in the health departments and institutions to the Federal State Statistics Service, the government, and the president.

Health facilities in parallel health systems, use the MoHSD accounting and reporting systems for the main activity areas; therefore, it is possible to compare and evaluate the data received across health systems. However, the medical statistics service is not fully computerized. In an interview with *Meditsinskaya gazeta* (4th September 2009) The head of the statistics department at the MoHSD has been quoted as saying that, in 2007, of the medical statistics bureaus and organizational and methodological offices at health facilities only 22.5% had computers (in 2006 the figure was 14.7%).

The information collected by services subordinate to the MoHSD, agencies and the Federal MHI Fund supplements the statistics gathered by the ministry. For example, the Federal MHI Fund collects statistical information about the activities of health facilities within the MHI system, about incomes and expenditures in the MHI system, about the activities of health insurance companies, and so on. In the Federal MHI Fund, reports on departmental statistical surveillance are filed according to a specific form (approved by Federal MHI Fund Order No. 64, 2 June 2006). This form is filled in by health insurance companies at the regional level and details the complaints of insured people about health facilities or health providers (e.g. complaints about the choice of health facility under the MHI or the choice of physician, the sanitary and hygienic condition of facilities, ethical concerns about providers, etc.). Departmental statistical data are published both on the web sites of the corresponding federal and regional authorities as well as in separate editions of annual activity reports for the appropriate area of the health sector.

There are also computerized information and analytical systems that are not made publicly available, and which are designed to receive prompt information about the ministry's performance, particularly for the NPPH. Access to these MoHSD information databases is determined by the leading structural units of the ministry responsible for the development and implementation of state policy in their corresponding area. The purpose of creating such an information and analytical system at the MoHSD is for the collection, processing and analysis of data to support decision-making, particularly the monitoring of (a) key indicators in the area of health and social development of the Russian Federation and its subjects; (b) subsidies from the federal budget for co-financing of capital development projects in the regions; and (c) implementation of the state

assignment regarding provision of high-technology medical care at the expense of the federal budget resources. To do this requires the collection, processing and analysis of information from:

- the federal register of patients with haemophilia, cystic fibrosis, pituitary dwarfism, Gaucher's disease, myeloleukaemia, multiple sclerosis, as well as after organ and/or tissue transplantation;
- the federal register of health providers;
- the federal register of hospital patients with acute cerebral blood circulation disorders; and
- the indicators of federal target programmes and the indicators of their co-financing from the regional budget.

The data collection, processing and analysis are carried out in order to monitor the implementation of activities within the NPPH. The main functions of the system are:

- the development of regulated and non-regulated reports regarding the implementation of NPPH activities;
- the collection, input and representation of contact information for the MoHSD and its subordinate organizations (federal services, agencies and off-budget funds);
- the provision of information and analytical support for the monitoring of additional monetary payments to health care providers within the framework of project implementation;
- the provision of communications between the structural units of the MoHSD, regional authorities and federal subordinate institutions regarding the development of applications for the supply and subsequent distribution of stocks and capital equipment under the NPPH; and
- the integration of the information and analytical system of the MoHSD.

Nevertheless, it is not clear how reliable these data are given that the inflexibility of the computer systems in place means that they cannot be checked (see section 4.1.4).

2.7 Regulation

Regulation and planning have been radically affected by the decentralization, including the introduction of MHI in the early 1990s and administrative reforms in early 2000. Each of these functions is currently shared among numerous actors: the federal MoHSD and its subordinated services and agencies, regional and local health authorities, the Federal MHI Fund, Territorial MHI Funds, private health insurance companies involved in the MHI and VHI.

2.7.1 Regulation and governance of third-party payers

Health insurance companies act as third-party payers within the MHI (see section 3.3.4). Health insurance companies are legal entities that possess the authorized funds required to provide health insurance and organize their activity in accordance with the legislation in force throughout the Russian Federation. All the insurance companies currently working within the MHI system are private.

In accordance with the Law on Health Insurance (1993), health management bodies and health facilities do not have the right to found health insurance companies, but they do have the right to own shares in health insurance companies (up to 10% of the total stock of shares). Insurance companies working within the MHI do not have the right to provide any other types of insurance, with the exception of VHI. Where companies provide both MHI and VHI, there should be separate budget management for each type of health insurance. Health insurance companies must also have reserve funds in order to ensure the sustainability of their insurance activity. A health insurance company does not have the right to refuse to insure someone under the MHI.

Health insurance companies operate in accordance with the contract signed between them and the Territorial MHI Fund, as well as contracts for the provision and reimbursement of health services through MHI signed with health care organizations. A health insurance company has the right to:

- freely choose the health facilities to provide health services according to health insurance contracts;
- take part in determining the tariffs for health services;
- take legal action against a health facility and/or a health care provider for financial reimbursement of physical and/or psychological damage inflicted on the insured person through negligence; and
- determine the size of insurance premiums for VHI.

A health insurance company is responsible for:

- operating within the MHI on a non-profit-making basis;
- signing contracts with health facilities for the provision of health services to those insured through the MHI system;
- signing contracts for the provision of health services, health promotion and social services to people through the VHI system with any health or other institutions;
- issuing health insurance policies to the insurer or to the insured person from the moment the health insurance contract is signed;
- monitoring the volume, time frame and quality of health services provided in accordance with the conditions of the contract; and
- protecting the interests of those insured.

A health insurance company should have separate licences for providing MHI and VHI cover issued by the Federal Insurance Surveillance Service. The licence may be suspended or withdrawn on the advice of the Territorial MHI Fund, for example if the insurance company fails to provide the required performance data on its activities within the MHI system.

The main purpose of health insurance companies under the MHI is reimbursement for medical care provided in accordance with the territorial MHI programme and the contracts for MHI, and ensuring monitoring of the volume and quality of the health services. Insurance premiums for MHI, which come from the Territorial MHI Fund as per the signed contracts, are used for the reimbursement of health care services, for expenditure related to case management in MHI, for creating reserves (for the coverage of health services, financing of preventive activities, as well as backup) and for salaries for employees dealing with MHI. The structure and norms for expenditure related to case management under MHI are determined by the Territorial MHI Fund. Insurance reserves are formed from insurance premiums received under conditions determined by the Territorial MHI Fund. Reserve funds may be placed temporarily in bank deposits and invested into highly marketable state bonds.

The Territorial MHI Fund monitors the activities of health insurance companies, approves differentiated per capita norms for health insurance companies and keeps a register of health insurance companies operating in the MHI system in its territory.

The relations between health insurance companies and health care facilities are based on the contract for the provision and reimbursement of health care

services within the MHI system in accordance with the determined tariffs for the reimbursement of health services through MHI. The health facility commits to providing health services to the insured person under the territorial MHI programme, and the health insurance company commits to reimbursing the health services provided in accordance with the territorial MHI programme at the tariffs approved by the Territorial MHI Fund. If the facility fails to provide the agreed services (or these services are untimely or of substandard quality according to the contract), the health facility pays a penalty charge as detailed in the contract.

2.7.2 Regulation and governance of providers

The fundamental provisions for the regulation of health providers are determined at the federal level – by the government and the MoHSD. The MoHSD determines the list of recognized health facilities and medical professions, as well as the procedure of training, retraining and continued education for health care providers. Medical activities are subject to licensing in accordance with Article 17 of the Federal Law on the Licensing of Certain Types of Activity (No. 128-FZ, 8 August 2001). Licensing provisions for medical and pharmaceutical activity are developed by the MoHSD and approved by the government, while licensing is carried out by Roszdravnadzor. Licences are issued for a period of five years. The main requirements for the issue of a licence are the presence of the necessary material and technical infrastructure and the appropriate staff (the presence of staff with specialized education of a certain level). For example, in order to receive a licence for carrying out medical activities, the following should be presented in line with the Government Order on the Approval of the Provisions Regarding the Licensing of Medical Activity (No. 30, 22 January 2007):

- documents proving the presence of buildings, premises, equipment and other material and technical infrastructure required for medical activity according to the list of planned activities (as approved by the government);
- a protocol of sanitary and epidemiological inspection about the conformity with sanitary rules for the medical activity to be carried out;
- registration authorization documents and certificates for any medical equipment;
- documents confirming the education and qualification of the technical staff servicing the medical equipment;
- documents confirming the education, qualification and work experience for the head and deputy head of the facility; and

- documents confirming the education of the specialists who work full-time as well as those on part-time contracts.

Under this Order, there are also recommended norms for certain diseases for the equipping of health facilities with medical equipment as well as recommended staffing standards.

At present all state-owned health facilities belong to a unified form of legal incorporation: a state or municipal budget health facility. Since 2011, the forms of legal incorporation for health facilities have been expanded, giving facilities the opportunity to choose between several forms of non-profit-making organizations (see section 6.1). The heads of health facilities are appointed by the health management authorities of the appropriate level. Issues related to scaling-up, human resources and material and technical development are dealt with by health management authorities to which the health facilities are subordinate.

Most of the health facilities within the state and municipal health systems are financed from two public sources: the budgets of the corresponding level and the MHI system. Exceptions are the emergency care facilities, institutions providing care for socially significant diseases (such as TB, HIV/AIDS, etc.) and sanitary and epidemiological surveillance institutions, which are financed only from the budget. In the majority of cases within the budget financing system, resources are allocated "historically" on the basis of previous budgets, which are based on capacity measures such as the number of beds, although there has been an increased use of activity volume indicators in budget allocation to health facilities.

Within the MHI system the activity of health facilities is regulated by contracts signed with health insurance companies, where the volume and quality of health services provided by them to insured patients are defined. The medical care provided is reimbursed by health insurance companies in accordance with tariffs approved by the Territorial MHI Fund. According to the current legislation, health facilities contracted to provide medical services under both MHI and VHI should implement the VHI programmes without detriment to the MHI programme.

The organizations responsible for the state regulation of quality of care are Roszdravnadzor and its territorial departments, regional and local authorities, Territorial MHI Funds, health insurance companies and health facilities. In accordance with the administrative regulations approved by Ministry of Health and Social Development Order No. 905g (31 December 2006), Roszdravnadzor

assesses the compliance of health services provided with the requirements for carrying out diagnostic, treatment and other investigations and activities, as well as pharmaceutical treatment for specific conditions as determined by the agreed standards of health services, and also the requirements for the volume and quality of health services. Roszdravnadzor and its territorial departments use dynamic indicators characterizing the quality of health services to evaluate services. They also monitor sociological survey results, citizens' complaints regarding the quality of health services and the results of scheduled and random audits in individual territories, in accordance with the approved regulations. Regional departments of Roszdravnadzor, along with the corresponding administrative authorities at the regional and municipal levels, ensure the health care services in particular territories meet the required standards by gathering information and conducting audits. In many regions, the health management authorities develop quality control systems, which include multilevel expert assessments, beginning at the level of health facilities and extending all the way to the regional health management authority and the regional Roszdravnadzor department.

Under the MHI system, there is a separate system for monitoring the volumes and quality of health services. Monitoring the volumes and quality of health services in the course of implementing MHI envisages medico-economic monitoring, medico-economic expert assessment of events insured and the expert evaluation of the quality of health services. In the course of conducting medico-economic monitoring, cases on the presented invoice registers for the reimbursement of health services are studied in order to check the justification for using those tariffs and to calculate their cost in accordance with the current tariff agreement and the current contract for provision of health services. In the course of medico-economic expert assessment, cases are studied in order to confirm the justification for the volumes of health services presented for reimbursement and their conformity with the records in the primary medical documentation of the health facility. The medico-economic expert assessment is carried out by health insurance company experts analysing primary medical documents (the health records of patients receiving care on an outpatient and inpatient basis) and reporting documentation (statistical coupons, log registers, etc.) of the health facilities for the events insured. Expert evaluation of the quality of health services is carried out using the methods approved in the region to detect defects and mistakes made in the course of providing care, with the description of their real and possible consequences, the reasons for their occurrence and an expert conclusion regarding appropriate or inappropriate quality of care provided.

Expert evaluation of the quality of care may be carried out in the form of a targeted expert quality evaluation or a scheduled (issue-related) quality evaluation. Targeted expert quality evaluations for individual cases are conducted when:

- written complaints from the insured person or the insurer regarding the quality of care provided at a particular facility are received;
- law enforcement agencies demand it;
- there is a need to confirm the adequate volume and quality of medical services and drug supply in cases identified during medico-economic control; or
- there are nosocomial infections or complications.

A targeted expert quality evaluation based on the results of a medico-economic expert evaluation may also be conducted when there are:

- lethal outcomes in the course of providing health services;
- cases of primary disability among people of working age and children;
- repeated hospitalization for the same condition within one month (or one-quarter); or
- cases where conditions demonstrate extended or shortened terms of treatment.

Scheduled quality evaluation for health services under the MHI is carried out as defined in the terms of the contract with the health facility. Issue-related expert quality evaluation is carried out in order to perform an overall system assessment of the quality and volumes of the health services provided to certain groups of insured people, by the type health services provided, disease, age, socioeconomic status, level of medical organization and so on. At the initiative of the insured person, face-to-face quality expert evaluation may be carried out in the process of the person receiving health care. The clinical quality of care is supposedly regulated through standards and guidelines, but evidence-based medicine is not a core feature of the medical culture, and its implementation is severely hampered by material circumstances in the health system (Geltzer, 2009).

2.7.3 Regulation and governance of human resources

The right to conduct medical and pharmaceutical activity in the Russian Federation belongs to people who have received a higher or midlevel medical or pharmaceutical education in the Russian Federation, who have a diploma and a special status, as well as a specialist's certificate and a licence for conducting these types of activity. In rural areas where there are no pharmacies, people working in detached units of medical facilities having a pharmacy licence (outpatient units, FAPs, general medical practice centres) may also conduct pharmaceutical activity if they have received higher or midlevel medical education, have a specialist's certificate and additional professional education in pharmacy.

A specialist's certificate is issued on the basis of post-university professional education (internship, residency), additional education (continued education, specialized training) or a test trial carried out by committees of professional medical and pharmaceutical organizations on the theory and practice in the selected specialization area and the legal issues in health protection of the population. The form, period of validity, conditions and order of issuing a specialist's certificate, as well as the document regarding additional professional education in pharmacy, are determined by the MoHSD (see section 4.2.2).

Medical students at the state or municipal health facilities have the right to work at these institutions under the supervision of health personnel, who bear responsibility for their professional training. Students of higher and midlevel medical educational institutions are permitted to take part in the provision of medical care in accordance with the training programmes under supervision of the health care personnel who bear responsibility for their professional training, according to ministerial directives. Providers with midlevel medical education are permitted to complete their higher medical or pharmaceutical education while in a suitable midlevel post. In theory, physicians or pharmacists who have not worked in their specialty area for over five years may be permitted to carry out practical medical or pharmaceutical activity after retraining at the appropriate educational institutions or after passing a test overseen by committees of professional medical and pharmaceutical associations. Employees with midlevel medical or pharmaceutical education who have not worked in accordance with their specialty area for over five years may be permitted to carry out practical medical or pharmaceutical activity after proving their qualification at the appropriate institutions of the state or municipal health system or after

passing a test carried out by committees of the professional medical and pharmaceutical associations. People who have received a diploma of higher or midlevel medical education, a specialist's certificate and a licence for carrying out medical activity may conduct private practice.

Nevertheless, as Roszdravnadzor data show, these provisions of the law are not always followed. Roszdravnadzor has found that 15% of medical personnel have not undertaken continuing medical education in the previous five years, and in rural areas the percentage was much higher (Sheiman & Shishkin, 2009).

Shortly after independence, the Ministry of Health found it impossible to plan and control the number of training places available as this was de facto decided at the regional level. However, from 1994 the Ministry of Health has determined and enforced a nationwide maximum number of admissions to medical schools that correspond to the planned medical workforce needs. These plans also include maximum numbers for different specialties and for different regions. Given the overall oversupply of medical staff in the Russian Federation, professional mobility abroad is not a significant issue for the country. However, mobility within the country means that there has been a significant shortage of physicians to serve in rural areas.

There is a mismatch between the numbers of staff and the volumes of activity that poses a serious challenge for human resource planning. There are disproportions in the specializations of medical staff between general practice physicians and narrow specialists, physicians and midlevel health care providers (nurses); between different territories, urban and rural areas; and between specialized health care institutions and primary health facilities. There is also a serious problem with attracting physicians to some "unpopular" narrow specialties such as phthisiology (TB) – despite the severity of the TB control problem in the country (see section 4.2.1). There is no short- or long-term planning of human resource needs for certain specialties and distribution, as the number of medical students admitted to medical school does not reflect the number of graduate doctors that continue working in the health system, and specialties that deal with healthier populations and privately provided services (gynaecology, urology, dentistry, etc.) are much more popular with students. There is an outflow of young specialists from the health system, and low salaries do not facilitate the attraction and retention of specialists in different branches. Overall, there is a lack of evidence-based methods in planning regarding the numbers of medical staff and a mismatch between the training received by specialists and the needs of practical health care.

2.7.4 Regulation and governance of pharmaceuticals

The regulation of pharmaceutical products is by the Federal Law on the Circulation of Pharmaceuticals (No. 61, 1 September 2010). The Law regulates the pharmaceuticals registration process at all stages; this procedure is detailed by stage and timing. The maximum registration term may not exceed 210 days (60 days for generics). The registration process is meant to be more transparent, with information on the course of registration posted up on the Internet. The Law has also changed the procedure of launching new medications on the Russian market. Now, if there is an agreement signed by all parties on mutual recognition of the results of clinical trials, additional clinical trials for getting a new pharmaceutical registered are not required. The Law establishes the collection of a single state duty for registration, the revenues of which form part of the federal budget.

State monitoring of the pharmaceutical market was strengthened in order to counteract the circulation of substandard and counterfeit pharmaceutical products. This monitoring role was assigned to Roszdravnadzor. In the regulation and governance of pharmaceuticals, Roszdravnadzor is responsible for:

- monitoring clinical and preclinical trials;
- production monitoring;
- quality control (selective) of medicines for civilian transactions;
- monitoring the disposal of medicines;
- monitoring the safety of medicines in circulation;
- controlling the use of pharmaceuticals;
- monitoring the storage and transport, wholesale and retail trade;
- monitoring the distribution and production of medicines;
- controlling the selection of and prices for drugs on the Essential and Most Important Medicines List (EML);
- controlling the advertising of pharmaceutical products; and
- controlling the import of pharmaceuticals.

To identify counterfeit drugs (estimated to be roughly 12% of all drugs sold), every batch of medicine entering the Russian market since late 2002 must be certified in one of Roszdravnadzor's seven regional quality control centres (Moscow, St Petersburg, Nizhnii Novgorod, Novosibirsk, Yekaterinburg, Khabarovsk and Rostov-on-Don). Imported drugs are stored in bonded

warehouses with customs officials while tests are conducted. However, 60% of the counterfeit drugs seized by Roszdravnadzor are made by domestic manufacturers (Anonymous, 2009b).

To join the WTO, the Russian Federation will need to change all laws not in compliance with WTO standards. The pharmaceutical industry is particularly concerned with the protection of intellectual property rights. Article 39.3 of the TRIPS Agreement obligates WTO Members to prevent the disclosure and unfair commercial use of undisclosed test and other data submitted to government authorities to obtain marketing approval of pharmaceutical products. The Russian Federation currently does not provide such protection for pharmaceutical products, although legislation to address these concerns is being considered by the Russian Government. The Russian Federation tried to introduce good manufacturing practice (GMP) standards in 2005 but failed because the outdated production facilities required too much investment. In 2007, only 3% of local producers had received Russian or the more-stringent European GMP certification (Sukhanova, 2007). GMP compliance is viewed as an essential component of the development strategy for the pharmaceutical industry because it would not only improve the quality of products available on the domestic market but also enable Russian producers to break into international trade.

The state regulation of prices for essential and most important medicines is a legal requirement. The Federal Law on the Circulation of Pharmaceuticals (2010) bans the sale of pharmaceuticals included in the EML unless the maximum price set by their manufacturers is registered. There are several lists of medications approved in the Russian Federation, each of which has a different designation. There is the EML, the list of medications approved for the Supplementary Medicines Provision (*Dopolnitel'noe Lekarstvennoe Obespechenie* (DLO)) (see section 5.6), the minimum list for pharmacies and the list of strategically important pharmaceuticals.

The EML

The state policy of regulating prices for the most significant and efficacious pharmaceuticals is promoted in the Russian Federation through the EML in order to assure their affordability for the general population, although reimbursement is not guaranteed (see section 5.6).

From 1992 to 2001, EMLs were approved as branch orders of the Ministry of Health, but since 2002 they have been government declarations. The EML in force at the time of writing was approved by Declaration of the Government of the Russian Federation No. 2135-p of 30 December 2009. This iteration included

222 items (International Nonproprietary Names (INN)) which constitute part of the WHO Model List of Essential Medicines and which are registered in the Russian Federation. On the EML, 15% of medicines are domestically manufactured items, 32% are foreign-made medicines and 53% are produced by both foreign and domestic manufacturers. A revised EML was put in place in 2011. The amended EML included the 522 drugs that would have the greatest impact on reducing mortality and morbidity in the Russian Federation.

State regulation of prices for drugs included in the EML began in 2010. The mechanisms for implementing price controls are as follows:

- registration of a maximum selling price by the producer (prices are determined by the MoHSD on the basis of historical costs with reference to prices in 21 reference countries, the transfer price and the registered price for INN); and
- a maximum mark-up is imposed on wholesalers and retailers in accordance with methodology approved by the Federal Tariff Service (Order of the Federal Tariff Service No. 442-A, 11 December 2009).

Enforcement of these maximum prices and mark-ups are the responsibility of Roszdravnadzor. All official registered prices for products included on the EML are openly available to consumers via the MoHSD web site. The state does not regulate prices for medicines not included on the EML.

The DLO list

The MoHSD approves the list of medications to be distributed to citizens covered by the DLO programme. Currently, this list includes 375 medications (INN) divided into 31 groups. From 2008, when the DLO programme was split (see sections 5.6 and 6.1), the VZN programme (covering rare diseases which are expensive to treat) has included a list of 18 medicines (INN) to be purchased by the federal centre from the federal budget.

The minimum list of pharmacy medications

The minimum list is to guarantee the mandatory availability of certain medicines in all Russian pharmacies. The minimum assortment of medicines necessary for providing health care to the population was approved by a MoHSD decree (No. 312, 29 April 2005). This list consisted of 149 INNs combined based on their pharmacological action into 25 groups. Out of the minimum assortment of 149 INNs, only 24 are available over the counter. A revised minimum list of 60 INNs was approved by MoHSD Decree No. 805 (15 September 2010). Of the 60 medicines listed, 50 are also on the EML and 45 are on the DLO list. Medicines included on the list are used in outpatient practice, including

antiviral and antihistamine preparations. One of the major innovations in the revised decree of 2010 is that if a citizen goes to a pharmacy with a prescription, but the necessary medicine is out of stock, the pharmacy is obliged to obtain it within five days.

Strategically significant medications list
In 2010, the Russian Government approved a list of medicines developed by the MoHSD that covers the 57 costly medicines considered strategically important for the Russian Federation. This list includes, but is not limited to, medications for the treatment of cancers and cardiovascular problems, hepatitis, Gaucher's disease and multiple sclerosis. It is anticipated that these drugs will be manufactured in the Russian Federation by 2015, which will allow cost-containment as well as improving the availability and quality of health services.

There are only limited measures to improve the cost-effective use of pharmaceuticals and there are strong incentives for doctors to overprescribe. Evidence-based medicine has yet to take hold and doctors have great autonomy in prescribing treatments for their patients. Following the huge increase in pharmaceutical costs under the DLO, prescribing practices have now come under more scrutiny, so this may change (see section 6.1), but the preference among doctors and pharmacists for more expensive innovative drugs that are perceived to be safer and more effective is often shared by patients (Pharmexpert, 2009).

2.7.5 Regulation of capital investment

The regulation of capital investment such as the purchase and maintenance of buildings and major pieces of equipment is covered in section 4.1.

2.8 Patient empowerment

2.8.1 Patient information

Patients making decisions about the purchase of health services (e.g. range of services covered, costs, quality, or type of provider) in the Russian Federation have limited access to the information they need to make an informed decision. Ascertaining the quality of services is also difficult as the results of quality control exercises carried out by Roszdravnadzor and the MHI system are not routinely published, and the lack of competition between providers and insurers

means that there are few visible quality indicators (see section 2.7.2). In general, patients rely on word of mouth and personal recommendations (Rusinova & Brown, 2003; Salmi, 2003).

2.8.2 Patient choice

A patient has the right to choose a medical facility and the physician within the medical facility. In accordance with Article 6 of the Health Insurance Law (1993), a citizen has the right to choose an insurance company for both MHI and VHI. In practice, most citizens of the Russian Federation use the polyclinic to which they are geographically "attached" (*prikreplenny*) and may not be aware that they could switch away from an unsatisfactory doctor. One survey found that even when a choice was possible, less than 6% of respondents changed medical facilities or physicians (Fotaki, 2006). The main constraint is the lack of information available to patients to understand their illness or potential treatment options, and without such information it is hard for patients to make informed choices about their medical care. Choice is, therefore, most often realized through the use of social networks as a means of navigating the system (Rusinova & Brown, 2003; Salmi, 2003; Manning & Tikhonova, 2009).

2.8.3 Patient rights

Patient rights, as outlined in the "Declaration of Patients' Rights in Europe" (WHO Regional Office for Europe, 1994), have not been actively implemented in the Russian Federation. There is no specific separate law on patient rights as yet. The rights are defined in various different pieces of legislation. The right to free medical care is stipulated in Article 41 of the Constitution (1993): "Everyone has the right to health protection and medical care. Medical care in state and municipal health facilities shall be provided free of charge, at the expense of the corresponding budget, insurance contributions, and other sources." The Foundations of RF Legislation on the Protection of Citizens' Health (No. 5487, 22 July 1993) provide for the following rights:

- choice of physician and medical facility under MHI and VHI;
- to a second opinion;
- patient confidentiality (including details of medical care provided, health status, diagnosis);
- informed voluntary consent to medical care;
- compensation damages in case of bodily injury resulting from medical care provided;

- to legal representation;
- to receive information about his/her health status, including information about treatment, risks related to the treatment proposed, different treatment options and the anticipated results and consequences of the treatment provided.

In a 1999–2000 survey in four Russian cities, respondents were reasonably well informed about some rights (e.g. the right to information about illness and treatment) but knew little about other entitlements (e.g. the right to a second opinion or legal representation); however, there were great differences across regions (Fotaki, 2006).

2.8.4 Complaints procedures, patient safety and compensation

In accordance with Article 6 of the Health Insurance Law (1993), a patient has the right to file a claim against their insurer, health insurance company or medical facility for compensation in cases of medical harm whether or not it is explicitly covered in the insurance contract. Patients or families who wish to lodge complaints against a doctor or medical facility may first submit a claim to the health facility where they received treatment. If the decision is unsatisfactory, the patient may appeal to the local health department's review board, which is staffed by medical experts appointed by the department. The patient may also appeal to their insurance company, which is responsible for protecting the interests of their insured. An unsatisfied patient may also appeal to Territorial and Federal MHI Funds or the courts (World Bank, 2003). The League of Defenders of Patients (*Liga zashchitnikov patsientov*) has also been active in this field. Few complaints to the League of Defenders of Patients are related to medical errors, most involve complaints about not receiving the desired drugs or copies of medical records, or similar.

Existing legislation could defend patients, but lawsuits are complicated to prepare, expensive and may last years. There are also numerous potential barriers because facilities have strong incentives and numerous available mechanisms to deny mistakes have happened; for example, pathologists are subordinated to the head physicians of the facilities for which they do postmortems. In addition, there is no framework or legislative body that regulates medical malpractice. Public facilities do not have malpractice insurance so any financial claims would have to be paid directly by the facility. Only a small pool of private medical facilities providing risky procedures such as cosmetic, eye and dental surgery have medical malpractice liability coverage (World Bank, 2003).

2.8.5 Patient participation/involvement

In accordance with the Federal Law on Public Chamber (No. 32, 4 April 2005) and the Decree on the Procedure for Establishing Public Councils Attached to Federal Ministries, Agencies and Services (No. 32, 2005), two public councils were established attached to the MoHSD and Rospotrebnadzor. These councils are made up of representatives from NGOs, patient rights groups, medical facilities and the mass media. The councils are advisory boards, and their decisions are only considered as recommendations.

The main functions of the Public Council attached to the MoHSD are as follows:

- the development of recommendations to improve health policy;
- to take part in the development of federal targeted programmes and federal and regional projects;
- to develop strategy for joint activities of public societies, mass media and scientific organizations in health and social development areas; and
- to consult with the Ministry on its decisions.

The main function of the Public Council attached to Rospotrebnadzor are:

- to assist the Service in consumer rights protection;
- to contribute to the closer coordination of activities of public organizations, mass media, national and regional administrations in the area of Rospotrebnadzor's jurisdiction; and
- to develop recommendations on draft regulations prepared by Rospotrebnadzor.

However, patient participation is not yet a significant feature of the Russian health system.

2.8.6 Patients and cross-border care

The MoHSD budget does allow for some limited funding of treatment abroad, but the process by which these funds are allocated is opaque. Anecdotally, it appears that many wealthier Russians travel elsewhere in Europe for inpatient medical treatment, but do so at their own expense. The neighbouring Kuopio Region of Finland, for example, reports that the St Petersburg market has been interested in services such as dental surgery and childbirth (Tikkanen, 2005).

3. Financing

3.1 Health expenditure

The WHO National Health Accounts Series is a validated dataset that is updated annually through a collaborative process managed by WHO and involving substantial input from individual countries and other international agencies (WHO, 2011). For the purpose of international comparison, it is the best available data because it uses a unified methodology for all countries to measure health expenditure around the world. At the same time, it has been acknowledged that private out-of-pocket expenditures, especially informal ones, are likely to be underestimated, particularly for the Russian Federation, as while detailed household expenditure surveys are conducted, the process is not systematic and different surveys use different approaches (Jakab & Kutzin, 2010). Other challenges in estimating health expenditure in the Russian Federation include assessing expenditure within parallel health systems as data on these are not publicly available.

According to the most recent WHO estimates in the Health for All database, total health expenditure as a share of GDP in the Russian Federation is low in comparison with other countries of the WHO European Region, at 5.2% in 2008 (Fig. 3.1). However, total health expenditure in the Russian Federation is particularly low in comparison with other countries of the G8, as higher income countries tend to spend more (over 7%) as a proportion of GDP on health than lower and middle income countries (Tompson, 2007). Moreover, in recent years, health expenditure as a proportion of GDP has been falling (Table 3.1).

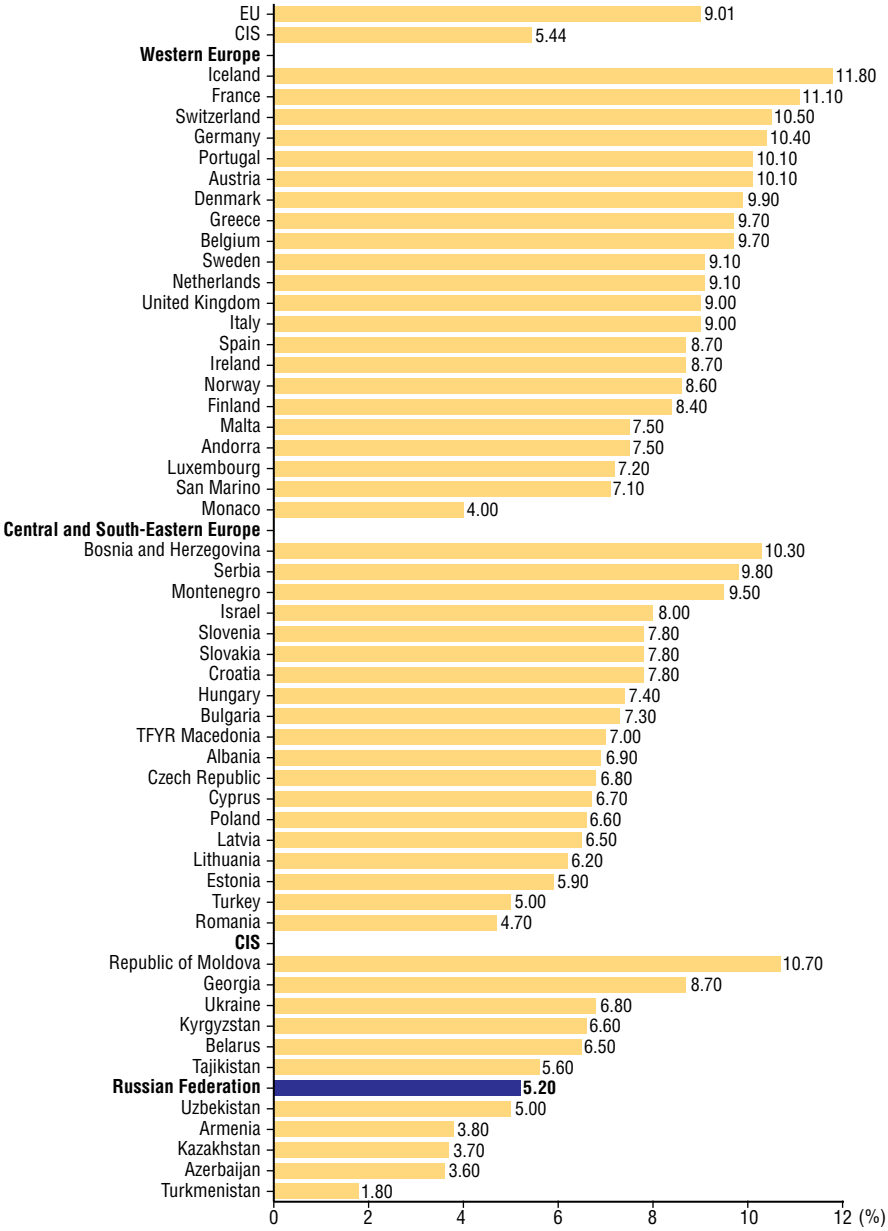
Total health expenditure in the Russian Federation is lower than the average level for CIS countries and considerably lower than the average for countries of the European Union (EU) (Fig. 3.2). Per capita total health expenditure in the Russian Federation is also comparatively low (Fig. 3.3).

Public health funding is also quite low in comparison with other countries of the WHO European Region (Fig. 3.4). In addition, the share of public funding in total health expenditure fell from 73.9% in 1995 to 64.4% in 2009 (see Table 3.1).

Most private expenditure is in the form of out-of-pocket payments, particularly for outpatient pharmaceuticals, which are explicitly excluded from the guaranteed packages of care (see section 3.3.1).

Fig. 3.1

Total health expenditure as percentage of GDP, WHO estimates, 2008



Source: WHO Regional Office for Europe, 2011.

Table 3.1

Health expenditure trends in the Russian Federation, 1995–2009 (selected years)

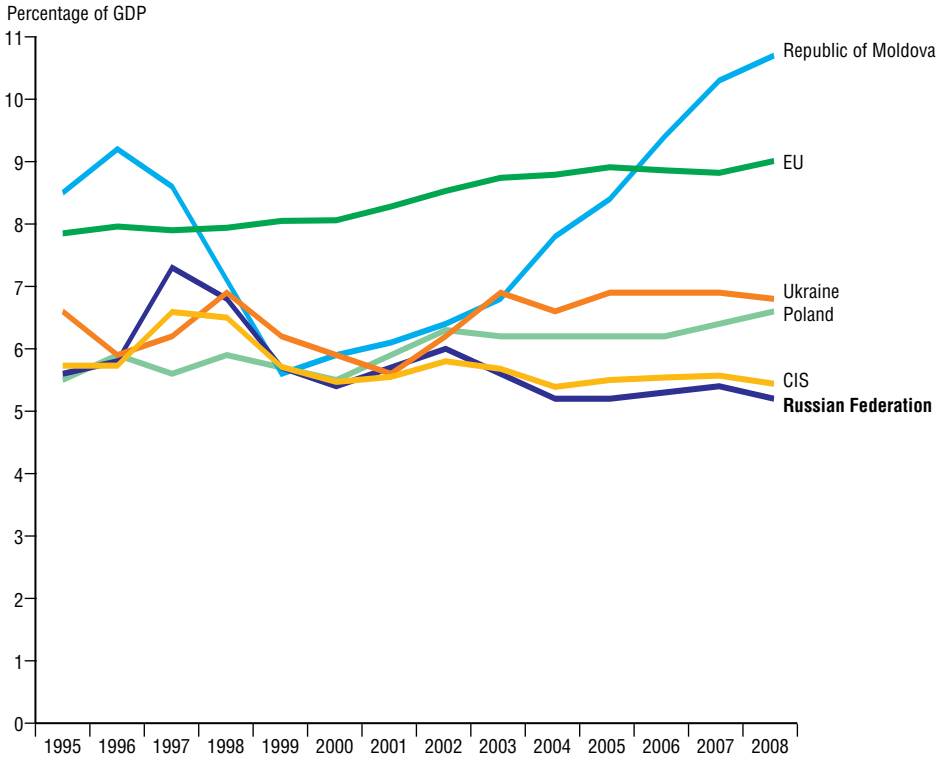
	1995	2000	2005	2006	2007	2008	2009
THE, PPP per capita (roubles per US$)	301	369	618	797	905	985	1038
THE (%GDP)	5.3	5.4	5.2	5.3	5.4	4.8	5.4
Public expenditure on health (% THE)	73.9	59.9	62.0	63.2	64.2	64.3	64.4
Private expenditure on health (% THE)	26.1	40.1	38.0	36.8	35.8	35.7	35.6
External resources for health (% THE)	0.1	0.2	0.0	0.1	0.0	0.0	0.0
Out of pocket payment (% private health expenditure)	64.7	74.7	82.4	81.5	83.0	81.3	80.9
General government spending (% GDP)	43.7	25.5	27.4	31.0	33.8	33.8	41.1
Government health expenditure (% general government spending)	9.0	12.7	11.7	10.8	10.2	9.2	8.5
Government health expenditure (% GDP)	3.9	3.2	3.2	3.3	3.5	3.1	3.5

Source: WHO, 2011.

Note: THE = Total health expenditure; PPP = Purchasing power parity.

Fig. 3.2

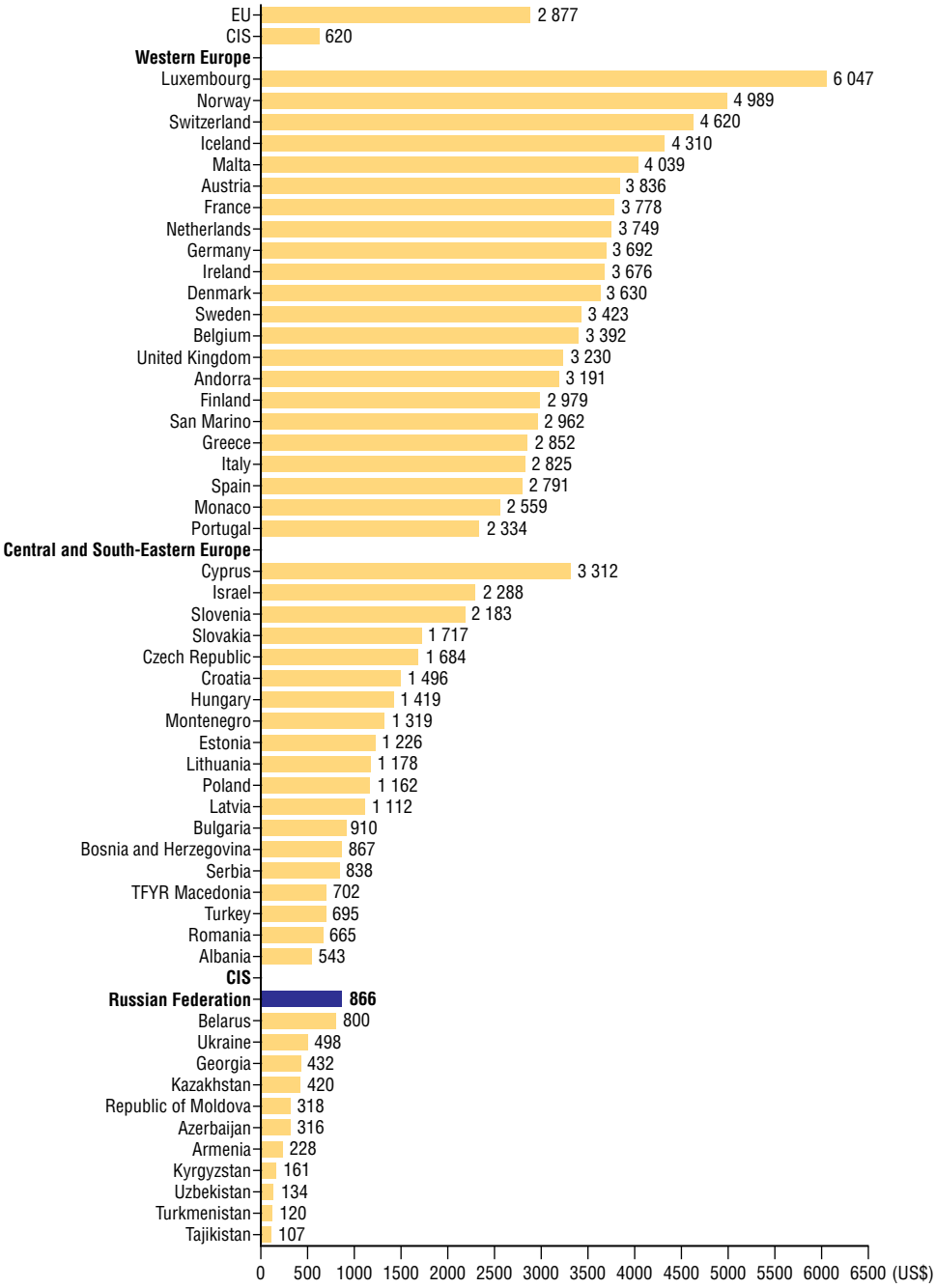
Trends in health expenditure as a share of GDP in the Russian Federation and other selected countries from 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

Fig. 3.3

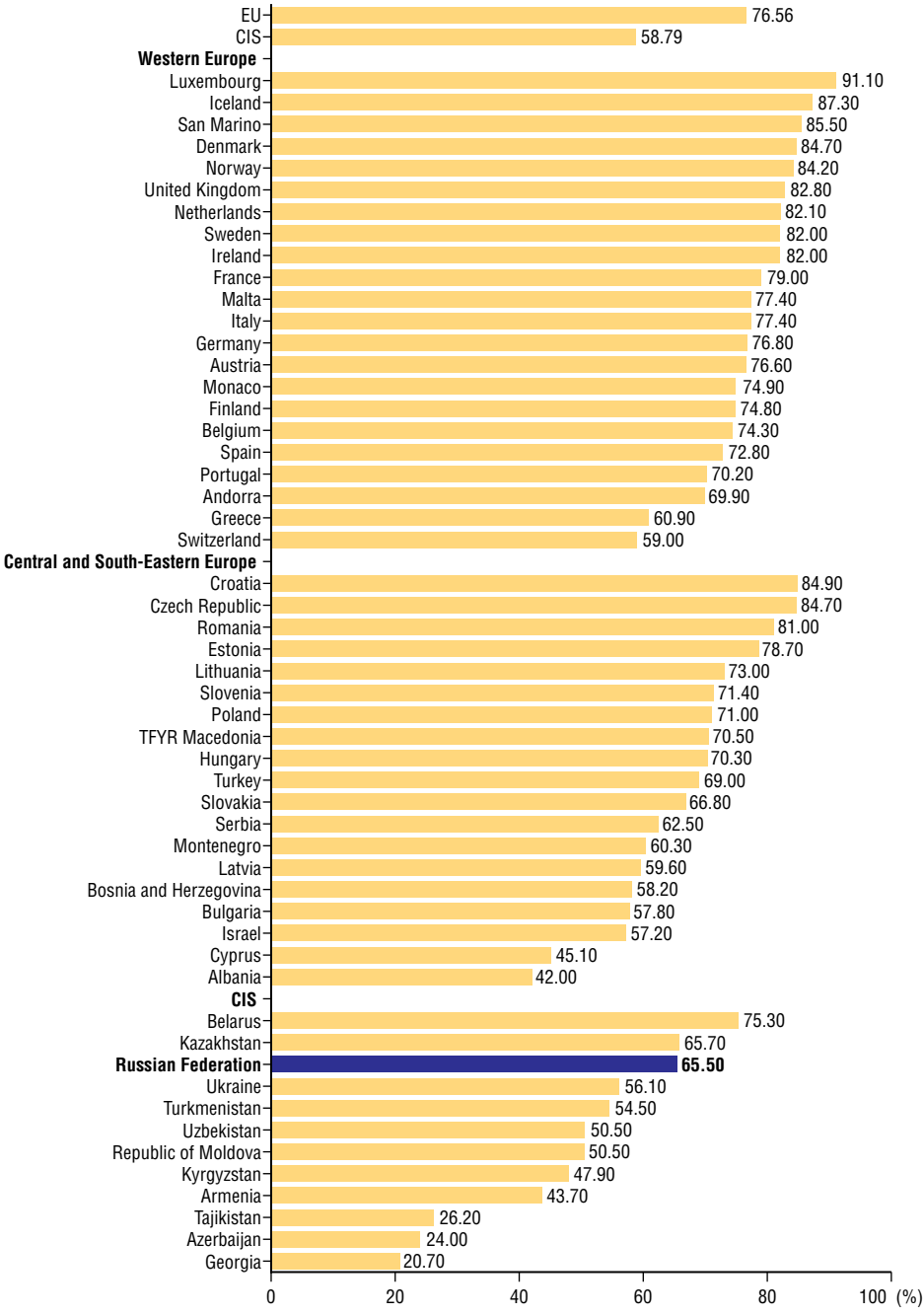
Health expenditure per capita (US$ purchasing power parity) in the WHO European Region, 2008



Source: WHO Regional Office for Europe, 2011.

Fig. 3.4

Public sector health expenditure as a percentage of total health expenditure in the WHO European Region, 2008



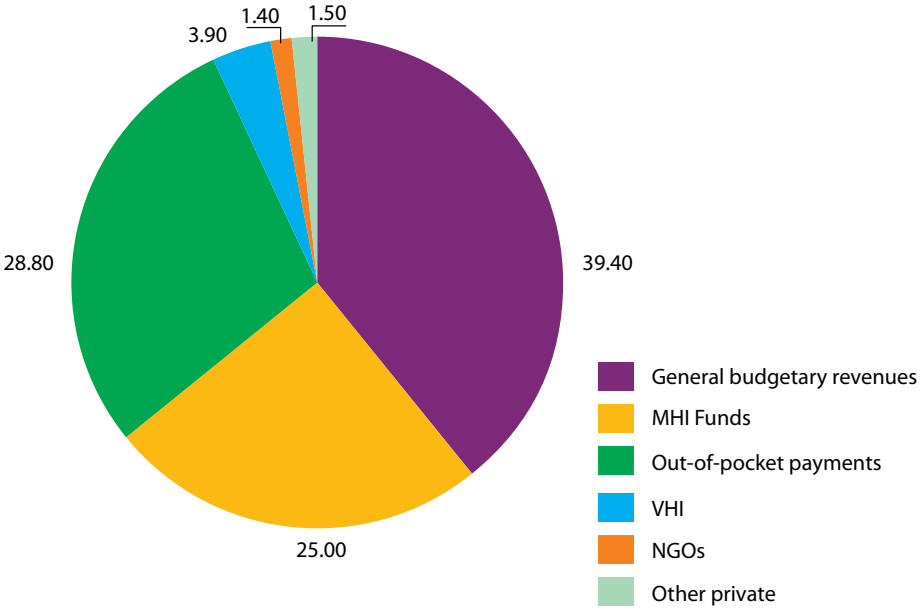
Source: WHO Regional Office for Europe, 2011.

3.2 Revenue collection/sources of funds

The Russian Federation is unusual in that it has a relatively even mix of financing from compulsory sources (general taxation and payroll contributions for MHI) and out-of-pocket payments (Fig. 3.5). It is a hybrid system that has been evolving since 1993 when the MHI scheme was first introduced.

Fig. 3.5

Percentage of total expenditure on health according to source of revenue, 2009



Source: WHO, 2011.

Private expenditure on health has been growing since the 1990s and accounted for 35.6% of total health expenditure in 2009, most of which (28.8%) was paid directly out of pocket (Table 3.2). Although the significance of private health insurance has grown, it remains a relatively small feature of the system, particularly outside Moscow and other big cities (see section 3.5).

The hybrid funding system means that there are two main types of pool for prepaid funds: the MHI (through its federal and territorial funds) and budgets of different levels: federal, regional and municipal (Fig. 3.6). Purchasing through the MHI takes place at the regional level through the Territorial MHI Funds on a contractual basis. Most purchasing at the municipal and regional level from budgetary funds is conducted according to historical budgeting processes (see section 3.3.4).

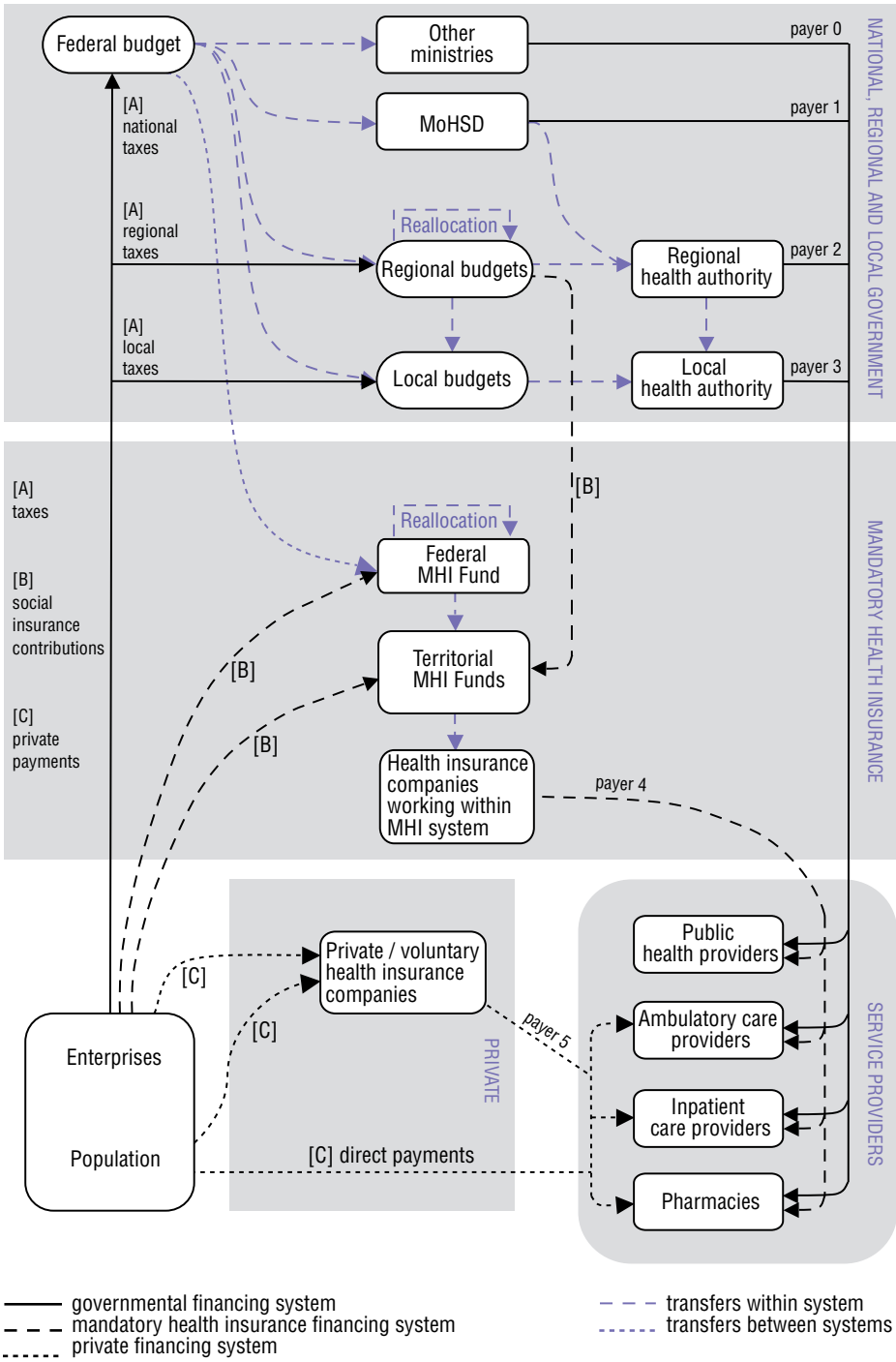
Table 3.2

Sources of revenue as a percentage of total expenditure on health, 1995–2009

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
General government revenues	48.4	45.9	49.1	41.4	39.7	35.7	35.5	35.1	35.5	36.1	36.0	36.4	39.3	39.4	39.4
MHI Funds	25.5	25.5	21.7	23.7	22.2	24.2	23.2	23.9	23.3	23.5	26.0	26.8	24.9	24.9	25.0
Out-of-pocket payments	16.9	18.1	18.1	23.0	27.5	30.0	30.5	30.9	32.8	33.2	31.3	30.0	29.7	29.1	28.8
Private insurance	1.6	2.0	2.0	2.2	2.6	3.2	4.7	4.1	4.2	3.5	3.1	3.7	3.4	3.8	3.9
NGOs	2.8	2.9	3.0	2.4	1.8	1.7	1.8	2.0	2.0	1.9	1.8	1.5	1.4	1.4	1.4
Other private sources	4.8	5.6	6.6	7.3	6.2	5.2	4.3	4.0	2.2	1.8	1.8	1.6	1.3	1.4	1.5

Source: Based on data from WHO, 2011.

Fig. 3.6
Financial flows



3.3 Overview of the statutory financing system

3.3.1 Coverage

Russian citizens have the constitutional right to access medical care provided at state and municipal medical facilities free of charge (Article 41 of the Constitution of the Russian Federation 1991). Residents and visitors who are not Russian citizens are expected to purchase adequate insurance before they travel. Russian citizens are thus guaranteed universal access to services, irrespective of whether they hold MHI policies. All citizens are covered by MHI by law, but 1.8% of the population did not have MHI policies in 2010. Persons without MHI policies (e.g. unregistered migrants or homeless people) face difficulties in accessing medical care (Perlman, Balabanova & McKee, 2009). Depending on place of residence (both region and municipality within the region), employer, personal networks and wealth, coverage can be extremely unequal, varying from the availability of several, overlapping health care options to just access to the local public network.

The scope of the constitutional right to medical care free of charge is determined by the PGG, the state medical benefit package. The state guarantees are determined by government decrees issued each year. The PGG has two parts: the basic MHI package and the package of care to be financed by budgetary funds. The basic MHI package covers the everyday health needs of the population, while the budget package covers specialized and high-technology medical care, outpatient pharmaceutical costs for certain groups and emergency care. Despite a clear theoretical delimitation between the cover provided by the budget system and the cover provided by the MHI, in practice this delimitation is less strict. Local and regional authorities are still generally responsible for maintaining the network of polyclinics and hospitals, including covering the costs of general repairs, equipment, wages, drugs, and so on.

The MHI package currently covers outpatient and inpatient care (except tertiary or high-technology care) provided to patients with:

- infectious and parasitic diseases (excluding venereal diseases, TB or HIV/AIDS)
- cancer
- endocrine system diseases
- skin diseases
- nutrition abnormalities

- neurological diseases
- blood diseases
- immune system pathology
- cardiovascular diseases
- eye, ear and respiratory diseases
- digestive system pathology
- all types of injuries and poisonings
- bone and muscle diseases
- diseases of the genitourinary system
- disorders of the skin and subcutaneous tissue
- disorders of the musculoskeletal system and connective tissue
- congenital anomalies
- deformations and chromosomal abnormalities
- pregnancy, childbirth, postpartum and abortion
- certain conditions originating in children in the perinatal period.

The MHI package can also include rehabilitative care provided in sanatoria (see section 5.7).

Services to be covered by government budgets include:

- emergency care;
- specialized care provided in specialized health care facilities for sexually transmitted diseases, TB, HIV/AIDS, and mental and behavioural disorders, including those related to substance use;
- tertiary medical care;
- free provision of medicines and medical supplies for certain population groups and for patients with certain diseases, the VZN list (haemophilia, cystic fibrosis, pituitary dwarfism, Gaucher's disease, mycloleukemia, haemophilia, multiple sclerosis), as well as after organ/tissue transplantation; and
- provision of medicines for certain population groups eligible for a 50% discount.

The regions are supposed to develop and approve territorial programmes based on the approved PGG using the unified methodology approved by the

MoHSD and the Federal MHI Fund. The methodology for developing territorial programmes proposes a set of criteria to adjust federally approved norms to local conditions. The set of criteria includes morbidity patterns, population structure (urban–rural, adults/children, etc.), sex and age coefficients of health care utilization, relative cost coefficients per care unit by physician specialty and bed profile, and so on.

The January 2000 methodological recommendations of the Federal MHI Fund and Ministry of Health "On the Territorial Guaranteed Package Programme Providing Free Medical Services to Citizens of the Russian Federation" set a list of medical care that is excluded from PGG. The negative list covers:

- pharmaceuticals for outpatients (with the exception of a number of exempt (*l'gotnye*) groups);
- cosmetic surgery;
- homeopathic, alternative or "nonprofessional" therapies offered by practitioners with no medical qualification;
- dental services except care for children, veterans and other special groups;
- medical prostheses including dentures (except for veterans and other special groups);
- rehabilitation or convalescence in institutions other than those approved by the Ministry of Health; and
- educational activities and health promotion literature from non-Ministry of Health-approved health centres training in emergency procedures and nursing.

The rationale for an important number of these exclusions is simply tradition. The Soviet era exclusion of outpatient pharmaceuticals has been maintained despite the fact that economic conditions for the supply of outpatient medicines have completely changed and the cost of many basic medicines is prohibitive (Marquez & Bonch-Osmolovskiy, 2010). The small number of exempt groups (children, pensioners, war veterans) is also the same as in the Soviet era, and they benefit from access to a limited number of pharmaceuticals either free of charge or through a subsidy scheme whereby exempt patients are offered the choice between retaining access to free outpatient pharmaceuticals or cash benefits under the DLO scheme (see section 5.6). Dental services including prostheses for most of the population as well as corrective optical care were both excluded from the Soviet State guaranteed package of care during the Soviet era and remain excluded (see section 5.11).

According to the Law on Mandatory Health Insurance, it is possible for Territorial MHI Funds and regional authorities to extend the coverage of the MHI package beyond the basic MHI benefit list that is approved by the government decree. Nevertheless, because of the scarcity of resources available for most Territorial MHI Funds, this right has so far been very rarely exercised.

For treatments that are not available in the Russian Federation, it is theoretically possible for Russian citizens to access treatment abroad financed from federal budgetary funds. Several institutions have been responsible for examination of cases where patients have been referred for such treatment abroad, the latest being the Federal Agency for High Technology Medical Assistance. However, these institutions have often been reorganized and their activities have frequently been suspended for several months at a time. The actual number of patients sent for treatment abroad is very limited.

3.3.2 Collection

The two main sources of compulsory financing for the Russian health system are general government revenues, and a payroll contribution to the MHI scheme, in the form of an earmarked share of the unified social tax. General government revenues are derived from many sources, but revenues from the export of oil and gas predominate (see section 1.2). Tax revenues from enterprises rather than individuals predominate (Federal State Statistics Service, 2010d). The Russian tax system is characterized by a mix of taxes levied on individual and corporate income and property. The collection and administration of taxes occurs at different levels in the Russian Federation depending on the source:

- federal level: value added tax (18% standard rate from 2004), excise tax (the federal share), corporate income tax (the federal share accounts for 6.5% out of the 24% corporate income tax rate), social insurance contributions (34% of payroll from 2011), natural resource extraction tax (surpluses of which are accumulated in the Stabilization Fund);
- regional level: corporate property tax and transport tax; regions receive a share of the corporate income tax (17.5% out of 24%, although they can choose to reduce their share of this tax to a minimum of 13.5%), a share of the excise tax (the size varying from one good to another) and a share of personal income tax revenues; and
- local level: land tax, individual property tax, the municipal share of personal income tax.

There have been efforts to simplify the fiscal framework since 2001 and improve its transparency with the removal of most tax exemptions; this has been compensated for by lowering the overall corporate income tax rate. Income tax was cut from a top rate of 35% to a flat rate of 13% in the hope that employees would be encouraged to declare their full income, as it had been estimated that half of all income went unreported (Rutland, 2005). However, the unified social tax to cover health insurance as well as pension contributions was created at the same time as a means of streamlining tax collection and was initially fixed at 35.6% of wages, which continued to serve as a strong disincentive to declaring full incomes. Tax exemptions reappeared in 2006 but focused on specific geographical areas, for selected industries and a limited time. Enterprises located in certain types of newly established Special Economic Zones can benefit from various exemptions; including a reduced rate of unified social tax (14% instead of 26%) in the so-called Technological Special Economic Zones. However, the flat tax rates for corporate and personal income tax mean that overall taxation in the Russian Federation is not progressive.

When the MHI scheme was first introduced, payroll contributions to the MHI Funds were collected through a separate earmarked tax that was set at 3.6% of the wage bill – 3.4% was directed to the Territorial MHI Funds and 0.2% to the Federal MHI Fund, which was responsible for regional equalization. Since 2001, MHI contributions have been incorporated into the unified social tax, which is an employer contribution based on gross salaries collected by the general tax authority. The share of resources allocated to Territorial and Federal MHI Funds did not change until January 2005 when the unified social tax rate was reduced from 35.6% to 26% of the wage bill. This reduction resulted in a reduction of MHI employer contributions accounted for just 2.8% of the payroll, of which (as of 2005) 2% goes to Territorial MHI Funds and 0.8% goes to the Federal MHI Fund. It has been estimated that the lowering of the unified social tax rate in 2005 meant a 1.6 billion rouble cut in revenues for the MHI system (Tompson, 2007). In 2006, the MHI employer contributions increased to 3.1% of the payroll (1.1% for Federal MHI Fund and 2% for Territorial MHI Funds).

In 2011, the unified social tax became social insurance contributions and the rate increased to 34% of the wage bill. The standard rate of 34% applies to gross annual salaries below 4 630 000 roubles; higher salaries are not taxed. The 34% of payroll for social insurance contributions includes 26% for the Pension Fund and 2% for the Social Insurance Fund, which covers statutory sick pay, statutory maternity pay, birth and pregnancy allowances, funeral allowances as well as many of the sanatoria (see section 5.7). The MHI contributions increased in

2011 to 5.1% of the wage bill (2.1% for Federal MHI Fund and 3% for Territorial MHI Funds), but from 2012 all 5.1% will be collected by the Federal MHI Fund (see section 6.1).

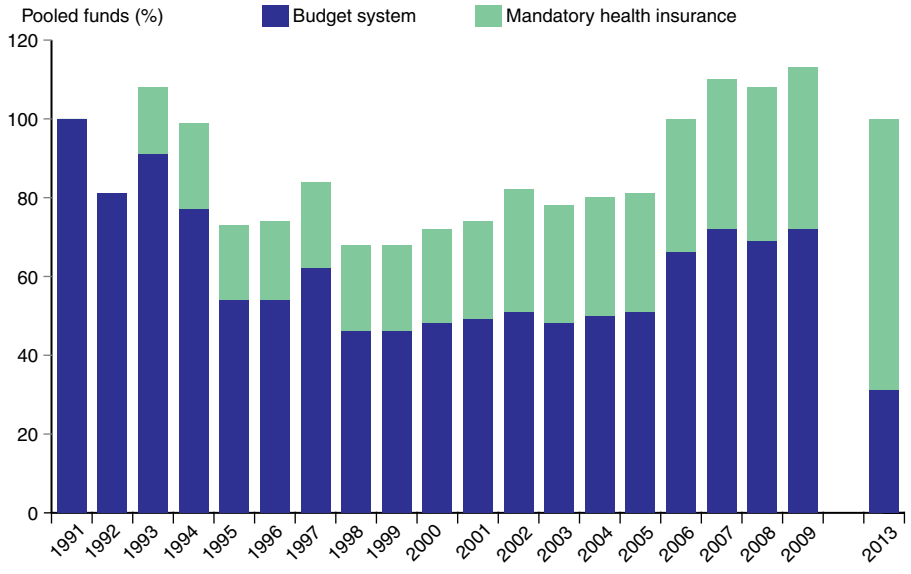
Until 2005, regional and local authorities were required to contribute to the MHI system for the coverage of the non-working the population (unemployed, disabled people, children and pensioners). From 2005, only regional authorities were responsible for such contributions. However, no national norms for the budgetary contributions were adopted at the time. This led to wide variation in practices, and some regions did not contribute to MHI Funds for a long time (Shishkin, 2006). Many local and regional authorities justified the lack of contributions for the non-working population by arguing that they were already directly maintaining health facilities from their own budgets. From 2006, all regions have paid MHI contributions for the non-working population. In 2009, the average insurance rate for one non-working citizen was 2445.7 roubles and for one working citizen it was 2682.6 roubles. However, these amounts do not correspond to the actual cost of providing care – the budget contributions would not be enough to finance the MHI package for the non-working population considering that utilization is also much higher for the non-working population (mainly children and pensioners).

3.3.3 Pooling of funds

Pooling of funds refers to the accumulation of prepaid health care resources in order to cover financial risks of a population or populations. Overly fragmented pooling arrangements can be a significant source of inefficiency in a health system (Kutzin, 2001). Pooling in the Russian health system takes place in both the MHI system and the budget system. MHI has not substituted the previous budget health financing system but has supplemented it. Funds pooled in the MHI system have not exceeded 40% of total public health financing (Fig. 3.7).

Overall, until 2011, the financing flows within the MHI system were unchanged since its introduction in the early 1990s. A share of the unified social tax was earmarked to the MHI system (see section 3.3.2); 1.1% of the payroll went to the Federal MHI Fund and was dedicated to tackle regional inequalities in funding through transfers from the Federal MHI Fund to the Territorial MHI Funds. Territorial MHI Funds received 2.0% of the payroll and contributions from the regional authorities to cover the non-working population. These payments have consistently been insufficient. Funds pooled at the Territorial MHI Fund level are then distributed to health insurance companies on a per capita basis. The insurers directly reimburse medical facilities using tariffs approved by the Territorial MHI Funds.

Fig. 3.7
Health care funds pooled in the budget system and in the MHI system



Source: Calculations based on official data from the Federal State Statistics Service and the MoHSD (for 2009 and 2013 forecast).
Note: Official Russian data have been used, which differ from WHO estimates because of the different methodology applied.

When the MHI was introduced, there were no private health insurance companies in a number of regions and municipalities. In 1993, local branches of the Territorial MHI Funds were granted the right to act as insurers. This measure was meant to be temporary but in many regions the situation continued in the absence of competing insurance companies until the mid-2000s. The number of health insurance companies operating in the MHI system peaked in 1998 at 538, but there has been some consolidation as insurance coverage has expanded and in 2009 there were only 106 health insurance companies (plus 246 territorial branches); these companies and their territorial branches have almost replaced the remaining Territorial MHI Funds as insurers in all regions. The Chukotka Autonomous *Okrug* in the Russian far northeast is the only federal subject where there are no insurance companies.

As budget funding has remained a major source of funding for the whole health care system, many regions and districts/municipalities continued to pool the resources they allocate to health care separately, and regions have developed a number of models for cooperation between health authorities and Territorial MHI Funds (Box 3.1). The share of MHI funds in total public health spending varies greatly from region to region. In 2008, it ranged from 18% in the Khanty-Mansiysk Autonomous *Okrug* to 89% in the Republic of Tatarstan.

Box 3.1

Health financing innovation in the Chuvash Republic

The Chuvash Republic is a relatively small but densely populated federal subject located in the centre of the European part of the Russian Federation, with a population of 1.28 million, 58% of whom live in urban areas (Federal State Statistics Service 2010c). No individual region can be taken as representative of the full diversity of the Russian Federation, but the Chuvash Republic has been used in this report as an example of a more reform-oriented region. It has a well-developed MHI system and payments for ambulatory and inpatient care are retrospective – tariffs for purchasing health care within the MHI system have been using clinical protocols for some time with the tariffs being differentiated by type of facility and disease (Shishkin, 2006). Pilot reforms were conducted as part of the MoHSD Health Reform Implementation Project, which ran from 2004 to 2008 with the support of the World Bank (see also Boxes 5.1 and 5.2).

The Chuvash Republic moved to a mainly single-channel system of health financing through MHI whereby funds from different sources (municipal and regional budgetary allocations to cover the non-working population and MHI contributions from employers) were brought together into a single pool managed by the Territorial MHI Fund. This increased flexibility in the allocation of funds between services while contributing to an overall reduction in the fragmentation of health sector finances eliminating administrative duplication in the management of health financing (World Bank 2011a).

The MoHSD with the Ministry of Finance carry out an annual budget cycle that reviews the costs of the centrally funded components of the health care system (direct ministry costs, federal facilities and support for core federal programmes, including immunization) to be financed nationally from the federal budget. Further, the MoHSD and Federal MHI Fund each year calculate the cost of the guaranteed package of care, and issue methodological recommendations for regions to adjust the approved indicators of PGG to the circumstances in each region based on set of approved criteria (see section 3.3.1). Nevertheless, the total amount of health financing at the regional level still depends less on PGG targets and rather more on historical budgets.

As mentioned in section 3.3.1, there is a separation of responsibilities in the PGG between the budget system and the MHI system for the financing of different types of care provision. The budget system is mainly responsible for specialized secondary and tertiary high-technology care, emergency care and also maintenance costs and targeted health programmes. The MHI system is responsible for financing so-called “daily needs care”.

Within the budgetary system, there are some equalization mechanisms to provide federal subsidies to regions. The equalization of health financing from the federal budget is made implicitly by calculating the index of taxable capacity and index of budget expenditures. The index of budget expenditures is relative (compared with the Russian average) and estimated to provide an equal per

capita volume of all budget services including medical services. Such estimates take into account objective regional factors and conditions. The main criterion for equalization is the average level of budget provision. The health part of the index is calculated based on total health expenditure, which include both budget and MHI expenditure. General budget transfers from the Ministry of Finance are not earmarked and according to current legislation regions can use the transfers for any purpose. There is an equalization system within the regions, when the regional budgets transfer resources to municipality budgets. The regional budget transfers like the federal ones are not earmarked and municipalities are free to decide how much to allocate to each activity.

The Federal MHI Fund is responsible for allocating a proportion of employer contributions and earmarked funds from the federal budget for certain activities under the NPPH (periodic health checks for the working population, periodic health checks for children in care, etc.) The main function of the Federal MHI Fund is regional equalization within the basic MHI programme. The disbursement of MHI subsidies is made based on the cost of regional MHI programmes. In 2010, the Federal MHI Fund used a unified methodology to ascertain the necessary level of subsidies transferred to the Territorial MHI Funds to execute territorial programmes and to estimate the cost of regional programmes and the potential revenues of the Territorial MHI Funds. The amount accumulated in the Federal MHI Fund was insufficient to address the existing inequities. The new Law on Mandatory Health Insurance envisages the increase of the centralized part by up to two-thirds in 2011 (3.1% from 5.1% of payroll contribution) and 100% by 2012 (see section 6.1).

The Territorial MHI Funds are responsible for accumulating part of employer contributions and budget contributions to cover the non-working population. In general, however, the regions pay only a fraction of the contributions that are needed to cover the health care costs of the dependent population. The regional budgets, in lieu of paying their quota on behalf of the non-working population, prefer to finance facilities directly, as this offers them greater control over their spending. Despite extensive planning, the federal government can only provide regions with benchmarks for funding based on the cost-and-volume model. The local authorities retain discretion, and the regional response to these federal recommendations varies: some regions balance their benefits packages but most are reluctant to shift budget priorities, ignoring the targets.

There are separate budgets for human resource development and other specific programmes that are financed from federal, regional and municipal budgets. The programmes have historically focused on the treatment and

prevention of "socially important diseases". They could be financed from budgets of different levels, but often such programmes are financed based on co-financing principles (see section 2.7). In 2005, the NPPH was launched. The project is financed from the federal budget with certain co-financing from the regions. In 2010, funding for this programme accounted for approximately 10% of total public spending on health (see section 6.1).

3.3.4 Purchasing and purchaser–provider relations

The MHI Funds pool contributions and transfer them to insurance companies on the basis of a weighted capitation formula, although the actual reimbursement methodology varies widely. The third-party insurer ideally engages in selective contracting with providers, in order to encourage competition between facilities as well as lower costs, higher-quality care and better primary care and prevention services. The insurance companies enter into contracts with providers based on case payments, which were expected to create pressures for efficiency (see section 3.7). For payments from the regional or local budgets, the organizational relationship is integrated as the providers are directly owned by the relevant tier of government. The activities of providers are, therefore, largely controlled through hierarchical management structures at the local and regional levels. However, relations are complex given the multiple actors involved.

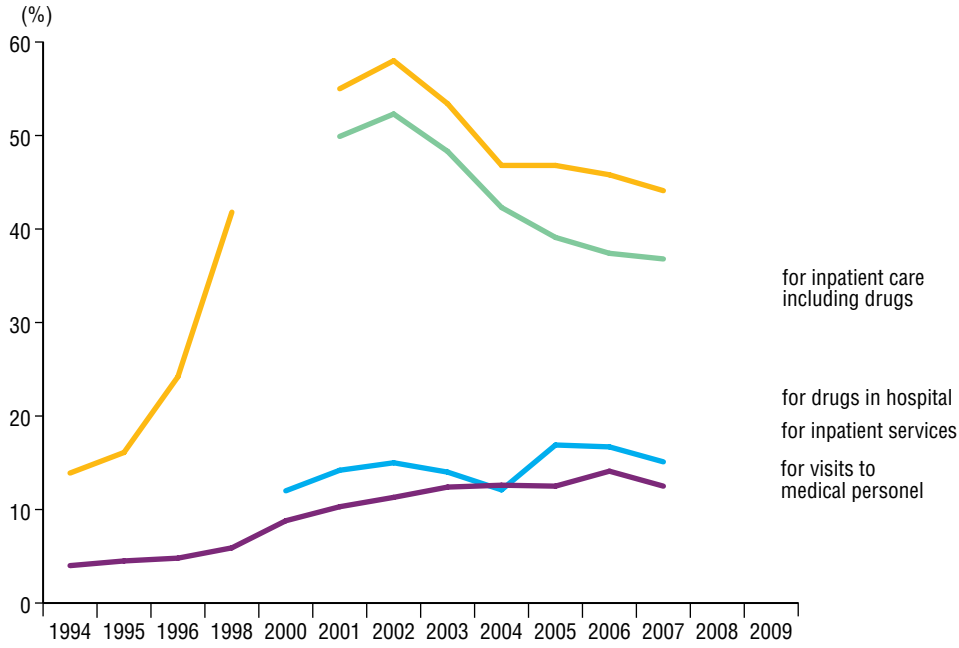
Insurance companies appear to be confronted with a set of perverse incentives. On the one hand they are supposed to be risk bearers, and so just as they can make earnings, they should also be liable to incur losses. Yet if they have losses, they do not absorb them themselves. Formally, it is the Territorial MHI Funds that absorb the loss, but they can avoid this by lowering their rates of pay to the providers. Consequently, it is ultimately the patients who bear the risk by being asked to pay out of pocket to compensate for the lack of public funds. If the expenditure of the insurance companies is greater than the allowable amount, the Territorial MHI Funds cover the deficit. The insurance companies' administrative costs are a fixed percentage of their revenue based on a capitation formula. With an assured income and retrospective subsidies from the Territorial MHI Fund, the insurers have no incentive whatever to impose cost-saving behaviour on the providers (Tragakes & Lessof, 2003). In practice, therefore, the insurance companies do not compete and often simply process medical bill claims using their covered population to market private insurance policies bearing little risk. In this way, insurance companies can create administrative costs of around 3% by acting as intermediaries (World Bank, 2011a).

3.4 Out-of-pocket payments

Out-of-pocket payments accounted for 28.3% of total health expenditure in 2008 (see Fig. 3.5). Out-of-pocket payments include direct payments for services and medications as well as informal payments. There is no formal cost-sharing through user charges for services covered in the basic package of guaranteed services. Since the mid 1990s, more and more people have paid for medical services received, mainly in state and municipal facilities. The speed of that process can be estimated from the data of different rounds of the RLMS (Russian Longitudinal Monitoring Survey). The share of patients paying for outpatient services increased 3.3 times between 1994 and 2009. According to RLMS data, 13.3% of those seeking outpatient care paid for it with money or gifts in 2009 (Fig. 3.8). In contrast, hospital patients paying for inpatient care declined between 1994 and 2009, from 55% to 34.3%. A considerable sharp decline occurred in 2009. This is most likely to be a direct consequence of the reduction in household income caused by the economic crisis, because the cost of treatment is significantly higher in hospitals than in the ambulatory sector.

Fig. 3.8

Percentage of patients who paid for different types of health service among people seeking this type of service in 1994–2009



Source: Calculations based on RLMS survey data.

3.4.1 Direct payments

Officially, just a few health services provided in state and municipal medical facilities should be subject to direct full payment, they are those included in the negative list (see section 3.3.1). All medical care provided in private facilities are paid for in full by patients or through VHI. However, in reality, many state and municipal facilities also provide fee-paying services, and this is poorly regulated. For example, chargeable services enable patients to access treatment without queuing, or to stay in a more comfortable room during inpatient treatment. There is a draft federal law on Health Protection Foundations to address this issue (see section 6.2). According to data from the Federal State Statistics Service, out-of-pocket expenditure on paid services has increased in current prices by 7.5 times since 2000 (Table 3.3). The most significant basic service subject to official direct full payment is the purchase of drugs for outpatients. Expenditure on outpatient pharmaceuticals accounts for more than 75% of formal out-of-pocket expenditures. Specific categories of patients can get medicines free of charge or at a discount (see section 5.6) but this covers only 11% of the population (Marquez & Bonch-Osmolovskiy, 2010).

Table 3.3
Out-of-pocket expenditure on fee-paying services and purchasing drugs (billion roubles), 2000–2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Paid medical services	20.5	24.7	34.8	44.4	56.0	74.5	96.9	114.3	136.5	154.2
Purchasing drugs	70.1	94.2	120.1	147.9	173.2	206.9	248.4	315.0	405.0	494.0

Source: Federal State Statistics Service, 2010f.

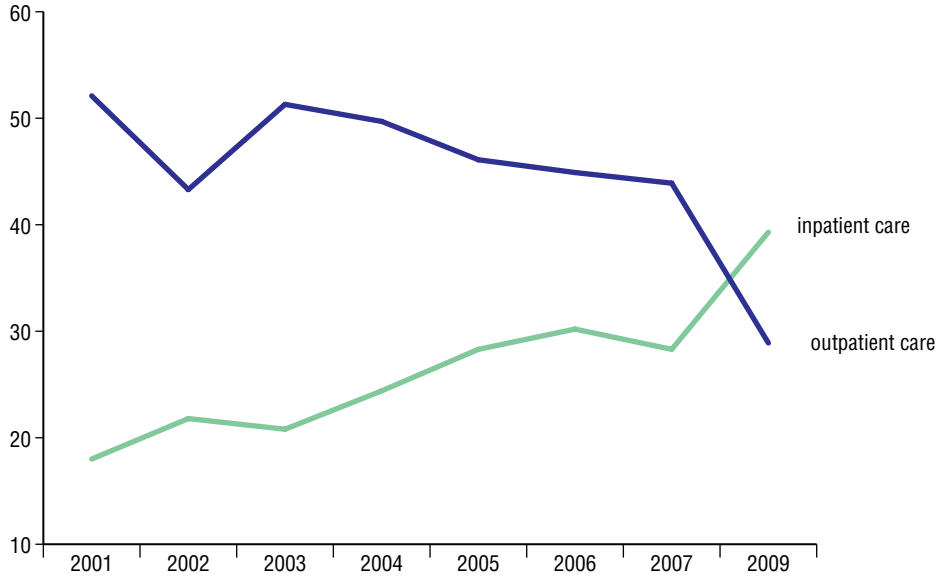
3.4.2 Informal payments

Informal payments and in-kind gifts were frequent during the Soviet era as a form of "gratuity" payment given to the doctor after a consultation or an operation. Reasons for paying "under the table" were numerous, but gifts and informal payments were commonly seen by the population as a way to compensate a generally underpaid medical staff. They were also considered a way of jumping the queues and, more hypothetically, to benefit from better attention and better quality treatment. However, since independence, such gifts and gratuities have changed in their nature as many are now levied according to displayed "rates" and are requested in advance of treatment.

Against the general trend of a declining share of patients paying formally for inpatient care, there are opposite changes in the prevalence of informal (under-the-table) payments. While in 2001, 18% of respondents said that they paid under the table for treatment while inpatients, in 2009 this figure was 38.5% (Fig. 3.9). Therefore, out-of-pocket payments for inpatient care have shifted to the informal sector. In contrast, in the outpatient care sector, payments are taken more often in the form of payments through cash register. In 2001, 52.1% of respondents applying for outpatient care indicated that they did so informally, and in 2009, the share of such patients declined to 28.6%.

Fig. 3.9

Percentage of patients paying for necessary health care, outpatient and inpatient, informally



Source: Calculations based on RLMS survey data.

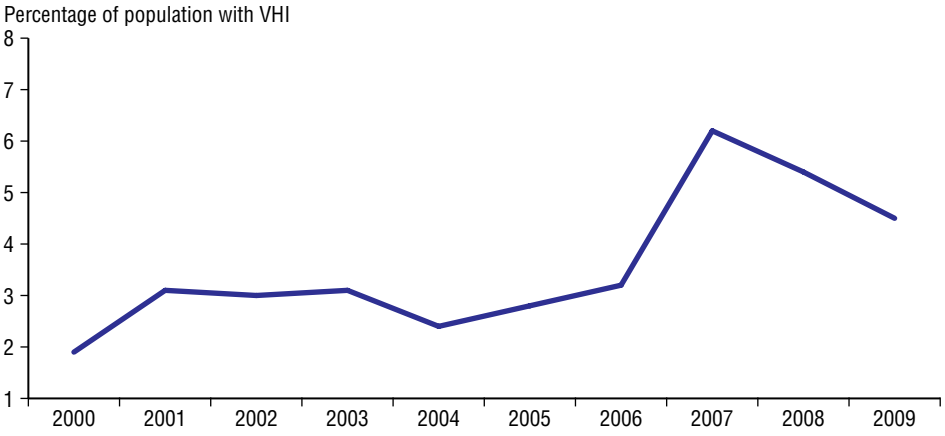
Informal payments are reported to be unequally distributed among health services and among health personnel. Informal payments are more prevalent in inpatient rather than outpatient facilities. They are also most widespread in health services that are perceived by patients as being crucial such as surgery and obstetrics. There is a wide range of local and individual modalities concerning the way informal payments are shared among health personnel. Informal payments are either kept by the receiver or shared among members of the care team; they can also be partly pooled in a special "account" for the provision of basic equipment in the facility (Shishkin, 2003).

3.5 VHI

VHI is a limited aspect of health financing in the Russian Federation as, from coverage and financial points of view, it remains largely confined to big cities and it still covers quite a small fraction of the population – less then 5% in 2009 (Fig. 3.10). The volume of VHI contributions increased almost six times from 2000 to 2009 (Table 3.4). However, in spite of such substantial growth, VHI financing still makes up just less than half the amount spent on paid services. VHI policies are mainly purchased by employers, very rarely by individuals. In the original MHI health insurance legislation, VHI coverage was supposed to be complementary – covering only items on the negative list. However, VHI has developed far beyond this boundary and has acted as a supplementary insurance, overlapping the MHI benefits package. The main difference is that VHI generally grants access to medical facilities formerly belonging to the "closed" health systems, which are reputedly better equipped with higher quality staff, irrespective of a patient's place of residence or occupation.

Fig. 3.10

The share of the Russian population (aged 13 years and older) with a VHI policy



Source: Calculations based on RLMS survey data.

Table 3.4

VHI contributions, 2000–2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
VHI contributions (million roubles)	12.8	23.7	26.6	31.2	38.9	45.7	53.3	63.2	74.5	74.3

Source: Federal State Statistics Service, 2010d.

3.6 Other financing

3.6.1 Parallel health systems

During the Soviet era, a number of large enterprises and ministries maintained a developed parallel network of medical facilities. It is believed that the parallel system accounts for about 15% of all outpatient facilities and about 6% of inpatient facilities (Tompson, 2007). With the introduction of MHI, it was hoped that the change in economic context and the introduction of the employer payroll contribution would be a strong incentive for the divestiture of such medical assets to local authorities, but this has taken place much more slowly for medical facilities than for other "social assets" (Haaparanta et al., 2003). Patients covered by their employer's health facilities usually also have access to the general health system as Russian citizens. The parallel system is, therefore, in most cases supplementary, but there is no formal coordination between the two systems in order to avoid duplication of treatment.

3.6.2 External sources of funds

Most of the current assistance programmes from foreign countries or international organizations such as the World Bank and the WHO is provided in the form of technical assistance in a wide variety of fields such as health financing reform, planning, organization of primary care, child and maternal health, and so on. In contrast to some other countries of the former Soviet Union, this assistance is not a financially significant proportion of total health expenditure in the Russian Federation.

3.7 Payment mechanisms

3.7.1 Paying for health services

Historically, hospitals were paid according to line item budgets, based largely on bed numbers and occupancy rates. Polyclinics received funds according to a similar formula, which used a notional number of visits in lieu of beds. These budgets were increased each year on the basis of a centrally agreed figure that covered inflation, growth, and other relevant factors. There were, therefore, perverse incentives to expand facilities in order to command greater resources. The shift to a financing system based in part on insurance mechanisms was intended to address these issues and, through insurance-based pricing pressures,

to create incentives for hospitals to reduce the length of stay and to use diagnostic tests and investigations more rationally. Prospective payments were to fix the price for any particular inpatient case against a schedule of diagnostic classifications. Payments to polyclinics were to be by a variety of methods, providing encouragement to treat patients in a primary care setting rather than referring them to hospitals. In practice, the operation of insurance funding has been more complex and the payment of hospitals has varied region by region. There are several methods of payment used in the Russian Federation: according to the Federal MHI Fund, hospitals are paid by finished case in 48 regions, by actual bed-days spent in hospital in 38 regions, by volumes of hospital care agreed in advance in 5 regions, by capitation in 1 region and by line item budgets in 1 region.

Initially, a prospective per capita allowance was made by the Territorial MHI Fund to the insurance companies for each individual they covered. Insurance companies then contracted with local providers (hospitals, polyclinics and/or outpatient clinics) for the basic package of care as set out by the government. Prices were set by a territorial tariff agreement between the Territorial MHI Fund, the insurance company and medical facilities representatives. The Territorial MHI Funds allocated the capitation funds to insurance companies prospectively. But subsidies were provided also retrospectively to insurers when they ran out of money (according to the legislation they are financially responsible only within the limits of allocations from the Territorial MHI Fund). The insurance companies pay providers retrospectively as usual. Retrospective payments, however, completely eliminate any possibility of influencing hospital behaviour with a view to creating cost savings. The problems arising from this method of payment, therefore, involved two separate but closely related issues: the questionable role of the insurance companies and the impact on the behaviour of hospital providers.

The insurers pay according to the specified unit of payment but usually do not negotiate volumes of care and cover provider costs retrospectively. They do not seek to negotiate limits to the number of cases to be treated or to pass on to the hospital responsibility for the demand for care. There is, therefore, a tendency to "underwrite" care for a whole local population without any formal mechanism for limiting hospital provision. Contracts are based on the basic package, but do not otherwise specify volumes of activity to be purchased. Health insurance companies have come to be tied into a process of billing and bill processing. They have a fixed share of administrative costs. Profits are not allowed by law (the insurance companies are all noncommercial under MHI), other than from savings they make on their per capita expenditure for

the population covered. There is, consequently, no incentive for insurance companies to reduce the volume of care or to encourage providers to reduce costs or unnecessary interventions under the MHI. The payment methods have not induced efficiency-promoting behaviour among hospital providers, and the average lengths of stay has stayed constant in the Russian Federation with little variation across regions irrespective of whether they use input- or output-based payment methods. The reason for this is that, when setting reimbursement rates, most regions took the long length of stays as the reference point for diagnostic groups, thus institutionalizing inefficiency (Sheiman, 2001).

The second reason for the lack of improvement is related to the fact that contracting involves only a part of hospital revenues. This has a number of consequences. First, it does not allow contracting to come into play with full force. Second, it causes confusion and prevents a rational approach to hospital financial management and planning. Third, the coexistence of the old and new payment methods provides conflicting and contradictory signals and incentives depending on who is paying for services, on what basis contractual agreements for provision of services are made and what payment methods are used. Also, planning and accounting activities become highly complicated procedures for the providers. As long as there are multiple payers with different priorities and motives, it is impossible to avoid the confusion arising from conflicting signals to providers (Tragakes & Lessof, 2003). The introduction of new payment methods for hospitals under the MHI system undoubtedly had a number of positive impacts. These include the development of new clinical and financial information systems; increased collection and use of data on hospital utilization, patient diagnostic groups and costs; an overall increased consciousness of cost–effectiveness; and an increased interest in quality. Nonetheless, it is also apparent that expected improvements in hospital utilization patterns have not materialized.

3.7.2 Paying health workers

All public sector health personnel work on a salaried basis. Employment contracts determine the rate of pay and may specify the hours or shifts to be worked, the volume of work in terms of the number of patients in the catchment area or the range of responsibilities. Adjustments are made to reflect the attainment of postgraduate qualification, years of experience and the responsibilities of the post, but do not reflect the volume of work carried out or its quality. Before 2009, the basic salary levels of medical personnel in the public sector (defined by the Universal Tariff Scheme) were fixed centrally. They were upgraded annually in line with estimates from the MoHSD and Ministry of Finance of

what was feasible within the global constraints on the budget sector funding. However, under the NPPH, extra payments to primary care and emergency care physicians and nurses were introduced, although these extra payments were not performance related and have often distorted incentives in the system despite attracting some better qualified personnel to primary care (see section 2.7.3). There are also bonus structures that are not nationally determined and that can be used to significantly boost salaries. Bonuses differ between the regions as they are determined by the head doctor of an institution, who also plays a significant role in deciding salary levels and incentive structures. These bonuses are paid out of reserves built up from revenues that facilities acquire from chargeable services.

New rules for paying health personnel were introduced in public medical facilities in 2008, starting in the federal facilities. The idea of the reform was to abandon the outdated Universal Tariff Scheme and introduce a more flexible pay system that would largely be tied to the results of the work of a particular employee, such as differentiating wages within individual categories of qualification. The new rules enable the health facility managers to reduce the number of excess staff, reallocating resources freed up from the payroll for the benefit of the remaining employees. It was assumed that there would be an increase in payroll in public health facilities of 30% in 2008 and it was recommended that in institutions that introduced the new rules at least 30% of wages should be paid in the form of incentive bonuses, which are not guaranteed to the employee but are dependent on individual performance.

Under the new rules, the wages of health personnel includes three components:

- base salaries, wage rates for professional qualification groups;
- compensatory payments (harmful or hazardous and other special conditions, etc.); and
- incentive-based payments (for the intensity and high results, for the quality of work performed, for the length of continuous work, for seniority, and premium pay by the job).

The regional and local authorities were encouraged to follow these new federal rules. In practice, the transition to a new system of payment was not as smooth. The main reason was the economic crisis, and not all regions were able to provide the necessary additional funds from their budgets, so that the real wage increases in many cases did not occur (see section 6.1).

The private sector tends to use more varied approaches to paying physicians. The quasi-private, fee-for-service polyclinics that offer dental or ophthalmological care pay their staff a salary plus a share of profits. Physicians offering private consultations charge a fee for service and if they work out of a clinic are likely to retain 40–70% of these fees, with the remainder contributing to running costs (Tragakes & Lessof, 2003). However, there is a grey area between state and private provision of services that allows doctors to charge for services privately which should, in theory, be provided free of charge through the guaranteed package of care. Both nurses and doctors also accept informal payments and gratuities from patients, but as doctors have greater power over resources, and access to drugs, tests and hospital admissions, they are more able to supplement their official income in this way.

4. Physical and human resources

4.1 Physical resources

4.1.1 Capital stock and investments

Since independence in 1991, the size of the network of medical facilities has decreased in all levels of medical care (Table 4.1). While in the first decade there was a gradual reduction in the number of both hospital and outpatient facilities, during the second decade there was a sharp contraction in the size of the network. During 1990–2000 the number of inpatient facilities decreased by 16%, and the number of outpatient facilities remained unchanged; during the next decade the number of inpatient facilities decreased by 40%, and outpatient facilities by 28%. The capacity of these facilities also decreased both absolutely and relatively, as calculated per 10 000 population. The decline in 1995–2000 was the result of both voluntary policies linked to the introduction of MHI reforms and involuntary reductions caused by severe resource constraints. The most recent contraction in 2005–2009 reflected the closure of the vast majority of small rural (*uchastkovye*) hospitals.

Obsolescence and maintenance remain persistent problems among a significant number of health facilities under the control of the MoHSD (Table 4.2). The condition of facilities under the MoHSD is surveyed on an annual basis and the surveys are used to inform capital investment funding; however, the funds available are very limited even when there has been significant economic growth in the country. The lack of such basic services as mains sewerage and hot water undoubtedly impact negatively on quality of care, and the lack of telephone connections has significant implications for the development and maintenance of information systems. Those facilities most likely to lack such basic services are predominantly in rural areas, where few other buildings locally would have access to such services either.

Table 4.1

Network of medical facilities, 1990–2009

	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
No. hospitals (thousands)	12.8	12.1	10.7	10.6	10.3	10.1	9.8	9.5	7.5	6.8	6.5	6.5
No. hospital beds, total (thousands)	2037.6	1850.5	1671.6	1653.4	1619.7	1596.6	1600.7	1575.4	1553.6	1522.1	1398.5	1373.4
Hospital beds (per 10 000 population)	137.4	125.8	115.0	114.4	112.6	111.6	112.5	111.3	109.2	107.2	98.6	96.8
No. outpatient facilities (thousands)	21.5	21.1	21.3	21.3	21.4	21.5	22.1	21.8	18.8	18.3	15.6	15.3
Outpatient facility capacity,[a] total (thousands)	3221.7	3457.9	3533.7	3548.4	3565.2	3557.8	3577.5	3637.9	3646.2	3674.6	3651.6	3657.8
Outpatient facility capacity[a] (per 10 000 population)	217.3	235.1	243.2	245.4	247.8	248.7	251.3	256.9	256.4	258.8	257.3	257.7

Source: Federal State Statistics Service, 2011.
Note: [a]Capacity as visits per shift.

Table 4.2

Condition of health care facility buildings, inpatient and outpatient

	1995	2001	2003	2007	2008
Inpatient and specialist care					
No. buildings, total (thousands)	27.0	24.8	23.8	23.0	24.0
Buildings with technical problems (%)					
In a dangerous condition	5.2	3.4	3.3	2.7	2.6
Require reconstruction	7.7	6.1	6.4	6.0	6.2
Require major refurbishment	31.9	29.6	28.5	27.2	45.6
Buildings lacking services (%)					
Running water	13.2	10.8	8.8	7.4	7.6
Hot water	39.5	35.5	33.1	30.6	29.7
Central heating	14.7	10.1	9.6	8.4	9.2
Mains sewerage	18.7	13.2	12.2	10.2	10.1
Telephone connection	10.5	9.9	7.7	5.9	7.3
Primary care					
No. buildings, total (thousands)	19.7	19.9	20.0	19.1	19.3
Buildings with technical problems (%)					
In a dangerous condition	3.6	2.0	1.6	1.4	1.4
Require reconstruction	5.5	4.8	4.8	4.2	4.4
Require major refurbishment	27.4	25.0	24.0	23.9	23.6
Buildings lacking services (%)					
Running water	15.9	13.1	13.8	10.7	9.3
Hot water	44.1	42.9	42.3	38.6	36.0
Central heating	16.3	14.3	14.4	11.9	11.5
Mains sewerage	22.6	18.2	17.9	14.5	12.6
Telephone connection	9.0	8.7	9.8	7.2	5.9

Source: Federal State Statistics Service, 2010f.

Each level of authority is responsible for the funding of ongoing capital investment for medical facilities under its jurisdiction. However, the federal authorities are now more involved in capital investment projects such as the building of high-technology medical centres and the provision of new equipment through the NPPH. Currently, just over a quarter of capital investment funds come from the federal level and just under half come through regional budgets (Table 4.3).

Table 4.3

Capital investment by source of funding (excluding small enterprises and informal economic activities), 2005–2008

	2005	2006	2007	2008
Capital investment (%)				
Facility's own means	15.7	9.6	9.7	7.1
External sources	84.3	90.4	90.3	92.9
External budgetary[a]	68.7	75.9	78.5	81.9
Federal budget	16.4	20.2	27.1	26.8
Regional budget	45.4	47.8	42.5	45.5

Source: Federal State Statistics Service, 2008, 2010f.
Note: [a]Some minor other sources for budgetary income.

For the most part, decisions on capital investment are made on an ad hoc basis, following the integrated scheme inherited from the Soviet system. Health facilities formulate claims for new equipment or repairs/refurbishment, which are then accepted or declined by the authorities at the respective level. Capital investment in parallel systems is realized through the budgetary resources of the ministry involved (without input from the MoHSD).

4.1.2 Infrastructure

The reduction in hospital numbers has been accompanied by a reduction in the number of hospital beds. These reductions have not been evenly distributed across specialties and the impact of the lack of financial means on sectors that were not considered a priority is significant; for example, beds dedicated to sexually transmitted diseases and treatment of addictions (narcology) experienced a sharper reduction than the average (Table 4.4). The decline of bed capacity in psychiatric hospitals has not been as sharp as in other branches of medicine, which is unusual for countries of the former Soviet Union.

Table 4.4

Number of hospital beds by specialty per 10 000 population

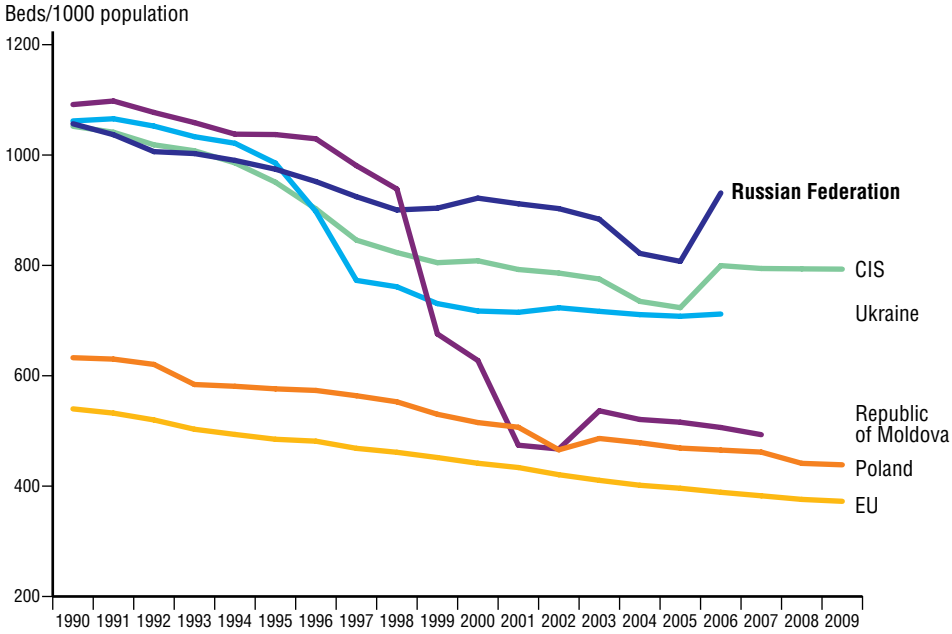
No. hospital beds	1990	1995	2000	2005	2006	2007	2008	2009
Total	137.4	125.8	115.0	111.3	109.2	108.8	98.6	96.8
By specialty								
General	32.1	30.8	27.2	23.3	22.9	22.8	17.7	21.5
Surgical	21.5	21.9	21.1	19.8	19.6	19.5	18.7	18.5
Oncology	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.8
Gynaecology	15.5	14.3	12.7	10.7	10.4	10.4	9.6	9.3
Tuberculosis	6.6	6.1	6.1	6.0	5.9	5.9	5.9	6.0
Infectious diseases	9.4	8.5	7.1	6.0	5.7	5.7	5.2	5.2
Ophthalmology	1.9	2.1	2.0	1.9	1.8	1.8	1.8	1.9
Otolaryngology	2.0	2.3	2.0	1.7	1.7	1.7	1.5	1.5
Dermatology and sexually transmitted diseases	2.4	2.2	2.1	1.5	1.4	1.4	1.3	1.2
Psychiatric	13.5	12.7	11.9	11.8	11.7	11.6	11.5	11.3
Narcology	4.9	2.4	2.0	2.1	2.0	2.0	1.9	1.9
Neurology	5.6	6.3	6.3	6.1	6.1	6.1	5.9	5.9
Obstetric[a]	34.1	27.4	23.0	20.9	21.1	21.0	21.3	21.4
Unallocated	4.1	3.4	2.3	1.6	1.4	1.4	0.9	0.8
Day-care beds	–	–	–	–	–	–	6.7	–

Source: Federal State Statistics Service, 2011.
Note: [a]Per 10 000 women aged 15–49 years.

The total number of hospital beds for acute care in the Russian Federation was cut by a quarter from 1990 to 2006 (Fig. 4.1).[1] This is a relatively slow pace compared with some other countries of the former Soviet Union (e.g. the Republic of Moldova); but the bed capacity per capita in acute care hospitals is still higher than the CIS average and is considerably higher than the average for countries of the EU. The average length of stay in acute care hospitals for 2006 was 11.5 days (WHO Regional Office for Europe, 2011). The average length of stay in acute hospitals has been falling significantly since 1997 (14.3 days) while the bed occupancy rate has remained relatively high, at 85.6% in 2006 (WHO Regional Office for Europe, 2011). The operating indicators for Russian hospitals have been shaped by the way in which services are paid for in the MHI system (see section 3.7.l).

1 Here and below where statistics for the Russian Federation are compared with other countries, WHO statistics are used. The WHO data can differ markedly from data generated in the Russian system because of difference in definitions and information-processing methodology. For example, the Russian statistics do not recognize acute care hospitals.

Fig. 4.1
Beds in acute hospitals per 1000 population in the Russian Federation and selected other countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

4.1.3 Medical equipment

Although information about the technical condition of the buildings is gathered annually, information about the condition of equipment is not collected at either the federal or the regional level. Data on the condition of medical equipment and the need to replace it or purchase new equipment are collected only occasionally upon special request.

Under the regional programmes for health system modernization (see section 2.5), the regions present data showing their need to purchase new equipment to the MoHSD. According to the MoHSD, despite the fact that 25% of the medical equipment pool was re-equipped under the NPPH from 2002 to 2010, in November 2010 over 112 000 units of different-level medical equipment still needed to be replaced. Understanding that such a major re-equipment of medical facilities can be carried out only over a quite lengthy period, the MoHSD suggested determining priorities in organizing the purchase of new equipment during the development of regional plans. The choice of priorities in the purchase of equipment should be based on areas of care, focusing on the

treatment of the most common diseases and causes of mortality. As a rule (this is typical for all the regions), these areas include cardiology, cardiovascular surgery, oncology, obstetrics and gynaecology, among others. Since 2009, the MoHSD has developed the appropriate procedures for the provision of medical care for these areas, and recommended norms for equipping the medical facilities have been included. These norms are used by the regions as reference points for determining the need for equipment within the priority development areas in the regional health systems. The regional modernization plans in 2011–2012, and in particular the purchase of equipment, will be conducted through collective financing by the Federal MHI Fund (using some of the extra revenues from the increase in the employers' contributions to the MHI system) and the regional authorities (see Chapter 6).

4.1.4 Information technology

Developing communications technology and building the national information technology (IT) infrastructure are core elements of recent economic policies geared towards the diversification of the Russian economy (see section 1.2). The World Bank estimates that 42.1% of the Russian population had access to the Internet in 2009, which compares reasonably well with other countries of the former Soviet Union but is considerably lower than levels for OECD countries (the average in 2009 was 73.8%) (World Bank, 2011c). For this reason, access to the Internet has not yet had a significant impact on the health sector, although the MoHSD and the MHI Funds have developed a number of web sites explaining how they work to citizens.

In 2011, there was, on average, one computer per 10.6 employees in state and municipal health facilities in the Russian Federation. At the same time, only 7.7% of the health care facilities used systems that enabled the use of electronic health histories or electronic medical records; less than 3% were equipped with the means to use telemedicine (Ministry of Health and Social Development, 2011). Consequently, while health facilities are relatively well equipped with computers, the application systems are not able to fully support health service management or to provide medical care to the population. The development of health care IT has been unsystematic, focusing on the addressing of local and individual needs with no aspiration towards ensuring continuity or comprehensiveness in health care processes. Additionally, stored electronic documents and records with rare exceptions are secondary to paper documents and do not bear legal significance (e.g. in patient complaints, where the paper copies of records are the only ones legally recognized).

In health management, the most frequently computerized processes are the generalization and provision of aggregated data by the regions to the federal authorities. At the same time, it is not possible to check the reliability of such information, or to promptly change the structure and form of the aggregated data presented depending on the type of management issue being dealt with. The information systems used to manage health care at the regional level mostly ensure the functioning of the model used in the region for the settling of payments for care provided within the MHI system, as well as managing the resources of the facilities. Facilities within the health system accumulate large volumes of confidential information, but issues of information security during the designing and utilization of health information systems have not historically received priority attention.

Devoting special attention to IT support issues, in 2010 the Russian Government approved the Concept for the federal target programme "Information support development in the Russian Federation for the period until 2020". This Concept included a special section devoted to IT support in the health sector. In response, the MoHSD has developed a Concept for the development of a health care information system for the period until 2020 (Ministry of Health and Social Development, 2011). The concept envisages the accomplishment of a wide range of measures aimed at the implementation of IT systems in medicine and health care (see section 6.2). The main purpose of developing an information system is to ensure effective information support for the bodies and organizations in the health system, as well as for the citizens. The information system that is being created is focused on:

- improving the effectiveness of health management through information support for expenditure forecasting and planning regarding the provision of medical care, as well as monitoring adherence to the state guarantees for medical care concerning the volume and quality of provided care;
- improving the quality of medical care by improving information support for the activity of medical and pharmaceutical organizations, their staff, students from medical and pharmaceutical midlevel professional and higher educational institutions, and scientific research organizations;
- raising awareness among the general population about maintaining a healthy lifestyle, disease prevention and obtaining medical care, as well as the quality of services at health facilities by electronic interaction with the corresponding representative organs.

4.2 Human resources

4.2.1 Health workforce trends

The overall number of health personnel fell following independence from the Soviet Union, but the trends for different categories of staff vary widely. The overall number of physicians initially fell, but has since recovered and is now higher than at independence (Table 4.5). Different trends were observed for different specialties of doctors: the number of doctors in certain specialties fell, for others it increased, and for some specialties the level remained the same. The biggest increase was in the following categories: venereologists and neurologists increased by 50%, paediatricians by 32% and stomatologists by 27%. There has been a decrease in the following categories: public health by 41%, phthisiologists (TB specialists) by 25%, roentgenologists and radiologists by 13% and surgeons by 12%. The introduction of the NPPH with its significant salary increases for physicians working in primary care led to a large reduction in the number of phthisiologists in the civil and even the penal medical service, as they moved to primary care.

Table 4.5

Number of physicians per 10 000 population, 1990–2009

	1990	1995	2000	2005	2006	2007	2008	2009
Total	45.0	44.4	46.8	48.8	49.4	49.8	49.6	50.1
By specialty								
General internists	11.4	10.4	11.0	11.3	11.6	11.8	11.6	11.4
Surgeons[a]	5.6	5.8	4.3	4.6	4.7	4.7	4.8	4.9
Obstetrician–gynaecologists[b]	5.2	5.2	5.4	5.6	5.7	5.7	5.7	5.7
Paediatricians[c]	24.5	24.6	28.2	32.0	33.4	33.3	32.9	32.4
Ophthalmologists	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.2
Otolaryngologists	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Neurologists	1.2	1.4	1.6	1.8	1.8	1.8	1.8	1.8
Psychiatrists and narcologists	1.5	1.3	1.6	1.7	1.7	1.7	1.7	1.7
Phthisiologists	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6
Venereologists	0.6	0.7	0.8	0.9	0.9	0.9	0.9	0.9
Roentgenologists and radiologists	1.5	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Exercise therapy physicians	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Public health physicians	2.2	2.3	1.9	1.4	1.3	1.3	1.3	1.3
Stomatologists	3.3	3.3	3.8	4.4	4.5	4.6	4.2	4.2

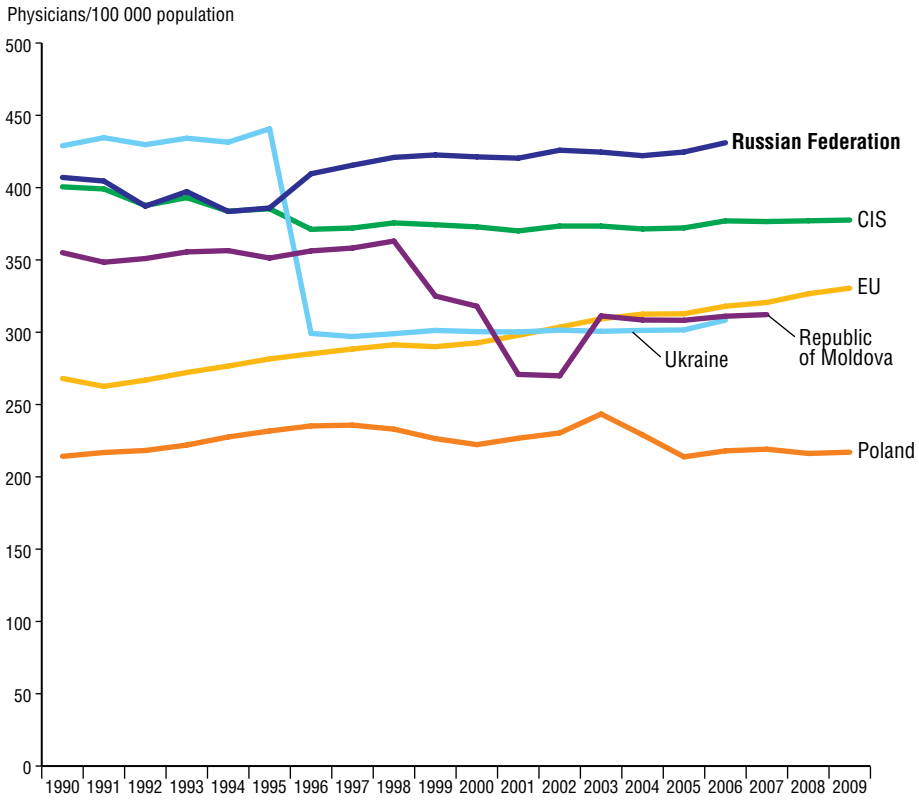
Source: Federal State Statistics Service, 2011.

Note: [a]Until 2000, surgeons included anaesthesiologists; [b]Per 10 000 females; [c]Per 10 000 children (0–14 years); from 2000, included paediatric surgeons, oncologists and endocrinologists.

All countries of the former Soviet Union inherited a relatively large health workforce at independence and a large number of physicians per capita. However, the situation in the Russian Federation differs from many of the country's neighbours in that the number has not just been maintained but has increased (Fig. 4.2), and it is now one of the highest in the WHO European Region. By contrast, the number midlevel health personnel working in the health system fell following independence and did not recover until 2009 (Table 4.6). Different trends for different categories of midlevel medical personnel were observed. The number of *feldshers* and nurse–midwifes per capita decreased substantially, by 60% and 57%, respectively. The number of laboratory technicians, radiology technicians and nurses increased by 26%, 21% and 10%, respectively.

Fig. 4.2

Number of physicians per 100 000 population in the Russian Federation and selected other countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

Table 4.6

Number of mid-level health personnel per 10 000 population by category, 1990–2009

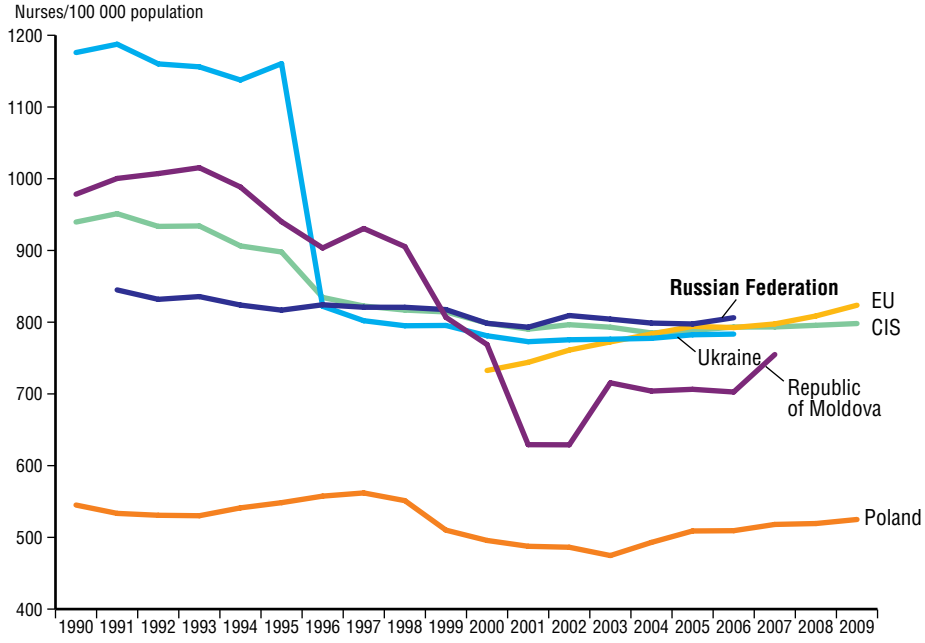
	1990	1995	2000	2005	2006	2007	2008	2009
Total	124.4	110.8	107.6	108.0	108.6	108.6	106.5	106.9
By specialty								
Feldshers	27.8	18.6	12.7	11.3	11.2	11.3	11.2	11.2
Nurse–midwives[a]	20.3	14.4	9.9	8.9	8.9	8.8	8.8	8.8
Nurses	67.0	68.2	69.8	73.9	74.6	74.7	73.1	73.6
Laboratory technicians	5.7	5.7	7.3	7.5	7.5	7.4	7.3	7.2
Radiology technicians	1.9	1.8	2.0	2.2	2.3	2.3	2.3	2.3

Source: Federal State Statistics Service, 2011.
Note: [a]Per 10 000 women.

The overall number of midlevel health personnel does not reflect the underlying trends, which show a steady increase in the number of nurses working in the health system. This is unusual in the former Soviet countries (Fig. 4.3), and means that the Russian Federation has maintained a relatively high ratio of nurses to doctors per capita (Fig. 4.4).

Fig. 4.3

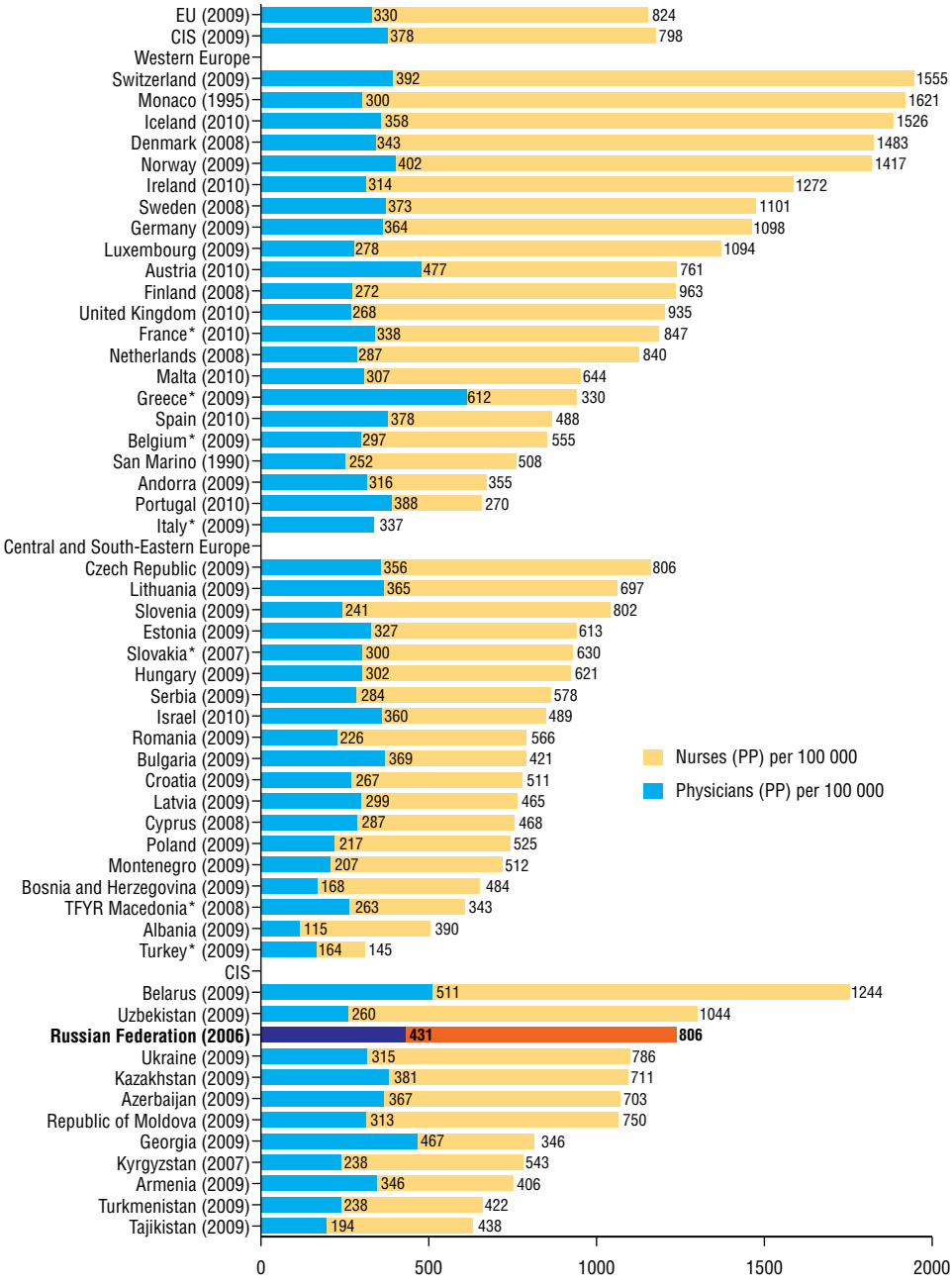
Number of nurses per 100 000 population in the Russian Federation and selected other countries, 1990 to latest available year



Source: WHO Regional Office for Europe, 2011.

Fig. 4.4

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



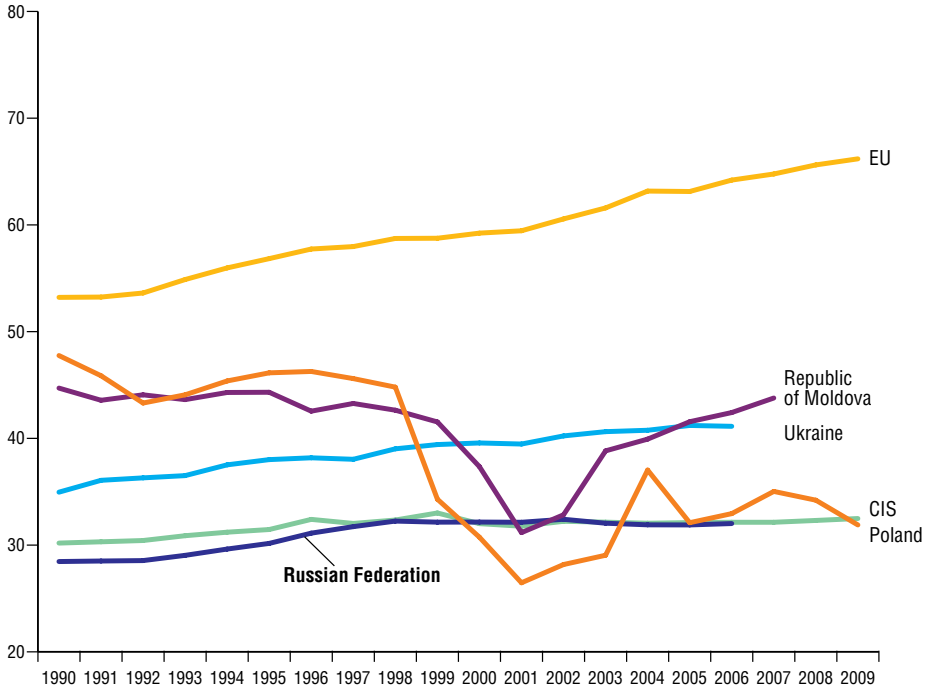
Source: WHO Regional Office for Europe, 2011.

Notes: *Eurostat data for nurses.

In official statistics, the number of dentists (stomatologists) is usually included in the total number of physicians. The number of dentists working in the Russian Federation has been growing steadily since independence and is similar to the average level for countries of the CIS, although their number is not as high as in some other CIS countries such as Ukraine or the Republic of Moldova (Fig. 4.5). However, the number of dentists per 100 000 population in the Russian Federation was still only 32 in 2006, which is almost half the EU average in the same year, nearly 60 dentists per 100 000 (WHO Regional Office for Europe, 2011). However, it is likely that the number of dentists practising in the Russian Federation is higher than these figures indicate, given that so many practise exclusively in the private sector and may, therefore, not be included in the official statistics.

Fig. 4.5

Number of dentists per 100 000 population in the Russian Federation and selected other countries, latest available year



Source: WHO Regional Office for Europe, 2011.

A comparative figure on the number of pharmacists per 100 000 population has not been included as the data for the Russian Federation only cover those pharmacists working in state-owned health care facilities and research institutions. The vast majority of pharmacies have been in the private sector since mass privatization in 1993, and pharmacists working in the private sector are not included in the data collected (WHO Regional Office for Europe, 2011).

4.2.2 Training of health workers

To qualify as a doctor in the Russian Federation takes six years of general medical education and two years of practical internship (*ordinatura/internatura*) to become a specialist, which most do. Over 80 branches of medicine are listed as specialist areas of practice, which is high outside the former Soviet Union. There are 54 medical universities, institutes and academies located throughout the territory of the Russian Federation, as well as 20 medical faculties that are part of multidisciplinary universities. The MoHSD and the Ministry of Education and Science teaching and pedagogic units jointly set target admission levels for medical schools, as well as agreeing the course length and curricula to ensure the basic quality of the workforce. However, this has been undermined by some faculty members charging for passing grades on courses (Geltzer, 2009). Medical courses are taught only in the regionally managed network of medical faculties and universities. The training is standard for all doctors, irrespective of whether they work in the state or the private sector, although internships are only available in state-owned health facilities. Two gaps in the training of health personnel prior to independence were management training and general practice/family medicine. It is now possible to specialize in either of these two fields, but provision is limited. The MoHSD has been increasingly focusing on tightening the requirements for medical personnel's professional knowledge and skills, improving systems of medical graduates' training and continuous retraining (see section 6.2). Extra funds have been allocated for medical personnel retraining under the NPPH.

The Russian Federation joined the Bologna Process in 2003, and by 2011 all the new state educational standards had been developed and adopted. Medical education is provided in two streams: traditional one-level education for institutions that provide degrees in general medicine, dentistry, paediatrics, pharmacy, clinical psychology or medical prophylactics and two-level medical education that provide bachelor's degrees for social work, biotechnology and management, and master's degree for public health. Internal medical school systems of quality control have been introduced.

The number of graduates from medical universities has been growing; the number of trained physicians increased by an average of 39% between 2000 and 2008. Unlike the doctors, the number of graduates from midlevel professional training institutions are decreasing. Overall throughout the country, the number of trained midlevel health care provider graduates has decreased by 5% during the same period. An increase in the volumes of training has been noted for a number of specializations, but for the largest number of specializations the decrease varied from 4% to nearly 50%. The increases were seen in pharmacy, where the growth was the greatest, amounting to a doubling of the number of graduates; dentistry, which increased by 33%; and laboratory diagnostics, increasing by 14%. For all the other main specializations, a decrease in the number of graduates has been noted, varying from a 43% decrease in medicine/prevention specialists to a 2% decrease in nursing.

Currently a new state educational standard for primary and midlevel medical education is being developed and approved at the Ministry of Education and Science. It envisages the possibility of issuing a diploma of primary professional education after the first year of training. Junior nurses may continue their education at a midlevel medical educational institution, subsequently receiving a diploma for midlevel professional education specializing in "nursing", "midwifery" or "medicine". Over 20 departments at the higher medical education institutions in the country provide training for nurse managers. Most of the educational institutions training midlevel medical personnel are in regional and municipal ownership. *Feldshers*/midwives are normally trained for two years beyond the basic nurse training.

4.2.3 Doctors' career paths

Anyone with a recent medical or pharmaceutical diploma is qualified to hold a clinical post and can apply for vacancies in primary care or the hospital sector in either private or public facilities. Recruitment at any medical facility is the responsibility of the head of the health facility; the appointment of the heads themselves is the responsibility of the health authorities of the corresponding level (municipal, regional or federal).

The main factors in promotion through the ranks are years of service and the level of attestation categories achieved. In parallel to the certification process is the process of attestation, which is closely linked to career development and promotion. There are three levels of attestation, which depend on years of experience in a given speciality (second level no less than 5 years, first level no less than 7 years and upper level no less than 10 years). Attestation in itself is a

spoken or written examination in front of the commission. In practice, although attestation is voluntary, most doctors do choose to actively participate and work their way through the attestation levels as they are linked to pay. On average, more than 50% of physicians have attestation categories, but among physicians working in rural areas the rate is lower. Retraining in extra specialties can also boost an individual's chances of promotion. Decisions about promotions are made at the local level and the chief doctor of the facility has important role in granting promotions. Access to training is determined by the management of the health facility where the physician works.

5. Provision of services

5.1 Public health

The public health system in the Russian Federation is founded on the Soviet sanitary-epidemiological service, but the remit of the Federal Consumer Right Protection and Human Wellbeing Surveillance Service (Rospotrebnadzor) is now much broader than environmental health and communicable disease surveillance, as in 2004 the Sanitary-Epidemiological Inspectorate was merged with the State Inspectorate for Trade, Quality of Goods and Protection of Consumer Rights (Gostorginpektsiya), which from 1993 was responsible for certain public health functions such as food safety. Rospotrebnadzor is nominally under the MoHSD and is funded from the federal budget, although it has considerable autonomy. The service is organized hierarchically from the municipal through the regional to the federal level and is headed by the Chief State Sanitary Doctor of the Russian Federation.

Environmental health and communicable disease control functions as well as the notification and surveillance of communicable diseases are conducted by centres of hygiene and epidemiology and their laboratories under Rospotrebnadzor, which are also hierarchically organized, with centres in most municipalities as well as all regions plus a parallel network of centres for the rail network, which historically focused on particularly dangerous diseases such as cholera and plague. There is also a network of disinfection stations and 12 anti-plague stations, most of which are located in the south of the country where there have been natural plague reservoirs. In addition, each hospital employs public health doctors and epidemiologists who track and report all infectious diseases occurring in their facilities.

Apart from noncommunicable factors such as mass poisonings (most often from the consumption of non-beverage alcohol and surrogates), Rospotrebnadzor now has no direct responsibility for the surveillance of broader population health such as health behaviour surveys to inform the prevention of noncommunicable diseases. Health promotion and health education are also no longer the formal responsibility of the centres of hygiene and epidemiology. The public health

system of the Russian Federation has, therefore, retained and reinforced the focus on communicable diseases. The MoHSD has set up institutional structures to respond to noncommunicable diseases and injuries (which are the leading causes of premature mortality in the country; see section 1.4), but these still need greater institutional capacity to improve the limited health promotion and disease prevention programmes in place (World Bank, 2005). There is no single entity to coordinate the prevention and monitoring of noncommunicable diseases and injuries (Ministry of Health and Social Development and State Research Centre for Preventive Medicine, 2008). In 2010, a network of preventive health centres was established under the NPPH, but their impact has been minimal thus far (see section 6.1).

Most other preventive services such as immunization, antenatal care and family planning services form part of primary care services. There are no national screening programmes in the Russian Federation as such (i.e. an organized screening programme based on a population register with invitations to participate, integrated quality control and follow-up), but opportunistic screening is a significant part of the general medical services provided at the primary care level through the periodic health checks (*dispansertizatsiya*) that large sections of the population are expected to attend.

5.2 Patient pathways

Patient pathways are determined in the procedures for health care provision approved by the MoHSD by each disease category (see section 6.1). The example in Box 5.1 shows the general stages in the provision of medical care using a specific example.

5.3 Primary/ambulatory care

Laws aimed at administrative reform (see section 2.4) did not fully take into account the specific features that are characteristic for the provision of health services or the existing network of health facilities. In accordance with the Federal Law on General Principles of Organizing Local Government in the Russian Federation, the municipalities bore responsibility for the provision of primary and emergency care, as well as maternity services (including ante-natal and postnatal care). This sharing of responsibility envisaged the transfer of municipal institutions providing secondary care to the regional level. Over 75% of the inpatient health facilities in the country are at the municipal level.

The network of municipal health facilities, particularly in large cities, includes multi-profile hospitals providing inpatient care in areas such as cardiology, surgery, ophthalmology, and so on.

Box 5.1

An example pathway in the provision of medical care

In the Russian Federation, a woman in need of a hip replacement because of arthritis would take the following steps, in a standard or a private route.

Standard route

1. An initial examination by primary care physician (GP or *terapevt*) at the local polyclinic where preliminary diagnostic tests show the need for referral to a specialist.
2. Referral to the polyclinic's orthopaedic specialist and for an X-ray.
3. The specialist recommends a hip replacement and refers the patient to a local hospital, which has the necessary orthopaedic specialists and surgeons. Where there is no orthopaedic specialist in the polyclinic, the primary care physician will refer direct to the appropriate local hospital.

   • The patient is still free to choose a hospital, seeking the best balance between the perceived quality of care and waiting times. Where the situation in a hospital is opaque in terms of the technology used or waiting times, there is considerable scope for informal payments either to jump the queue or to try to ensure higher-quality medicines and implants are used.

   • There is also an official fast track whereby the primary care physician can file an official application. The application has to be endorsed by the polyclinic's orthopaedic specialist, including elements of the diagnostic and envisaged technology to be used, and signed by the chief doctor of the polyclinic. It is then submitted to the municipal or regional health authorities. In the case of a planned operation (not an emergency), the appropriate health authority delivers a decision on access to high-technology treatment for a patient within 10 days following the application. The patient could be directed towards a regional or federal level facility practising hip replacement surgery.
4. When the patient is discharged from hospital, she is commonly referred back to her primary care physician for after-care.

Private route

• The patient could have chosen at the outset to contact either the private health care system or a parallel health system, which is now accessible for a fee if the patient cannot access these facilities by virtue of their occupational status.

• If the patient has VHI cover that includes the intervention needed, or the employer maintains a suitable hospital where the operation could be performed, the patient would have been directed towards a designated partner hospital by the insurer/employer.

• In the absence of VHI coverage or access to parallel services, the patient would have had to choose the hospital themselves depending on its perceived quality (based on the testimony of friends, relatives or their own experience) and ability to pay.

In order to prevent large-scale reorganization of the network of health facilities and the transfer of inpatient facilities under the jurisdiction of the regional authorities, the MoHSD was forced to issue an order that defined primary care as outpatient and hospital care. According to the MoHSD Order on the Approval of Organization of Primary Medical Care (No. 487, 29 July 2005), primary care included care provided in hospitals and inpatient/polyclinic facilities, including the provision of emergency care to patients with acute conditions, traumas, poisonings and other emergency situations; diagnostics; treatment of acute and chronic diseases, poisonings and injuries; treatment of pathological conditions during pregnancy, labour and childbirth, in the postpartum period and related to abortions; and treatment of other conditions that require round-the-clock medical supervision or isolation on epidemic grounds. The changes, which were later introduced into the legislation, confirmed this norm and defined primary care as care provided in outpatient/polyclinic, inpatient/polyclinic and hospital institutions of the state, municipal and private health systems by district physicians, district paediatricians, GPs, specialist physicians, as well as the corresponding intermediate-level health care providers.

The Russian Federation inherited a large network of primary care facilities, which in theory covered the whole territory of the country. As in the Soviet era, patients in remote rural areas are covered by FAPs, while in urban areas they are covered by a primary care physician in the local polyclinic. There is a hierarchy of clinics and hospitals at the municipal, regional and federal levels to which complex cases can be referred.

FAPs

These are small centres of just a few rooms and basic equipment staffed by a *feldsher* (physician's assistant) with a nurse or a *feldsher*, midwife and nurse. They cover a population of about 4000. The staff provides first aid, antenatal and postnatal care; undertakes basic disease prevention activities such as immunization and health education; and simple medical procedures such as injections and wound dressing as prescribed by a physician. Midwives also attend home deliveries if the pregnant women do not deliver at maternity hospitals for some reason (although this is very rare). They also provide family planning advice. FAPs are units under rural hospitals (either the nearest rural hospital or more often the central district hospital). The activities of FAPs are supervised by physicians working in the nearest physician-staffed facilities.

Health centres (*ambulatoriya*)

These cover a number of micro-districts (*uchastki*) or larger rural populations of 7000 people or more. They are staffed by a primary care internist (*terapevt*), a primary care paediatrician (occasionally a GP instead; see below) and sometimes

an obstetrician or gynaecologist, as well as nursing staff and midwives. They offer a range of primary care services, including immunization, screening, treatment of minor ailments, supervision of chronic conditions, prescribing, sickness certification, and provide 24 hour cover. In rural areas, some GPs also work in single practices. Health centres tend to have a number of day-care beds and are able to carry out inpatient deliveries and perform minor surgery. Many of the beds, however, are used for social care and tend to be occupied by the frail and elderly rather than the acutely ill. Physicians also make home visits when patients are not able to come to the facility. The absence of a clinical laboratory and diagnostic equipment limits the scope of care available through rural health centres. Laboratory services, some obstetric care and dental care are available at the small rural hospitals (see section 5.4). The members of staff are employed by local health authorities represented by the chief doctor of the central district hospital.

Urban polyclinics

These serve urban areas divided into micro-districts of about 4000 people; every polyclinic covers several micro-districts depending on the administrative division. Sometimes polyclinics are a department in the city hospital. Polyclinics are typically large health facilities where a group of primary care physicians work jointly with a range of specialists, supported by diagnostic and laboratory services, to provide a range of services including screening, first-line treatment of acute and chronic illness, and the ongoing care of chronic cases. The specialties most commonly represented in polyclinics are obstetrics/gynaecology, cardiology, rheumatology, oncology, ophthalmology and otolaryngology. In contrast to providers of rural primary care, urban polyclinics are equipped with more specialized equipment for diagnostics and treatment.

Special focus polyclinics

In larger towns and cities, there are three kinds of polyclinic: for adults, children and women of reproductive age. Children's polyclinics have primary care paediatricians and a range of specialists but treat only children up to the age of 15 years. Women's polyclinics cover gynaecological and obstetric services in areas large enough to sustain them. In the cities, the following special polyclinics might also be found: dental polyclinic, consultative and diagnostic polyclinic, psychotherapeutic polyclinic, physiotherapeutic polyclinic and polyclinic for rehabilitation treatments.

A system of primary care with GPs/family doctors has been initiated in some districts following the introduction of the concept as early as 1992, but most still have the system of primary care internists and primary care paediatricians working together with a team of narrow specialists at the primary care level.

There were 7930 GPs in 2008, making up 11% of all primary care physicians (primary care internists, primary care paediatricians and GPs). The postgraduate training programme in family medicine/general practice takes a total of two years, of which six months are spent in clinical practice. Most medical universities now have departments of general practice or family medicine. There is no region where general practice or family medicine is the predominant model, and in a quarter of regions the percentage of GPs in the total number of active primary care physicians was less than 3% (WHO Regional Office for Europe, 2009). GPs work alone (particularly in remote rural areas), in group practices or alongside narrow specialists in polyclinics. As part of the NPPH, around 18 500 primary care physicians (of a total 70 000 nationwide) were retrained, but there are still concerns about the level of training primary care physicians receive.

Patients have the right to choose their primary care providers and individual doctors within a polyclinic, but patients rarely exercise this right. Formally, patients are not obliged to see a primary care internist or GP/family doctor before seeing a specialist; however, in practice, most patients do consult their primary care physicians first (see section 5.2) (WHO Regional Office for Europe, 2009). Primary care physicians, therefore, do not have a strong gatekeeping role, although they play an important role in coordinating patient care, even if this is not formalized. There are some parts of the Russian Federation where gatekeeping is partly functional; these include the Samara *Oblast*, St Petersburg, the Chuvash Republic, and Tver *Oblast*. One factor that may also strengthen de facto gatekeeping within the system is that many patients may still believe that in order to access secondary or tertiary care without having to pay informally they need a referral from the primary care level (WHO Regional Office for Europe, 2009).

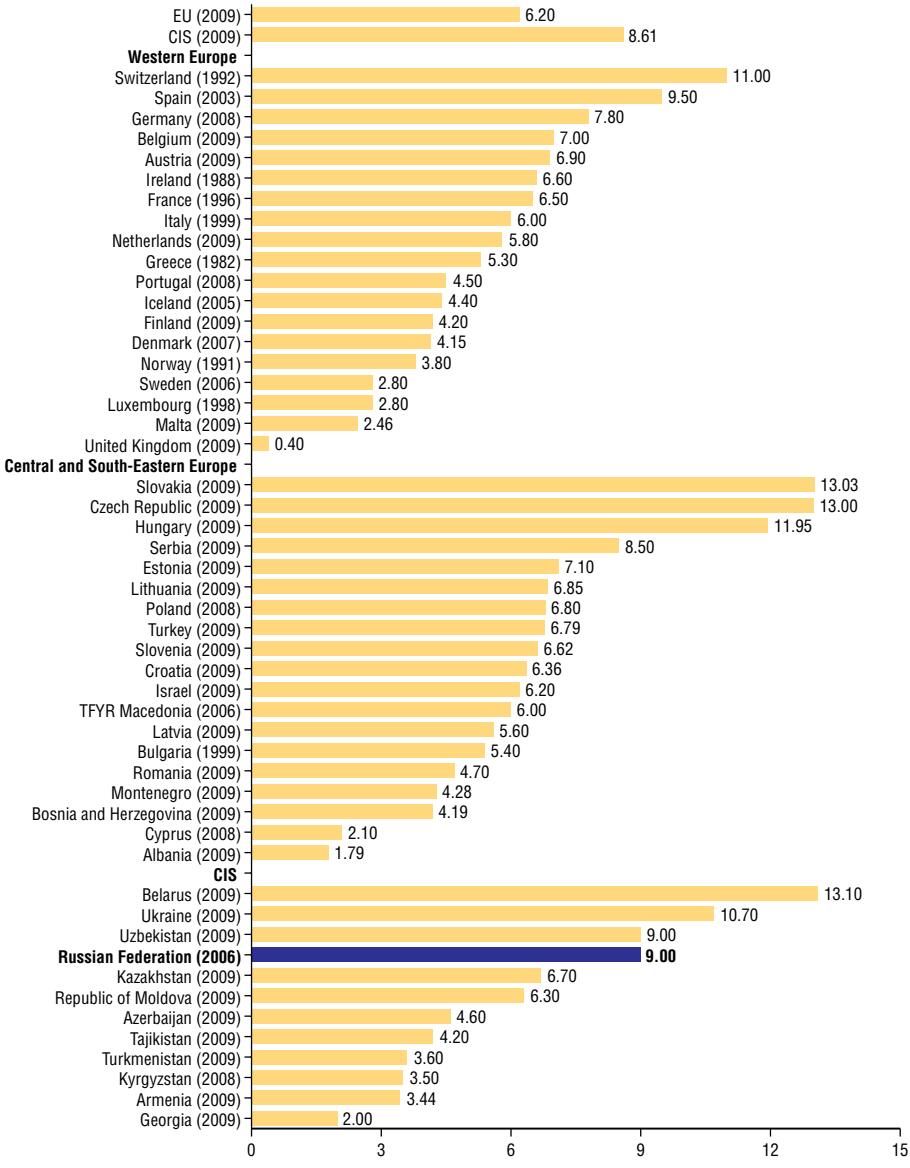
Primary care physicians are expected to have a strong role in health promotion and in encouraging patient self-care for people living with chronic conditions. Services available include general medical care, some diagnostic services, some minor surgery (more common in remote areas), first aid, antenatal care, screening (opportunistic), immunization, family planning, home visits, certification for work or school absences, and so on. Depending on local demand, practices or polyclinics also organize special clinics for patients with chronic conditions, such as diabetes or hypertension, as well as special clinics for family planning or elderly patients.

There are federal norms for the maximum patient-to-doctor ratio at the primary care level: 1700 patients per GP, 1800 per primary care internist and 800 children per primary care paediatrician. However, these norms are not strictly adhered to, particularly in districts where there is a shortage of primary care physicians.

The number of patients covered can have a negative impact on the availability of services because waiting times to see the doctor can be very long. Few primary care facilities operate a system of bookable appointments. The number of outpatient contacts per person per year has fallen since independence, but in 2006 the number was still higher than the average for countries of the CIS or the EU (Fig. 5.1).

Fig. 5.1

Outpatient contacts per person in the WHO European region, latest available year



Source: WHO Regional Office for Europe, 2011.

Early reform efforts focused on the introduction of family medicine/general practice, but more recently primary care has been the focus of policies to improve access to and quality of primary care (Box 5.2). For this reason, as part of the NPPH programme, primary care physicians have been awarded substantial salary increases in order to provide a greater incentive to new graduates to work in primary care (see Chapter 6). During the first years of national project implementation, a significant inflow of physicians and nurses into primary care was noted, and, as a result, the ratio of combining jobs decreased notably. However more recently the ratio of combining jobs has stabilized and quite a large number of positions for both physicians and nurses in the rural areas have remained unfilled. Consequently, recruitment issues dominate discussions about quality. Routine quality of care data are not collected, but outstanding issues relating to the availability of basic services in some primary care facilities (largely in rural areas) and their state of repair would indicate that the challenges to providing high-quality care are great (see section 4.1.1).

Box 5.2

Reforming primary health care in the Chuvash Republic

In the pilot reforms, emphasis was placed on the strengthening of primary care and increasing capacity at this level. New centres were built and existing facilities repaired, while investments in new equipment improved diagnostic capacity. The system of separate polyclinics for adults, women and children was gradually and partially replaced with general practice units to cover a defined geographical catchment area. In addition to curative services, the units focus on health promotion and disease prevention, with an emphasis on the GP acting as a gatekeeper for specialist services and as the focal point for ensuring continuity of care for patients. In 2008, GPs covered 65% of the population of the Chuvash Republic (World Bank 2011a). The emphasis on the gatekeeping role of GPs reduced referral to a specialist from 8.7% in 2003 to 2.3% in 2008 (see also Boxes 3.1 and 5.3).

A performance-based remuneration system for GPs was also introduced based on employment contracts between the administration of the health facility and individual GPs, which specified a basic salary rate with additional contracts covering performance-related aspects of remuneration. The basic salary was determined according to standard measures such as the GP's category on the Unified Tariff, qualification category, managerial responsibilities, years of continuous service and working in hazardous conditions. The supplement to the employment contract comprised 30 performance-related indicators, which covered process, output and impact, for example population coverage for priority services such as vaccination coverage and cervical cancer screening. All GPs in the Chuvash Republic now work under performance-based contracts and, on average, they achieve remuneration levels that are 25% higher than salaried physicians, thereby attracting doctors to retrain as GPs and retaining trained personnel in peri-urban and rural areas (see Section 2.7.3).

5.4 Secondary care (specialized ambulatory care/ inpatient care)

The network of secondary and tertiary facilities combines hospitals, hospital outpatient clinics and specialist outpatient centres based in polyclinics. The infrastructure inherited from the Soviet era remains largely intact in urban areas, despite some bed and facility closures, but in rural areas there has been a more substantial cut in the number of facilities and beds, with the closure of many small village hospitals (see section 4.1.1). Care is still organized on a territorial basis. The basic units that provide secondary and tertiary care are as follows:

Small rural hospitals (*uchastkovye bol'nitsy*)
These are small hospitals with average capacity of 30 beds offering fairly basic inpatient cover, often with a staff team of a surgeon, a primary care internist and a primary care paediatrician. Much of their work falls into the primary or social care categories, but some straightforward surgical procedures can be carried out and uncomplicated chronic and acute conditions may be treated. Most of the small rural hospitals have now been closed. Some of them were transformed into health centres, GP surgeries or nursing homes for long-term care (see section 4.1.1).

District (*raionnye*) hospitals
These hospitals serve the population of large rural municipalities. The average capacity of such hospitals is about 130 beds. These hospitals provide inpatient care by basic specialties – therapy, podiatry, surgery, obstetrics and gynaecology – and most also have outpatient departments that serve as a polyclinic for the local population.

Central district (*raionnye*) hospitals
These hospitals serve the population of rural municipalities at the administrative centre for the area. The average capacity of a central district hospital is 200 beds. They are intended to meet the secondary and inpatient care needs of 40 000 to 150 000 people and offer a full range of general medical and surgical specialties, such as podiatry, surgery, obstetrics and gynaecology, infectious diseases, and others. The majority of central district hospitals also have outpatient departments that serve as a polyclinic for the local population.

City hospitals
Urban municipalities have multi-profile city hospitals with a capacity of 150–800 beds for adults and about 100–300 beds for children. In addition, there are hospitals for emergency care and specialized hospitals for infectious diseases, TB, maternity, mental and psychoneurological conditions, disabilities and others. Most outpatient facilities, specialized clinics, and diagnostic centres are at this administrative level.

Regional hospitals

Each region has a general hospital for adults (500–1000 beds) and a general hospital for children (300–600 beds) that accept referrals of complex cases from district hospitals and polyclinics, as they are intended to provide services for the entire population of the region. All specialties and subspecialties are represented, and the qualifications of staff and the care offered are more sophisticated than at the municipal level. The regional hospital often serves as the teaching unit of the local medical school.

Regional specialized clinics (*dispanserii*)

Most specialized clinics are integrated facilities with outpatient and inpatient departments; about one-third have only outpatient departments. Specialist outpatient services are also provided at the regional level. These are distinct from the follow-up outpatient clinics provided by hospitals and provide care for a particular specialty such as psychoneurology, gynaecology, oncology, TB, or dermatovenerology. There are also specialized diagnostic centres at the regional level. They take referrals of more complex cases from lower down the system.

Federal hospitals and federal specialized clinics (*dispanserii*)

These offer the most complex care at large and highly specialized hospitals or clinics. These are often associated with research institutes in their respective fields and offer highly sophisticated secondary and tertiary services.

Hospitals and specialized clinics in parallel systems

Parallel systems under ministries other than the MoHSD tend to concentrate their secondary care services in an outpatient setting. Some ministries (e.g. presidential administration, Ministry of Defence, Ministry of Internal Affairs) provide a full range of secondary care and support their own hospitals. Often facilities in the parallel systems can be accessed through private payments or VHI schemes.

Fifteen new federal facilities for "high-technology" medical care were meant to be built across the country as part of the NPPH in 2007–2008. These included five centres for traumatology (Cheboksary, Krasnodar, Barnaul, Vladivostok and Smolensk), seven cardiology centres (Penza, Astrakhan, Krasnoyarsk, Khabarovsk, Kaliningrad, Perm, Chelyabinsk), two neurosurgery centres (Tyumen, Novosibirsk) and one scientific–clinical centre for paediatric haematology, cancer and immunology (in Moscow). By 2008, only the cardiology centre in Penza was operational; the other centres have faced problems attracting and adequately remunerating staff (Sheiman & Shishkin, 2009). Access to federal specialist facilities and the new high-technology centres built under the NPPH is on the basis of annual quotas given to each

region, which are then allocated among regional specialists. However, these allocations are not necessarily rational and may forward patients to a distant federal facility when the same procedure is available in a regional hospital. Also doctors often do not understand how applications for quotas are evaluated and may be reluctant to forward patients for fear that the selection process will be drawn-out or fruitless. Patients who receive the quotas may also turn them down if they are unable to afford the associated transportation and accommodation costs they must bear personally.

There is overprovision of secondary and tertiary care in the Russian Federation, particularly of inpatient facilities, and rationalization is a long-term aim (see section 4.1 and Box 5.3). The way in which health services are funded at the regional level has lead to the "atomization" of the health care system as regions seek as far as possible to provide the full range of services within their territories. This has resulted in inefficiencies and the duplication of facilities. Receiving care in a region other than the one in which a person is registered is difficult because of the disparity in financing of health systems across regions; some medical facilities are reluctant to accept people not registered in the region for fear that they will not be reimbursed by the Territorial MHI Fund.

Box 5.3

Reorganizing inpatient care in the Chuvash Republic

Medical facilities in the Chuvash Republic were reorganized, and in some cases merged, to reduce excess hospital capacity. Some hospitals were converted into long-term care facilities. As a result, the number of hospitals in the Chuvash Republic was reduced by about 43% and the number of 24-hour hospital beds reduced by 18%. Excluding beds for TB or psychiatric patients, the number of beds per capita in the Chuvash Republic fell to 84 per 10 000 in 2008 from 100.7 in 2003 (Marquez & Lebedeva, 2010); the total number of beds per 10 000 population fell from 113.6 in 2002 to 90.1 in 2008 and 2009 (Federal State Statistics Service, 2010c). Of the total number of hospital beds, the number of day-care beds increased from 9% in 2002 to 21% in 2007 (Marquez & Lebedeva, 2010). The result was a reduction in the average length of stay in hospitals from 13.2 days in 2002 to 12.1 days in 2008, although it should be noted that this is still long in international comparisons.

A total of 220 new disease protocols developed by the MoHSD were adapted in accordance with local conditions. This helped to improve the quality of care and optimization of referrals to hospitals. Between 2002 and 2008, the proportion of patients readmitted to hospital for the same condition after discharge was reduced by 26% (World Bank, 2011a). Allocative efficiency has also improved, with substantial increases in the resources channelled into primary care and outpatient services and a proportionate decline in funding allocated to hospital services through the reduced number of hospital beds and length of stay – the share of health spending going to primary care in the Chuvash Republic increased from 31% in 2002 to 46% in 2008 (Marquez & Lebedeva, 2010).

5.4.1 Day care

Day-care hospitals emerged at all levels of care during the 1990s. They are units attached to hospitals and polyclinics where an entire procedure is done in one day. More often day-care units are established in outpatient departments (60% of day-care beds are placed in outpatient facilities (TsNIIOIZ, 2010). The network of day-care units, its capacity and the volume of care provided has been constantly increasing. Since 2000, the number of day-care beds in hospitals increased by 26% and the number of patient-days in both types of day-care units (established in out- and inpatient facilities) increased by 55%. In 2008, average length of treatment provided in day-care units was 11.4 days, and the number of operations provided in these units was 5 per 100 discharged (TsNIIOIZ, 2010). Day care is mostly provided for patients with diseases of the circulatory system, the musculoskeletal system and respiratory system, and for obstetrics (TsNIIOIZ, 2010).

5.5 Emergency care

The designated functions of emergency care are as follows:

- providing timely and quality care around the clock (24/7) to those taken sick or injured outside a health facility for life-threatening conditions caused by sudden illness, exacerbation of chronic diseases, accidents, trauma and poisonings, pregnancy complications, labour and other conditions and ailments as well as catastrophes and natural disasters;
- timely transporting (as well as that done upon request of health workers) of patients including those with infectious diseases, casualties and women in labour who require emergency hospital care;
- providing care to patients and casualties seeking medical attention directly at the outpatient examination room of an ambulance station; and
- notifying the municipal health administration of all the emergencies and accidents within the catchment area of a given ambulance station.

The emergency care system is built on the territorial principle of serving the population of a given catchment area as well as providing timeliness and continuity of therapeutic interventions in both pre-hospital and hospital settings. Ambulance calls are received from residents who dial the unified all-Russian access phone number 03. The ambulance service is an extensive network of stations, substations, emergency care departments and municipal emergency

care hospitals. The major criterion for determining the site of an ambulance station is the feasibility for an ambulance team to get to any destination within the assigned area in under 15 minutes after the call was received. Settlements with a population of fewer than 50 000 people have hospital ambulance units that are generally linked to the local hospital and are managed by the head doctor of the district or rural settlement. In cites with a population over 50 000, ambulance stations are set up as independent medical facilities. In cities with a population over 100 000, depending on their size and the terrain, ambulance substations are set up as subdivisions of ambulance stations.

The main functional unit of any ambulance station is the ambulance team. Ambulance teams may provide the care of a physician, *feldsher*, as well as intensive or other specialist care (cardiology, paediatrics, toxicology, trauma, neurology, psychiatry, surgical intensive care). There are about 20 000 doctors and more than 70 000 midlevel health personnel working emergency care. From 1995 to 2009, the number of emergency care stations (departments) fell by 6%, and the capacity of emergency care hospitals fell by 24%, while the scope of care provided over the course of this period was unchanged (Federal State Statistics Service, 2010d; TsNIIOIZ, 2010).

However, the current system of emergency care is not efficient. Emergency care services perform some non-emergency functions in almost 60% of cases, duplicating the responsibilities of outpatient/polyclinic services for providing care at home and patient transport – only every fifth or sixth ambulance call ends in hospital admission. A significant number of ambulance call-outs to patients requiring urgent treatment at a scene are not done in a timely manner. Specialist ambulance teams are used extremely inefficiently: they either have downtime for most of their working hours or respond to calls outside their area of specialization. The rural population remains under-served in terms of emergency care. In 2007, the frequency of visits to urban residents was 2.5 higher than that to the rural population (404.9 and 161.6 per 1000, respectively) (Shliafer, 2009). The situation is aggravated by insufficient funding, which, in turn, limits the ability of local governments to adequately equip this service with ambulances and modern communication systems and to procure the necessary pharmaceuticals and medical devices.

Under the NPPH in 2006–2007, 13 200 new ambulances were purchased and additional payments were made to ambulance team members. According to the MoHSD, about 98 000 employees of the emergency services received some supplementary monetary bonuses in 2009. In 2010, the MoHSD approved the Order on Providing Emergency Care (No. 586, 2 August 2010), which

envisaged the optimization of the hospital stage of emergency care provision by establishing emergency care departments as hospital subdivisions, and making the ambulance station a part of the newly established hospital emergency department. Mobile teams from the emergency care department should provide care off-site; bring a patient to the hospital as needed for timely and ongoing care; and carry out necessary diagnostic, therapeutic and other activities prior to the patient's admission to an appropriate health facility. Thus, emergency care provision would start on the scene to which the team was dispatched, continue en route and in the hospital, where the following should be done immediately:

- therapeutic and diagnostic activities as required, including those carried out in the intensive care unit or operating theatre;
- administering shock treatment;
- making precise diagnoses;
- conducting the necessary diagnostic tests;
- monitoring the patient's condition over time; and
- stabilizing the patient prior to transfer to a specialist unit.

New inpatient emergency care units with ambulance stations reporting to them have already been established in four pilot regions (St Petersburg, Rostov *Oblast*, the Chuvash Republic and the Tatarstan Republic) following the MoHSD Collegium Meeting held on 25 March 2010, where the "Concept of Emergency Care Development" was approved. Before this reform was introduced, although five very specialist traumatology centres were built as part of the NPPH, emergency centres in general hospitals acted more as triage points to stabilize critical patients and refer them to other units for treatment. Where a doctor was in attendance in the ambulance team, a preliminary diagnosis could be made and this helped to inform to which hospital the patient should be taken. In rural areas, distance was the prime concern, but in urban areas there could be a choice between specialized providers as well as general hospitals.

5.6 Pharmaceutical care

According to the current legislation, pharmaceutical coverage is free for inpatients, and medicines for outpatient treatment are paid for in full out of pocket. Some groups who are eligible for benefits get prescription medications for outpatient care either free or with a discount. Which groups of citizens are

eligible for such benefits is determined by the federal authorities, although regional authorities can, in addition, provide benefits for other groups. The population categories entitled to free or discounted (50% off) medicines have remained the same since the mid-1990s, as per Government Order No. 890 (30 July 1994). The groups entitled to free or discounted medicines are veterans of the Civil War and the Second World War; Heroes of the Soviet Union; Heroes of the Russian Federation; parents and wives of deceased military servicemen; children in the first three years of life as well as children under 6 years of age from large families; disabled individuals; disabled children under 18 years of age; citizens affected by radiation in the Chernobyl disaster; retired individuals with the minimum pension; and others. Citizens also receive prescription medications for certain conditions free of charge: cerebral palsy, cystic fibrosis, AIDS, HIV infection, diabetes mellitus, cancers, leprosy, TB, bronchial asthma and others. However, as a rule, patients with the listed diseases only get free prescription medications for the treatment of these specific conditions and not for any comorbidity not on the list.

Free or subsidized pharmaceuticals are provided through the federally funded DLO, which has consisted of two subprogrammes since 1 January 2008 — the provision of necessary medicines (ONLS) and high-cost conditions (VZN). This separation was carried out on order to improve access to medicines for patients with high-cost illnesses (haemophilia, cystic fibrosis, pituitary dwarfism, Gaucher's disease, myeloleukaemia and multiple sclerosis) and for organ and/or tissue transplant recipients (see section 6.1). In the VZN/ONLS system, the patient does not have to pay anything out of pocket for the pharmaceuticals covered, the doctor writes a prescription and the special pharmacy supplying the drugs is then reimbursed through the regional or federal government.

The VZN covers pharmaceutical care provision to 80 000 people; the ONLS covers 4 million individuals. In 2008, 28 billion roubles were allocated from the federal budget for the ONLS and 33 billion roubles for the VZN; in 2009 it was 40 billion roubles and 37 billion roubles, respectively. In 2010, the cost of the ONLS was 43.3 billion roubles, and as the number of beneficiaries decreased by 13.5%, the financial quota per capita increased accordingly. In 2009, the financial quota per capita for the ONLS was 668 roubles per month; in 2010, it grew to 757 roubles per month. In 2011, it is planned to further increase the financial normative per beneficiary to 952 roubles. In 2010, the VZN cost 41.6 billion roubles. At the same time, the number of patients eligible to receive these expensive drugs increased from 52 800 to 77 100 individuals (see section 6.1).

Most patients, however, pay full costs out of pocket for pharmaceuticals prescribed in outpatient care. In theory, pharmaceuticals prescribed in hospitals are free of charge for patients, but shortages and patient concerns about the quality of pharmaceuticals provided in hospitals mean that many of these pharmaceuticals are also purchased at full cost price by patients. Some estimates are that 80% of inpatients still have to pay part of the costs of their medicines (Marquez & Bonch-Osmolovskiy, 2010), and approximately 70% of total pharmaceutical costs are paid for out of pocket by end users or their households (Sukhanova, 2008). As a consequence pharmaceutical costs account for a large proportion of out-of-pocket spending on health, and the costs can act as a barrier to seeking treatment (WHO Regional Office for Europe, 2009; Marquez & Bonch-Osmolovskiy, 2010). The price of essential drugs has increased rapidly as the rouble exchange rate has fallen since the global economic downturn began, and the cost of basic drugs is now a serious burden for poorer households (Marquez & Bonch-Osmolovskiy, 2010). Costs are compounded by the preference among doctors and pharmacists for more expensive innovative drugs, which are perceived to be safer and more effective (Pharmexpert, 2009).

The Russian pharmaceutical market consists of two major sectors: commercial and public. The pharmaceutical market's commercial sector comprises pharmacy's sales of both ready-to-use medicines and parapharmaceutical products purchased out of pocket rather than under the DLO. The public segment of the pharmaceutical market comprises pharmacy's sales of medicines under the DLO as well as purchasing medications for inpatient settings where patients are entitled to free medicines. The overall volume of the Russian pharmaceutical market at the end of 2010 was US$ 17.7 billion (at current consumer prices). Between 2007 and 2010, the pharmaceutical market growth rate was as high as 41%. In 2010, compared with the previous year, the pharmaceutical market grew in value terms by 13%, whereas its size expressed in natural indicators grew by only 9%, which is the highest rate since 2005. Since 2007, however, the public sector's share in the overall market size has been falling; the only segment of the pharmaceutical market which has seen a fall (in current prices) is purchases for inpatient care. The Russian pharmaceutical market is, therefore, dominated by private out-of-pocket expenditure; the share of state financing in per capita drug consumption in 2008 was 24.3%, which is low in international comparisons.

The structure of the commercial market in medicine sales is as follows: one fifth of the natural volume and almost the same proportion of cost volume were occupied by drugs of group A (alimentary tract and metabolism) in the WHO

Anatomical Therapeutic Chemical Classification. Almost the same share of the natural sale volume is for medicines for treating disorders of the nervous system (group N). The third and the fourth positions are held by medicines for treating diseases of the respiratory system (group R; 14%) and medications for treating skin problems (group D; 11%). In total, the sale volume of medications belonging to these four groups amounted to two-thirds (66%) of the natural volume. By source of origin, imported drugs prevailed in the commercial segment of the market. In 2009, the proportions of imported drugs and domestic ones was 75.6% and 24.4%, respectively, in value terms and 34.7% and 65.3%, respectively, in natural volume (DSM Group, 2010). The proportion of imported drugs in the commercial sector exceeds, stably and significantly, that of domestic drugs (Pharmexpert, 2010). In 2009, average cost of a domestic-origin package amounted to 21.5 roubles, which is 5.8 times less than that of imported medicines: in 2009, average cost of an imported package was 125 roubles.

In 2009, 53% of the commercial segment in value terms was represented by prescription drugs and 47% by over-the-counter drugs (Pharmexpert, 2010). The sale volume of prescription drugs in pharmacies in 2009 approached US$ 5.7 billion and 1.05 billion packs, whereas over-the-counter drugs accounted for US$ 6.0 billion and 2.9 billion packs.

The market structure for purchasing pharmaceuticals for inpatient care is very different from the commercial segment of proprietary medicines. Drugs purchased for health care facilities are mostly non-branded generics. Hospitals use a bidding system for purchasing pharmaceuticals but their funding remains within the limits of the committed pharmaceutical budget. Locally made drugs account for 30% of inpatient purchases in cost volume (their share increased in 2009; in 2008 it was about 22%). In terms of packages however, domestic drugs predominate, being as high as 67%. The profile (by the WHO Anatomical Therapeutic Chemical Classification) of pharmaceutical sales in hospitals is significantly different from the commercial market; the largest sale volume is for medications that are most easily administered in a hospital setting: antimicrobials for systemic use (group J; 25%), agents affecting blood and blood-forming organs (group B; 20%) and antineoplastic and immunomodulating agents (group L; 17%).

The high proportion of group J drugs first and foremost reflects use of systemic antibiotics (group J01), the share of which accounted for 67% of the cost volume and 95% of the natural volume. As of the end of 2009, volume of hospital purchases of this group's drugs had increased by 30%. In conjunction with the fact that inpatient treatment often involves various injections and

intravenous infusions of various drugs, among the top 20 medicines on the hospital market were basics such as sodium chloride (used as the basis for intravenous administration of many infusion solutions), as well as Pegintron (peginterferon alfa-2b; a costly drug for treating hepatitis C) and Taxoter (docetaxel; a drug for treating breast, ovarian and prostate cancer). In 2009, a quarter of all expenses incurred in relation to the DLO programme were for purchasing cancer drugs (over 19 billion roubles). The second most expensive group was drugs to treat blood and circulation problems (17.7%; over 13.5 billion roubles), which includes the cost of haemophilia drugs covered by the VZN. The third most expensive group was diabetes drugs, 12.2%. The proportion of imported drugs in both the ONLS and VZN in 2009 by package numbers was about 65%; their share in value terms was 94%.

At independence, the Russian Federation inherited a limited drug production capacity oriented towards less-expensive generic drugs, and the country relies heavily on imports to meet its pharmaceutical needs. As of January 2010, 460 enterprises manufactured medicines on the territory of the Russian Federation, although the number of licences issued for the production of drugs was over 730. Of these enterprises, 14% were state owned and the rest were private. Enterprises exist in all federal districts, but they are distributed rather unevenly. The majority (202 out of 460) are concentrated in the Central Federal District. The volume of manufactured products in 2009 was 95.6 billion roubles, which was 27.8% higher than in 2008. However, as of 2009, the balance between export and import of pharmaceutical products was US$ 338 million for export and US$ 8998.9 million for import.

In 2009, the products of 1144 pharmaceutical manufacturers were represented in Russian pharmacies (547 domestic and 597 imported). In the commercial sector, TOP-20 companies account for 48% commercial sales of medicines. Among drug manufacturers on the Russian market, Novartis is the leader, the assortment portfolio of which includes both medicines used for treating severe diseases (including those dispensed under the VZN) and drugs meant for treating common illnesses that are over-the-counter "bestsellers". The second position is held by the domestic company Pharmstandard, which produces a broad range of medicines of various therapeutic groups. The biggest selling trademarks are represented, mostly, by medicines distributed under the VZN, but the most popular trademarked drug in 2009 was Arbidol, an antiviral drug that is used in the Russian Federation primarily for the prevention and treatment of common colds and influenza. Because of popular concern caused by the swine influenza epidemic, sales of Arbidol in 2009 almost doubled compared with the previous year, and amounted to 1.43% of the overall volume

of the Russian pharmaceutical market. Another drug used for the treatment and prevention of influenza – a homeopathic remedy ocillococcinum – was the tenth most popular line, with 0.61% sales share.

Most of the domestically produced drugs are made from imported substances, which makes domestic pharmaceutical firms highly vulnerable to exchange rate fluctuations. In 2009, the Russian Government introduced measures to support the domestic pharmaceutical sector. To increase the share of government money spent on domestically produced drugs, the government introduced a system of 15% price preferences for domestic producers bidding to fill government drug orders (Ministry of Economic Development Decree 427 of 5 December 2008, in force 30 January 2009 to 31 December 2010); the government selected seven "fundamental" pharmaceutical companies that might receive subsidized credits or restructuring of tax debt to survive the economic crisis, and the Ministry of Industry and Trade can provide financing for producers upgrading facilities to GMP standards (see section 2.7.4).

The number of retail pharmacies and smaller pharmacy kiosks has been growing steadily since the early 1990s, and in 2010 there were 22 400 pharmacies and pharmaceutical kiosks. Internet pharmacies exist in the Russian Federation but primarily as extensions of physical pharmacies. The vast majority of pharmaceutical outlets are privately owned, and the only state-owned pharmacies are located in state-owned health facilities. There is no official *numerus clausus* for pharmacies and kiosks, but although there are many retail outlets, they are not evenly distributed across the country and physical access in rural areas is a challenge. To make medications for rural residents more accessible, employees of the FAPs have been permitted to sell medications in those rural settlements where there are no pharmacies under the Federal Law on Circulation of Pharmaceuticals (see section 6.1). Drug producers and importers use domestically based distributors to get their drugs to consumers. Five large national distributors control around three-quarters of the wholesale market, although there are over 1000 drug distributors operating across the Russian Federation. As with the pharmacies, most distributors and producers are private companies.

5.7 Rehabilitation/intermediate care

Curative and rehabilitative sanatoria remain an integral part of the health system, although they are often financed through social insurance rather than the MHI system. Social insurance is administered by the Social Insurance

Fund, which used to be under the Ministry of Labour but is now part of the broader MoHSD. Social insurance subsidizes the prophylactic treatment and rehabilitation of workers and their families in sanatoria, health resorts and children's summer camps, which can be owned by trade unions, local authorities or private enterprises. Vouchers for places are distributed to workers for them and/or their family members; the vouchers provide a variable discount depending on the individual's medical needs and social circumstances. There are 47 sanatoria and health resorts under the jurisdiction of the MoHSD, with a total bed capacity exceeding 11 000. In 2009, more than 112 000 individuals received sanatorium–resort care (including 60 344 (53.6%) whose treatment was funded with public money). For these facilities, according to the Order on Referring Patients Treated in Federal Hospitals under the MoHSD and the Russian Academy of Medical Sciences to Early Rehabilitation in Sanatoria (2009), the regions where sanatoria and health resorts are not available should consider making agreements for providing vouchers to refer adults and children for treatments to MoHSD sanatoria elsewhere.

This investment in rehabilitation is viewed as a way of trying to reduce the level of sickness benefits paid out of the Social Insurance Fund (Bihari-Axelsson & Axelsson, 2002). There has also been some collaboration with the MHI system to also use some sanatoria places for postoperative care and rehabilitation for patients with cardiovascular diseases. From 2010, the medical rehabilitation of citizens has been covered by the PGG and provides free health care to citizens (section II). For 2010, the funding of health services provided in sanatoria not participating in the MHI system comes from the local budgets. In 2010, the MoHSD aimed to allocate 9.2 billion roubles from the regional budgets and 300 million roubles from the MHI resources for funding sanatorium and health resort treatment under the PGG.

Sanatoria provide a range of treatments, which locally are not considered complementary or alternative, such as thermotherapy, hydrotherapy, electrotherapy, light therapy and climate therapy. In these therapies, the sanatoria typically make use of the natural resources in their environment such as mineral water, herbs and mud (Bihari-Axelsson & Axelsson, 2002). The voucher needed to access care in a sanatorium will include a medical prescription for care, and the patient will undergo a detailed medical investigation on arrival before they are given a recommended treatment programme, which generally lasts 10–24 days. Systematic evaluations of the quality or efficacy of rehabilitative or curative care provided in the sanatoria have not been conducted, but they are consistently popular with patients, who

will seek to acquire vouchers every year, and there is some evidence that they are effective in reducing the duration and frequency of temporary disability among workers (Bihari-Axelsson & Axelsson, 2002).

The main challenge to rehabilitative and intermediate care provided through the network of sanatoria and health resorts is its longer-term financial sustainability given the pressures on health funding. It is feared that these facilities will be privatized, which would limit access just to those who could pay. At present, the MoHSD is developing a unified system of standardization for the sanatorium and health resort business regardless of the ownership of such facilities. The decree on providing sanatorium and health resort (spa) care that is under development will address the standards of sanatorium-resort care in the "mother and child" type sanatoria as well as in those for adults and children.

5.8 Long-term care

Long-term inpatient care for the chronically ill and the elderly continues to be provided within the acute sector, although some long-term provision is offered through the geriatric beds of mainstream hospitals. Strategies for the care or support for people with mental or physical disability are inadequate, which results in the inappropriate use of medical facilities by people with special needs. The provision of long-term social and medical care is mainly the responsibility of social protection authorities, but there is a lack of coordination between health and social protection authorities.

Social protection facilities provide inpatient and outpatient long-term care and nursing. Since 2005, the network of social protection facilities providing medical and social care has been slowly increasing (Table 5.1). However, despite this upward trend, there are quite a lot of people in need of such services who cannot access long-term care: about 10% among adults and about 2% among children. Consequently, long-term care is often provided within the family. There are also some volunteer initiatives in this area. For example, the Charitable Service was established under the Russian Red Cross in 1960. In the Moscow branch, 195 nurses volunteer to provide medical and social care for lonely older people with serious chronic diseases and disabilities. They serve about 35 000 people per year (Russian Red Cross, 2011). There are many private companies offering paid nursing care, but they are all concentrated in big cities and they are expensive.

Table 5.1

Long-term medical and social care provided by social protection facilities, 2004–2009

	2004	2005	2006	2007	2008	2009
Inpatient medical and social services						
No. facilities for elderly people and disabled people	1308	1390	1507	1542	1530	1512
General facilities	708	804	928	1004	984	965
Psychoneurological homes	442	446	455	457	474	485
Rehabilitation centres for young disabled people	28	34	13	18	11	10
Nursing homes	103	78	79	29	29	23
Gerontological centres	27	28	32	34	32	29
No. living in these facilities (thousands)	230	235	239	241	245	244
General	88	91	95	96	95	96
Psychoneurological homes	128	129	129	131	137	136
Rehabilitation centres for young disabled people	4	4	4	3	3	2
Nursing homes	3	3	3	2	2	2
Gerontological centres	7	8	8	9	8	8
No. facilities for disabled children	152	153	157	151	146	148
No. places in facilities for disabled children (thousands)	32	31	30	29	29	28
No. on waiting list for admission to facilities (thousands)						
For adults	21.2	20.9	23.2	22.0	18.3	20.8
For children	0.7	0.9	0.7	0.8	0.8	0.5
Outpatient medical and social services						
Total No. centres of social services	2082	2238	2223	2266	2264	2219
Centres for temporary residence	710	716	603	576	572	523
Centres for day stay	1185	1154	1099	1099	1066	1026
No. places in centres						
Temporary residence	14 981	15 384	13 405	12 564	13 089	10 922
Day stay	32 084	31 141	29 844	28 300	26 806	25 529
No. people served per year						
Temporary residence	58 671	53 902	56 090	43 798	49 228	47 197
Day stay	861 410	881 255	655 634	681 615	615 138	651 788
No. home care departments	12 465	12 479	11 938	11 988	11 949	11 456
No. social workers in such departments	194 450	194 543	178 579	181 726	184 147	176 363
No. elderly or disabled people served at home	1 138 977	1 147 846	1 100 881	1 107 651	1 108 200	1 100 828
Percentage of registered who have the right to such assistance	90.1	90.6	90.6	93.2	93.7	96.0

Source: Federal State Statistics Service, 2010e.

5.9 Palliative care

Palliative care was not a feature of the Soviet health system, but the first hospice was opened in Leningrad (now St Petersburg) in October 1990. Since then, palliative care has been growing in the Russian Federation, but it is still a relatively small part of the system, and not all regions have hospices or other palliative care services. In 2005, there were an estimated 33 inpatient palliative care units, 74 hospices and 17 consultant teams in hospitals nationwide, as well as 22 organizing palliative care centres working to coordinate care at the regional level (EAPC, 2006). Palliative care is best developed in Moscow and St Petersburg, but, in total, palliative care is provided for only 7–9% of patients who need it (EAPC, 2006). Overall, palliative care services in the Russian Federation are insufficient: there is a shortage of staff with the relevant skills and knowledge of palliative care options; there are legislative barriers to providing a broad spectrum of analgesia to patients; and the evaluation of symptom severity and prevalence, the impact on quality of life and the adequacy of treatment, as well as studies of the barriers to effective palliative care and symptom management, are not well established (Novik, Ionova & Kaliadina, 2002). There is no network of children's hospices in the Russian Federation, and doctors in many regions have inadequate supplies of analgesics and other pharmaceuticals for palliative care (Anonymous, 2009a).

Palliative care services have evolved out of cancer treatment services, and there is strong collaboration between the statutory health system and the international hospice movement. Approximately 90% of palliative care services are state funded, but the funding is often inadequate and volunteers are not a significant feature (EAPC, 2006). Palliative care is not recognized as a separate medical specialty, but it is included in the curriculum of larger nursing colleges and its inclusion into the basic undergraduate training for doctors has been discussed. As palliative care has grown out of cancer care services, most hospices admit only cancer patients, although the needs of people living with HIV have also been discussed (Novik, Ionova & Kaliadina, 2002).

5.10 Mental health care

Mental health services are organized "vertically" in the same way as specialist services for other priority diseases such as diabetes, TB, HIV/AIDS, sexually transmitted diseases, cancer services and vaccine-preventable diseases. Nevertheless, mental health has traditionally been a low priority within the

Russian health system (Jenkins et al., 2007). Mental health care is funded from general budgetary revenues, with the federal level developing the legal and regulatory frameworks and policy guidelines that are then applied at the regional level. The regional and municipal health authorities administer the resource allocation and provider payment mechanisms, which are still based on historic expenditure patterns and input measures such as bed numbers, occupancy rates and staff numbers. The incentive is for providers to maintain very high bed numbers and occupancy rates, which is a barrier to any potential downsizing of institutional care in favour of community-based approaches.

The resources available to mental health services operating within the health system have been falling and capacity has been shrinking, particularly for the specialized clinics and outpatient facilities (Table 5.2). The number of psychiatric beds per 10 000 residents has decreased by 8%. The long-term care of mentally ill patients is generally through the use of acute psychiatric beds, although there are a limited number of chronic beds in care homes (*internaty*) designated for long-stay patients with lower levels of medical input and covered by the social protection system. Because the social protection system is adequately resourced, psychiatric hospitals also perform an important social function, providing shelter and sustenance for vulnerable individuals who might not be able to satisfy these basic needs elsewhere (McDaid et al., 2006). This means that people with learning disabilities and psychiatric patients who are not capable of living independently are cared for by the same services in the same setting – residential care homes. Unlike the health system, the provision of psychiatric care within the system of social protection has been growing. Between 2004 and 2009, the number of neuropsychiatric residential care homes has increased by 10%, the number of their inpatients by 6% (Table 5.3).

Neuropsychiatric residential care homes differ greatly from the psychiatric wards and hospitals in the health system, in their main goals and objectives and the profile of their patient population as well as in the overall organization of their work and the life of patients. People incapable of living in the family or independently in the community because of their mental illness or disabilities are referred to these institutions. The inpatients do not receive treatment for their condition; they are sent to the institution to live there and as such there is virtually no notion of discharge for these patients. In fact, people are admitted to neuropsychiatric institutions to stay there forever, often from childhood. Residential care homes, therefore, combine some elements of an inpatient setting, a dormitory setting, as well as involving patients in some work activities.

Table 5.2

Mental health services provided under the health system, resources and utilization, 2000–2008 (selected years)

	2000	2004	2005	2006	2007	2008
Total No. facilities	438	445	443	423	403	402
Hospitals	274	275	270	269	257	257
Specialized clinics	164	170	173	154	146	145
No. physician surgeries	3451	3371	3102	–	3062	3016
No. beds	172 394	163 384	161 748	159 996	159 103	155 384
Psychiatric for adult	159 346	150 987	149 372	147 579	146 914	144 181
Psychiatric for children	10 187	9 966	9 948	9 933	9743	9390
Psychosomatic	2861	2431	2425	2484	2446	2263
No. beds per 10 000 population	12	11.5	11.4	11.2	11.2	11
Occupancy rate (days)	330	334	333	316	331	331
Average length of stay (days)	63.5	64.5	64.9	62.4	65.8	66.1

Source: TsNIIOIZ, 2010.

Table 5.3

Network of social protection facilities providing mental health services for adults, 2004–2009

	2004	2005	2006	2007	2008	2009
No. psychoneurological houses	442	446	455	457	474	485
No. adults living in psychoneurological houses (thousands)	128	129	129	131	137	136

Source: Federal State Statistics Service, 2010e.

The 2001 Sectoral Programme for Mental Health aimed to reorganize mental health services in the Russian Federation by emphasizing the treatment of patients in the community and outpatient settings rather than relying on the traditionally long inpatient stays. The main barriers to the rationalization of a hospital-based mental health system are financing mechanisms based on inputs, which provide perverse incentives; the use of historic patterns and norms in determining funding levels rather than any measures of psychiatric need or cost–effectiveness; regulations relating to the management of mental health cases stipulating periods of hospitalization; administrative and financial regulation making the shifting of funds between social and health spending very difficult; a large number of staff posts in psychiatric hospitals, but many staff occupying more than one post in order to receive adequate remuneration, which complicates redeployment to community care settings; and most practitioners

lacking the knowledge and skills required to deliver the range of effective medical and psychosocial treatments necessary for community-based care, despite its proven benefits (McDaid et al., 2006; Jenkins et al., 2007).

5.11 Dental care

There are no national strategies for dental care, and, in general, dental care services are afforded a relatively low priority within the MoHSD. Most dental care is provided through private practices and services are paid for out of pocket in full. Dental services, apart from care for children, veterans and other special groups, are specifically excluded from the state benefit package of care (see section 3.3.1). Prices for those who are not eligible for free treatment are not capped or regulated. Dental services are provided in the public sector through dental polyclinics, dental departments and surgeries in outpatient facilities. Sometimes in rural areas this could mean travelling considerable distances in order to access dental care. Since 2000, the dental facility network and volume of care provided in the state and municipal facilities has decreased (Table 5.4). The number of dental departments and surgeries within the outpatient facilities has almost halved. Coverage of the whole population with preventive examinations has decreased by 17% on average, but coverage increased by 14% for children and decreased by 30% for adults.

Table 5.4
Dental care services provided in state and municipal medical facilities, 2000–2008

	2000	2004	2005	2006	2007	2008
No. independent dental polyclinics	927	899	887	853	833	817
No. medical facilities with dental department/office	10024	9320	9235	7024	5606	5340
No. patients examined for preventive purposes (thousands)	23 234.2	21 224.6	19 908.2	19 435.9	18 929.2	18 918.4
Population coverage with preventive examinations (%)	16.1	14.9	14.0	13.6	13.3	13.3
Adults	8.9	6.9	6.3	6.2	3.8	6.1
Children	39.5	45.9	44.5	44.2	62.2	44.9
No. receiving dentures (thousands)	2599.8	2509.4	2951.6	2121.1	2009.1	–
Including free-of charge denture (thousands)	–	1244.9	735.7	659.4	641.4	–

Source: TsNIIOIZ, 2010.

6. Principal health reforms

6.1 Analysis of recent reforms

This chapter focuses on the reforms and initiatives that have taken place since the last HiT was written. For more details on previous reforms such as the introduction of MHI, please refer to section 2.2 and the previous edition (Tragakes & Lessof, 2003).

Federal Programme for Supplementary Medicines Provision: the DLO

Before 2005, the outpatient pharmaceutical coverage of beneficiary population groups (e.g. war veterans, disabled children) was funded from the regional budgets. The administrative reform launched in 2005 implied redistributing responsibilities among various administrative levels, with the relevant redistribution of financial resources. At the same time, major reforms to the social welfare system were introduced with the Monetization of Benefits Law. These reforms introduced a "set of social services" for beneficiary population groups that included, among other benefits such as free public transport and sanatorium treatments, free outpatient prescription medications. Financing this set of social services became the responsibility of the federal budget. The programme set up in 2005 to provide free of charge medication to those vulnerable groups as defined by the Monetization of Benefits Law was the DLO. The curtailing of these more universal benefits and the introduction of more targeted monetary benefits sparked popular protests. Such fierce opposition was not widely anticipated but the result was for many social policy initiatives to be shelved in the name of political and social stability. The reform paradigm shifted from fundamental changes to increasing state funding for the health sector, with organizational reform in second place.

In 2006, approximately 14.5 million people (or 10% of the population) were eligible for the DLO, but 46% of them opted to receive cash benefits instead (Sukhanova, 2008). Citizens were able to voluntarily withdraw from the programme and receive monthly "monetized" benefits for the set of social

services up to a monthly amount fixed annually by federal law as part of the annual federal budgeting cycle. Consequently, from 2006, citizens started withdrawing from the DLO programme, and the number of participants has been falling by 13–15% every year. At present, there are about 4 million people remaining in the DLO programme (see section 5.6).

Initially, the DLO system was triggered when a doctor wrote a prescription for an eligible person. The prescription was filled at a special pharmacy, which was later – sometimes much later – reimbursed by the regional government. There were few controls on the number or types of prescription written, and one of the first effects of the DLO was to significantly increase the volume of expensive drugs used in the Russian Federation. In 2006, the failure to control prescription writing, coupled with budgeting by the number of beneficiaries rather than by disease category or need, contributed to massive overspending of the DLO budget – by 37 billion roubles. When the budget limit was reached before mid-2006, the state stopped reimbursing distributors for drugs delivered to pharmacies, many distributors halted drug deliveries, the pharmacies could not supply drugs for designated patients and a political scandal ensued. The government responded by dedicating more money to the DLO and by cajoling producers and distributors into accepting extended payment terms. Some firms cancelled the government debt, the balance of which was paid off only in December 2007 (Sukhanova, 2008).

The DLO scandal forced the government to address cost controls. Prescribing practices came under greater scrutiny and doctors were encouraged to rely more on generics, domestically produced drugs and less-expensive treatments. The MoHSD also recognized that it must optimize pharmaceutical purchases to meet needs. Domestic pharmaceutical producers are pressing the government to enforce rules that prohibit specifying drug brands or producers in DLO tenders.

In 2008, the DLO system was restructured. The DLO programme was divided into two subprogrammes: the responsibility for funding the most commonly used drugs was broadly delegated to the regions (although procurement took place at the federal level) and drugs purchased to treat the seven "costliest" conditions (the VZN programme; see section 3.3.1) were now to be covered by the federal government separately (see section 5.6). In the "Concept for the Development of Healthcare to 2020" written in 2008 (see below), the MoHSD refers to the following as the major drawbacks of the current DLO system:

- the system cannot efficiently plan and monitor costs – the DLO per capita quota is not based on a needs assessment but instead is shaped by the set monthly cash payment;

- the DLO does not guarantee uninterrupted supply to the groups covered;
- the restrictive list of conditions covered under the DLO is not based on an analysis of clinical or cost–effectiveness; and
- participants are not motivated to engage in the efficient spending of budgetary resources.

The NPPH

In 2005, President Putin announced four national priority projects, targeting housing, agriculture, education and health. The NPPH was launched in 2006 with the key aim to improve population health by improving material, technological and human resources provision in the health sector. Initially, the NPPH was planned for two years and included three main priorities: improving primary care and disease prevention, improving the accessibility of tertiary care and improving maternal and child health services. In 2008, these priorities were expanded to cover measures aimed at reducing mortality from cardiovascular diseases and road traffic accidents. In 2009, additional components were included: measures aimed to reduce cancer mortality and TB morbidity. These priorities were added in order to tackle the burden of preventable mortality in the Russian Federation, which has been shown to be very high (Andreev et al., 2003; World Bank, 2005). In 2010, a further subprogramme was included to cover blood banking, and the NPPH has been extended to 2013 with the inclusion of additional measures under the same priorities, such as, among others, care for low weight newborns, increasing accessibility for infertility treatment, the development of neonatal surgery and the establishment of a palliative care system for children. Consequently, spending under the NPPH has almost doubled since its initiation (Table 6.1). In 2006, expenses under the NPPH accounted for 10% of the total government health expenditures, and in 2009 this rose to 14%.

Table 6.1

Expenditure on the NPPH, 2006–2010

	2006	2007	2008	2009	2010
Total (billion roubles)	87.9	117.1	131.8	148.3	160.2

The choice of priorities is very much linked to the main challenges facing the Russian health system: the poor performance of primary care, lack of primary care personnel and the poor accessibility of tertiary care. Priorities also reflect the current epidemiological situation in the country – the high levels of mortality from noncommunicable diseases and accidents and continuing burden of communicable diseases, particularly TB – but also concerns about demographic trends and the ageing of the population. However, in the course of implementation the earlier focus on developing primary care and disease prevention as the more effective means of improving the health status of the population was replaced by a greater emphasis on technological solutions, and the proportion of funding going to each of these priorities shifted from 80% of funds going to primary care and disease prevention with 20% going to high-technology services to a more even 55:45 split (Sheiman & Shishkin, 2009). This shift also reflects the influence and priorities of clinical elites in the design and development of the NPPH. Overall, the NPPH was developed with little regard for possible allocative or technical efficiency gains that could be made.

By virtue of additional payments to primary care and emergency care workers at the early stages of the NPPH's implementation, extra doctors and nurses were attracted to work in these sectors and combining jobs was significantly reduced. However, this influx has dramatically tailed off and there has not yet been any analysis of the qualitative changes of job mix in these sectors; that is, the issue of who came to primary care and with what kind of qualifications has not been scrutinized. Reequipping primary care with new medical devices has also not always been efficient because there were no expense lines for equipment maintenance and purchasing supplies in the budgets of health facilities. According to Roszdravnadzor data, more than 3200 pieces of equipment were not in use (6% of the equipment purchased during 2006–2007) by the end of 2007 because of a lack of necessary spare parts and consumables (Sheiman & Shishkin, 2009).

The building of new high-technology medical centres under the NPPH has been criticized by some in the medical community as the decision to construct new centres was made without assessing the workload of and funds available for existing specialist federal centres. It also did not fully consider the need for highly qualified staff to work in these centres. Once the centres were built, many were faced with the considerable challenge of attracting highly qualified staff. In 2011, in order to improve availability of professionals in these new centres, the NPPH provided special funding for training health personnel in these high-technology medical centres.

The key approach in promoting healthy lifestyles has been to establish new facilities – preventive health centres – linked to regional and municipal primary care facilities and purchasing equipment for them. The goal in setting up such centres has been to introduce new methods to influence individuals and groups in order to raise awareness and improve health knowledge, as well as promoting healthy lifestyles. According to MoHSD data, 502 preventive health centres for adults and 193 preventive health centres for children were set up in 2010. Attendance at the newly established centres has been rather low. According to patient examination results, one-third of those seeking assistance in these centres were referred to polyclinic specialists and about 10% were referred to inpatient settings (Golikova, 2010). Perhaps, the poor utilization may be explained by a lack of awareness among residents, which is natural for the initial period of carrying out any new activity. However, these low indicators for resource use and productivity indirectly confirm the necessity of conducting a health technology assessment of proposed measures prior to making decisions regarding the inclusion of any activity in the NPPH.

In 2007, the preliminary results of the first year of NPPH implementation were reported by the First Deputy of Prime Minister Medvedev to the State Duma on 24 January 2007. The following main results of the NPPH were highlighted:

- the number of primary care physicians and nurses increased noticeably;
- an increased salary was paid to 680 000 medical personnel (primary care physicians, nurses, *feldshers*, medical personnel working in emergency services);
- 13 500 primary care physicians took up-grading qualification courses;
- more than 5500 medical outpatient and emergency services facilities were re-equipped with diagnostic equipment and vehicles;
- waiting times for diagnostic procedures decreased on average from ten to seven days; and
- ambulance response times shortened from 35 to 25 minutes.

The implementation of the NPPH may be regarded as the main step towards improving the logistical and human resources capacity of the health system that has been taken in recent years. Based on this, systemic reforms of the organization, management and funding of the sector might be possible. The NPPH has also been credited with having facilitated improvements in population

health, but disentangling the impact of a programme or policy from the impact of the wider improvements in living conditions that occurred over the same period is notoriously difficult (see section 7.4).

Pilot regional projects for health system reforms

In 2007–2008, pilot health system reform projects were introduced in 19 regions as part of the NPPH (Astrakhan, Belgorod, Vladimir, Vologda, Kaliningrad, Kaluga, Leningrad, Rostov, Tyumen, Samara, Sverdlovsk, Tver and Tomsk *Oblasts*; Krasnodar, Perm and Khabarovsk *Krais*, the Chuvash and Tartarstan republics and the Khanty-Mansiysk Autonomous *Okrug*). In 2007, the Russian Government adopted a decree on conducting the pilot project in the country's selected regions (No. 296, 19 May 2007). This decree determined the direction of changes under the pilot regional projects by laying down the rules for covering costs relating to its implementation and listing the participating regions. Details of this experiment were specified in the MoHSD Decree on Implementing in 2007 the Activities on Hospital Care's Modernization in the State and Municipal Health care Institutions, in which the major objectives in modernizing the funding system and the expected outcomes for each objective were defined.

The goals of these regional pilot projects were to identify plausible options for transforming the system of health financing, to conduct a comparative analysis of the financing reforms chosen by the regions and to identify best practices that might be useful for countrywide replication. Funding for the pilot projects was carried out on a parity basis. The local authorities in the participating regions signed contracts with the MoHSD and MHI Fund that identified the planned indicators, the expected outcomes and coverage of health facilities by individual events, but also defined the financial volumes allocated by the federal and regional budgets. The pilot projects were implemented within an extremely compressed time frame – in just one year, from June 2007 to July 2008. The short duration of the projects imposed some limitations on evaluating their performance. It permitted the assessment of regions' preferences in selecting areas for reform and the specific mechanisms for their implementation rather than a realistic identification of the consequences of introducing new methods and principles of financing.

The following reforms of the health financing system were piloted:

- transition of health facilities to predominantly single-channel financing through the MHI system;

- reimbursement of hospital care in accordance with financial expense quotas calculated on the basis of medico-economic standards and a quality assessment of services rendered;
- introduction of a fund-holding system for the reimbursement of outpatient facilities;
- establishment of a performance-related pay system for health workers; and
- improved tracking system for the amount and quality of care provided based on individual patient records.

On completion, the Federal MHI Fund developed an analytical memorandum containing a general evaluation of the whole project's implementation, based on the established indicators (Federal MHI Fund, 2009).

The transition to single-channel financing was piloted in 12 regions and the agreed target for the percentage of MHI resources in the consolidated regional budget that was to be diverted to health care was almost met. In all regions involved in the implementation of this change, there was a growth in the share of state health financing going through the MHI system between 2006 and 2008. Two factors served as a basis for increasing the resources allocated to the MHI system: expanding the MHI programme and increasing the tariff of the services rendered under the MHI by including additional expense budget lines.

In four out of twelve regions the MHI programme was expanded by including types of medical service, such as emergency care and care for socially significant diseases, that were previously funded from the budget. In the majority of regions, the tariff for services was increased. Federal regulations provide for the inclusion in the MHI tariff of only four types of cost: wages with charges, the purchase of medications, hospital supplies and patient meal expenses. In the pilot regions, tariffs have been developed to cover the extra expense budget lines. While doing this, two ways of increasing the tariffs were used. The first option envisaged the inclusion in tariffs (in addition to the four expense types mentioned above) of expenses such as communication, transport, asset maintenance services and others. The second option included more expense types by adding overhead expenses, capital renovation expenditure and expenses related to purchasing inexpensive medical equipment. The most popular was the first option – utilized in six pilot regions, whereas the second option was used in just two regions.

Diverting resources to the MHI system was achieved by increasing the regional budgets' contributions to the MHI to cover the non-working population. In seven pilot regions, the source of the increase in contributions was the regional budget, which is completely consistent with the legislation. In five regions, this problem was resolved through the transfer of municipal resources to the regional budget for subsequent redirecting to the MHI system. This mechanism was implemented based on agreements between the regional and municipal authorities. The second mechanism turned out to be less effective because of the complexity of identifying adequate methods of calculating transfers from each municipality.

The reimbursement of hospital care was calculated in accordance with financial expense quotas based on medico-economical standards. This project component was actualized in 13 regions. The aim was to transition to paying for medical care in accordance with the requirements of clinical standards. It was also thought that standards would allow the justified costs of the PGG to be calculated, and unified medical technologies as well as uniform tariffs to be introduced. Clinical standards, which are advisory not mandatory, are a list of medical services and drugs available for treating a specific disease. They were developed at the federal level whereas the calculation of service costs was carried out by regions based on their financial capacity and the technologies used locally. By mid-2008, about 500 standards had been approved at the federal level and another 120 standards were under negotiation.

In accordance with the MoHSD administrative order regulating the conduct of this experiment, the reimbursement of hospital care was to be carried out on rosters of individual accounts for each treated patient. The administrative order also suggested taking into account quality and efficiency indicators for the care provided in the process of its reimbursement. It was proposed that adjustment coefficients should be included in tariffs that would consider the qualitative outcome using a series of coefficients: 1 for recovery, 0.8 for improved health conditions, 0.75 for no change and 0.7 for death. According to estimates of the Federal MHI Fund, the vast majority of hospitals participating in this experiment (91%) applied the standards. However, the number of standards used at the regional level varied greatly – from 6 to 297. Huge regional variations in the cost of the completed "case" for the same disease were also noted. For example, the cost of treating pneumonia in regions with similar regional cost coefficients ranged from 10 000 to 28 000 roubles. Perhaps, such significant variations in the cost of treating the same disease are associated with using different approaches to

developing tariffs in various regions. The actual treatment cost calculated in the regions is often significantly less than the estimated cost established in the federal standards. None of the pilot regions took into account the hospital care efficiency indicators suggested by the MoHSD.

Fund holding and creating the system of intra and interinstitutional account setting. Eleven regions took part in implementing this component; the goal was to strengthen the role of primary care. In agreement with the Federal MHI Fund, partial fund holding was fairly widespread among the outpatient facilities in pilot regions. Partial fund holding was introduced in 464 primary care units of the health facilities, both inpatient and outpatient settings, and in 63 independent primary care facilities. Intrainstitutional account setting was much less widespread. Setting accounts among subdivisions was done in only 93 primary facilities.

Reforming health workers' payroll. Fourteen regions took part in implementing this component. The aim was to study the feasibility of replacing the single wage scale with new methods of paying wages to personnel reflecting the scope and quality of services rendered by each worker. Nine regions independently developed branch systems of payrolls for health workers. In four regions, the uniform tariff rate was complemented by incentive bonuses for health workers, the amount of which was to be determined by an independently developed set of performance criteria.

Over the course of implementing the pilot, the proportion of health facilities in a region to switch to the New Payroll System (NPS) should have reached 43%. However, this estimate was significantly exceeded and 63% (599 facilities) in pilot regions switched to the NPS in 2008. Such a quick transition by the majority of health facilities to the new system was explained by the allocation of some extra funds for workers' compensation as part of the pilot project programme. Such a broad use of the NPS in pilot regions is in sharp contrast with the low prevalence of the NPS countrywide (see below). According to the federal Central Research Institute for Health Care Organization and Information Support, 1718 medical facilities across the country switched to the NPS in 2008, of which just under half switched to this system while participating in a regional pilot project. This significant difference may be explained by the fact that non-pilot regions lack the financial resources needed to introduce new methods of paying health care workers.

The regional pilot projects were successful in encouraging regions to promote and test innovative solutions to ingrained problems in health financing. They also demonstrated that regions are capable of developing and implementing institutional reforms in these target areas, but the depth and pace of the reforms varied between participating regions and were determined by the strength of political will in regional authorities to reform the health system (World Bank, 2011a). Overall, shortcomings included the lack of methodological guidance from the federal centre to support innovation at the regional level, a very short time frame for implementation and the lack of consideration of regional characteristics such as initial starting conditions and previous experience with health financing reform.

The scope and depth of health reform has varied widely across the Russian Federation depending on the commitment of regional and local authorities (Shishkin, 2006; World Bank, 2011a), but there is much evidence that it is possible to effectively restructure regional health systems. A critical lesson is that successful reforms require holistic and well-sequenced approaches, based on detailed master plans for investment in institutional and human resources development. Partial reforms produce imbalances (World Bank, 2011a).

The NPS

In 2008, the transition of budgetary facilities to the NPS was officially launched in the Russian Federation. The idea behind this reform was to reject a unified salary scale and introduce a more flexible payroll system that would provide the opportunity to link, to a greater extent, wages with the work performance of an employee, thus allowing differentiation of salaries within certain qualification categories. NPS provides institution managers with the opportunity to reduce the excessive number of their staff and redistribute the released funds to benefit the remaining workers. It was anticipated that the payroll of budgetary institutions would increase by 30%, and the institutions switching to NPS were recommended to pay at least 30% of salaries as incentive bonuses that would not be guaranteed but instead would depend on a worker's performance.

In practice, the transition of health care facilities to the NPS has not gone that smoothly for a number of reasons. As a result of the global financial crisis, not all regions were able to allocate the necessary additional funds from their budgets. Consequently, just 20% of federal, 12% of regional and 20% of municipal health facilities switched to the NPS in 2008. Moreover, the methodological background for switching to NPS had not been sufficiently

developed, and the criteria and procedures for evaluating the performance of health workers had not been defined. As a result, this transition in many institutions was purely formal.

National Health Concept to the year 2020

In the run-up to the presidential elections in 2008, there was an increase in health policy development activities at the federal level. A committee was set up in the MoHSD in February 2008 to develop a new National Health Concept to the year 2020, and a dedicated web site was set up to encourage public participation in shaping the health priorities and policy directions in the Concept. The Concept synthesized the position of different expert and clinical groups and public opinion in a participatory way over the course of a year. The Concept included a detailed analysis of the health situation in the country, health targets to be achieved by 2020 and objectives and concrete measures to improve health system performance (Ministry of Health and Social Development, 2008). The Concept is a highly ambitious document and the targets for improving health indicators are similarly optimistic, particularly in view of the recent global economic downturn. For example, health outcomes from implementation of the Concept include increasing the Russian population to 145 million by 2020 (from an estimated 142 million in 2007), increasing average life expectancy to 75 years by 2020 (from 67.5 years in 2007) and reducing the mortality rate to 10 deaths per 1000 population by 2020 (from 14.6 deaths in 2007). If achieved, such rapid and dramatic improvements would be unprecedented in European experience (Sheiman & Shishkin, 2009).

Major areas of development were health promotion and guaranteeing the provision of high-quality medical care to the population.

Health promotion

In the field of health promotion, the aim is to drastically reduce risk factors for noncommunicable disease: improving health education, installing an efficient system of measures to combat harmful behaviours, providing healthy food, developing mass physical activity, mitigating the risks associated with adverse environmental factors, enhancing the motivation of secondary educational establishments to shape healthy lifestyles among students, encouraging citizens to lead healthy lifestyles and getting employers to participate in the protection of their workers' health. These measures will be introduced in two stages. The first stage (2009–2015) will see the development of a health assessment system, the definition of basic indicators such as public health potential and a health promotion index, development of pilot methods and production of

standards for various risk groups at different stages of introducing particular medical prevention technologies. The second stage (2016–2020) will include the specification of government guarantees for the provision of free medical care, improved organization of medical care, a better system of drug provision for outpatient treatment, better human resources policy, a modernized system of health financing, innovative development of health care and a greater use of IT in the health system.

Government guarantees of standards

The Concept suggests using unified national standards of care provision as the basis to specify government guarantees. It is expected that the standards will enable the calculation of the real cost of medical services in each region, determine the implementation costs of federal and regional free medical care programmes, define the required drug provision for these programmes (the lists of vital and the most important drugs), justify per capita financing rates and choose the best options for health network restructuring. The development and introduction of care provision techniques are also planned, which will help to optimize the sequence of stages, provide proper algorithms for the interaction between health and social security facilities and ensure consistency in patient management at all stages. The standards and techniques under approval will lay the basis for the quality management of the medical care. Within this area of development, the first stage (2009–2010) was to pass laws on government guarantees and MHI; to set up a system of monitoring for the implementation of the government guarantees programme; to elaborate rules, standards and performance indicators for socially important diseases and conditions; and to carry out the pilot introduction of registers for patients with cardiovascular diseases and cancers. Most of these measures for the first stage have been completed, except for the law on government guarantees.

Improved organization of medical care

Improved organization of medical care covers a number of policies focused on developing primary care, improving emergency care, refining inpatient treatment, developing a home-based nursing care and rehabilitation service, developing and introducing a quality management system based on medical care rules and standards, standardizing the equipment of medical facilities in compliance with standards and rules of care provision, empowering health care facilities and raising their liability for performance results.

Within this area of development, it was planned that in 2009–2010 a system of prompt accounting for medical care, medical facilities and medical personnel would be set up; planning in the health network and health care resources would be improved; the NPPH activities on prevention and the development of primary care would be implemented; the accessibility of tertiary care would be improved; the accessibility and quality of medical care for cardiovascular diseases, cancer and road accident victims would be gradually raised; and the blood service improved. Much has been achieved at this stage. Unified methodological approaches to compiling plans for the modernization of regional health systems were elaborated and the regions submitted relevant plans to the MoHSD in late 2010. A law was passed in late 2010 providing for more types of ownership among medical facilities (see below).

Drug supply

A better system of drug supply for outpatient treatment entails the introduction of a programme of general compulsory drug insurance aimed at reaching a balance between effectiveness and cost of treatment along with the rational use of resources. The drug insurance programme will rely on the following principles: total coverage and mandatory incorporation into the MHI programme and joint participation of citizens through their co-financing of supplied drugs. This is viewed as a long-term objective.

Human resources

Better human resources policy encompasses the following measures: bringing the number and structure of medical personnel in line with the required assistance volumes; redistributing functions between various professional groups (physicians and nurses); raising the quality of medical and pharmaceutical training; enhancing continuous medical and pharmaceutical education; training professionals in health management and economics; improving regulations for professional medical and pharmaceutical activities; and strengthening the role of professional associations in education and innovation.

During the 2009–2010 phase, the development and introduction of a unified register of medical workers was planned as well as regional health personnel profiles; the elaboration of training standards for health managers of all levels; federal educational standards for higher and secondary professional training, as well as federal requirements for postgraduate medical education; the production of a methodological basis for continuous medical education and the launch of pilot projects; the development of requirements and procedures for accessing clinical procedures; the optimization of personnel policy implementation

through the employment of mainly freelance professionals, research experts and consultants, professional medical associations and societies; and draft regulatory documents related to the establishment and development of professional associations. The results that have been so far achieved in this area are more limited than in others.

Financing

A modernized system of health financing presupposed a transition to predominantly one-channel financing through the MHI system; raising employers' insurance contributions; a single procedure for calculating MHI contributions for non-working citizens; a shift from subsidies to cover MHI regional programme deficits to equalization on the basis of a minimum per capita rate; the introduction of a full tariff for services provided; and introduction of new progressive payment methods for medical care. It was planned that in 2009–2010 requirements for medical insurance companies would be defined; economic mechanisms for encouraging the performance of medical insurance companies would be created; and mechanisms for the equalization of regions would be elaborated. All the planned measures were implemented and the Law on Mandatory Health Insurance was passed in late 2010 (see below).

Research and development

Innovative health care development entailed creating conditions for fundamental and applied biochemical research; improving the planning of scientific research by identifying priorities and concentrating resources on key research areas; shaping a government assignment for the development of cutting-edge medical technologies and new programmes of fundamental research based on interagency cooperation between research teams; putting research findings into practice while using public–private partnerships; and supporting small and medium-sized enterprises in medical sciences. It was planned that in 2009–2010 the key areas of scientific research would be determined, a government assignment for relevant research institutions would be shaped, mechanisms for monitoring scientific research and innovative development analysis would be identified and methods for encouraging and supporting the development and introduction of innovations into the health system would be elaborated. Nearly all activities planned for this phase were fulfilled except for the last.

IT

Use of IT in health care entailed setting up a government information system for personal medical records to help to keep a prompt account of medical care, health facilities and medical personnel as well as laying down a reliable basis for solving key managerial issues for the health sector. The first stage (2009–2015) envisaged implementing a system-wide project by approval, drafting technical documents and setting pilot zones to test standard automated facilities.

Steps on restructuring the health system that have been taken since 2009 are in full conformity with the Concept's major provisions, for example the laws passed in 2010 on MHI and on expanding forms of organization for social facilities, the procedures for medical assistance provision elaborated by the MoHSD, and the Concept for IT in health care. However, although the Concept was approved in principle in 2009, as of 2011 it had still not been actually ratified at the government or ministerial level.

Changes to the legislative framework for MHI

The Federal Law on Insurance Contributions to the Pension Fund of the Russian Federation, Social Insurance Fund of the Russian Federation, Federal Mandatory Health Insurance Fund and Territorial Mandatory Health Insurance Funds (No. 212, 24 July 2009) provides for a significant increase in employers' contribution to the MHI for working citizens and the gradual centralization of contributions on the federal level (Table 6.2). During the transition period (2011–2014), there will be lower tariffs for particular categories of payers, for example agricultural producers, handcraft manufacturers and families.

Table 6.2

MHI contribution rates (% of the payroll fund under the general taxation scheme), 2009–2012

	2009–2010	2011	2012
Federal MHI Fund	1.1	3.1	5.1
Territorial MHI Funds	2.0	2.0	0

The Government has estimated that the MHI system will get 460 billion roubles from the increased MHI contributions from working citizens for the period of 2011–2012 (Putin, 2010), and has decided that the extra resources should be disbursed as follows:

- 300 billion roubles will be channelled into the consolidation of medical facilities' material technical base on all levels, including completion of buildings under construction and overhauling and supplying the required equipment;
- 136 billion roubles will go to increasing financial support for medical standards for such cost items as salaries, drugs, food for hospital patients, medical supplies and others; and
- 24 billion roubles will be allocated for the introduction of up-to-date IT methods, including telemedicine systems, electronic document circulation and maintenance of patient records.

The Law on Mandatory Health Insurance was passed in late November 2010 and came into force on 1 January 2011. This Law has, first and foremost, changed the area of legislative regulation. While the Law of 1993 regulated both MHI and VHI, the new Law regulates only MHI. From 1 January 2011, VHI will be regulated in compliance with the requirements of the Russian Civil Code and the Federal Law on Insurance Organization in the Russian Federation (No. 4015-1, 27 November 1992). Yet the 2011 Law on Mandatory Health Insurance has not, as a whole, changed the MHI financing structure prescribed by the preceding Law on Health Insurance of the Citizens of the RSFSR (1991, revised 1993). As before, the money is pooled in the MHI funds; regional MHI funds conclude contracts with health insurance companies that, in their turn, pay for medical care provided to the insured on the basis of contracts signed with medical facilities. The Law does, however, makes several important changes into the distribution of authority between federal and regional levels of government; it also modifies the roles and functions of major players in the MHI system, specifies particular aspects of activities performed by MHI major players and defines phases for the enactment of this Law.

The main focus of the new MHI Law is the financial–administrative centralization of the MHI system. The new Law on Mandatory Health Insurance provides for the total centralization of MHI funds at the federal level. Pursuant to the new Law, the Federal MHI Fund is an insurer, and all resources including contributions from regional budgets for the insurance of the non-working population belong to the Federal MHI Fund. Territorial MHI Funds will only

administer Federal MHI Fund's resources for the implementation of the MHI basic programme on their territory. All rules for the implementation of MHI are set on the federal level. Regions, as before, are given the right to extend the MHI basic programme through the allocation of extra budgetary resources. Only in this case does the Territorial MHI Fund become an insurer, covering the regional MHI programme which exceeds the basic programme.

The Law provides for the significant enhancement of vertical governance. The Territorial MHI Fund director is appointed and removed by the head of the regional administration in coordination with the Federal MHI Fund. The MoHSD and Federal MHI Fund are also entitled to send proposals to the administration head prompting them to dismiss officials from regional government health facilities and Territorial MHI Fund directors.

The Law on Mandatory Health Insurance includes a number of new provisions that were not regulated under the previous Law. The new provisions include the following features.

The introduction of new sources of financing for the MHI system and coverage of expenditure on the provision of medical care. If the government decides to reduce tariffs for MHI contributions, the Law provides for the compensation of a drop in revenues to the Federal MHI Fund from federal budget resources. The Law defines cases when expenditure on the provision of medical care to an insured person under the MHI basic programme may be reimbursed not from MHI but from other resources. These cases entail treatment after a serious industrial injury or personal injury to an insured person. The cost of treatment in such cases is, consequently, to be reimbursed from the Social Insurance Fund as part of mandatory social insurance against industrial accidents and occupational diseases as well as from the personal means of a citizen who caused the injury.

Definition of the size of the MHI insurance contribution for non-working citizens. The article defining the contribution contains a reference norm and says that the insurance contribution tariff shall be set by federal law. Final provisions of the Law regulating the transition period up to 2013 outline very generally only the lower limit of the contribution size, which is dependent on that which was applied before.

Intensive planning of medical care. The Law provides for the setting up of regional commissions to develop regional MHI programmes, which should include representatives of the regional government health department, the Territorial MHI Fund, health insurance companies and medical facilities, and

representatives of professional unions. Commissions make decisions related to the distribution of medical assistance provided under the regional MHI programme between health insurance companies and medical facilities based on the number, gender and age of insured persons, and the numbers of those assigned to outpatient facilities.

Introduction of personalized records in the MHI system. The Law regulates data that are subject to collection in the system of personal record keeping; defines procedures for collection, processing, transfer and storage of information; and procedures for the interaction between the medical facility, the Territorial MHI Fund and health insurance company in personalized record keeping.

Many provisions that were regulated by executive orders (government resolutions, Federal MHI Fund orders and others) are now covered under the new Law on Mandatory Health Insurance; that is, the Law has recorded many of the customary relations in the MHI system. In this case, major provisions are as follows.

MHI basic package. The Law reiterates the major provisions of the programme of government guarantees approved by government resolution in relation to MHI: that is, it defines various kinds of medical assistance, list of insurance cases, structure of medical assistance tariffs, methods of payments for medical assistance, criteria of medical assistance accessibility and quality (see Chapter 3). The Law provides for the government's right to make amendments to the defined list of diseases and conditions as well as add new elements to the tariff structure. Like the programme of government guarantees, the Law prescribes the calculation of the basic programme cost based on medical care standards and medical care provision procedures set by the MoHSD. The Law stipulated a step-by-step extension of the list of expenditure items included in the tariff. Nevertheless, it does not propose including either capital expenditure or depreciation in the calculation.

MHI fund management. The Law records the customary practice of fund management. The Law states that the MoHSD Minister is Chairman of the Federal MHI Fund; the Territorial MHI Fund Director is appointed by the regional government in coordination with the Federal MHI Fund.

Monitoring volumes, dates, quality and conditions of medical care **provision under MHI.** This section reiterates major provisions of the Federal MHI Fund Directive on Organizing Control over Volumes and Quality of Medical Care

under MHI and covers medico-economic monitoring, medico-economic assessment of insurance cases and of medical care quality (see section 2.7.2).

Regulation of health insurance companies. The Law determines the share of funds received by the health insurance companies from medical facilities as sanctions for providing insufficient or poor quality medical services that can be used to finance their own activities. The Law also determines the MHI administrative costs, limiting it to 1–2% of the total value of the contract with the Territorial MHI Fund.

Transparency and accessibility of information for citizens. The Law stipulates that the major participants in MHI (Territorial MHI Funds, health insurance companies and medical facilities) have a responsibility to place information about their activities on Internet sites or make them public in another way.

Unlike the previous Law, the new Law on Mandatory Health Insurance will be introduced gradually, in line with the gradual centralization of contributions from the working population. A number of articles in the new Law will take effect on 1 January 2012, at the time when all contributions will be pooled in the Federal MHI Fund. Major features of the transition period are extending the basic package of care (the Law stipulates the inclusion of emergency care into the MHI basic programme from 1 January 2013, and tertiary care provided in federal clinics from 1 January 2015) and the implementation of the health system modernization programme. The Law stipulates implementing regional programmes for health system modernization and modernization programmes for federal state-funded institutions in 2011–2012. These programmes include the financing of the material technical base of state and municipal health facilities, installing up-to-date IT systems for unified MHI policies, introducing medical standards, raising the accessibility of outpatient medical assistance including that provided by specialist doctors. The regional modernization programme includes a passport of the regional health care system; a list of the measures taken to achieve the above objectives, with their costs; target performance indicators for implementation of the modernization programme; and performance indicators for the programme outputs. Financing for regional modernization programmes is supplied by the Federal MHI Fund in 2011 and 2012, provided regional governments have set budget expenditure on health that is not less than actual health spending in 2010 and have concluded contracts with the MoHSD and the Federal MHI Fund. These programmes will be financed by insurance contributions received by the Federal MHI Fund.

The Federal Law on Circulation of Pharmaceuticals

The Law on Circulation of Pharmaceuticals was adopted in 2010 (see section 2.7.4). This Law aimed to streamline the procedure for pharmaceuticals to obtain clearance to market, regulate standardization in drug circulation and refine the mechanisms for the export and import of pharmaceuticals in the Russian Federation. The Law also sought to make the procedure of drug registration more transparent at all stages. When the Law came into force, the availability of drugs to rural residents improved, as employees of the FAPs were now allowed to sell pharmaceutical products in rural settlements where there were no pharmacies. The Law also allowed additional clinical trials that were formerly part of the drug registration process to be cancelled if the parties signed an agreement on the mutual recognition of clinical trial results. The Law provides significant reinforcement for state control in the circulation of pharmaceuticals in order to try and counteract the circulation of substandard and fake pharmaceutical products.

State regulation of prices for essential and the most important drugs is also covered in the Law. The MoHSD has estimated that the introduction of state price regulation for drugs that are on the EML not only permitted cost-containment but also led to price reduction. Since the beginning of 2010, the results of monthly monitoring of the affordability and availability of pharmaceuticals have shown the reduction of prices for the drugs on the amended EML. By November 2010, prices in the Russian Federation had fallen, on average, by 2.7% for outpatient and 2.5% for inpatient prescriptions (Ministry of Health and Social Development, 2010b).

The state has also adopted significant measures the development of the domestic pharmaceutical industry. In 2009, the "Strategy for the RF Pharmaceutical Industry's Development to 2020" was approved and in 2010, the Federal Target Programme "Development of Medical and Pharmaceutical Industries in the RF during the Period to 2020 and its Further Prospects" was adopted. The Strategy for the Pharmaceutical Industry's Development (2009) included the goal of 50% of innovative generics to be substituted by domestic medicines by 2017; by 2020, 50% of all innovative medications should be manufactured in the Russian Federation. For these purposes, the Development Programme envisages some large state investments in the pharmaceutical industry: 21.4 billion roubles over the period 2011–2013.

Changing of legal status of state and municipal medical facilities

The current system of state-funded health facilities developed when the socioeconomic environment in the Russian Federation was quite different, but public authorities continue to support it regardless of the volume or quality of services provided. An important step in the solution of this problem was the adoption of the Federal Law on Amendments to some Laws of the Russian Federation due to Improvement of Legal Status of State (Municipal) Facilities (No. 83, 8 May 2010). The new Law aims to raise the efficiency of state and municipal services, with expenditure at all levels of the budget on service provision being maintained or reduced, as well as the optimization of the network of facilities subordinate to executive authorities at all levels. This will be achieved by creating conditions for institutional internal costs to be reduced and increasing the non-budget sources of funding. At present, the absolute majority of medical facilities are budget funded. Budget-funded facilities have no incentives to improve their performance or efficiency, primarily because of the prevalence of input-based budget funding. In addition, most budget-funded facilities get high revenues from various out-of-pocket paid services. Ministry of Finance data show that the share of expenses in federal health facilities obtained from commercial activities amounted to 30% of total expenditure in 2008.

Changing the organizational forms of medical facilities will help to give more independence in the use of resources and greater economic liability for the results, which will make facilities more likely to respond to incentive structures in funding mechanisms aimed at improved quality and efficiency. The Law provides for three types of state and municipal facilities:

Publicly funded facilities. Facilities financed using an estimated budget and governed on the principle of undivided authority; the head or founder bears subsidiary liability for the publicly funded facility's commitments. Pursuant to MoHSD recommendations ("Methodological Recommendations to Public Authorities of Constituent Entities of the Russian Federation and Local Self-governing Bodies for Implementation of Federal Law No. 83 of 8 May 2010 On Amendments to some Laws of the Russian Federation due to Improvement of Legal Status of State (Municipal) Facilities"), state and municipal facilities participating in the MHI must not be set up as publicly funded entities.

Budgetary facilities. These are financed from subsidies for performing assigned tasks, for maintenance and for development programmes. They are governed on the undivided authority principle: the head or founder does not bear liability for the facility's commitments. Government duties are not set for medical care provided under the MHI system.

Autonomous facilities. These are financed by a founder through subsidies for performing assigned tasks and for maintenance and development programmes. They are governed on collegial principles, with a head and supervisory board; the founder does not bear any liability for the facility's commitments. Government duties are not set for medical care provided under the MHI system.

Autonomous facilities enjoy more independence in economic affairs than budgetary facilities. Given the complexity of the suggested changes in the legal status of facilities, a transition period has been provided (from 1 January 2011 when the Law was enacted to 1 July 2012) to let both budgetary facilities with extended rights and publicly funded facilities function under the same legal regime. Specifically, where the non-budget revenues of publicly funded facilities are not included in the budget, the earlier regulations will be still valid. At the end of the transition period, all major provisions of Federal Law No. 83 related to the changed legal status and procedures for funding various types of facility are to take effect.

National Anti-tobacco Policy Concept

In 2010, the government approved the National Anti-tobacco Policy Concept (Government Resolution No. 1563 of 23 September 2010). The concept sets the following targets to be achieved by 2015:

- reducing tobacco smoking prevalence among the general population by 10–15%; the end of smoking among children, teenagers and pregnant women;
- lowering the share of citizens exposed to tobacco smoke by 50% and ensuring full protection against the effects of tobacco smoke on the territories of educational, medical and sport facilities; culture-related institutions; and all indoor premises;
- raising people's awareness of the risks to health associated with tobacco smoking and 90% coverage of citizens by anti-tobacco campaigns; and
- gradual increase in the tax on tobacco goods; imposing equal excise rates for filter and non-filter cigarettes including rises in ad valorem and specific excise rates, bringing them into compliance with the average European level.

The National Anti-tobacco Policy Concept builds on the ratification of the WHO Framework Convention on Tobacco Control of June 2008.

6.2 Future developments

There are a number of draft laws currently being developed that indicate the broad directions for future developments in health reforms.

Federal Draft Law on Fundamentals of Public Health Protection in the Russian Federation

The draft law was adopted on its first reading (31 May 2011). It is an attempt to pull together the various laws, orders and norms which have been brought in since the enactment of the Federal Law on Public Health Protection (No. 5487-1, 22 July 1993) to provide a single law that extends basic principles of public health protection and includes:

- observing human rights in the area of health protection and securing related government guarantees;
- accessibility of health care;
- making it an offence to refuse medical care when human life is endangered;
- enabling informed voluntary consent to medical interventions and the right to decline medical interventions;
- maintaining confidentiality;
- ensuring priority of preventive measures in public health protection;
- banning euthanasia; and
- banning human cloning.

The Law will also provide for the centralization of health care governance by strengthening the role of the federal centre and devolving powers related to defending citizens' rights to free medical care to the regional level. The Law extends the powers of federal authorities including:

- setting minimum requirements for the structure and staff of medical facilities;
- organizing and monitoring compliance in provision of medical care, medical goods, specialized clinical foodstuffs, donor blood and its components with defined rules, standards and technical regulations; and
- setting qualifying requirements for heads of regional health authority posts, and enabling the MoHSD commission to check that candidates conform to these requirements.

The current laws make the provision of primary and emergency care as well as maternity services the responsibility of municipal authorities, while the draft law shifts these functions to the regional level. In addition, the draft law makes it possible for these functions to be delegated to regional authorities, thus creating the potential for multiple regional systems of medical care.

The draft law also redefines primary care. The current law identifies the subordination of medical facilities to various administrative levels as a criterion for defining primary care, thereby making some inpatient care part of primary care (see section 5.3), while the draft law focuses on the technological component of medical care provided as a criterion and defines it as outpatient care provided by district doctors and polyclinic specialists.

The federal draft law for the first time characterizes such concepts as "procedures for medical care provision" and "medical assistance standards", which are already widely used, for example in the Law on Mandatory Health Insurance, but remain undefined on the legislative level. Procedures for medical care provision are defined in the draft law as a set of organizational measures aimed at the timely provision of medical care of the required quality and quantity. Procedures for the provision of medical care include phases of medical care provision, rules governing medical facilities' activities, equipment standards and recommended staff ratios. Medical standards are a unified set of medical procedures, drugs, medical goods and other components used in providing medical care to a citizen with a particular disease (condition) of a particular degree of severity. The medical standard includes a list of diagnostic services indicating their number and frequency; the minimal list of drugs included in the list of essential drugs, indicating daily and course doses as per medical standards; list of medical goods; list of blood components and agents, indicating the number and frequency of provision; and the list of diabetic and clinical nutrition, indicating the quantity and frequency of provision.

The draft federal law significantly changes the requirements for teaching institutions of medical and pharmaceutical professionals, raising requirements for candidates to perform medical and pharmaceutical activities. As a result, accreditation for medical and pharmaceutical teaching institutions will be introduced from 2015. To perform medical and pharmaceutical activities, candidates will have to possess a certificate of professional accreditation obtained through a procedure designed to show the professional's ability to perform particular medical activities and medical treatments in compliance with approved rules and standards.

Current legislation does not regulate the performance of medical facilities. The draft federal law sets out the rights and responsibilities of medical facilities. Their responsibilities include the performance of medical activities in compliance with procedures for medical care provision, medical standards, professional standards, technical rules for quality assurance, efficiency and safety of medical goods, and sanitary legislation; keeping medical documents in the required manner; submission of reports, and other activities. A particular innovation is the requirement for medical facilities to have civil liability insurance.

Current legislation does not regulate the provision of paid medical services. To ensure protection of a citizen's right to free medical care and to differentiate between paid care and medical care free at the point of use, the federal draft law includes an article on "paid medical services". This article contains a list of those services to be provided free of charge. The list includes the following:

- prescription drugs (in the event of their replacement owing to intolerance, etc.) that are not included in the list of essential drugs;
- accommodating patients in wards with a small number of beds by medical and/or epidemiological indications as set by the authorized federal body;
- accommodation of parents, another legal representative or another family member with a child in the medical facility – when the child is provided with the medical assistance in a hospital – for the entire period of child's treatment (for all children aged under 3 years and for those over 3 years if clinically indicated);
- transportation services with an accompanying medical worker for providing medical care and standards if a patient being treated in an inpatient hospital requires diagnostic tests that the medical facility where the patient is staying is unable to make;
- transportation and storage in the mortuary of biological materials and bodies of patients who died in medical and other facilities to be further researched or utilized; and
- provision of medical care by medical indication within the time frame set by the physician in charge.

The draft law determines major elements of medical performance quality and safety management systems including (a) an information system accounting for medical performance including personal medical records, (b) an evaluation system for medical staff performance, and (c) a medical performance quality and safety control system.

As a gradual transition to medical and pharmaceutical performance accreditation is expected to be introduced from 2013, which implies removal of the role of the Federal Institute of Licensing, a transitional provision of the draft federal law stipulates that, from 1 January 2013, medical and pharmaceutical activities may be performed providing the licence for the relevant activity has been obtained in the manner prescribed by federal law.

To cover legal regulation gaps that are now governed by by-laws, the draft federal law regulates in every detail legal aspects of purely medical issues such as the application of auxiliary reproductive technologies, determining time of death, postmortems, live-birth criteria and issuing birth certificates, medical procedures related to a human death, and others. The draft federal law also includes provisions aimed at harmonization with international legislation, for example those regulating the circulation of medical goods.

Federal Draft Law on Biomedical Technologies

In 2010 the MoHSD prepared a Draft Law on Biomedical Technologies. This is the first legal act regulating issues arising in connection with development, preclinical trials, examination and market authorization of biomedical cell technologies, as well as with the circulation of biomedical cell products: the clinical trials, examination, production, storage, utilization, importation to the territory of the Russian Federation and exportation thereof.

Draft Concept of Health Information System to the Year 2020

The draft Concept provides for a single health information system comprising the following components:

- an applied systems for health actors, ensuring
  - IT support for health management functions covering all information blocks for all levels of government authorities, the MHI system and insurance companies,
  - IT support for digital systems for obtaining, diagnosing and archiving medical images and data,
  - IT support for functions discharged by medical and pharmaceutical facilities; applied systems created in their interests as well as in the interests of medical personnel, medical and pharmaceutical students from secondary and higher professional educational institutions, and scientific research facilities,
  - informing the public and facilities by setting up a single Internet portal on the federal, regional and local levels;

- single information space allowing the collection and storage of medical information using a single system of classification and coding, presentation of this information and general systemic servers to applied systems used by health actors as well as all stakeholders according to their authority;
- an external component including NGO and individual IT systems providing information services in the health sector to citizens and organizations on a profit or non-profit-making basis.

A number of IT, regulatory, methodological and organizational measures will be taken to create a single IT system:

- developing a national system of standards and technical regulations in health information technologies;
- improving regulatory and methodological basis for IT application in health care;
- encouraging medical and pharmaceutical personnel to use information and communications technologies, advocating the application of medical information resources and services among the public;
- stimulating the introduction of cutting-edge information and communications technologies into the performance of medical facilities; and
- arranging certification of medical and pharmaceutical IT resources through the Internet.

The draft Concept envisages the following socioeconomic effects from the creation and introduction of the single information system:

- reducing mortality, disability and complications rates caused by medical mistakes, delayed diagnosis and treatment;
- ensuring completeness and reliability of information about patients' health conditions and the available health care resources;
- reducing extra costs for the treatment of diseases diagnosed with a delay and costs associated with the delayed provision of medical care through lack of essential information; correcting the consequences of medical mistakes, disability benefits as well as the costs of reimbursement payments for medical mistakes;
- enhancing the labour potential of the nation by reducing temporary and permanent loss of ability caused by ill health;

- reducing costs of medical care by cutting down redundant laboratory tests and duplication thereof; adoption of digital technologies for radiological tests; reducing time spent by medical personnel on the search for and access to required information about the patient; and the drafting of accounting and reporting documents;
- raising the quality and accessibility of medical service and drug supplies through better planning and distribution of the required volumes of medical assistance and resources in health care; and
- curtailing costs through centralization and reduced duplication of information and communications technology components within a single information space in the health system.

7. Assessment of the health system

7.1 Stated objectives of the health system

Article 41 of the Constitution of the Russian Federation (1993) states that citizens have the right to health care and medical assistance and that medical assistance in state and municipal health care facilities is provided free of charge to citizens and funded from the relevant budget, insurance contributions and other revenues (see section 3.3.1).

The core goal of a health system is to improve public health. Detailed objectives are formulated for the achievement of each stage of this goal. The National Health Concept to the year 2020 focuses on such priorities as improving population health and improving the quality and accessibility of free medical care guaranteed by the government (see section 6.1).

7.2 Financial protection and equity in financing

7.2.1 Financial protection

Out-of-pocket payments accounted for about 28.8% of total health expenditure in the Russian Federation in 2009, which is high in comparison with other countries of the G8 (see section 3.2). The proportion of out-of-pocket spending in total health expenditure grew through the 1990s and peaked at 33.2% in 2004 (Table 3.2). Out-of-pocket spending is highly regressive as it accounts for a much higher proportion of total expenditure in poorer households, so the impact is greater than it is for richer households. The most significant basic service subject to official direct payment in full is prescription drugs for outpatients. Specific categories of patients are eligible for discounts (see section 5.6), but this covers only 11% of the population (Marquez & Bonch-Osmolovskiy, 2010). Substantial increases in drug prices

since September 2008 have meant that, on average, the poor have lost more than 1% of their total household expenditure through the increased cost of purchasing pharmaceuticals alone (Marquez & Bonch-Osmolovskiy, 2010). For this reason, recent reform efforts have sought to control the price of essential pharmaceuticals (see section 6.1), but it is still too early to assess the real impact of these reforms on household spending.

7.2.2 Equity in financing

The replacement of public expenditure on health by out-of-pocket payments since the dissolution of the Soviet Union (see Chapter 3) reflects, on the whole, a trend towards the less equitable distribution of resources and creates conditions for growing inequality in financial access to medical services for various groups. Some of this inequity is geographical as the Russian Federation is characterized by a very uneven distribution of health financing across regions. Despite the efforts of the federal centre and, first and foremost, the Federal MHI Fund, whose major function is to equalize MHI programme financing, regional inequality has only been growing. In 2006, the difference between maximum and minimum government health financing per capita (taking into account regional coefficients) was 5.5 times, but in 2009 this ratio grew to 6.8 times. In 2009, the maximum public health financing per capita was recorded in Moscow, reaching 14 094 roubles, while the minimum was in the Chukotka Autonomous *Okrug*, where it was just 2082 roubles per capita.

7.3 User experience and equity of access to health care

7.3.1 User experience

Public opinion surveys generally show a lack of client satisfaction with the Russian health system. One public opinion polling agency found that in 2008 more than half of respondents (58%) were not satisfied with the Russian health system (18% were satisfied) and 66% answered that they or their family members could not access quality health care if needed (Levada-Centre, 2009). Data from the Ministry of Regional Development show that 65.3% of respondents were not satisfied with the medical care provided. The satisfaction level varies across the regions, with the highest level in Chukotka Autonomous *Okrug* (57.0%) and the lowest in Kaliningrad *Oblast* (21.5%) (Ministry of Health and Social Development, 2010a).

According to sociological monitoring carried out by Roszdravnadzor, citizens believe that the major problems with the Russian health systems are high prices for drugs (about 70% of respondents), poor equipment in medical facilities (about 45% of the respondents) and the growing number of out-of-pocket payments (about 35% of the respondents). Nearly half of the respondents mentioned that they would have to limit their food spending and purchase of staple goods to pay for medical services. One-quarter of respondents pointed to the low quality of services in the public sector and poor equipment of state health facilities as a reason for out-of-pocket spending. About 20% of the respondents were refused treatment or an examination. Most often patients were refused ultrasound tests (over one-third of the respondents) and endoscopic tests (about 20%). Nearly half of the respondents were satisfied with outpatient treatment and about 20% were partially satisfied. The rate of satisfaction with inpatient services was somewhat lower; half of the respondents were satisfied and 15% were partially satisfied. Over 30% of the respondents were dissatisfied with drug treatment offered in hospitals. Nearly half of the respondents said that they did not always get the drugs prescribed by a physician. The main reason mentioned by most respondents (over one-third of those interviewed) was the high prices for pharmaceuticals.

7.3.2 Equity of access to health care

The distribution of health workers and facilities across the territory of the Russian Federation is very uneven. Data from the Federal State Statistics Service show that in 2009 the number of physicians per 10 000 people varied from 87.4 doctors in St Petersburg to 25.1 doctors in the Republic of Ingushetia, with the Russian average being 50.1 per 10 000 people. The distribution of midlevel medical personnel is similar, varying from 165.3 in the Chukotka Autonomous *Okrug* to 55.7 in the Republic of Ingushetia, with a Russian Federation average of 106.9 per 10 000 people (Federal State Statistics Service, 2010c). The distribution of hospital beds among the regions is even more uneven than it is for health workers. In 2009, the largest number of beds was recorded in the Chukotka Autonomous *Okrug*, with 177.4 beds per 10 000 people, the smallest was 39.8 in the Republic of Ingushetia and the Russian average was 96.8 beds per 10 000 people.

The accessibility of medical assistance for rural populations is much lower than it is for the urban populations. According to data from the MoHSD Central Research Institute for Health Care Organization and Information Support, in 2008 the average number of doctors was 49.6 per 10 000 population throughout the Russian Federation, but for rural areas it was just 12.1 (TsNIIOIZ, 2010).

In 2009, the availability of hospital beds for rural inhabitants was 2.6 times lower than for the urban population; 45.1 beds were available per 10 000 rural inhabitants and 118.3 beds for urban (Federal State Statistics Service, 2010c). Moreover, the distribution of beds in rural areas across the country was very uneven. According to data provided by the Central Research Institute, in 2008 the maximum availability of beds for a rural population was recorded in the Chukotka Autonomous *Okrug* (138.0 beds per 10 000 population), the minimum was in Ryazan *Oblast* (6.2 beds per 10 000 citizens) (TsNIIOIZ, 2010).

Wealthier people consume medical services more frequently than the poorer sections of the population, although the latter's health outcomes are worse. According to RLMS data, respondents from richer population groups who have health problems visit the doctor more often than respondents from low-income groups, and this has been the case since the beginning of the 2000s. The poorest segments of the population have, therefore, received the least medical care.

7.4 Health outcomes, health service outcomes and quality of care

There is considerable diversity in health outcomes across different regions of the Russian Federation (Federal State Statistics Service, 2010b, 2010c, 2010f). There were threefold and fourfold differences, respectively, in such important indicators as perinatal and infant mortality, indicators which the health system can influence to a great extent. In 2009, the perinatal mortality rate (per 1000 live births and stillbirths) varied from 4.7 in the Khanty-Mansiysk Autonomous *Okrug* to 13.0 in the Republic of Ingushetia, with the Russian average of 7.8. Infant mortality varied from 4.0 infant deaths per 1000 live births in Khanty-Mansiysk Autonomous *Okrug* to 16.6 in the Republic of Chechnya, with the Russian average of 8.1. The highest life expectancy was recorded in the Republic of Ingushetia (81.3 years), and the lowest in the Chukotka Autonomous *Okrug* (64.2 years), with the Russian average of 68.7 years (see section 1.4). Considerable diversity in health outcomes was observed not only between the regions but also between urban and rural populations. The health of rural populations is much worse in the Russian Federation than it is for urban populations. In 2009, the infant mortality rate for rural populations was 9.7 per 1000 newborns while it was 7.5 for the urban population. The mortality rate for the working age population in rural areas was 25% higher than it is for the urban population: at 7.6 and 6.0 deaths per 1000 citizens of working age, respectively. Life expectancy at birth among rural populations in 2009 was also significantly lower than that among urban population, at 66.7 and 69.4 years, respectively.

Men's health in the Russian Federation is worse than that of women, and women, on average, live 12 years longer than men. In 2009, average life expectancy was 68.7 years: 62.8 for men and 74.7 for women. This marked gender gap primarily reflects lifestyle factors, particularly alcohol consumption and tobacco use (see section 1.4). The mortality rate for the working-age population is three times higher among men than it is among women. In 2009, the average mortality rate for the working age population was 6.4 deaths per 1000 people: 10.0 for men and 2.7 for women. The mortality rate for men of working age is 20% higher in rural areas than in cities (11.4 and 9.4 per 1000 men of working age, respectively); for women of working age in rural areas it is nearly 25% higher than in cities (3.1 and 2.5 per 1000 women of working age, respectively). Life expectancy among men in rural areas is 2.6 years lower than for men in cities. This gap is 1.7 years for women. Rural inhabitants are also more likely to be living in poverty (see section 1.2), and poorer people living in the Russian Federation, as elsewhere, have worse health than richer people. In international comparisons, the Russian Federation has very poor health outcomes relative to the country's wealth and the resources devoted to the health system. Among men, the probability of dying between 15 and 60 years of age is 42% in the Russian Federation compared with 14.1% in the United States, 25.9% in Brazil and 33.5% in Kyrgyzstan (World Bank, 2011a).

It is always challenging to disentangle the contribution that health care makes to improving population health in any country, and there are few data showing how the health system in the Russian Federation contributes to health outcomes such as improved mortality, improvements in the number of life-years gained or more sophisticated composite measures such as quality-adjusted life-years (Marquez, 2008). Some research on avoidable mortality in the Russian Federation, looking at deaths that could have been prevented given timely access to services of reasonable quality, has shown that the contribution of the health system to health improvement is not as great as it could be. Although mortality from treatable causes was stable in the Soviet era, through the 1990s rates increased significantly, peaking in 1994 and only returning to previous levels in 1998, a situation that echoed the decline in life expectancy. It has been calculated that the elimination of treatable causes of death would increase male life expectancy by 2.9 years, compared with 1.2 years in the United Kingdom (women: 3.3 and 1.8 years), which suggests that if the Russian Federation achieved the same health care outcomes (for those 27 conditions amenable to health care) as those achieved in the United Kingdom, life expectancy would improve by about 1.7 years for men and 1.5 years for women (Andreev et al., 2003). Nevertheless, even with these gains, life expectancy for men would still be low, as the main contributory factor is alcohol consumption (see section 1.4).

The contribution of the health system to population health is potentially much easier to see in the Russian Federation in relation to the impressive gains in mother and child health and communicable disease control. Improvements in health indicators such as maternal and infant mortality rates have been claimed as significant achievements for the health sector and linked to the development of perinatal centres and antenatal care programmes under the NPPH. From 2006 to 2009, the perinatal mortality rate fell by 18%, to 7.8 perinatal deaths per 1000 live births and stillbirths (Golikova, 2010). However, the perinatal mortality rate has been falling year on year since 1994 owing to gradual improvements in access to technologies such as low-birth-weight maintenance equipment in ordinary maternity facilities. TB mortality in the Russian Federation has decreased by 25% overall and by 35% among the high-risk prison population, and this has been linked more directly to systemic improvements in the public health laboratory network and the standardization of treatment regimens (Marquez et al., 2010). In 2004, only 44% of patients with new TB received the standardized treatment regimen while in 2008 this had risen to 75%; this is still below the 85% threshold recommended by WHO so there is still scope for even greater gains in this area (Marquez et al., 2010).

7.5 Health system efficiency

7.5.1 Allocative efficiency

According to the MoHSD, in 2009 the disbursement of funds for major types of medical care under the programme of government guarantees was distributed in the following way: 59% of expenditure went on inpatient treatment, 34% on outpatient treatment (including assistance in day-care hospitals) and 7% on emergency care (Ministry of Health and Social Development, 2010a). These figures are, however, not to be taken for granted. Most medical facilities are associated institutions including both inpatient and outpatient facilities and, sometimes, emergency care units, yet there is no unified methodology for distributing costs incurred by associated institutions by the type of medical care rendered: inpatient, outpatient or emergency care. Structural efficiency may be also characterized by the distribution and usage of resources by inpatient, outpatient and emergency care. Input data show that the Russian health system significantly favours inpatient care at the expense of primary care services. For example, only 12% of all physicians in the Russian health system work as generalists at the primary care level (1% as GPs/family doctors 4.5% as primary care paediatricians, 6.4% as primary care internists) (WHO Regional Office for

Europe, 2009). It has been found that, on average, more than 92% of regional budget expenditure goes to inpatient care and 5% to outpatient care, but there are wide regional variations – from 63% in some regions to over 98% of budget funds going to inpatient care in others (World Bank, 2011a).

In addition, structural efficiency is indirectly characterized by resource usage indicators. The rate of hospitalization in the Russian Federation was 22.4 hospitalizations per 100 people in 2008, which is much higher than the hospitalization rate in countries of the EU and reflects both heavy use and multiple readmissions. This high rate of hospitalization, along with the high rate of emergency care calls (frequently for patients with chronic disease complications), implies inefficiency in primary care. However, it should also be noted that perverse incentives in the system continue to encourage unnecessary hospitalization and patient preference also plays a role. Specialists at inpatient facilities are perceived to have greater skill than those working in outpatient facilities, so many patients seek hospitalization; similarly drugs are provided free in hospitals but must be paid for in full for outpatient care (World Bank, 2011a). Recent reform efforts have sought to strengthen primary care services and the balance of allocation to primary care relative to specialist care, but there is no evidence yet that this policy has been successful.

7.5.2 Technical efficiency

Although the low level of public health spending in the Russian Federation has been highlighted as problematic, it is also clear that, even with the current level of financing, the performance of the health system could be improved. The efficiency of social spending in the Russian Federation, including health expenditure, has been assessed as poor because similar health outcomes in terms of mortality as in the Russian Federation are observed in other countries spending 30–40% less on health (Hauner, 2007; Marquez, 2008). When this is taken down to the regional level, it has been argued that, on average, regions could reduce inputs into the health sector by 26% and still produce the same outcomes if they were as efficient as the most efficient regions (World Bank, 2011a). More reform-oriented regions are found to have better health outcomes at lower cost and with fewer physical resources across a number of health indicators (World Bank, 2011a).

Provider payment mechanisms are the main obstacle to improving technical efficiency in the Russian health system. The way in which providers are paid provides contradictory incentives to improving technical efficiency. Most budget funding is channelled through local government and is input based:

that is, facilities are paid by the number of staff employed or bed capacity. This encourages providers to hold on to excess capacity or face cuts in their funding. The role of the MHI system in most regions is insufficient for it to push for more rational use of resources in order to better meet patient demand irrespective of any output-based criteria used for reimbursement. MHI tariffs in around three-quarters of regions are partly dependent on the status of the institution rather than the nature of the procedure, which also reinforces resistance to restructuring (see section 3.7) (Tompson, 2007). The Law on Mandatory Health Insurance (passed in late November 2010 and in force as of 1 January 2011) addressees this issue, envisaging a transition to a single financing system and change of tariff policy by including almost all expenditure lines in tariff (see section 6.1). If this is achieved across the Federation, the improvements in technical efficiency will be significant.

The area of the health system which has been most focused on cost-containment policies is the provision of pharmaceuticals to vulnerable groups through the DLO and subsequent initiatives. Spiralling costs for drug prescriptions when the scheme was first introduced ensured that policy-makers speedily revised prescribing practices (see section 5.6) and pharmaceutical policies are now very much focused on ensuring the substitution of domestically produced generics for brand-name drugs at every opportunity (Ministry of Industry and Trade, 2009).

7.6 Transparency and accountability

The MoHSD has sought to increase public participation in the development of health policy through online consultation processes such as that used in the development of the National Health Concept to the year 2020 and various draft laws (see section 6.1). The formal structures for public involvement are the "public councils" (*obshchestvennyie soviety*) of the MoHSD and Rospotrebnadzor, which have representatives from NGOs, patient rights groups and others. The actual influence of these bodies on health policy is, however, slight. Overall public participation in local decision-making about service provision is even more limited, and patient empowerment is not yet a significant feature of the system (see section 2.8).

There is a lack of transparency in the financing of health that opens up the space for informal payments in the system, particularly for inpatient care (see section 3.4.2). The dual financing system also complicates accountability and transparency, as the responsibility for financing care is shared but not clearly demarked. Benefit

programmes covering the cost of outpatient prescription pharmaceuticals for specific groups at the regional level also lack transparency, and so people are not always aware of their rights and benefits under these schemes.

8. Conclusions

Since the turn of the century, the health status of the population of the Russian Federation has been improving, and average life expectancy has almost returned to the level it was in 1990 prior to the dissolution of the Soviet Union. The overall mortality rate has decreased by 4% and the mortality rate at working age has decreased accordingly for both men and women, by 15% and 7%, respectively. The biggest improvements have been seen in maternal and child health: infant mortality, the under-5 mortality rate and the maternity mortality rate have more than halved (see Table 1.3). However, despite these positive trends, all of these indicators show that the health of the Russian population is considerably worse than population health in western and central eastern Europe or other countries of the G8.

At the same time, the Russian health system still faces many challenges in the areas of organization, management and financing. Out-of-pocket expenditure has been growing faster than public health expenditure, which has negatively impacted on equity in the system and created the conditions for growing inequalities and reduced access, particularly for vulnerable groups. Inequalities in health, resource allocation and funding among regions and population groups (particularly between rural and urban populations) are growing. The Russian health system is still characterized by poor efficiency: the relatively low level of public funding is coupled with allocative and technical inefficiency (see section 7.5). The share of inpatient care spending is still much higher than in western European countries. Primary care is underdeveloped, as demonstrated by the high hospitalization rate and the high level of emergency service utilization. Overall, the MHI system does not yet meet all its supposed aims and has not contributed to an improvement in health system performance. However, after a decade when there was little discussion of reforming the health system, over the past few years the Russian Government has started paying more attention to health issues. The government programme for the long-term

economic and social development of the Russian Federation to the year 2020 recognized health as a crucial factor for the country's future development and put health system improvement as a policy priority. The programme sets ambitious targets to be achieved by 2020, for example increasing average life expectancy to 75 years and increasing government expenditure on health to 5.2% of GDP (from 3.4% in 2008).

In 2005, the DLO programme was introduced to improve access to pharmaceuticals for vulnerable groups by providing medicines free of charge. This was to be achieved by shifting responsibilities for the provision of medicines under the DLO to the federal level and by increasing funds allocated for this purpose. The massive number of people eligible for the DLO choosing instead to receive monetary benefits shows that the programme has not wholly met its objectives, and further changes to the DLO programme are necessary.

In 2006 the NPPH was launched. The main objectives of the project were to strengthen primary care, to improve health prevention programmes and mother and child health services and to improve access to tertiary care. The project was initially planned to run for two years, but it was extended to 2013 and additional subprogrammes on cardiovascular diseases, cancer, road traffic injuries and health promotion were added. Potentially, the project could have contributed to the decreases in maternal, perinatal and infant mortality; TB mortality; and the earlier detection of cancer (Golikova, 2010). The indisputable achievements of the NPPH have been to raise more funds for health and to improve the equipping of the health system as the basis for improving the quality of care and access to care. The NPPH could be viewed as a tool for promoting unified approaches to solving the main challenges of the health system and empowering federal authorities. Despite the achievements of the NPPH, however, the objectives of the project lay more in the area of attracting the state authority's attention to health issues and raising additional funds for the health system rather than reforms in the health system's organization, management and financing system.

In 2009 the MoHSD approved, in principle, the National Health Concept to the year 2020. The Concept sets ambitious targets to significantly increase life expectancy and cut mortality rates by strengthening health promotion activities and providing high-quality medical services. The Concept considers many aspects of the health system and how it functions. The Concept envisages that the state guaranteed package of medical benefits free at the point of use will be specified and that the balance between guarantees and funds allocated for this purpose be found through a heavy reliance on medical standards as the

basis for cost estimations. The Concept aimed to improve allocative efficiency by strengthening primary care, optimizing secondary care and introducing a quality control system based on the implementation of unified national medical standards and procedures. Another priority area for the MoHSD is to improve access to prescription pharmaceuticals for the whole population. Consequently, the Concept stipulates the introduction of mandatory drug insurance to cover the reimbursement of outpatient pharmaceutical costs. The Concept pays a lot of attention to the improvement of personnel policies, suggesting the reallocation of functions between physicians and nurses and the improvement of training and continuous medical education systems. The Concept also suggests paths for the development of IT systems for health care. The Concept could be treated as a framework for future reforms to be followed by the government.

In 2010, the new Law on Mandatory Health Insurance and the Law on the Legal Status of Public Facilities were adopted. The Law on Mandatory Health Insurance envisages mechanisms for transferring the financing system from its current dual-stream financing to a single-channelled system and aims to ensure the long-term financial sustainability of the MHI system. The Law on the Legal Status of Public Facilities aims to broaden the range of legal forms health providers can have to strengthen responsibilities for provider performance results and to grant providers more economic and managerial flexibility.

Further implementation of reforms will depend on the government's ability to monitor the reform process, critically evaluate the achievement of goals and targets, and to introduce changes when needed. Central to the success of future reforms will be the broad involvement of all the main stakeholders at all levels and obtaining the support of regional authorities, as well as ensuring the support of the medical community.

9. Appendices

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9.2 Useful web sites

Official web site of the Russian Federal State Statistics Service (Rosstat): http://www.gks.ru/ (Russian with some English pages)

Official web site of the Ministry of Health and Social Development: http://www.minzdravsoc.ru/ (Russian with some English pages)

Official web site of the Federal Consumer Right Protection and Human Wellbeing Surveillance Service (Rospotrebnadzor): http://rospotrebnadzor.ru/news (Russian with some English pages)

Official web site of the Federal Service on Surveillance in Healthcare and Social Development (Roszdravnadzor): http://www.roszdravnadzor.ru/ (Russian only)

Official web site of the Federal Medical and Biological Agency: http://www.fmbaros.ru/ (Russian only)

Official web site of the Federal MHI Fund: http://portal.ffoms.ru/ (Russian only)

Official web site of the President of the Russian Federation: http://kremlin.ru/ (Russian and English versions)

Official web site of the Russian Parliament (Duma): http://www.duma.gov.ru/ (Russian only)

Russian Medical Association: http://www.rmass.ru/ (Russian only)

9.3 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.

- A rigorous review process (see the following section).
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

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

all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

9.4 The review process

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

9.5 About the authors

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